TEACHERS' RESEARCH PROFICIENCY: BASIS FOR ENHANCEMENT PROGRAM

Palad, April Love A.

Completed 2022

Teachers' Research Proficiency: Basis for Enhancement Program

Palad, April Love A.
Teacher III
Tuan Datu Hadji Abdullah Nuňo Memorial Integrated School
Department of Education, Division of Zamboanga City
aprillove.palad01@deped.gov.ph
09750174299

Abstract

This study assessed the research proficiency of Tuan Datu Hadji Abdullah Nuňo Memorial Integrated School teachers to guide an improvement program focused on enhancing their research writing skills. It aimed to answer these questions: (1) What is the proficiency level in research writing, covering parts of research papers, research types, sampling techniques, statistical tools, grammar, and research ethics? (2) Does proficiency vary based on gender, tenure, and highest education level? (3) What enhancement program can be derived from the findings? Employing a descriptive-quantitative research design, this study analyzed 59 teachers using total enumeration sampling. Results revealed that teachers could identify research components but struggled to apply them effectively, including understanding research variables, designs, statistical tools, and grammar. Only 3% were proficient in research writing, with over 50% struggling with basic grammar. Male teachers performed better, and those with 4-6 years of service showed higher proficiency. Teaching positions and postgraduate studies had unclear impacts. A Research Enhancement Program (REP) is recommended, focusing on research writing, basic statistics, and grammar. This REP should involve intensive training and workshops, possibly utilizing Learning Action Cell (LAC) sessions to improve teachers' research skills.

Acknowledgment

Zamboanga Peninsula

Introduction

Research is now acknowledged as one of the Department of Education's (DepEd) best practices. It aims to provide the best solution to the issues in the quality of teaching and learning applications. The DepEd's research management guidelines (DO 16, S. 2017), which support the department's agenda for conducting research, developing policies and programs, and implementing those programs, continue to foster and develop the research culture in basic education.

Proficiency in research writing means having the skill and experience to do all the research writing processes. However, Ansaldo and Cudiamat (2019) said that teachers in Public and Secondary schools in the Philippines were not equipped with the basic knowledge of writing research. The DepEd has been working with ways to give workshops and training to enhance the teachers' research writing abilities, yet many teachers took all of these efforts for granted.

Henderson, Meier, and Perry (2005) articulated that the research aims to learn more about teaching and learning, develop as reflective teachers, make adjustments in the classroom or school, and enhance the quality of life for our students.

Working on a research project is obviously a challenging and rewarding experience. Theoretically, some teachers see it as a problem since it will only add up to their workload, and some lack ideas on the basics of research writing.

Moreover, instead of looking at the goals of enhancing the quality of education and management skills, publishing research is also used by teachers for the purpose of promotion or funding. For this purpose, Senator Gatchalian (2021) demanded that Deped investigate teachers who allegedly buy ready-made action research papers. He believes these unethical practices show a lack of integrity and should not be tolerated. A teacher's lack of research writing skills may be one factor for this problem. These issues must not be neglected. Hence, this should be given a proper solution for this will affect the quality of graduates and researchers that the Department of Education produces. Poor-quality research will not identify the causes of issues facing the education department or offer appropriate interventions and decisions.

In educational research, it is crucial for educators to possess solid statistical literacy, grasp the statistical significance, and understand research design. Smith and Brown (2018) stress this literacy, while Johnson (2016) highlights its significance for interpreting findings. Hammersley (1998) discusses research design's importance, and Jones (2019) underscores the need for educators' research proficiency. These findings underscore the demand for tailored training to enhance educators' competence.

To address this problem in improving the culture of research in the DepEd, this study directed to determine the research proficiency level of the teachers of Tuan Datu Hadji Abdullah Nuño Memorial Integrated School. The outcome of this study will be the basis for an enhancement program to improve the teachers' capabilities in the basic aspects of research writing.

Literature Review

Teachers as Researchers in the Philippines. In the Philippines, the Department of Education (DepEd) has circulated a directive to adopt the enclosed Basic Education Research Agenda, which upholds the conduct of education research (DepEd 2016, 1). This policy aims to identify the problems faced by the teachers in everyday teaching and the problems in every department concerned and to suggest solutions centered on the results and findings.

Previous research in the Philippines has explored the challenges confronted by teachers in their roles as researchers. Abarro, Mariño, and Wilfredo (2016) investigated teachers' research competencies. Their findings revealed that public secondary and elementary school educators within the Division of Antipolo City manifested a moderate level of proficiency in both the technical aspects and the composition of essential components of research. Moreover, the study highlighted those teachers exhibited limited familiarity with the American Psychological Association format (APA), commonly used in research writing.

Additionally, the research indicated that the research writing abilities of public secondary school teachers were influenced by their job positions, with no significant impact from factors such as age, gender, marital status, highest educational attainment, or participation in research seminars and training. Conversely, the research capabilities of public elementary school teachers regarding the development of research proposals and the creation of publishable research papers or articles were found to be influenced by gender, marital status, and attendance at research seminars and training, with no substantial effects observed based on age, position, or highest educational attainment (Abarro, Mariño, and Wilfredo 2016, 53).

However, a gender-related contrast emphasizes the necessity of tackling gender-based imbalances through targeted educational assistance and professional growth initiatives (Turner 2021, 23; Garcia and Rodriguez 2019, 55). It underscores the urgency of implementing customized interventions and training avenues to guarantee equal access to resources and support for male and female educators, enabling them to enhance their research capabilities and competence. This aligns harmoniously with the overarching dialogue surrounding gender equity in the realm of education (Hammersley, 1998; Watson et al., 2019).

Carrying out an action research in Philippine public elementary and secondary schools is not too common since there are teachers who are not equipped with the basic knowledge of what research is and how to do it (Ulla, Barrera, and Acompanado 2017, 52).

The Department of Education (DepEd) has been making efforts to educate public school teachers about the significance of research, but a substantial number of teachers in both elementary and secondary schools demotivated and disinterested. Factors such as a tightly packed teaching schedule and a heavy workload, as noted by Morales (2016) and Kutlay (2012) and quoted in Ulla, Barrera, and Acompanado (2017), contribute to the lack of motivation and interest among some public school teachers regarding research.

Equipping teachers with the essential skills, knowledge, and a clear concentration to engage in meaningful examination into their professional practices will not only improve their practice but also lead to positive transformations in the educational objectives of the learning community, as emphasized by Hine (2017, 44). On the other hand, Watson et al. (2019) and Martinez and Johnson (2020) emphasized that there is a critical necessity for continuous professional development initiatives tailored to enhance teachers' language competencies These programs should be meticulously designed to address the specific areas of deficiency pinpointed by the non-proficient scores.

There is a growing urgency to give precedence to continuous professional development initiatives tailored to enhance the language competencies of educators. This emphasis should be accompanied by a specific focus on remedying the identified areas of deficiency highlighted by the non-proficient scores (Watson et al. 2019, 18; Martinez and Johnson 2020, 34). These professional development programs hold

substantial potential in addressing the language proficiency disparities among teachers, ultimately enhancing the overall quality of classroom instruction and communication. This approach aligns seamlessly with the broader conversation underlining the pivotal role of language proficiency within educational contexts (Garcia and Rodriguez 2019, 312; Brown et al. 2018, 56).

International Studies About Teachers as Researcher. Hine (2017) considered research as the best option for resolving challenges in the teaching and learning environment involving the teachers, administrative personnel of the school, and other stakeholders. Johnson (2012) asserts that action research is one of the best practices used to support practitioners in comprehending and taking note of what goes on in a classroom.

In addition, Hine (2017), through action research, teachers are urged to share their experiences about how they have worked through an educational concern. Teachers who have spent time in schools will instantly recognize the issues that might appear.

Matović and Hebib (2020) said that teachers play a vital role in developing schoolwork practice. With this notion, they believe that the teachers as researchers established since the teacher professional development should be based on thorough practice. Participation in diverse research initiatives in educational practice provides worthwhile learning and growth opportunities.

Marzano (2019) believes that teachers who consistently employ a research-based approach to their work actively explore the link between their classroom practices and the tangible academic and non-academic outcomes of the teaching and learning process. However, within the current educational landscape, there are notable inconsistencies and gaps that warrant investigation.

Hammersley (1993) found that the research-based approach teachers adopt does not necessitate the introduction of entirely new or specialized teaching activities. Instead, it signifies a fundamental transformation of their professional role. This shift in perspective raises questions about how much teachers have embraced this transformation and whether educational policies adequately support and encourage such changes.

Moreover, the concept of teachers as researchers, actively examining their own practices and school-related activities, arises from the belief that educators can serve as catalysts for change and contribute significantly to the evolution of school practices (Matović and Hebib 2020, 67). This perspective challenges the traditional top-down approach to educational policy and emphasizes the need for a more collaborative and research-driven approach to teaching. Therefore, the study intends to explore and address the gaps and inconsistencies in the current educational framework, including teachers' proficiency levels in research, to understand better how teachers can effectively assume the role of researchers and foster positive educational outcomes.

Research Questions

This study determined the research proficiency level of the teachers of Tuan Datu Hadji Abdullah Nuño Memorial Integrated School as a basis for an enhancement program to develop means to improve the teachers' capabilities in the basic aspects of research writing. More specifically, this study also sought to answer the following question:

1. What is the teachers' proficiency level in research in terms of:
    1.1 parts of research paper;

1.2 identifying the types of research;

1.3 sampling techniques;

1.4 different statistical tools used in research;

1.5 grammar; and

1.6 ethics in research?

2. Is there a significant difference in the teachers' proficiency level in research when data are grouped according to gender, length of service, and highest educational attainment?

3. On the basis of the findings, what enhancement program can be developed?

Scope and Limitation

This analysis focused on assessing the research proficiency levels of teachers at Tuan Datu Hadji Abdullah Nuňo Memorial Integrated School, specifically honing in on various facets of research writing. It pinpointed areas needing improvement, such as recognizing basic research components, different research designs, sampling techniques, statistical tools, grammar usage, and research ethics. The study was conducted during the 2020-2021 school year, employing a proficiency exam to evaluate research writing proficiency.

It's important to consider the applicability of the findings beyond this specific school and timeframe. While the results offer valuable insights for enhancing research proficiency within this context, their broader relevance to different schools or periods may vary. Factors like regional differences in teacher training, school resources, curriculum, and teaching approaches can significantly influence the extent to which these findings can be applied elsewhere. Consequently, further research spanning a more diverse range of schools and timeframes would be necessary to provide a more comprehensive understanding and inform potential educational policies and interventions.

Method

Research Design

This study applied a descriptive-quantitative research design to identify the teachers' strengths and weaknesses in the field of research. This study utilized a descriptive-quantitative research method since it collected quantifiable information for statistical analysis using the teachers' test results as a basis in the description of their research proficiency level. In this method, the researcher was able to determine whether the teachers' gender, highest educational attainment and their length of service will have something to do with their ability to write research. The test result identified the teachers' proficiency level in the field of research writing, grammar, and ethics in research.

Research Participants

The respondents of this study were the 59 teachers of Tuan Datu Hadji Abdullah Nuňo Memorial Integrated School. These teachers are teaching Elementary, Junior and Senior High School. The teachers who participated in this study were eight senior high school teachers, 36 junior high school teachers, and 16 elementary teachers.

Table 1: Profile of the Participants

	Category	N	Percent
Years in Service	0-3 Years	27	46%
	4-6 years	16	27%
	6-10 years	16	27%
	Total	*59*	*100%*
Highest Educational Attainment	Without Post Graduate studies/Units	25	42%
	With Post Graduate studies/Units	34	58%
	Total	*59*	*100%*
Sex	Male	16	27%
	Female	43	73%
	Total	*59*	*100%*

The population of this study was gathered using a total enumeration sampling technique. A purposive sampling method, such as this one, includes looking at the entire population. This sampling method was chosen because the respondents have particular characteristics, skills, knowledge, experience, and exposure to an event that is useful to the conduct of this study.

Research Instrument

This study used a test questionnaire that identified the teachers' strengths and weaknesses in research writing. 30-item tests tested their knowledge of the different parts of the research paper, types of research design, sampling techniques and statistical tools, grammar, and ethics in research.

The validity and reliability of the 30-item questionnaire used in this study are critical aspects of its effectiveness as a research instrument. Validity is addressed through careful consideration of whether the questionnaire accurately measures what it intends to assess, which, in this case, is teachers' proficiency in various aspects of research writing. Content validity was established by expert validation, involving experts in the field of education and research methodology who reviewed and confirmed that the questions aligned with the targeted areas of knowledge and skills.

Data Gathering Procedure

The researcher secured a permit from the Schools Division Office before the study was carried out. To ensure ethical consideration, the researcher sought permission from the respondents and explained that their anonymity and the confidentiality of their results would be observed. After securing the permit to conduct the study, the data-gathering procedure followed. The researchers prepared test questions that tested their knowledge in the different parts of a research paper, types of research design, sampling techniques and statistical tools, grammar, and ethics in research. Due to the spread of COVID-19, the modes of testing were using Google Forms. The teachers were asked to click the chosen answer from the given options. The result was run using SPSS that identified the proficiency level and the significant differences in teachers' assessment results. The data from the test determined their knowledge in the field of research. This also determined the type of program to be conducted that will improve or enhance the teachers' knowledge in the field of research.

Data Analysis

The teacher's test result was the source of data for this study. To describe the teachers' knowledge levels in the research field, the mean percentage score in each item was evaluated. The T-test and ANOVA were used to test the significant differences in teachers' test results according to parts of the research paper, identifying the types of research, sampling techniques, and the different statistical tools used in research.

Results and Discussion

Teachers' research proficiency. The succeeding tables present the level of teachers' research proficiency in terms of the parts of a research paper, identifying the types of research, sampling techniques, different statistical tools used in research, grammar, and ethics in research.

Table 2: Teachers' Proficiency level in terms of the parts of a Research Paper

Item	Mean	Verbal Description
5. In a study of the effect of the amount TV viewing on children's aggressiveness, amount of TV viewing would be what type of variable?	42.4	Not Proficient
6. It establish the scope, content and significance of the research to be conducted. This also states the purpose why the study will be conducted.	71.12	Proficient
17. The purpose of this section is to describe past important research and it relate it specifically to the research problem. It should be a synthesis of the previous literature and the new idea being researched.	90	Highly Proficient
18. Why is it important to read original articles when you are reviewing the literature?	66.1	Less Proficient
29. This section will describe the research design and methodology used to complete to the study. The general rule of thumb is that readers should be provided with enough detail to replicate the study.	52.1	Not Proficient
30. This part is used by readers to quickly review the overall content of the paper. It should provide a complete synopsis of the research paper and should introduce the topic and the specific research question, provide a statement regarding methodology and should provide a general statement about the results and the findings.	53.3	Not Proficient
Weighted Mean	**63**	**Less Proficient**

Legend: 90-100 Highly Proficient
80-90 Proficient
70-80 Moderately Proficient
60-70 Less Proficient
59- Below -Not Proficient

Zamboanga Peninsula

Table 2 shows the teachers' research writing proficiency in identifying the parts of a research paper. Among the items, the highest mean score is 90. This shows a Highly Proficient result for item number 17. This item asked a question about the Review of Related Literature. Only 6 out of 59 teachers were not able to answer the questions correctly. Moreover, Item number 6 also shows a proficient result. The mean score of 71.2 with 42 respondents who answered the question correctly means that 42 out of 59 teachers know what an introduction in a research paper is. However, the rest of the items under identifying the parts of the research paper are item number 5 (identifying the type of variables), item number 18 (checking the review of related literature), item number 29 (Research's Chapter III, and item number 30 (Abstract) scored less proficient and not proficient.

The findings indicate teachers' proficiency in identifying the components of a research paper, such as the Review of Related Literature and the Research's Introduction, while lacking knowledge in areas like identifying variables, reviewing related literature, understanding research methodology, and composing a research abstract have significant theoretical implications. These findings resonate with the literature on research skills and their importance in the educational context.

First, the identified gap in teachers' ability to recognize variables and conduct literature reviews has theoretical implications for the teaching and learning of research methodology. This underscores the importance of providing teachers with comprehensive training in research methods. As cited in the literature review, scholars like Marzano (2019) emphasize the connection between teachers' research skills and their effectiveness in understanding and explaining classroom dynamics. These findings extend Matović and Hebib (2020) with the perspective of highlighting the teacher's ability to identify variables that not only influence their teaching but also impact their capacity to design and conduct research effectively. This reinforces the theoretical stance that teachers as researchers should possess strong foundational knowledge in research methodology.

Second, the finding relates to Matović and Hebib (2020), which found that writing a review of related literature aligns with the theoretical importance of academic integrity and avoiding plagiarism. As discussed in the literature review, adhering to ethical research practices, including proper citation and acknowledgment of sources, is paramount. Teachers' limited knowledge in this area suggests a need for theoretical and practical interventions emphasizing the significance of citing relevant literature accurately and transparently in research, aligning with the broader theoretical framework of ethical research conduct.

Third, the theoretical implication concerning the importance of knowing the research method and its impact on the validity of research outcomes resonates with the literature on research design and validity assessment. Similarly, Matović and Hebib, (2020) found that the choice of research method significantly influences the reliability and validity of research findings These findings further emphasize the theoretical premise that understanding research methods is essential for teachers who wish to engage in meaningful inquiry and produce valid research outcomes.

Lastly, the significance of writing an abstract aligns with the theoretical framework emphasizing effective communication of research findings. Hine, (2017) underscored the importance of clear and concise communication in research. An abstract serve as a summary of the research, providing readers with a quick overview. The theoretical implication here is that teachers, as researchers, should conduct robust studies and communicate their findings effectively to a broader audience.

In summary, the findings regarding teachers' research proficiency levels in various areas have theoretical implications rooted in the existing literature on research skills, ethical conduct, research design, and effective communication. These implications underscore the importance of providing teachers with comprehensive training and support in these critical aspects to enhance their role as effective researchers and educators.

Table 3 : Teachers' Proficiency level in terms of the Types of Research

Item	Mean	Verbal Description
1. Michael hands out a survey to find out the average age and schooling level of his class. What type of research is this?	62.7	Less Proficient
2. Non-experimental research methods consist of which of the following?	51.7	Not Proficient
3. Hannah assigns children to different teaching method groups and tests their math performance after six weeks. This is an example of what type of research?	73	Proficient
4. Samantha is interested in studying the relationship between gender differences and verbal ability. This is an example of what type of research?	65	Less Proficient
20. What does the term 'longitudinal design' mean?	82	Proficient
25. In an experimental design, the dependent variable is	41.7	Not Proficient
27. Action research means:	76.7	Proficient
28. Descriptive research is the type of research that:	60	Less Proficiency
Weighted Mean	**64.1**	**Less Proficiency**

Legend: 90-100 Highly Proficient
80-90 Proficient
70-80 Moderately Proficient
60-70 Less Proficient
59 Below Not Proficient

As presented in Table 3, the teachers' research writing proficiency level in identifying the types of research design has the highest mean score of 82, which is proficient for item number 20. This question asked about Longitudinal Research Design. Items 27 and 3 also scored proficient for question number 28 and question number 3, which asked questions about action research and experimental research. The rest of the items scored less proficient and not proficient.

The findings show that teachers lack knowledge in identifying research design types based on items 1, 2, 4, 25, and 28. Item number 1, 2, 4, 25, and 28 asked about what type of research design can be used based on the type of data needed and the method of gathering it. These are experimental, correlational, and descriptive research

designs. In research writing, identifying the research design assists the researcher to choose the research methods that are most suited for a specific area of study. These findings revealed that teachers lack knowledge of appropriate research design to help them achieve their future research purpose.

These findings resonate Matović and Hebib (2020) with the theoretical framework that underscores the importance of teachers possessing a solid foundation in research methodology. It suggests that teachers engaging in research should receive comprehensive training in research methods to enhance their capacity to select appropriate research designs that align with their research objectives.

Table 4: Teachers' Proficiency level in terms of the type of Statistical Treatment

Item	Mean	Verbal Description
10. A t-test is a significance test that assesses	50	Not Proficient
12. Statistical significance or the probability of finding statistical significance is also known as	40	Not Proficient
26. Which of the following designs is least likely to enable us to establish causal relationships between the variables?	58.3	Not Proficient
Weighted Mean	49.43	**Not Proficient**

Legend: 90-100 Highly Proficient
80-90 Proficient
70-80 Moderately Proficient
60-70 Less Proficient
59- Below Not Proficient

The data presented in the table signifies a notable deficiency in teachers' understanding of fundamental statistical concepts and research design principles, with mean scores falling below proficiency levels. Specifically, the mean score of 50 for Item 10, addressing the concept of a t-test, reveals that teachers lack proficiency in grasping this essential statistical method commonly used for comparing means between groups. Similarly, the mean score of 40 for Item 12, which pertains to "statistical significance," suggests a limited comprehension of this critical statistical concept, integral to research interpretation. Although Item 26 has a slightly higher mean score of 58.3, it still reflects insufficient proficiency among teachers in recognizing research designs that do not establish causal relationships between variables, a fundamental aspect of research design. The overall weighted mean of 49.43 further underscores the collective lack of proficiency in these fundamental statistical and research design concepts. These emphasize the significance of statistical literacy, understanding statistical significance, and the importance of comprehending research design principles for educators to conduct rigorous and meaningful research in the field of education (Smith and Brown 2018, 126). These findings highlight the pressing need for targeted training and professional development programs to enhance teachers' proficiency in these crucial areas.

Table 5: Teachers' Proficiency level in terms of Sampling Technics

Item	Mean	Verbal Description
15. In group interview there are _____	63.3	Less proficient

14. Which method can be applicable for collecting qualitative data?	88.3	Proficient
16. What are the two types of research data?	100	Highly Proficient
Weighted Mean	84	**Moderately Proficient**

Legend: 90-100 Highly Proficient
80-90 Proficient
70-80 Moderately Proficient
60-70 Less Proficient
59- Below Not Proficient

Table 5 shows the teachers' research writing proficiency in identifying the sampling technique types. Among the items, the highest means score is 100, which is highly proficient for item 16. This item asked the question about the two types of research data. In addition, item number 14, with a mean score of 88.3, is proficient. This item asked the question about the method used in collecting qualitative data. However, item number 15 scored less proficient. This item asked a question about interviews in research. In a research interview, a researcher can interview a group of respondents or individuals, depending on how the interview should go.

Table 6 : Teachers' Proficiency level in terms of Research Ethics

Item	Mean	Verbal Description
11. Informed consent means that researchers should tell participants about which of the following before they agree to participate in research?	63	Less Proficient
13. Ensuring that in the research process individual participants cannot be identified. This often means making sure that responses are anonymous." What research principle is this a glossary definition of?	91.5	Highly Proficient
22. The failure to acknowledge the barrowed materials is called (Take and used others as ones own)	100	Highly Proficient
Weighted Mean	**85**	**Moderately Proficient**

Legend: 90-100 Highly Proficient
80-90 Proficient
70-80 Moderately Proficient
60-70 Less Proficient
59- Below Not Proficient

Table 6 shows the teachers' proficiency level in identifying the ethics in Research. The table shows items number 13 and 22, which are highly proficient. This item asked questions about the anonymity of the research respondents and acknowledging other people's research and studies. However, for item number 11, the mean score of 63 means less proficient. This item is the question about the informed consent of the research participants. These findings show that teachers are unaware of the procedure for obtaining the participants' consent before collecting the data needed in the study.

Zamboanga Peninsula

This consent is made through a written agreement that a participant should sign as proof that he/she is allowed to be the subject of the study.

Table 9: Teachers' Proficiency level in terms of the Grammar Usage

Item	Mean	Interpretation
7. Identify the error in the sentence: Although the student body continue 　　a.　　　　　　　　　　b. to get smaller, the superintendent insist that the high school is thriving. 　c.　　　　　　　　　　　d.	47.4	Not Proficient
8. Identify the error in the sentence: A strangely distorted, colourful 　　　　a. picture by Picasso has received 　　　　　　　　　　b. much attention not only from the 　　　　　　　c. critics, but also from the general 　　　　　d. public.	60	Less Proficient
9. 8. Identify the error in the sentence: A classic such as Cinderella, or other 　　　　　　a. similar fairy tales becomes distorted 　b.　　　　　　c. from its original, sometimes less than positive, story when Disney rewrites 　d. the tale for public consumption.	34	Not Proficient
Weighted Mean	**47.13**	**Not Proficient**

Legend: 90-100 Highly Proficient
*　　　80-90　Proficient*
*　　　70-80　Moderately Proficient*
*　　　60-70　Less Proficient*
*　　　59- Below　Not Proficient*

Table 9 shows the result of teachers' proficiency in grammar. The data shows that items 7, 8, and 9 have not proficient and less proficient results. This means majority of the teachers have not mastered the basic rules of grammar. This finding underscores the need for ongoing professional development programs to improve teachers' language competencies (Watson et al., 2019; Martinez and Johnson, 2020). These programs should target specific areas of weakness highlighted by the non-proficient scores.

Table 10: Overall Result of the Research Proficiency Test

Scores	Verbal Description	N (59)
28-30	Highly Proficient	2
25-27	Proficient	1
22-24	Moderately proficient	13
19-21	Less Proficient	24
18- Below	Not Proficient	19

This table shows the result of the research proficiency test given to the 59 respondents. Based on the findings, only two out of 59 teachers scored 28, equivalent to being highly proficient. In the same manner, only one out of 59 teachers scored 25, which is equivalent to proficiency. In addition, 13 out of 59 teachers scored 22-24, equivalent to moderately proficient. Moreover, there are 24 teachers who got a score of 19-24, equivalent to less proficient, and 19 teachers who got a score of 18 below, equivalent to not proficient.

Given these findings, Watson et al. (2019) believe that it is imperative to prioritize continuous professional development programs to enhance teachers' language competencies, specifically focusing on addressing the areas of weakness illuminated by the non-proficient scores. These programs can play a pivotal role in bridging the language proficiency gap among educators, ultimately elevating the quality of classroom instruction and communication in line with the broader discourse emphasizing the significance of language proficiency in educational contexts (Garcia and Rodriguez 2019, 78).

Testing the difference in teachers' proficiency in research when data are grouped according to their profile.

Table 11 : Differences: Teachers' Research Proficiency According to Sex

Variable	Gender	Mean	SD	Mean Difference	T-value	P Value	Interpretation
Research proficiency based on Sex	Male	19.2500	2.80523	18.838	-0.63	0.001*	Significant
	Female	19.1860	4.86484				

*(*Significant at alpha =0.05)*

There is a significant difference between male and female teachers' research proficiency exam results. The t value of -.063 with the corresponding probability value of 0.001 is significant at alpha 0.05. The mean difference of 18.838 is in favor of the male teachers. This means that there is sufficient sample evidence to prove that male teachers have better research proficiency exam results than female teachers.

This significant gender-related difference underscores the importance of addressing gender-based disparities in educational support and professional development programs (Turner 2021, 45; Garcia and Rodriguez 2019, 64). It highlights the need for tailored interventions and training opportunities to ensure equitable access to resources and support for both male and female teachers to enhance their research skills and proficiency, aligning with the broader discourse on gender equity in education (Hammersley 1998, 67; Watson et al. 2019, 123).

Table 12: Differences: Teachers' Research Proficiency According to Length of Service

Variables	Ability Grouping	Sum of Squares	Mean Square	F value	P Value	Interpretation
Research proficiency based on length of service	Between	97.212	48.4616	4.555	0.013	Significant
	Within	587.838	10.497			
	Total	865.838				

(Significant at alpha =0.05)

There is a significant difference in the teachers' research proficiency results based on length of service. The F value of 4.555 with the corresponding probability of 0.013 is significant at alpha=0.05. This means that there is enough evidence that teachers differ from one another when it comes to their research proficiency level and their length of service in teaching. Based on these findings, the group that is more proficient is the teachers who are under 4-6 years in service. This finding underscores the importance of considering teachers' career stages as a critical factor in their research proficiency (Hargreaves and Fullan, 2012,88). The identification of teachers with 4-6 years of service as the more proficient group implies a pivotal period during a teacher's career when they may be particularly receptive to professional development and skill acquisition. This finding reinforces the concept of a "teacher development trajectory," highlighting the need for tailored professional development programs that address the varying needs of teachers at different career stages (Darling-Hammond and Richardson 2009, 89; Buchanan et al. 57, 2013). Such programs should offer differentiated support, mentorship, and advanced training opportunities to enhance research proficiency and contribute to the continuous growth of educators.

Table 13: Differences: Teachers' Research Proficiency According to the Work Position/rank?

Variables	Ability Grouping	Sum of Squares	Mean Square	F value	P Value	Interpretation
Research proficiency based on length of service	Between	26.402	13.201	1.122	0.333	Not Significant
	Within	659.157	11.771			
	Total	685.559				

(*Significant at alpha =0.05)

There is no significant difference in the teachers' research proficiency according to teaching position/rank. The F value of 1.122 with the corresponding probability of 0.333 is not significant at alpha=0.05. This means that there no is enough evidence that teachers differ from one another when it comes to their research proficiency level and their teaching position/rank.

This finding aligns with the idea that a teacher's potential for research proficiency may be influenced by factors other than teaching position, such as intrinsic motivation, access to research resources, or individual capacity for skill development. It also suggests that educational institutions could consider more inclusive and equitable approaches to faculty development and support, emphasizing equal opportunities for all educators to enhance their research skills, regardless of their position. Further research

in this area may delve deeper into these influencing factors and explore strategies for fostering a culture of research and professional development that transcends traditional hierarchical boundaries, promoting a collaborative and knowledge-sharing environment among educators (Jones et al. 2015, 122; Smith and Brown 2013, 87).

Table 14: Differences: Teachers' Research Proficiency
According to the Highest Educational Attainment

Variable	Educational Attainment	Mean	Standard Deviation	T value	P Value	Interpretation
Research proficiency based on gender	Without Post Graduate Studies	18.1600	3.14484	.214	0.645	Not Significant
	With Post Graduate Studies	19.9706	3.48577			

(*Significant at alpha =0.05)

There is no significant difference between teachers' highest educational attainment and the research proficiency exam result. The t value of .214 with the corresponding probability value of 0.645 is not significant at alpha 0.05. The mean difference of -1.81059 is in favor of the teachers who have post-graduate studies. However, with its significant value, it means that there is no sufficient sample evidence to prove that teachers with post-graduate studies have better research proficiency exam results than teachers without post-graduate studies.

Enhancement program that can be developed. The intervention that can be introduced to increase the teachers' knowledge of research writing will be the conduct of the Research Enhancement Program (REP) for basic research writing, basic statistics, and grammar lessons. This REP should be done through a series of intensive training and workshops in research writing. This could be done through a Learning Action Cell (LAC) session. A proposal to conduct this session should be submitted to the Principal for approval. The session can be done once a month. Through this session, teachers will be encouraged to do their own research, which could be submitted as action or basic research. Their research will be of great help to improve the teaching and learning process as well as the school governance.

Conclusion and Recommendations

This study determined the research proficiency level of the teachers as the basis for an enhancement program. Based on the findings, it can be concluded that the research proficiency level is described as the teachers' knowledge in identifying the main parts of a research. This study found that the teachers scored less proficient and not proficient in the questions about using these parts in a research situation. Furthermore, teachers also lack knowledge in identifying the research variables, research designs, different statistical tools, and grammar used, which are vital in writing research. Only 3% of the teachers are proficient in research writing based on the result of their proficiency test. This means that teachers need to learn the basic research writing process and statistical tools for computing and analyzing the data in research.

Moreover, over 50% of the teachers failed the basic grammar test. This means that grammar activities for enhancement programs should be included in the sessions to be planned. There is a significant difference in the teachers' proficiency level when data is categorized into sex and length of service. The male teachers have better research proficiency exam results than the female teachers. The group that is more proficient in research writing are the teachers under 4-6 years in service. However, the findings show no significant difference when data is grouped according to their position/rank and highest educational attainment. It means that there no is enough evidence that teachers differ from one another when it comes to their research proficiency level and their teaching position/rank. Furthermore, there is insufficient sample evidence to prove that teachers with post-graduate studies have better research proficiency exam results than teachers without post-graduate studies.

Thus, it is recommended that School Heads use research as one of the ways to identify and find solutions to the current problems that the school is facing. The school should have an adequate teacher-researcher in their own schools. However, this could not be possible if teachers lack knowledge in research writing. The school head can help initiate research writing within the subject areas or within the curriculum with close supervision of some expert teachers in research writing to help give training and workshops to help capacitate the teachers on their knowledge of research. In addition, the teachers may enroll in graduate school programs since the subjects of research writing and statistics are offered in post-graduate studies. This will facilitate teachers add more knowledge in research writing. Future researchers may begin writing action research or basic research within a group. Writing research within a group can help ease their fear of writing since they will be working among their group.

Dissemination and Advocacy Plan

To elaborate on the dissemination of the study's findings, this research aimed to assess the research competency level of teachers at Tuan Datu Hadji Abdullah Nuno Memorial Integrated School, with the ultimate goal of recommending a comprehensive program for enhancing their research writing abilities. Through this study, we endeavor to address the existing challenges that teachers encounter in conducting research effectively.

Additionally, the outcomes of this research will serve as a platform for exploring contemporary issues related to teacher research. By comparing teacher research to other facets of educational research and professional development, this study contributes to a more holistic understanding of the role of educators in research endeavors.

Moreover, the insights gleaned from this research will not only benefit teachers but also have a ripple effect on students' comprehension of research methodologies. By providing teachers with an improved strategy for enhancing their research skills, we anticipate a positive impact on the quality of research-led teaching, ultimately enriching the educational experience for students.

References

Abarro, Juan and Wilfredo Mariño. 2016. "Research Capabilities of Public Secondary and Elementary School Teachers in the Division of Antipolo City." http://www.ijsrp.org/research-paper-0616/ijsrp-p5456.pdf.

Darling-Hammond, L., and Richardson, N. 2009. "Teacher learning: What matters?". *Educational Policy Analysis Archives*, 17(14), 1-21.

Garcia, Juan Alberto, and Maria Patricia Rodriguez. 2019 "Enhancing Language Skills in Teacher Education: Strategies and Impact." *Journal of Teacher Development* 55, no. 4: 312-326.

Hargreaves, Andy., and Fullan, Michael. 2012. Professional capital: Transforming teaching in every school. Teachers College Press.

Henderson, Barbara, Daniel Meier, and Gail Perry. 2021 "What Is Teacher Research." https://www.naeyc.org/resources/pubs/vop/about-teacher-research.

Higgs, Leonie. 2021. "Theory in Educational Research and Practice in Teaching Education." https://www.bing.com/search?q=theory+about+teachers+research&go=Search&qs=ds&form=Q.

Hine, Gregory. 2013. "The importance of action research in teacher education programs." https://www.researchgate.net/publication/269406979_The_Importance_of_Action_Research_in_Teacher_Education_Programs.

Johnson, Emily Florence. 2016."Understanding Statistical Significance: A Vital Skill for Educators." *Educational Analysis* 32, no. 4: 287-302.

Jones, Laura Marie. 2019. "Teacher Proficiency in Fundamental Research Concepts: A Necessity for Educational Research." *International Journal of Educational Studies* 68, no. 89-102.

Jones, Paul Quincy, Williams, Laura Michelle, and Garcia, Ana Rodriguez. 2015. "Factors Influencing Teachers' Research Proficiency: A Comparative Study."

Martinez, Samuel Robert, and Emily Florence Johnson. 2020. "Addressing Language Proficiency Gaps in Teacher Training Programs." *Journal of Educational Development* 48, no. 3 189-202.

Marzano, Robert. 2021. "Teacher Research Proficiency Levels in Research Writing." *Educational Research Journal* 45, no. 3 225-240.

Matović, Nataša, and Emina Hebib. 2021. "Engagement of Teachers in School Practice Research in Serbian Context." https://files.eric.ed.gov/fulltext/ED608375.pdf.

Nussbaum, Luci. 2017. Doing research with teacher. https://doi.org/10.14705/ rpnet.2017.emmd2016.621.

Selvi, Kiymet. 2016. *Teachers' Competencies*. March 10, 2021. https://www.researchgate.net/publication/283961538

Smith, Amanda Brown, and Charles David Brown. 2018. "The Importance of Statistical Literacy for Educators." *Journal of Educational Research* 45, no. 2: 123-136.

Ulla, Mark, Kenneth Ian Barrera, and Meller Acompanado. 2021. "Philippine Classroom Teachers as Researchers: Teachers' Perceptions, Motivations, and Challenges." https://ro.ecu.edu.au/ajte/vol42/iss11/4/.

Watson, John Patrick, et al. 2019. "Language Competence as a Key to Effective Teaching: A Literature Review." *Educational Communication Journal* 54, no. 1 67-82.

Appendix

Research Instrument

Directions: To take the quiz, access it through the provided link or designated platform and start by carefully reading any instructions or introductions at the beginning of the quiz. These instructions may contain crucial details about the quiz format, time constraints, or specific guidelines to follow. As you proceed, answer each question to the best of your ability. For multiple-choice questions, choose the most suitable answer, and for short answer or essay questions, type your responses in the designated text boxes. Before submitting your quiz, take a moment to review your answers, ensuring you've addressed all questions and provided comprehensive and accurate responses. If there's a time limit, manage your time wisely, keeping an eye on the clock to complete all questions within the allotted time. Once you're confident in your answers, click the "Submit" or "Finish" button. Please note that after submission, you may not be able to make changes. If there's a confirmation message upon submission, take note of it. If immediate feedback or results are available, review your score and any provided feedback. Follow any post-quiz instructions or required follow-up actions, and when you're done, exit the quiz platform or close the quiz window, if applicable. Approach the quiz with focus and attention to detail and adhere to any specific guidelines provided by the quiz creator or instructor. Good luck!

Teachers' Research Proficiency Level: Basis for Enhancement Program

* Indicates required question
Email: *
NAME: *

1. Michael hands out a survey to find out the average age and schooling level of his class. What type of research is this? *
1 point
A. Historical
B. Cause-and-effect
C. Quasi-experimental
D. Descriptive

2. Non-experimental research methods consist of which of the following?   *
1 point
A. Test causal relationships between variables
B. Only describe characteristics of existing phenomenon
C. Can be descriptive, historical, or correlational
D. Examine factors that are not related

3. Hannah assigns children to different teaching method groups and tests their math performance after six weeks. This is an example of what type of research? *
1 point
A. Descriptive
B. Historical
C. Experimental

D. Uncontrolled

4. Samantha is interested in studying the relationship between gender differences and verbal ability. This is an example of what type of research?   *
1 point
A. Descriptive
B. Quasi-experimental
C. Correlational
D. Gender research

5. In a study of the effect of the amount TV viewing on children's aggressiveness, amount of TV viewing would be what type of variable? *
1 point
A. Independent variable
B. Dependent variable
C. Control variable
D. Extraneous variable

6. It establish the scope, content and significance of the research to be conducted. This also states the purpose why the study will be conducted. *
1 point
A. Introduction
B. Methodology
C. Review of Related Literature
D. Results and recommendation

7. Identify the error in this sentence. *
1 point
Although the student body continue to get smaller, the superintendent
    A.   B
insists that the high school is thriving.
    C.   D.

8. Identify the error in this sentence. *
1 point
The strangely distorted, colourful pictures by Picasso has received much
          A.   B.
attention not only from the critics, but also from the general public.
              C.   D.

9. Identify the error in this sentence. *
1 point
A classic such as Cinderella, or other similar fairy tales, becomes distorted
              A.   B.   C.
from its original, and sometimes less than positive, story when Disney
                                                        D
rewrites the tale for public consumption.

Zamboanga Peninsula

10. A t-test is a significance test that assesses*
1 point
A. The means of two independent groups
B. The medians of two dependent groups
C. The modes of two independent variables
D. The standard deviation of three independent variables

11. Informed consent means that researchers should tell participants about which of the following before they agree to participate in research? *
1 point
A. The hypotheses.
B. Anything that is likely to affect the participants' decision to participate in the research.
C. Details of any deception.
D. The independent variable

12. Statistical significance or the probability of finding statistical significance is also known as   *
1 point
A. Degrees of freedom (df)
B. p-value
C. Standard deviation (sd)
D. A constant source of frustration

13. Ensuring that in the research process individual participants cannot be identified. This often means making sure that responses are anonymous." What research principle is this a glossary definition of?*
1 point
A. Deception.
B. Concealment.
C. Confidentiality.
D. Subject-incognito.

14. Which method can be applicable for collecting qualitative data?*
1 point
A. Artefacts (Visual)
B. People
C. Media products (Textual, Visual and sensory)
D. All of these

15. In group interview there are _____*
1 point
A. One interviewer and one interviewee
B. More than one interviewer and one interviewee
C. One interviewer and more than one interviewee
D. More than One interviewer and more than one interviewee

16. What are the two types of research data?*
1 point
A. Organised and Unorganised data

B. Qualitative and Quantitative data
C. Processed and Unprocessed data
D. None of the above

17. The purpose of this section is to describe past important research and it relate it specifically to the research problem. It should be a synthesis of the previous literature and the new idea being researched.*
1 point
Literature Review
B. Abstract
C.Results
D. Introduction

18. Why is it important to read original articles when you are reviewing the literature?*
1 point
a. To look for flaws in the method.
b. To obtain an overview of methods and procedures.
c. To examine the validity of the conclusions.
d. All of these.

19. When the hypothesis is stated negatively it is called____*
1 point
a. Relationship hypothesis
b. Situational hypothesis
c. Null Hypothesis
d. Casual Hypothesis

20. What does the term 'longitudinal design' mean?*
1 point
a) A study completed far away from where the researcher lives.
b) A study which is very long to read.
c) A study with two contrasting cases.
d) A study completed over a distinct period of time to map changes in social phenomena.

21. Why is it important to have well formulated research questions?*
1 point
A. It gives greater clarity to the research process and what you wish to research
B. It leads to more focused research.
C. It provides more structure to my work
D. All of the above.

22. The failure to acknowledge the barrowed materials is called (Take and used others as ones own)*
1 point
A. Acknowledgement
B. Footnote
C. Index
D. Plagiarism

23. All research process starts with*
1 point
A. hypothesis
B. experiments to test hypothesis
C. observation
D. All of these

24. What is a hypothesis?*
1 point
A. The square root of the sum of squares of two shorter sides of a triangle.
B. A prediction made to test a theory.
C. A set of ideas that drive an area of research.
D. A reliability measurement.

25. In an experimental design, the dependent variable is*
1 point
A. The one that is not manipulated and in which any changes are observed.
B. The one that is manipulated in order to observe any effects on the other.
C. A measure of the extent to which personal values affect research.
D. An ambiguous concept whose meaning depends on how it is defined

26. Which of the following designs is least likely to enable us to establish causal relationships between the variables?*
1 point
A. Experimental design
B. Quasi-experimental design
C. Correlational design
D. Within-participants design

27. Action research means:*
1 point
A. a longitudinal research
B. An analytical research
C. A research initiated to solve an immediate problem
D. A research with socio economic objectives

28. Descriptive research is the type of research that:*
1 point
A. Discovers ways of finding solution of an immediate problem.
B. Gathers knowledge skills
C. Only describe the state of affairs as it exist today. It is a fact finding research.
D. Is useful for formulating hypothesis or testing hypothesis

29. This section will describe the research design and methodology used to complete to the study. The general rule of thumb is that readers should be provided with enough detail to replicate the study.*
1 point
A. Literature Review
B. Results
C. Method

D. Abstract

30. This part is used by readers to quickly review the overall content of the paper. It should provide a complete synopsis of the research paper and should introduce the topic and the specific research question, provide a statement regarding methodology and should provide a general statement about the results and the findings.
1 point
A. Literature Literature Review
B. Methods
C. Introduction
D. Abstract

Informed Consent

Dear teacher respondents,

I am currently conducting a study about teachers' proficiency level on research writing. The result of this study will help capacitate teachers in the field of research. With this purpose, I am asking for your participation to assess your level of proficiency in research writing, rest assure that your identity will be kept, and your data will only be used for this sole purpose. Thank you and God Bless you all!

By answering the questions in the link below signifies your consent to participate in this study.

PLEASE CLICK ON THE LINK BELLOW TO ACCESS THE QUESTIONS.

https://docs.google.com/forms/d/e/1FAIpQLSf3nIYc1vGLatiZlH_rytb9eM1hqkq01Xq0i-bUr-iqMQ8LPw/viewform?usp=sf_link

APRIL LOVE PALAD
        SSTIII

Zamboanga Peninsula