

Research Writing Capabilities of Teachers Teaching Research in Selected Private Senior High Schools in the Philippines

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Abstract

Practical Research is one of the senior high school disciplines. This course seeks to improve students' critical thinking and problem-solving skills while also giving them the opportunity to improve their research skills and active learning. Quantitative, qualitative, or hybrid research methods might be used.

According to Lev Vygotsky's theory of learning and development, students can do more with proper guidance from teachers than on their own. This study primarily aimed to assess the research capabilities of SHS teachers teaching research in the private schools in the Philippines from Luzon, Visayas, and Mindanao.

The study used a descriptive-causal research design. The sample size of 33 respondents was determined using a purposive sampling technique. They were the ones who completed the Google Form prior to the seminar-workshop on research capability. The study's main findings revealed that a significant number of teachers were between the ages of 21 and 25, had no experience teaching research, had completed collegiate research, and had no research training. As to research proposal writing, the teachers have some knowledge. They can teach and write if given further training. Furthermore, results from multiple regression analysis revealed that as age increases, the research writing proposal capability and the research writing capability in Analysis and Discussion deteriorate.

Keywords: Capability Seminar-Workshop, Practical Research, Research Capability, Research Proposal Writing, Senior High School (SHS) Teachers

Introduction

Research writing has been included in the K to 12 Curriculum since its implementation has begun namely the Practical Research 1, the Qualitative Research, and the Practical Research 2, the Quantitative Research (Paurillo, 2019; Caingcoy, 2020). Nevertheless, Paurillo explained that a lot of students struggle in it. On the one hand, Caingcoy concluded that a number of experts and professionals recognized the significance of research writing since it has drawn so much attention from various fields, especially in basic education. This comes the need for research-based education, especially in the basic education. However, Salde and Mamaoag (2021) emphasized the reluctance of teachers in doing or accepting research. Likewise, asking private school teachers to teach subjects, like research, which are not within their area of specialization is a common scenario not just in the Philippines but around the world (Arendain & Limpot, 2022).

In the book titled, Practical Research 1, authored by Baraceres (2016), she explained that doing research involves inquiry-based learning. She further illustrated that inquiry-based learning is governed by the Zone of Proximal Development (ZPD) postulated by Lev Vygotsky. This theory stresses the roles of provocation

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and scaffolding in learning. This means that learners without assistance can do less and can do more with assistance especially coming from a teacher, if not from capable peers.

As research writing became indispensable to all fields, it is imperative to look into ones' capabilities towards research. That said, various studies on the public school teachers' research capability were undertaken (Manila, Dayanan, Barlis, & Fajardo, 2022; Farin, Brade, & Garcia, 2021; Tolentino, 2021; Tamban & Maningas, 2020; Gonzales, Corpuz, & Dellosa, 2020; Basilio et al., 2019; Abarro & Marino, 2016) but only few focused on teachers teaching research (Salde & Mamaoag, 2021) and with capability training program (Tamban & Maningas, 2020; Manila, Dayanan, Barlis, & Fajardo, 2022). Moreover, little to none of the existing research has assessed the research writing capabilities of teachers in the private schools. As Santo (cited in Salde & Mamaoag, 2021) explained that training to increase research skills among workers created the path for implementing invention, and once this innovation was recognized, it may inspire creativity and be used to something positive and beneficial. Considering the aforementioned citations, the struggle and disinterest of the students in research (Paurillo, 2019), the reluctance of teachers in doing and accepting research (Salde & Mamaoag, 2021), and the out-of-field teaching (Arendain & Limpot, 2022), this research sought to fill in these research gaps. The previous studies (Tamban & Maningas, 2020; Manila, Dayanan, Barlis, & Fajardo, 2022) strengthened the present study as both studies shared the same goal, which is to provide the teachers teaching research a capability research training program to enhance their research capabilities.

Research Questions

1. What are the respondents' profile variables in terms of:
 - 1.1 age;
 - 1.2 years of teaching research;
 - 1.3 research conducted; and
 - 1.4 research training attended?
2. How do the respondents describe their research capabilities in terms of:
 - 2.1 research proposal writing; and
 - 2.2 Analysis and interpretation of data?
3. Is there a statistically significant association between research proposal writing skills and the respondents' profile variables?
4. Is there a statistically significant association between the analysis and interpretation skills and the respondents' profile variables?

Methodology

A descriptive-causal research design was employed by using a researcher-made questionnaire in the form of a Google Form. The Google Form was sent to 33 teacher-respondents. These 33 teacher-respondents were teachers teaching research in their respective schools. They were sent as representatives of their schools.

These teacher-respondents were from different parts of the Philippines, from Luzon, Visayas, and Mindanao. Their schools were clients of a publishing house in the Philippines. These 33 teacher-respondents were asked to answer the Google Form as a gateway for them to participate in the research capability seminar-workshop. No Google Form Submitted, No Entry!

The Google Form includes the following parts:

Part I: Respondents' profile variables

Part II: Research Capabilities

- i. Research Proposal Writing
- ii. Analysis and Interpretation of Data

Sampling Technique

The researcher utilized a purposive sampling technique since he took all 33 teachers who responded to the Google Form and were at the seminar-workshop for research capability. Purposive sampling involves handpicking subjects as a sample according to the purposes of the researcher as his controls (Chico & Matira, 2018).

Statistical Treatment of Data

The researcher employed descriptive statistics such as Frequency, Ranking, Percentage, and Mean. This was used for problems nos. 1 and 2. As to the inferential statistics, multiple regression is applied for problems 3 and 4 to determine the significant association that exists between the research writing capabilities and the respondents' profile variables. Lastly, the researcher applied the Likert Scale for problem no. 2.

Validity and Reliability

The draft questionnaire was presented to research experts for face validity and content validity, and some revisions have been made. Furthermore, the researcher has utilized Cronbach's alpha to test the reliability or internal consistency of the questionnaire. The pilot test has shown acceptable correlation coefficients of 0.932.

Results and Discussion

4.1 Respondents' Profile Variables

Table 1 presents the respondents' profile variables. It shows the frequency and percentage distribution of the respondents as to age, years in teaching research, research conducted, and research training attended.

About respondents' age, 13 or 40% of the respondents are within the age bracket of 21 to 25; 10 or 30% are 26 to 30; 4 or 12% are 36 to 40. It can be said that a large proportion of teachers teaching research are young, fresh graduates, and have just begun teaching. Teachers at this age are eager to learn, enthusiastic, idealistic, energetic, creative, and performing. This study corroborates the study of Farin, Brade, and Garcia (2021). Younger teachers are more passionate in educational research than those who have been teaching five years and above (Akcoltekin et al., 2017).

As to the number of years in teaching, 18 or 55% of the respondents have no experience in teaching research; 5 or 15% have 1 year of experience; while 4 or 12% have taught research for 2 and 5 years. This is expected since a significant number of teachers are within the age bracket of 21 to 25 years old, which means that

Table 1 Profile of the Respondents

Variable	f	%	R
Age			
21-25	13	40	1
26-30	10	30	2
31-35	1	3	6.5
36-40	4	12	3
41-45	2	6	4.5
46-50	0	0	8
51-55	1	3	6.5
60 and above	2	6	4.5
Total	33	100	
Mean: 31.64			
Years in Teaching Research	f	Percentage	
0	18	55	1
1	5	15	2
2	4	12	3.5
4	1	3	5.5
5	4	12	3.5
7	1	3	5.5
Total	33	100	
Research Conducted	f	Percentage	
college research	20	61	1
college research, master's thesis	1	3	5.5
college research, master's thesis, research required by the school	1	3	5.5
master's thesis	5	15	2
none	4	12	3
research required by the school	2	6	4
Total	33	100	
Research Training Attended	f	Percentage	
16 hours or more	4	12	3
less than 16 hours	5	15	2
None	24	73	1
Total	33	100	

most of them have just begun teaching. It can be surmised that fresh graduates in private schools are given opportunities to teach research.

As to research conducted, 20 or 61% of the respondents have conducted college research; 5 or 15% have conducted master's thesis; and 4 or 12% have not conducted any research. As majority of the people know, before college students can graduate, they are mandated to conduct research. Therefore, most of the respondents have knowledge as regards the rudiments of research writing.

Finally, as to research training attended, 24 or 73% have not attended any research training; 5 or 15% have attended less than 16 hours of research training; and 4 or 12% have attended 16 hours and more of research training. It can be concluded that a great number of respondents were given teaching loads to teach research even if they have not attended any research training.

4.2 Research Capabilities

Table 2 shows the mean ratings of the respondents' assessment of their research capability in research proposal writing.

As shown in the table, a mean rating of 2.848 or interpreted as "with some knowledge" is shared by two indicators "writing the statement of the problem" and "defining terms operationally." Also, a mean rating of 2.818 or interpreted as "with some knowledge" is shared by two indicators "writing the introduction" and "deciding whether to do a qualitative or quantitative research."

Overall, the research proposal writing of the respondents has a composite mean of 2.77 or interpreted as "with some knowledge." This means that the respondents can teach and write research proposal if they are given further training. Manila, Dayanan, Barlis, and Fajardo (2022) found out that teachers can write a research proposal with close supervision of an expert.

Table 2 Research Proposal Writing			
	Indicators	Mean Ratings	Interpretation
1	Writing the topic	2.788	With some knowledge
2	Deciding whether to do a qualitative or quantitative research	2.818	With some knowledge
3	Writing the introduction	2.818	With some knowledge
4	Writing the conceptual framework of the study	2.636	With some knowledge
5	Writing the theoretical framework	2.636	With some knowledge
6	Writing the statement of the problem	2.848	With some knowledge
7	Writing the hypothesis	2.818	With some knowledge
8	Defining terms operationally	2.848	With some knowledge
9	Writing a research instrument	2.758	With some knowledge
	Composite Mean	2.77	With some knowledge

Table 3 Analysis and Interpretation of Data

	Indicators	Mean Ratings	Interpretation
1	Using appropriate terms to be used in the study	2.636	With some knowledge
2	Interpreting data	2.606	A little knowledge
3	Technicalities of research report writing	2.606	A little knowledge
4	Sequencing of the subtopics	2.636	With some knowledge
5	Determining the appropriate statistical tools to be used	2.455	A little knowledge
6	Computing statistics manually	2.394	A little knowledge
7	Computing statistics using software like SPSS,	2.424	A little knowledge
	Composite Mean	2.53	A little knowledge

This confirms the results of the studies of Farin, Brade, and Garcia (2021), Abarro and Mariño (2016), and Morales et al. (2016).

Table 3 shows the mean ratings of the respondents' assessment of their research capability in analysis and interpretation of data.

As reflected in the table, a mean rating of 2.636 or interpreted as “with some knowledge” is shared by two indicators “using appropriate terms to be used in the study” and “sequencing of the subtopics.” Additionally, a mean rating of 2.606 or interpreted as “a little knowledge” is shared by two indicators “interpreting data” and “technicalities of research report writing.”

Overall, the research capability of the respondents in analysis and interpretation has a composite mean of 2.53 or interpreted as “a little knowledge.” This means that the respondents are not functional, and they cannot teach and write this part of research. This verifies the findings of the studies of Farin, Brade, and Garcia (2021), Abarro and Mariño (2016), Morales et al. (2016), and Basilio (2019).

4.3 Multiple regression Results for the Association of Research Proposal Writing and Analysis and Interpretation, and Personal Profile

Table 4 shows the multiple regression results for the association of research proposal writing and respondents' profile variables.

Table 4 Association between Research Proposal Writing and Profile

Variable	β	SE β	Wald χ^2	t	Sig	Interpretation
Age	-.045	.009	-.668	-4.908	.000	Reject null
Years teaching research	.034	.058	.089	.582	.565	Accept null
Research Conducted	-.046	.094	-.067	-.484	.632	Accept null
Research Training	-.205	.151	-.206	-1.357	.186	Accept null

Table 5 Association between Analysis and Interpretation of Data

Variable	β	SE β	Wald χ^2	t	Sig	Interpretation
Age	-.034	.011	-.490	-3.084	.005	Reject null
Years teaching research	.055	.069	.142	.793	.434	Accept null
Research Conducted	.055	.069	.142	.793	.434	Accept null
Research Training	-.233	.180	-.229	-1.296	.206	Accept null

As seen in the table, all profile variables yielded computed p-values greater than the significance level of 0.05, EXCEPT for Age. This means that there is enough evidence to reject the null hypothesis, which means that the research proposal writing is significantly associated to age, whereas the number of years in teaching research (0.565), the number of research conducted (0.632), and number of hours spent on research training (0.186) are not. This means that the respondents' ability to write research proposals tends to decline as they get older.

Results conform to the findings in the study of Caingcoy (2020). He discovered that teachers' research capability was negatively correlated with their age and total years of service, and that this relationship, though weak, was statistically significant. He concluded that as teachers age and accumulates years of service, their research capability weakens. The findings also match with the findings of Farin, Brade, and Garcia (2021). They found out that there is no significant relationship between the number of studies conducted, the number of seminars attended, and research capability in terms of writing a research proposal. Consequently, the study of Abarro and Marino (2016) and Narag, Gannaban, and Agustin (2016) negated the findings of the present study. They found out that age did not affect research proposal writing.

Table 5 shows the multiple regression results for the association of research capability in terms of Analysis and Discussion and respondents' profile variables.

As gleaned in the table, all profile variables yielded computed p-values greater than the significance level of 0.05, EXCEPT for Age. This means that there is sufficient evidence to reject the null hypothesis, which means that the respondents' research capability in terms of Analysis and Discussion is significantly associated with age, whereas the number of years in teaching research (0.434), the number of conducted research (0.434), and the hours spent on research training (0.206) are not. This means that the respondents' research capability in terms of Analysis and Discussion tends to weaken as they age.

The findings of the present study coincide with the findings of Farin, Brade, and Garcia (2021). They found out that there is no significant relationship between the number of studies conducted, the number of seminars attended, and research capability in writing research report. Subsequently, Abarro and Marino (2016) revealed that research proposal writing was affected by trainings attended.

Conclusion

1. Most teachers are from 21 to 25 years old, have no experience in teaching or conducting research, and have not attended any research training.

2. The teacher-respondents were assessed as having “some knowledge” and “a little knowledge” of writing research proposals and the analysis and interpretation of data, respectively.
3. There is a statistically significant association between the age and the research proposal writing, whereas the number of years spent in teaching research, research conducted, and the hours spent on research training are not. It can be concluded that as teachers age, their research capability in research proposal writing deteriorates.
4. There is a statistically significant association between the age and the analysis and interpretation of data, whereas the number of years spent in teaching research, research conducted, and the hours spent on research training are not. It can be concluded that as teachers age, their research capability in the analysis and interpretation of data deteriorates.

Recommendation

Based on the summary of findings and conclusion, the researcher has come up with the following recommendations:

1. Teachers must aim to grow professionally by undertaking a career development program, further education in graduate school, seminars and workshops, and lectures from experienced and respected researchers from both local and abroad. They should conduct research at least once a year.
2. Future researchers may conduct comparative studies to further strengthen and verify the reliability of the findings of the present study compared to theirs.

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