

COMPETENCY SKILLS AND ENGAGEMENT IN RESEARCH WRITING OF TEACHERS IN PUBLIC SCHOOLS

Isagani Costales Canonizado, PhD

San Narciso Elementary School, San Narciso, Zambales, Philippines
Technological College of San Felipe, Inc., San Felipe, Zambales, Philippines

<https://doi.org/10.54922/IJEHSS.2025.1151>

Received: 14 November 2025 / Published: 26 December 2025

ABSTRACT

Competency skills in research writing reflect teachers' ability to plan, compose, and analyze research effectively. It influences teachers' engagement, motivation, and participation in scholarly activities, which are essential for professional growth and instructional improvement. This study determined the competency skills and engagement in research writing of teachers in public schools in San Narciso District, Schools Division of Zambales, during the School Year 2025–2026, as a basis for an enhanced professional development program. Using a quantitative-correlational research design, the study involved 36 teachers as respondents through total population sampling. A validated researcher-made questionnaire with reliability coefficients of $\alpha = 0.93$ and 0.96 was employed to gather data. The results revealed that the majority of teachers were female, aged 35–49 years, held masteral units, and had 1–15 years of service. Teachers demonstrated moderately competent skills in research composition and data analysis and interpretation, while their engagement in research writing was moderately engaged in both motivation and interest and participation. Significant differences in competency skills and engagement were observed only in terms of age, whereas sex, highest educational attainment, and length of service showed no significant differences. A positive high significant correlation was found between teachers' competency skills and engagement in research writing. Based on these findings, an enhanced professional development program was developed to improve teachers' research writing competencies and engagement. This study provided empirical evidence on the relationship between competency skills and engagement in research writing among public school teachers. The enhanced professional development program shall guide school administrators and policymakers in designing targeted interventions to strengthen teachers' research skills and foster active participation in scholarly activities.

Keywords: Competency Skills, Engagement, Research Writing, Teachers, Public Schools.

1. INTRODUCTION

Education at the time demanded that teachers not only delivered content effectively but also engaged in research activities that enhanced instructional quality and professional growth. In the Philippines, the increasing emphasis on evidence-based teaching and the Department of Education's initiatives on research-based professional development highlighted the need for teachers to be competent in research writing and actively engaged in scholarly activities (Comon & Corpuz, 2024; Saro et al., 2023). Despite these efforts, many teachers faced challenges in translating research skills into productive outputs, affecting curriculum innovation, learner

outcomes, and community engagement (Abella et al., 2024; Galdonez, 2023). Understanding the competency skills and engagement levels of teachers in research writing was therefore critical to address gaps in training, support, and professional development opportunities, particularly in public school settings where resources were limited.

This study focused on the competency skills and engagement in research writing of teachers in public schools in the Philippines. Previous studies indicated that while some teachers demonstrated strong motivation, research skills, and content knowledge, others exhibited gaps in research productivity and application of research-based knowledge (Manigbas et al., 2024; Capua et al., 2025). The key variables explored in this study were teachers' competency skills in research writing, including aspects such as planning, data analysis, and composition, and their engagement, which included motivation, participation, and responsiveness to feedback (Galdonez, 2023; Saro et al., 2023). The study was contextualized within public schools, providing insights relevant to the majority of Filipino educators and their professional development needs.

The need for this research was underscored by theoretical and practical gaps in understanding how teachers' research competencies translated into active engagement and productive outputs. Despite evidence that teachers possessed moderate to high research skills, low research productivity and inconsistent engagement remained challenges (Abella et al., 2024; Comon & Corpuz, 2024). Addressing this gap was essential not only for improving teachers' research outputs but also for enhancing instructional quality, curriculum development, and evidence-based classroom practices (Manigbas & De Luna, 2024; Santos, 2024). Furthermore, effective professional development strategies required empirical data on teachers' actual competencies and engagement levels to design targeted interventions.

Existing literature revealed underexplored aspects regarding the relationship between teachers' research competencies and their active engagement in writing tasks, especially in public schools (Briones et al., 2023; Villegas & Buquia, 2023). While some studies emphasized motivation and ICT competence, others highlighted gaps in translating knowledge into research productivity, revealing inconsistencies in support systems and professional development programs (Manigbas et al., 2024; Galdonez, 2023). This study sought to answer the following questions: What was the level of competency skills in research writing of teachers in public schools? How engaged were they in research writing activities? Were there significant relationships between their competency skills and engagement?

Guided by constructivist and adult learning theories, this study aimed to provide both theoretical and practical contributions. The research informed the design of an enhanced professional development program tailored to improve teachers' research writing competencies and engagement (Capua et al., 2025; Comon & Corpuz, 2024). Practically, the study sought to support school administrators and policymakers in implementing training interventions that strengthened teachers' research skills, enhanced motivation, and encouraged active participation in scholarly activities (Saro et al., 2023; Galdonez, 2023). Ultimately, this research aspired to equip teachers with the knowledge, skills, and engagement necessary for sustained professional growth and improved educational outcomes in Philippine public schools.

2. STATEMENT OF THE PROBLEM

This study determined the competency skills and engagement in research writing of teachers in public schools in San Narciso District, Schools Division of Zambales, during the School Year 2025-2026, as a basis for an enhanced professional development program.

Specifically, it sought answers to these questions:

1. How may the profile of the teachers in public schools be described in terms of:
 - 1.1. sex;
 - 1.2. age;
 - 1.3. highest educational attainment; and
 - 1.4. length of service?
2. How may the competency skills in research writing of teachers in public schools be described in terms of:
 - 2.1. research composition; and
 - 2.2. data analysis and interpretation?
3. How may the engagement in research writing of teachers in public schools be described in terms of:
 - 3.1. motivation and interest; and
 - 3.2. participation?
4. Is there a significant difference between the competency skills in research writing of teachers in public schools when grouped according to their profile variables?
5. Is there a significant difference between the engagement in research writing of teachers in public schools when grouped according to their profile variables?
6. Is there a significant correlation between the competency skills and engagement in research writing of teachers in public schools?
7. What enhanced professional development program can be developed to improve the competency skills and engagement in research writing of teachers in public schools?

3. METHODS AND MATERIALS

This study determined the competency skills and engagement in research writing of teachers in public schools in San Narciso District, Schools Division of Zambales, during the School Year 2025-2026, as a basis for an enhanced professional development program. Employing a quantitative-correlational research design, data were collected, classified, summarized, and analyzed using means. The respondents of the study consisted of 36 public school teachers, employing total population sampling of the participants in a district research training. A researcher-designed questionnaire served as the primary data collection instrument, focusing on the competency skills and engagement in research writing of teachers in public schools. Internal consistency was established using Cronbach's Alpha, which demonstrated excellent reliability for the competency skills ($\alpha = 0.93$) and engagement ($\alpha = 0.96$) in research writing of teachers in public schools. Hypothesis was tested using Kruskal-Wallis Test and Spearman's Rho Correlation Coefficient.

4. RESULTS AND DISCUSSIONS

4.1. Profile of Teachers in Public Schools

4.1.1. Sex

Table 1 presents the profile of teachers in public schools in terms of sex.

Table 1. Profile of Teachers in Public Schools in terms of Sex

Sex	f	%
Male	6	16.67

Female	30	83.33
Total	36	100.00

The results revealed that 6 teachers (16.67%) were male, while 30 teachers (83.33%) were female. Among the two categories, female teachers had the highest frequency, indicating that women constitute the majority of teaching staff in the sampled public schools. This finding denotes that the teaching workforce in the context of this study is predominantly female, which may influence classroom dynamics and teaching practices.

The significance of this finding suggests that gender distribution in teaching is uneven, with implications for representation and professional development programs. Claud and Dalisay (2024) stated that understanding the demographic profile of teachers, including sex, is important for designing interventions and support mechanisms that address the needs of the majority while also promoting inclusivity.

4.1.2. Age

Table 2 presents the profile of teachers in public schools in terms of age.

Table 2. Profile of Teachers in Public Schools in terms of Age

Age	f	%
50-64 years old	5	13.89
35-49 years old	19	52.78
20-34 years old	12	33.33
Total	36	100.00

The results revealed that 5 teachers (13.89%) were aged 50–64 years old, 19 teachers (52.78%) were aged 35–49 years old, and 12 teachers (33.33%) were aged 20–34 years old. Among the three categories, the 35–49 years old group had the highest frequency, indicating that most teachers in the sampled schools are experienced mid-career professionals. This finding denotes that the teaching workforce is largely composed of individuals in their most productive and professionally mature years, which may influence teaching quality and mentorship capacity.

The significance of this finding suggests that the age distribution provides insight into experience levels, potential leadership roles, and professional development needs. Liquido and Potane (2023) stated that understanding the age profile of teachers is important for planning targeted training programs and allocating responsibilities effectively, as age often correlates with teaching experience and instructional competence.

4.1.3. Highest Educational Attainment

Table 3 presents the profile of teachers in public schools in terms of highest educational attainment.

Table 3. Profile of Teachers in Public Schools in terms of Highest Educational Attainment

Highest Educational Attainment	f	%
Doctoral Graduate	1	2.78
Masteral Graduate	7	19.44
with Masteral units	16	44.44

College Graduate	12	33.33
Total	36	100.00

The results revealed that 1 teacher (2.78%) was a doctoral graduate, 7 teachers (19.44%) were masteral graduates, 16 teachers (44.44%) had masteral units, and 12 teachers (33.33%) were college graduates. Among the four categories, teachers with masteral units had the highest frequency, indicating that most teachers had pursued postgraduate education but had not yet completed their masteral degrees. This finding denotes that the teaching workforce is academically inclined, with a strong interest in furthering their professional qualifications.

The significance of this finding suggests that teachers' educational background can influence their instructional competence and engagement in professional development activities. Capua et al. (2025) stated that understanding the educational attainment of teachers is crucial for designing effective training programs and support mechanisms that enhance research skills and overall teaching quality.

4.1.4. Length of Service

Table 4 presents the profile of teachers in public schools in terms of length of service.

Table 4. Profile of Teachers in Public Schools in terms of Length of Service

Length of Service	f	%
31-45 years	2	5.56
16-30 years	11	30.56
1-15 years	23	63.89
Total	36	100.00

The results revealed that 2 teachers (5.56%) had served for 31–45 years, 11 teachers (30.56%) had served for 16–30 years, and 23 teachers (63.89%) had served for 1–15 years. Among the three categories, teachers with 1–15 years of service had the highest frequency, indicating that the majority of the teaching workforce in the sampled schools is composed of early-career educators. This finding denotes that most teachers are at the beginning stages of their professional journey, which may influence their teaching experience, instructional confidence, and engagement in research activities.

The significance of this finding suggests that the distribution of length of service is important for planning professional development, mentorship, and support programs for teachers. Bacus et al. (2024) stated that understanding teachers' service length is essential in determining their readiness for advanced training and in providing targeted interventions to enhance teaching competence and research skills.

4.2. Competency Skills in Research Writing of Teachers in Public Schools

4.2.1. Research Composition

Table 5 presents the mean ratings and interpretations of the competency skills in research writing of teachers in public schools in terms of research composition. The table showed a general mean rating of 2.82, which was interpreted as "Moderately Competent," indicating that teachers demonstrated an adequate but not advanced level of competency in composing research papers.

Table 5. Mean Rating and Interpretations of the Competency Skills in Research Writing of Teachers in Public Schools in terms of Research Composition

Item	Indicators	Mean Rating	Interpretation
1	Writing clear research statements aligned with the study's purpose.	2.83	Moderately Competent
2	Organizing ideas logically within each section of the research paper.	2.86	Moderately Competent
3	Developing concise paragraphs that support the research objectives effectively.	2.78	Moderately Competent
4	Summarizing related studies accurately to build a strong literature review.	2.75	Moderately Competent
5	Paraphrasing authors' ideas properly to avoid plagiarism in research writing.	2.83	Moderately Competent
6	Citing sources correctly using the required citation format consistently.	2.81	Moderately Competent
7	Formulating coherent arguments supported by credible evidence from literature.	2.69	Moderately Competent
8	Constructing grammatically correct sentences suited for academic writing.	2.86	Moderately Competent
9	Editing drafts to improve clarity, coherence, and overall paper quality.	2.94	Moderately Competent
10	Formatting the entire research paper according to prescribed academic guidelines.	2.86	Moderately Competent
General Mean Rating		2.82	Moderately Competent

Legend: Scores of 3.25 to 4.00 indicate "Highly Competent," scores of 2.50 to 3.24 indicate "Moderately Competent," score of 1.75 to 2.49 indicate "Less Competent," and scores of 1.00 to 1.74 indicate "Not Competent."

Among the indicators, "editing drafts to improve clarity, coherence, and overall paper quality" obtained the highest mean rating of 2.94, which was interpreted as "Moderately Competent." This finding denoted that teachers were relatively more skilled in revising and refining their research outputs compared to other aspects of research composition. It suggested that teachers placed importance on improving the quality of their work after the initial draft. This finding was consistent with Ignacio (2025), who emphasized that revision and editing were essential strengths developed through repeated exposure to academic writing tasks.

On the other hand, "formulating coherent arguments supported by credible evidence from literature" received the lowest mean rating of 2.69, which was also interpreted as "Moderately Competent." This indicated that teachers experienced greater difficulty in integrating evidence from literature to support their arguments effectively. The result denoted a need for further enhancement in critical analysis and synthesis skills in research writing. Similarly, Agudo and Garcia (2024) noted that constructing evidence-based arguments was often the most challenging component of research writing, especially among developing researchers.

In summary, the findings revealed that while all indicators fell under the “Moderately Competent” level, editing drafts emerged as the highest-rated skill among teachers. These results might have been influenced by teachers’ greater familiarity with basic writing mechanics compared to higher-order research skills such as argument development. Cepillo (2024) stated that continuous training and guided practice in research writing were crucial in strengthening both mechanical and analytical competencies, which directly affected overall research composition skills.

4.2.2. Data Analysis and Interpretation

Table 6 presents the mean ratings and interpretations of the competency skills in research writing of teachers in public schools in terms of data analysis and interpretation. The table showed a general mean rating of 2.86, which was interpreted as “Moderately Competent,” indicating that teachers demonstrated an acceptable level of competency in analyzing and interpreting research data.

Table 6. Mean Rating and Interpretations of the Competency Skills in Research Writing of Teachers in Public Schools in terms of Data Analysis and Interpretation

Item	Indicators	Mean Rating	Interpretation
1	Collecting accurate data using appropriate qualitative or quantitative methods.	2.94	Moderately Competent
2	Organizing gathered data systematically for easier interpretation and analysis.	3.00	Moderately Competent
3	Using suitable tools or software to analyze research data effectively.	2.89	Moderately Competent
4	Interpreting results based on patterns, trends, or emerging themes.	2.89	Moderately Competent
5	Presenting analyzed data clearly through tables, charts, or narratives.	2.97	Moderately Competent
6	Comparing findings with existing research to strengthen study conclusions.	2.86	Moderately Competent
7	Drawing logical conclusions directly supported by analyzed data.	2.78	Moderately Competent
8	Identifying implications of results for practice, policy, or future research.	2.69	Moderately Competent
9	Highlighting limitations of the study that affected data interpretation.	2.83	Moderately Competent
10	Recommending actions or studies grounded in the research findings.	2.78	Moderately Competent
General Mean Rating		2.86	Moderately Competent

Legend: Scores of 3.25 to 4.00 indicate “Highly Competent,” scores of 2.50 to 3.24 indicate “Moderately Competent,” score of 1.75 to 2.49 indicate “Less Competent,” and scores of 1.00 to 1.74 indicate “Not Competent.”

Among the indicators, “organizing gathered data systematically for easier interpretation and analysis” obtained the highest mean rating of 3.00, which was interpreted as “Moderately Competent.” This finding denoted that teachers were relatively more capable of arranging and structuring data in a way that facilitated meaningful analysis. It suggested that teachers possessed adequate skills in managing data before proceeding to deeper analytical tasks. This finding aligned with Jaum (2024), who emphasized that systematic data organization was a foundational skill that enabled effective data analysis and sound interpretation.

Conversely, “identifying implications of results for practice, policy, or future research” received the lowest mean rating of 2.69, which was also interpreted as “Moderately Competent.” This indicated that teachers experienced greater difficulty in extending their findings beyond results toward practical or theoretical implications. The finding denoted a need for further development in higher-level analytical and reflective skills in research writing. In support, Lopez (2023) noted that identifying implications required advanced analytical thinking that developing researchers often struggled to demonstrate consistently.

In summary, the results revealed that all indicators fell under the “Moderately Competent” level, with organizing gathered data systematically emerging as the highest-rated skill. These results might have been influenced by teachers’ familiarity with routine data handling tasks compared to more abstract processes such as deriving implications. Sanchez et al. (2024) stated that continuous mentoring and guided practice in data analysis were essential in strengthening both technical and interpretive competencies, which directly affected the quality of research conclusions.

4.3. Engagement in Research Writing of Teachers in Public Schools

4.3.1. Motivation and Interest

Table 7 presents the mean ratings and interpretations of the engagement in research writing of teachers in public schools in terms of motivation and interest. The table showed a general mean rating of 3.19, which was interpreted as “Moderately Engaged,” indicating that teachers generally manifested a positive level of motivation and interest toward research writing.

Table 7. Mean Rating and Interpretations of the Engagement in Research Writing of Teachers in Public Schools in terms of Motivation and Interest

Item	Indicators	Mean Rating	Interpretation
1	Showing strong eagerness to begin any research writing task.	3.17	Moderately Engaged
2	Demonstrating high interest in exploring meaningful research topics.	3.11	Moderately Engaged
3	Enjoying learning new concepts related to research writing.	3.17	Moderately Engaged
4	Investing ample time willingly to strengthen research writing skills.	3.14	Moderately Engaged
5	Displaying consistent curiosity when reading academic studies.	3.08	Moderately Engaged
6	Maintaining motivation even when research tasks become difficult.	3.14	Moderately Engaged

7	Looking forward enthusiastically to completing research requirements.	3.25	Highly Engaged
8	Valuing research writing as highly important for academic growth.	3.28	Highly Engaged
9	Seeking opportunities enthusiastically to join research activities.	3.28	Highly Engaged
10	Welcoming feedback positively to improve research writing performance.	3.33	Highly Engaged
General Mean Rating		3.19	Moderately Engaged

Legend: Scores of 3.25 to 4.00 indicate “Highly Engaged,” scores of 2.50 to 3.24 indicate “Moderately Engaged,” score of 1.75 to 2.49 indicate “Less Engaged,” and scores of 1.00 to 1.74 indicate “Not Engaged.”

Among the indicators, “welcoming feedback positively to improve research writing performance” obtained the highest mean rating of 3.33, which was interpreted as “Highly Engaged.” This finding denoted that teachers were very open to feedback as a means of enhancing their research writing skills. It suggested that teachers recognized feedback as a valuable tool for professional and academic growth. This finding was consistent with Vacalares et al. (2023), who emphasized that receptiveness to feedback strengthened motivation and sustained engagement in academic writing tasks.

In contrast, “displaying consistent curiosity when reading academic studies” received the lowest mean rating of 3.08, which was interpreted as “Moderately Engaged.” This indicated that teachers were comparatively less engaged in reading scholarly literature as part of their research process. The finding denoted a need to further cultivate sustained curiosity and interest in academic readings to support stronger research writing engagement. Similarly, Floris et al. (2024) noted that limited exposure to and interest in scholarly reading often constrained deeper engagement in research-related activities.

In summary, the findings revealed that while teachers were generally “Moderately Engaged,” welcoming feedback positively emerged as the most highly rated indicator. These results might have been affected by teachers’ greater exposure to evaluative feedback in professional settings than to extensive academic reading tasks. Regidor et al. (2024) stated that continuous encouragement, meaningful feedback, and supportive research environments were key factors that enhanced motivation and sustained interest in research writing.

4.3.2. Participation

Table 8 presents the mean ratings and interpretations of the engagement in research writing of teachers in public schools in terms of participation. The table showed a general mean rating of 3.19, which was interpreted as “Moderately Engaged,” indicating that teachers demonstrated an active but not consistently high level of participation in research writing activities.

Table 8. Mean Rating and Interpretations of the Engagement in Research Writing of Teachers in Public Schools in terms of Participation

Item	Indicators	Mean Rating	Interpretation
1	Participating actively with strong willingness in planning research structure.	3.28	Highly Engaged
2	Contributing ideas eagerly during research group discussions.	3.19	Moderately Engaged
3	Gathering relevant sources with consistent enthusiasm and initiative.	3.11	Moderately Engaged
4	Revising written work willingly based on feedback.	3.08	Moderately Engaged
5	Collaborating with peers eagerly to improve research writing tasks.	3.33	Highly Engaged
6	Completing research steps promptly with high dedication.	3.14	Moderately Engaged
7	Applying research guidelines carefully with strong commitment.	3.17	Moderately Engaged
8	Seeking assistance willingly when encountering writing difficulties.	3.39	Highly Engaged
9	Presenting research outputs confidently with active involvement.	3.03	Moderately Engaged
10	Demonstrating responsibility consistently in finishing research writing requirements.	3.17	Moderately Engaged
General Mean Rating		3.19	Moderately Engaged

Legend: Scores of 3.25 to 4.00 indicate “Highly Engaged,” scores of 2.50 to 3.24 indicate “Moderately Engaged,” score of 1.75 to 2.49 indicate “Less Engaged,” and scores of 1.00 to 1.74 indicate “Not Engaged.”

Among the indicators, “seeking assistance willingly when encountering writing difficulties” obtained the highest mean rating of 3.39, which was interpreted as “Highly Engaged.” This finding denoted that teachers were very proactive in asking for support to overcome challenges in research writing. It suggested that teachers valued collaboration and guidance as part of the research process. This finding was consistent with Comon and Corpuz (2024), who emphasized that help-seeking behavior enhanced learning engagement and contributed to improved research writing competence.

In contrast, “presenting research outputs confidently with active involvement” received the lowest mean rating of 3.03, which was interpreted as “Moderately Engaged.” This indicated that teachers were less engaged in confidently sharing or presenting their research outputs. The finding denoted possible hesitation or limited confidence in disseminating research work. Similarly, Durante et al. (2023) noted that presenting scholarly outputs required higher confidence and experience, which developing researchers often lacked.

In summary, the findings revealed that teachers were generally “Moderately Engaged,” with seeking assistance willingly emerging as the highest-rated indicator. These results might have been affected by teachers’ greater comfort in collaborative and supportive tasks than in public presentation of research outputs. Mangelep et al. (2025) stated that sustained mentoring and increased opportunities for research presentation strengthened participation and confidence in research writing.

4.4. Difference Between the Competency Skills in Research Writing of Teachers in Public Schools and Their Profile

4.4.1. Sex

Table 9 presents the difference between the competency skills in research writing of teachers in public schools in terms of sex.

Table 9. Difference Between the Competency Skills in Research Writing of Teachers in Public Schools in terms of Sex

Groups	<i>H</i>	<i>df</i>	<i>p</i>	Decision
Male	1.100	1	.294	Accept H_{01}
Female				(Not Significant)

The computed *H* value of 1.100, with 1 degree of freedom and a *p*-value of .294, showed that the difference in research writing competency between male and female teachers was not statistically significant. Since the *p*-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H_{01}). This result suggested that sex did not significantly influence teachers’ competency skills in research writing. This finding was consistent with Fegarido and Hornoz (2025), who reported that research writing competence was not determined by sex but by exposure, training, and experience in research activities.

The acceptance of the null hypothesis indicated that both male and female teachers demonstrated comparable levels of competency in research writing. This implied that opportunities for developing research skills were equally accessible to teachers regardless of sex. Escanda (2025) stated that structured research training and continuous practice, rather than demographic characteristics such as sex, were the primary factors that shaped research writing competence.

4.4.2. Age

Table 10 presents the difference between the competency skills in research writing of teachers in public schools in terms of age.

Table 10. Difference Between the Competency Skills in Research Writing of Teachers in Public Schools in terms of Age

Groups	<i>MR</i>	<i>Eta squared</i> (η^2)	<i>H</i>	<i>df</i>	<i>p</i>	Decision
50-64 years old	29.10	.585	11.906	2	.003	Reject H_{01}
35-49 years old	20.42	(Large)				(Significant)
20-34 years old	11.42					

The results showed that teachers aged 50–64 years old obtained the highest mean rank (*MR* = 29.10), compared with those aged 35–49 years old (*MR* = 20.42) and 20–34 years old (*MR* =

11.42). The computed H value of 11.906, with 2 degrees of freedom and a p-value of .003, led to the rejection of the null hypothesis (H_{01}). The large eta squared value (.585) indicated that age accounted for a substantial proportion of the variance in research writing competency, with older teachers demonstrating stronger skills. This finding was consistent with Villapando and Velasco (2025), who found that greater experience and prolonged engagement in research-related tasks enhanced writing competence.

The rejection of the null hypothesis indicated that age significantly influenced teachers' competency skills in research writing. This result suggested that accumulated experience, continuous exposure, and sustained practice contributed to higher levels of research writing competency among older teachers. Villaruz and Palma (2024) stated that maturity and long-term involvement in scholarly activities played a crucial role in developing advanced research writing skills.

4.4.3. Highest Educational Attainment

Table 11 presents the difference between the competency skills in research writing of teachers in public schools in terms of highest educational attainment.

Table 11. Difference Between the Competency Skills in Research Writing of Teachers in Public Schools in terms of Highest Educational Attainment

Groups	<i>H</i>	<i>df</i>	<i>p</i>	Decision
Doctoral Graduate	.202	3	.977	Accept H_{01}
Masteral Graduate				(Not Significant)
with Masteral units				
College Graduate				

The computed H value of .202, with 3 degrees of freedom and a p-value of .977, revealed that teachers' competency in research writing did not differ significantly based on their highest educational attainment. Since the p-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H_{01}). This finding suggested that having a doctoral degree, masteral degree, masteral units, or a college degree did not necessarily result in higher competency in research writing. This was consistent with Abella et al. (2024), who reported that research writing competence depended more on exposure, training, and experience rather than formal educational attainment alone.

The acceptance of the null hypothesis indicated that teachers' competency skills in research writing were comparable regardless of their educational qualifications. This implied that practical experience and continuous engagement in research activities were more critical than the level of degree attained. Galdonez (2025) emphasized that structured practice, mentoring, and hands-on research involvement were key factors in developing effective research writing skills, rather than merely holding higher academic degrees.

4.4.4. Length of Service

Table 12 presents the difference between the competency skills in research writing of teachers in public schools in terms of length of service.

Table 12. Difference Between the Competency Skills in Research Writing of Teachers in Public Schools in terms of Length of Service

Groups	<i>H</i>	<i>df</i>	<i>p</i>	Decision
31-45 years	5.623	2	.060	Accept H_{01}
16-30 years				(Not Significant)
1-15 years				

The computed *H* value of 5.623, with 2 degrees of freedom and a *p*-value of .060, revealed that teachers' competency in research writing did not differ significantly based on their length of service. Since the *p*-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H_{01}). This finding suggested that whether teachers had served for 1–15 years, 16–30 years, or 31–45 years did not substantially influence their competency in research writing. This aligns with Cuayzon (2024), who reported that research writing competence was more strongly influenced by training, practice, and exposure than by years of service alone.

The acceptance of the null hypothesis indicated that teachers' competency skills in research writing were comparable regardless of how long they had been in service. This implies that practical experience over time does not automatically translate into higher research writing competency without targeted training. Quiño-Justol and Gomez (2025) emphasized that structured mentoring and active engagement in research tasks were key factors in developing research writing skills, rather than merely accumulating years of service.

4.5. Difference Between the Engagement in Research Writing of Teachers in Public Schools and Their Profile

4.5.1. Sex

Table 13 presents the difference between the engagement in research writing of teachers in public schools in terms of sex.

Table 13. Difference Between the Engagement in Research Writing of Teachers in Public Schools in terms of Sex

Groups	<i>H</i>	<i>df</i>	<i>p</i>	Decision
Male	1.477	1	.224	Accept H_{02}
Female				(Not Significant)

The computed *H* value of 1.477, with 1 degree of freedom and a *p*-value of .224, revealed that the engagement of teachers in research writing did not differ significantly between males and females. Since the *p*-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H_{02}). This finding suggested that sex did not have a significant influence on teachers' engagement in research writing activities. This result aligns with Briones et al. (2023), who reported that engagement in research-related tasks is influenced more by interest, motivation, and exposure rather than by sex.

The acceptance of the null hypothesis indicated that both male and female teachers demonstrated comparable levels of engagement in research writing. This implies that opportunities and interest in participating in research activities were equally accessible regardless of sex. Arrieta et al. (2024) emphasized that sustained motivation and continuous practice are key factors that enhance engagement in research writing, independent of demographic characteristics.

4.5.2. Age

Table 14 presents the difference between the engagement in research writing of teachers in public schools in terms of age.

Table 14. Difference Between the Engagement in Research Writing of Teachers in Public Schools in terms of Age

Groups	MR	Eta squared (η^2)	H	df	p	Decision
50-64 years old	27.50	.457	6.959	2	.031	Reject H ₀₂
35-49 years old	19.50	(Large)				(Significant)
20-34 years old	13.17					

The results revealed that teachers aged 50–64 years old obtained the highest mean rank (MR = 27.50), compared with those aged 35–49 years old (MR = 19.50) and 20–34 years old (MR = 13.17). The computed H value of 6.959, with 2 degrees of freedom and a p-value of .031, led to the rejection of the null hypothesis (H₀₂). The large eta squared value (.457) indicated that age accounted for a substantial portion of the variance in engagement, with older teachers demonstrating higher engagement in research writing activities. This finding was consistent with Duterte (2024), who reported that accumulated experience and long-term exposure to research tasks enhanced both motivation and active participation.

The rejection of the null hypothesis indicated that age significantly influenced teachers' engagement in research writing. This suggests that older teachers are more likely to be actively involved and motivated in research activities due to greater experience and professional maturity. Ortizo and Babac (2025) emphasized that sustained involvement and consistent practice in research-related tasks are crucial factors that strengthen engagement, rather than demographic characteristics alone.

4.5.3. Highest Educational Attainment

Table 15 presents the difference between the engagement in research writing of teachers in public schools in terms of highest educational attainment.

Table 15. Difference Between the Engagement in Research Writing of Teachers in Public Schools in terms of Highest Educational Attainment

Groups	H	df	p	Decision
Doctoral Graduate	2.833	3	.418	Accept H ₀₂
Masteral Graduate with Masteral units				(Not Significant)
College Graduate				

The computed H value of 2.833, with 3 degrees of freedom and a p-value of .418, revealed that teachers' engagement in research writing did not differ significantly based on their highest educational attainment. Since the p-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H₀₂). This finding suggested that whether teachers held a doctoral degree, masteral degree, masteral units, or a college degree did not significantly affect their engagement in research writing activities. This aligns with Flores (2024), who emphasized that engagement in research-related tasks is influenced more by interest, motivation, and exposure than by formal educational qualifications.

The acceptance of the null hypothesis indicated that teachers' engagement in research writing was comparable regardless of their educational attainment. This implies that opportunities, training, and intrinsic motivation play a more critical role in fostering engagement than the level of degree earned. Manalo and Manalo (2023) stated that continuous involvement and hands-on practice in research activities are key factors in maintaining active engagement, rather than merely holding higher academic degrees.

4.5.4. Length of Service

Table 16 presents the difference between the engagement in research writing of teachers in public schools in terms of length of service.

Table 16. Difference Between the Engagement Research Writing of Teachers in Public Schools in terms of Length of Service

Groups	<i>H</i>	<i>df</i>	<i>p</i>	Decision
31-45 years	1.364	2	.506	Accept H_0
16-30 years				(Not Significant)
1-15 years				

The computed *H* value of 1.364, with 2 degrees of freedom and a *p*-value of .506, revealed that teachers' engagement in research writing did not differ significantly based on their length of service. Since the *p*-value was greater than the .05 level of significance, the decision was to accept the null hypothesis (H_0). This finding suggested that whether teachers had served for 1–15 years, 16–30 years, or 31–45 years did not significantly affect their engagement in research writing activities. This aligns with Launio et al. (2024), who emphasized that sustained motivation and active participation in research are influenced more by training and exposure than by years of service.

The acceptance of the null hypothesis indicated that teachers' engagement in research writing was comparable regardless of their length of service. This implies that accumulated years alone do not guarantee higher engagement without proper guidance and involvement in research activities. Baquiano (2023) stated that consistent practice, mentoring, and supportive research environments are critical factors in fostering active engagement in research tasks.

4.6. Correlation Between the Competency Skills and Engagement in Research Writing of Teachers in Public Schools

Table 17 presents the correlation between the competency skills and engagement in research writing of teachers in public schools. The table displayed the relationship between specific engagement indicators—motivation and interest, participation—and overall engagement with teachers' competency skills.

Table 17. Correlation Between the Competency Skills and Engagement in Research Writing of Teachers in Public Schools

Dependent Variables	r	p	Interpretation		Decision
Motivation and Interest	.647	.000	High Correlation	Positive	Reject H_{03} (Significant)
Participation	.679	.000	High Correlation	Positive	Reject H_{03} (Significant)
Overall	.696	.000	High Correlation	Positive	Reject H_{03} (Significant)

The results revealed that motivation and interest had an r-value of .647 with a p-value of .000, interpreted as a high positive correlation, leading to the rejection of the null hypothesis (H_{03}). Similarly, participation showed an r-value of .679 with a p-value of .000, also interpreted as a high positive correlation, resulting in the rejection of H_{03} . Both findings indicated that as teachers' competency skills increased, their motivation and active participation in research writing also increased significantly. The consistent p-values of .000 confirmed the statistical significance of these relationships.

Overall, the total engagement exhibited an r-value of .696 with a p-value of .000, interpreted as a high positive correlation, and the null hypothesis was rejected. This indicates that teachers with higher competency skills in research writing are more engaged in research activities, both in terms of motivation and participation. These results suggest a strong, meaningful connection between competence and engagement in research writing. The findings align with Galdonez (2023), who emphasized that well-developed research skills enhance both interest and active involvement in academic writing tasks.

A high positive significant correlation refers to a relationship in which increases in one variable are strongly associated with increases in another, and the relationship is statistically significant. In this study, it means that higher competency skills are closely linked with higher engagement among teachers. Saro et al. (2023) stated that when research skills are well-developed, teachers are more likely to demonstrate sustained motivation and active participation in research-related tasks.

4.7. An Enhanced Professional Development Program to Improve the Competency Skills and Engagement in Research Writing of Teachers in Public Schools

The enhanced professional development program is significant as it addresses the moderate competency and engagement levels of teachers in research writing, fostering improved skills and active participation. The program focuses on strengthening areas such as formulating evidence-based arguments, identifying implications of results, reading scholarly literature, and presenting research outputs. Key components include workshops, mentoring, collaborative research activities, and guided practice to provide hands-on experience and targeted support. To realize the program, school administrators shall schedule regular training sessions, assign experienced mentors, and integrate collaborative research projects within the academic calendar. Continuous monitoring, feedback, and evaluation shall be implemented to ensure that teachers' competency skills and engagement in research writing are progressively enhanced.

5. CONCLUSIONS

1. Teachers in public schools were predominantly female, mostly aged 35–49 years, hold masteral units, and have 1–15 years of service, indicating that the teaching workforce was largely composed of early- to mid-career educators with postgraduate exposure who may benefit from targeted professional development and research skill enhancement programs.
2. Teachers in public schools demonstrated a moderately competent level in research writing, showing relatively stronger skills in editing drafts and organizing data systematically, while exhibiting comparatively lower competency in formulating evidence-based arguments and identifying implications of results.
3. Teachers in public schools were generally moderately engaged in research writing, demonstrating higher engagement in seeking assistance and welcoming feedback, while showing comparatively lower engagement in reading scholarly literature and presenting research outputs.
4. A significant difference was observed in teachers' competency skills in research writing only in terms of age, with older teachers demonstrating higher competency, while no significant differences were found based on sex, highest educational attainment, or length of service.
5. A significant difference was observed in teachers' engagement in research writing only in terms of age, with older teachers demonstrating higher engagement, while no significant differences were found based on sex, highest educational attainment, or length of service.
6. A positive high significant correlation was observed between teachers' competency skills and their engagement in research writing.
7. An enhanced professional development program was developed to improve the competency skills and engagement in research writing of teachers in public schools.

6. RECOMMENDATIONS

1. Schools shall design targeted professional development programs that address the specific needs of early- to mid-career teachers, particularly focusing on research skill enhancement.
2. Teachers shall be provided with structured training and mentoring in formulating evidence-based arguments and interpreting research implications to strengthen their overall research writing competency.
3. Teachers shall be encouraged to actively engage in reading scholarly literature and presenting research outputs through workshops and guided practice sessions.
4. School administrators shall implement age-sensitive training initiatives that leverage the experience of older teachers to mentor younger staff in research writing competency.
5. Schools shall develop engagement strategies that motivate younger teachers to actively participate in research writing, drawing on the practices of more experienced educators.
6. Teachers shall be supported with continuous professional development programs that simultaneously enhance both competency skills and engagement in research writing.
7. Schools shall adopt and institutionalize the enhanced professional development program to systematically improve teachers' research writing skills and engagement.
8. Further studies on teachers' research writing shall be conducted to explore the impact of mentoring, collaborative learning, and technology integration on enhancing both competency skills and engagement.

7. ACKNOWLEDGMENT

The researcher wishes to acknowledge with profound gratitude his beloved family—his father, Florentino F. Canonizado; his mother, Luzviminda L. Costales; and his siblings, Joseph C. Canonizado, Michael C. Canonizado, Luisa C. Fadera, and Alfa C. Alfonso—for their unwavering love, encouragement, and support throughout the conduct of this study. Their guidance, prayers, and understanding served as a constant source of strength and inspiration in completing this academic endeavor. The researcher also extends his heartfelt appreciation to his aunt, Rosita C. Francia, and his cousins, Charity, Rose Marie, Jeanne Marie, and Maridel, for their unending patience, generosity, and moral support, which gave deeper meaning and motivation to this scholarly pursuit.

REFERENCES

- Abella, J. Y., Cadorna, E. A., Taban, J. G., & Ramirez, L. V. (2024). An Assessment of Filipino Public School Teachers' research Competence: A basis for an Enhancement Professional development programme. *International Journal of Learning Teaching and Educational Research*, 23(12), 258–278. <https://doi.org/10.26803/ijlter.23.12.14>
- Agudo, D. S., & Garcia, E. D. (2024). Research roadblocks: Investigating the challenges encountered by the DepEd personnel in research writing. *International Journal of Trendy Research in Engineering and Technology*, 09(02), 55–66. <https://doi.org/10.54473/ijtret.2025.9205>
- Arrieta, G. S., Chung, W. C., & Ancho, I. V. (2024). To publish or not: Philippine graduate students' motivation, experiences, and needs in research publication. *International Journal of Education*, 17(1), 39–50. <https://doi.org/10.17509/ije.v17i1.60124>
- Bacus, R. C., Picardal, M. T., Perez, N. B., & Balo, V. T. M. (2024). Predictors of beginning teachers' teaching performance. *Frontiers in Education*, 9. <https://doi.org/10.3389/feduc.2024.1375726>
- Baquiano, M. J. (2023). Understanding research engagement among academics in the Philippines using the theory of planned behavior. *International Perspectives in Psychology*, 13(1), 14–23. <https://doi.org/10.1027/2157-3891/a000087>
- Briones, M. R., Manaig, K. A., Bonganciso, R. T., Tesoro, J. F. B., Buama, C. A. C., Sarmiento, M. B., & Sapin, S. B. (2023). E-work self-efficacy, digital competence and work engagement of teachers in public secondary schools from two provinces in the Philippines. *Ho Chi Minh City Open University Journal of Science - Social Sciences*, 13(2), 13–34. <https://doi.org/10.46223/hcmcousj.soci.en.13.2.2747.2023>
- Briones, M. R., Prudente, M., & Errabo, D. D. (2023). Characteristics of Filipino Online Learners: A survey of Science Education Students' Engagement, Self-Regulation, and Self- Efficacy. *Preprints.org*. <https://doi.org/10.20944/preprints202308.1953.v1>
- Capua, R. D., De Guzman, M. T., & Santiago, M. G. A. (2025). Research competency of teachers in the Department of Education- Alfonso Lista, Ifugao, Philippines. *Journal of Lifestyle and SDGs Review*, 5(1), e04326. <https://doi.org/10.47172/2965-730x.sdgsreview.v5.n01.pe04326>
- Cepillo, J. C. (2024). Minds on Manuscripts: Analyzing the research writing competencies of SHS Students as Catalysts for an innovation. *International Journal of Innovative Science and Research Technology (IJISRT)*, 962–983. <https://doi.org/10.38124/ijisrt/ijisrt24sep745>

- Claud, D., & Dalisay, J. (2024). Demographic profile, school heads' supervisory practices, and Teachers' performance: towards Corresponding Intervention program. *Romblon State University Research Journal*, 6(2), 72–80. <https://doi.org/10.58780/rsurj.v6i2.208>
- Comon, J., & Corpuz, G. (2024). Teachers' Research Competence and Engagement: Basis for Research Development Plan. *American Journal of Arts and Human Science*, 3(1), 24–44. <https://doi.org/10.54536/ajahs.v3i1.2340>
- Cuayzon, M. L. (2024). Research writing competence of Grade 12 students: towards Research Culture Improvement. *Journal of Interdisciplinary Perspectives*, 2(9). <https://doi.org/10.69569/jip.2024.0311>
- Durante, C. A. G., Reynoso, L. C., Lorenzo, L. C., Nunez, N. G., Calixtro, R., Jr, Juan, E. S., & Frani, J. J. (2023). Research Hesitancy in the Academe: a Multi-University study in the Philippines. *International Journal of Multidisciplinary Applied Business and Education Research*, 4(5), 1442–1446. <https://doi.org/10.11594/ijmaber.04.05.05>
- Duterte, J. P. (2024). Technology-Enhanced Learning Environments: Improving engagement and learning. *International Journal of Research and Innovation in Social Science*, VIII(X), 1305–1314. <https://doi.org/10.47772/ijriss.2024.8100111>
- Escanda, M. (2025). Research-Based instructional strategies, professional competence, and pedagogical approaches. *International Multidisciplinary Research Journal*, 6(4). <https://doi.org/10.54476/ioer-imrj/636674>
- Fegarido, J., & Horno, A. (2025). Writing competencies and research skills of high school students. *Psychology and Education a Multidisciplinary Journal*, 37(2), 127–144. <https://doi.org/10.70838/pemj.370204>
- Flores, J. E. (2024). Unveiling factors influencing research hesitancy and limited research engagement among Filipino beginning teachers. *New Trends in Qualitative Research*, 20(4), e1048. <https://doi.org/10.36367/ntqr.20.4.2024.e1048>
- Floris, F. D., Widiati, U., Renandya, W. A., & Basthomi, Y. (2024). Engagement with research: A qualitative study of English department teachers' experiences and insights. *Social Sciences & Humanities Open*, 9, 100846. <https://doi.org/10.1016/j.ssaho.2024.100846>
- Galdonez, D. P. (2023). Needs, Motivations, and Abilities: Exploring the perspectives of science high school educators in performing and writing research. *International Journal on Research in STEM Education*, 5(2), 34–45. <https://doi.org/10.33830/ijrse.v5i2.1601>
- Galdonez, D. P. (2025). Exploring the experiences of STEM students in writing research: insights, challenges, and strategies. *Journal of Basic Education Research*, 6(1), 9–16. <https://doi.org/10.37251/jber.v6i1.1150>
- Ignacio, M. (2025). Spilling the Ink: English Majors' writing Skills and Strategies at ASC as a Basis for Curriculum Enhancement. *International Journal for Multidisciplinary Research*, 7(2). <https://doi.org/10.36948/ijfmr.2025.v07i02.42704>
- Jaum, N. J. J. C. (2024). Learner-oriented instruction and data interpretation skills of students in Manay South District, Davao Oriental. *EPRA International Journal of Multidisciplinary Research (IJMR)*, 821–828. <https://doi.org/10.36713/epri17109>
- Launio, C. C., Samuel, F. K. D., Banez, A., Talastas, M. C., Sito, L., & Cruz, K. B. D. (2024). Motivating factors and challenges of faculty members in a state university in the Philippines in publishing journal articles. *Journal of Scientometric Research*, 13(3), 866–876. <https://doi.org/10.5530/jscires.20041215>

- Liquido, M. G. L., & Potane, J. D. (2023). Investigating the Moderating Effect of Profile on the Relationship between Pedagogical Knowledge Competence and Organizational Citizenship in the Context of Secondary Teachers. *International Journal of Membrane Science and Technology*, 10(2), 1033–1049. <https://doi.org/10.15379/ijmst.v10i2.1409>
- Lopez, M. (2023). Critical Thinking Research: A scoping review on research Gaps. *The Normal Lights*, 17(1). <https://doi.org/10.56278/tnl.v17i1.1921>
- Manalo, H. D., & Manalo, M. R. T. (2023). Environmental engagement in higher education institutions. *Proceedings of the World Conference on Research in Teaching and Education*, 1(1), 1–13. <https://doi.org/10.33422/worldte.v1i1.8>
- Mangelep, N. N. O., Runtu, P. V., Rumintjap, F. O., Tarusu, D. T., & Kambey, A. N. (2025). Improving the quality of research and publications in Scopus journals for lecturers and students. *Community Development Journal Jurnal Pengabdian Masyarakat*, 6(1), 985–990. <https://doi.org/10.31004/cdj.v6i1.41164>
- Manigbas, J. I., & De Luna, Y. V. V. (2024). Competency of senior high school teachers in assessment and reporting in Goa District, Philippines. *International Journal of Business Law and Education*, 5(2), 1494–1505. <https://doi.org/10.56442/ijble.v5i2.390>
- Manigbas, J. I., Ollet, A. L., Noble, M. P. L., Angeles, J. R., Cayetano, N. M., & Fucio, M. P. (2024). Teachers' competency in content knowledge and pedagogy in Buhi South District, Philippines. *International Education Trend Issues*, 2(1), 21–30. <https://doi.org/10.56442/ietl.v2i1.365>
- Ortizo, G. C., & Babac, V. R. (2025). University faculty research utilization and engagement in scholarly publication. *International Journal of Scientific Research*, 14–21. <https://doi.org/10.36106/ijsr/2622418>
- Quiño-Justol, J., & Gomez, F. (2025). Developing a framework for addressing research competence and challenges among local college faculty: toward a targeted training program. *Journal of Interdisciplinary Perspectives*, 3(3). <https://doi.org/10.69569/jip.2025.006>
- Regidor, A. R., Vesmanos, A. T., & Deguito, P. O. (2024). The impact of supportive learning environment on student learning motivation of senior high school students. *Asian Journal of Education and Social Studies*, 50(7), 558–571. <https://doi.org/10.9734/ajess/2024/v50i71487>
- Sanchez, J. M. P., Petancio, J. a. M., Picardal, M. T., Fernandez, C. B., Boholano, H. B., Bacus, R. C., Olvido, M. M. J., & Cortes, V. M. (2024). Assessment of PhD Research and Evaluation Program: Insights from the Graduate Tracer Study. *Journal Evaluation in Education (JEE)*, 5(4), 155–166. <https://doi.org/10.37251/jee.v5i4.1145>
- Santos, P. (2024). Exploring the Self-Perceptions of Filipino Teachers on their community engagement competency. *International Journal of Social Learning (IJSLS)*, 4(3), 259–273. <https://doi.org/10.47134/ijsl.v4i3.267>
- Saro, J. M., Apat, J. Q., & Pareja, M. S. (2023). A Descriptive-Correlational study of the teachers' motivation, competences, and perceptions in writing action research. *Journal of Advances in Education and Philosophy*, 7(1), 14–24. <https://doi.org/10.36348/jaep.2023.v07i01.003>
- Vacalares, N. S. T., Clarin, N. E., Lapid, N. R., Malaki, N. M., Plaza, N. V., & Barcena, N. M. (2023). Factors affecting the writing skills of the education students: A descriptive study. *World Journal of Advanced Research and Reviews*, 18(2), 1192–1201. <https://doi.org/10.30574/wjarr.2023.18.2.0931>

- Villapando, R. D., & Velasco, C. Q. (2025). Engaging writing activities and the writing competence of Grade 12 HUMSS students. *International Journal of Social Science Humanity & Management Research*, 04(06). <https://doi.org/10.58806/ijsshmr.2025.v4i6n19>
- Villaruz, J. M., & Palma, R. C. (2024). Metacognitive awareness of writing strategies, oral proficiency, and writing instructions: A structural equation model of academic writing skills in Filipino language. *Asian Journal of Advanced Research and Reports*, 18(7), 114–134. <https://doi.org/10.9734/ajarr/2024/v18i7690>
- Villegas, E. M., & Buquia, W. A. (2023). Teachers' competence in information and communications technology. *Polaris Global Journal of Scholarly Research and Trends*, 2(4), 1–13. <https://doi.org/10.58429/pgjsrt.v2n4a93>