

The Role of School Heads on Teachers' Behavior and Competencies on Research Writing

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Abstract—This study aimed to determine the relationship between school heads' roles and teachers' behavior and competencies in research writing among public elementary school teachers in the Calauan District, Division of Laguna. Specifically, it sought to assess the level of the role of school heads in terms of research orientation, mentorship and coaching, support system, research use, and rewards and incentives; the level of teachers' behavior in writing research in terms of resourcefulness, reliability, authenticity, and intentions; and the level of teachers' competencies in terms of research experience, communication competencies, ICT competencies, and knowledge and skills. It also tested whether significant relationships exist between the role of school heads and teachers' behavior and competencies in research writing. The study employed a descriptive-correlational quantitative research design. A total of 180 teachers were selected through simple random sampling. Data were gathered using a validated researcher-made questionnaire utilizing a five-point Likert scale. Statistical tools such as mean, standard deviation, and Pearson Product-Moment Correlation were used to analyze the data. Findings revealed that the role of school heads, teachers' behavior, and teachers' competencies in writing research were all rated Very High. Research orientation, reliability, and research experience obtained the highest ratings in their respective variables. The study found a significant relationship between the role of school heads and teachers' behavior in writing research. It also found a significant relationship between the role of school heads and teachers' competencies in writing research, with mentorship and coaching emerging as the strongest predictors. The study concludes that school heads play a significant role in influencing teachers' research behavior and enhancing their competencies in research writing through effective leadership practices. Their support, guidance, and encouragement contribute to strengthening teachers' engagement and capability in conducting research leading to the rejection of null hypothesis. It is recommended that school heads strengthen mentorship and coaching programs, enhance research utilization in school practices, and provide sustainable rewards and incentives to motivate teachers. Schools may also implement continuous training and capacity-building activities to further improve teachers' research skills and sustain a strong research culture.

Keywords— Mentorship and coaching, research writing, role of school heads, teachers' behavior, teachers' competencies.

I. INTRODUCTION

In education, research plays an important role in improving teaching practices, advancing school performance, and promoting evidence-based decision-making. Teachers, as frontliners of instruction, are expected not only to deliver quality learning but also to engage in scholarly work such as writing research that contributes to the growing body of knowledge in education.

Moreover, writing research is highly important for teachers as it strengthens their professional growth and enhances the quality of education. Through research, teachers become reflective practitioners who can critically examine their teaching strategies, identify challenges in the classroom, and develop evidence-based solutions.

In connection with this, the role of the school heads is to shape teachers' attitudes, behaviors, and competencies in research writing. Their leadership practices, encouragement, and provision of resources significantly influence teachers' willingness and ability to engage in scholarly work. By modeling research-oriented practices, providing training opportunities, and establishing a supportive environment, school heads can enhance teachers' competence and confidence in research writing.

According to Julianda et al. (2024), the principals' systematic approach to academic supervision in improving academic writing is aimed at supporting the continuous teaching and professional development of teachers. The study demonstrates that these practices may significantly improve both teaching quality, competencies, and student learning outcomes.

In light of the preceding discussion, the researcher will examine the role of school heads in teachers' interest in writing action research.

1.1 Statement of the Problem

Problem/s which were addressed by the research

The purpose of the study was to determine the relationship between the school heads' role in teachers' behavior and competencies in writing research.

Specifically, it sought to answer the following questions:

1. What is the level of the role of School Heads in terms of:
 - 1.1 Research orientation;
 - 1.2 mentorship and coaching;
 - 1.3 support system;
 - 1.4 research use; and
 - 1.5 rewards and incentives?
2. What is the level of teachers' behavior in writing research in terms of:
 - 2.1 Resourcefulness;
 - 2.2 reliability;
 - 2.3 authenticity; and
 - 2.4 intentions?
3. What is the level of teachers' competencies in writing research in terms of:
 - 3.1 research experience;

- 3.2 communication competencies;
- 3.3 Information and Communication Technologies competencies; and
- 3.4 enough knowledge and skills?
4. Is the role of School Heads significantly related to the teachers' behavior in writing research?
5. Is the role of School Heads significantly related to the teachers' competencies in writing research?

II. METHODOLOGY

The study employed a descriptive-correlational quantitative research design. A total of 180 teachers were selected through simple random sampling. Data were gathered using a validated researcher-made questionnaire utilizing a five-point Likert scale. Statistical tools such as mean, standard deviation, and Pearson Product-Moment Correlation were used to analyze the data.

III. RESULTS AND DISCUSSION

This part deals with the presentation, analysis, and interpretation of data gathered to answer the specific questions relative to the main purpose of this study. The findings are organized according to the three major areas of investigation: (1) the role of school heads in terms of research orientation, mentorship and coaching, support system, research use, and rewards and incentives; (2) the teachers' behavior in writing research in terms of resourcefulness, reliability, authenticity, and intentions; and (3) the teachers' competencies in writing research in terms of research experience, communication competencies, ICT competencies, and enough knowledge and skills. Descriptive statistics, such as mean and standard deviation, were utilized to describe the variables above, while inferential analysis, specifically Pearson product-moment correlation, was also conducted to determine the correlation among these aforementioned variables.

Level of the Role of School Heads

The level of the role of school heads in terms of research orientation, mentorship and coaching, support system, research use, and rewards and incentives was described statistically using mean and standard deviation, as shown through Tables 1 to 5. Consolidated weighted mean values were presented in Table 6 together with the synthesis of the findings.

Table 1 presents the level of the role of school heads in terms of research orientation.

From the statements indicated above, the indicator 'Encourage teachers to engage in research writing as part of their professional growth' obtained the highest mean ($M=4.91$, $SD=0.29$), interpreted as Strongly Agree. This shows that teacher-respondents strongly recognized the proactive stance of school heads in motivating teachers to view research writing as a meaningful and integral part of their professional development. Conversely, the indicator 'Support teachers by providing time and resources for research writing' yielded the lowest mean among the indicators ($M=4.61$, $SD=0.60$), though still interpreted as Strongly Agree, indicating that while resource and time support is acknowledged, it remains the

comparatively least emphasized dimension of research orientation among the five indicators.

Table 1. Level of the Role of School Heads in terms of Research Orientation

Statements	Mean	SD	Remarks
The school heads...			
...encourage teachers to engage in research writing as part of their professional growth.	4.91	0.29	Strongly Agree
...support teachers by providing time and resources for research writing.	4.61	0.60	Strongly Agree
...motivate teachers to participate in school-based or institutional research activities.	4.66	0.56	Strongly Agree
...guide teachers in identifying relevant research topics aligned with school needs.	4.62	0.61	Strongly Agree
...foster a school culture that values research as a tool for innovation and improvement.	4.62	0.60	Strongly Agree
Weighted Mean	4.68		
SD	0.53		
Verbal Interpretation	Very High		

The overall weighted mean for research orientation is 4.68, verbally interpreted as Very High. The results indicate that school heads demonstrate a high level of research orientation, as evidenced by the high weighted mean. School leaders actively promote research engagement and foster a culture that values inquiry and evidence-based practices among teachers.

Table 2 presents the level of the role of school heads in terms of mentorship and coaching. From the indicators presented, the statement 'Encourage teachers to reflect on their strengths and areas for improvement in research' garnered the highest mean ($M=4.63$, $SD=0.59$), interpreted as Strongly Agree. This indicates that school heads are particularly effective in encouraging reflective practice among teachers as part of their research and development journey.

Table 2. Level of the Role of School Heads in terms of Mentorship and Coaching

Statements	Mean	SD	Remarks
The school heads...			
...provide one-on-one guidance to teachers in developing their research writing skills.	4.35	0.72	Strongly Agree
...demonstrate effective research practices that teachers can model and apply.	4.54	0.64	Strongly Agree
...offer constructive feedback on teachers' research drafts and proposals.	4.54	0.64	Strongly Agree
...assist teachers in overcoming challenges related to research writing.	4.58	0.63	Strongly Agree
...encourage teachers to reflect on their strengths and areas for improvement in research.	4.63	0.59	Strongly Agree
Weighted Mean	4.53		
SD	0.64		
Verbal Interpretation	Very High		

On the other hand, the indicator 'Provide one-on-one guidance to teachers in developing their research writing skills' obtained the lowest mean ($M=4.35$, $SD=0.72$), still interpreted as Strongly Agree. While individualized coaching exists, it is the least consistently reported dimension of mentorship.

As shown in the table, the overall weighted mean for mentorship and coaching is 4.53, interpreted as Very High. The data reveal that mentorship and coaching are highly practiced by school heads, indicating that teachers receive

sufficient guidance in conducting research activities. This implies that leadership extends beyond administrative functions to include professional support and development.

Table 3. Level of the Role of School Heads in terms of Support System

Statements	Mean	SD	Remarks
The school heads...			
...provide financial assistance or incentives for teachers conducting research.	4.61	0.64	Strongly Agree
...ensure access to research materials, journals, and reference resources.	4.57	0.61	Strongly Agree
...facilitate linkages with external institutions for research collaboration.	4.56	0.63	Strongly Agree
...offer technical support in data analysis and research documentation.	4.45	0.62	Strongly Agree
...encourage peer collaboration and teamwork in conducting research projects.	4.51	0.66	Strongly Agree
Weighted Mean	4.54		
SD	0.63		
Verbal Interpretation	Very High		

Table 3 illustrates the level of the role of school heads in terms of the support system. As indicated in the table, the highest mean was obtained by the indicator 'Provide financial assistance or incentives for teachers conducting research' (M=4.61, SD=0.64), interpreted as Strong Agree. This reflects the teacher-respondents' recognition that school heads are proactive in securing financial support to facilitate research writing.

Meanwhile, the indicator 'Offer technical support in data analysis and research documentation' recorded the lowest mean (M=4.45, SD=0.62), though still interpreted as Strongly Agree, showing that technical support in more specialized research tasks such as data analysis is recognized but comparatively less frequently provided than other forms of institutional support.

As revealed in the aforementioned table, the overall weighted mean for support system is 4.54, interpreted as Very High. The findings show that school heads provide a strong support system for research activities, as reflected in the high mean scores. This implies that teachers are given access to resources, encouragement, and institutional backing necessary for research engagement.

Table 4 shows the level of the role of school heads in terms of research use.

Table 4. Level of the Role of School Heads in terms of Research Use

Statements	Mean	SD	Remarks
The school heads...			
...support the integration of research results in school planning and development.	4.07	0.92	Agree
...advocate the dissemination of teachers' research findings within and outside the school.	4.27	0.73	Strongly Agree
...ensure that school decisions are guided by evidence from research.	4.37	0.64	Strongly Agree
...facilitate discussions that connect research outputs to real educational challenges.	4.43	0.67	Strongly Agree
...incorporate teachers' research findings in crafting school policies and programs.	4.47	0.72	Strongly Agree
Weighted Mean	4.32		
SD	0.74		
Verbal Interpretation	Very High		

From the statements indicated, the indicator 'Incorporate teachers research findings in crafting school policies and programs' recorded the highest mean (M=4.47, SD=0.72), interpreted as Strongly Agree. This implies that school heads most strongly demonstrate research use by translating teacher-generated knowledge into actionable school policies. On the other hand, the indicator 'Support the integration of research results in school planning and development' obtained the lowest mean (M=4.07, SD=0.92) and was interpreted as Agree, suggesting that integration of research into broader school planning is an area where school head involvement may still be strengthened.

As shown in the table, the overall weighted mean for research use is 4.32, verbally interpreted as Very High. The results indicate that school heads effectively promote the utilization of research in decision-making and instructional practices. This implies that research outputs are not only produced but also applied in improving educational processes.

Table 5. Level of the Role of School Heads in terms of Rewards and Incentives

Statements	Mean	SD	Remarks
The school heads...			
...provide monetary incentives or honoraria for completed research outputs.	3.97	0.98	Agree
...offer certificates, awards, or plaques for teachers engaged in research.	4.28	0.79	Strongly Agree
...motivate teachers by highlighting their research work in meetings or assemblies.	4.48	0.64	Strongly Agree
...acknowledge teachers' research contributions in official school publications.	4.44	0.66	Strongly Agree
...promote teachers' research outputs at the division, regional, or national level as a form of recognition.	4.40	0.74	Strongly Agree
Weighted Mean	4.32		
SD	0.76		
Verbal Interpretation	Very High		

Table 5 presents the level of the role of school heads in terms of rewards and incentives.

From the indicators in this table, the statement 'Motivate teachers by highlighting their research work in meetings or assemblies' garnered the highest mean (M=4.48, SD=0.64), interpreted as Strongly Agree. This finding indicates that recognition through public acknowledgment in formal gatherings is the most visible and consistently applied form of incentive by school heads. Conversely, the indicator 'Provide monetary incentives or honoraria for completed research outputs' yielded the lowest mean (M=3.97, SD=0.98), interpreted as Agree while monetary incentives are present, they are perceived as the least reliable form of recognition, likely owing to institutional or budgetary constraints.

At a glance from Table 5, the overall weighted mean for rewards and incentives is 4.32, verbally interpreted as Very High. The results imply that school heads are effective in recognizing and motivating teachers through various forms of formal and informal recognition for their research contributions.

Table 6 consolidates the weighted means for all five dimensions of the role of school heads.

Yielded weighted mean values show that research orientation obtained the highest weighted mean ($M=4.68$), followed by support system ($M=4.54$), mentorship and coaching ($M=4.53$), while research use and rewards and incentives both obtained the lowest weighted mean of 4.32 among the five dimensions, all interpreted as Very High.

Table 6. Consolidated Table on the Level of the Role of School

Role of School Heads	Weighted Mean	Verbal Interpretation
Research Orientation	4.68	Very High
Mentorship and Coaching	4.53	Very High
Support System	4.54	Very High
Research Use	4.32	Very High
Rewards and Incentives	4.32	Very High
Grand Weighted Mean	4.48	
Grand Verbal Interpretation	Very High	

The grand weighted mean of 4.48, verbally interpreted as Very High, reveals that overall, school heads are highly engaged in fulfilling their roles in supporting teachers' research writing. Among the five dimensions, research orientation registered the strongest performance, reflecting that school heads excel in instilling a research-oriented mindset among teachers. Conversely, research use and rewards and incentives were the relatively lower-performing dimensions, pointing to the need for more intentional efforts to translate research findings into school decisions and to institutionalize more consistent reward mechanisms.

The findings indicate that school heads demonstrate a very high level of engagement across all dimensions, particularly in research orientation and support systems. This indicates that leadership plays a crucial role in fostering a research culture. However, relatively lower performance in research use and incentives highlights the need for stronger application and motivation strategies.

Level of Teachers' Behavior in Writing Research

The level of the teachers' behavior in writing research in terms of resourcefulness, reliability, authenticity, and intentions was described statistically using mean and standard deviation, as shown through Tables 7 to 10. Consolidated weighted mean values were presented in Table 11 together with the synthesis of the findings.

Table 7 presents the level of teachers' behavior in writing research in terms of resourcefulness.

As reflected in the table, the indicator 'Network with colleagues or experts to gain insights for research improvement' obtained the highest mean ($M=4.56$, $SD=0.57$), verbally interpreted as Strongly Agree. This shows that teachers most actively demonstrate resourcefulness through professional collaboration and peer consultation as key strategies in their research writing endeavors. On the other hand, the indicator 'Utilize available school resources when conducting research writing' recorded the lowest mean ($M=4.52$, $SD=0.58$), though still Strongly Agree, showing that while teachers do utilize school-based resources, they may rely more on external networks and online platforms than on institutional resources alone.

Table 7. Level of Teachers' Behavior in Writing Research in terms of Resourcefulness

Statements	Mean	SD	Remarks
The school heads...			
...utilize available school resources when conducting research writing.	4.52	0.58	Strongly Agree
...seek alternative references and materials when primary sources are not accessible.	4.53	0.59	Strongly Agree
...explore online platforms and databases to gather relevant research information.	4.54	0.55	Strongly Agree
...network with colleagues or experts to gain insights for research improvement.	4.56	0.57	Strongly Agree
...innovate strategies to overcome challenges in research writing.	4.55	0.56	Strongly Agree
Weighted Mean	4.54		
SD	0.57		
Verbal Interpretation	Very High		

As shown in the table, the overall weighted mean for resourcefulness is 4.54, verbally interpreted as Very High. Teachers exhibit a strong capacity to find, adapt, and utilize various tools, techniques, and strategies to achieve their research goals.

Table 8. Level of Teachers' Behavior in Writing Research in terms of Reliability

Statements	Mean	SD	Remarks
The school heads...			
...submit research outputs on or before the agreed deadlines.	4.54	0.65	Strongly Agree
...follow research guidelines and requirements consistently.	4.61	0.58	Strongly Agree
...ensure accuracy and honesty in collecting and reporting research data.	4.53	0.62	Strongly Agree
...maintain ethical standards in conducting and writing research.	4.60	0.58	Strongly Agree
...adhere to commitments made in collaborative or group research work.	4.58	0.62	Strongly Agree
Weighted Mean	4.57		
SD	0.61		
Verbal Interpretation	Very High		

Table 8 demonstrates the level of teachers' behavior in writing research in terms of reliability.

As illustrated, the statement 'Follow research guidelines and requirements consistently' obtained the highest mean ($M=4.61$, $SD=0.58$), interpreted as Strongly Agree. This reflects teachers' strong commitment to consistently adhering to established research guidelines as the most fundamental aspect of reliable research practice. On the other hand, the indicator 'Ensure accuracy and honesty in collecting and reporting research data' registered the lowest mean ($M=4.53$, $SD=0.62$), still interpreted as Strongly Agree, while teachers are highly accurate and honest in their research reporting, this dimension remains the comparatively least emphasized among the five reliability indicators, pointing to the continued need for reinforcing data integrity practices.

As gleaned from the table above, the overall weighted mean for reliability is 4.57, verbally interpreted as Very High. The results imply that teachers consistently demonstrate dependability, accuracy, and ethical integrity in their research writing.

Table 9. Level of Teachers' Behavior in Writing Research in terms of Authenticity

Statements	Mean	SD	Remarks
The school heads...			
...develop original research topics based on personal or school-related concerns.	4.57	0.59	Strongly Agree
...write research outputs that reflect honest findings and conclusions.	4.57	0.63	Strongly Agree
...express personal insights and reflections in the research discussion.	4.56	0.64	Strongly Agree
...demonstrate transparency in explaining the research process and methods used.	4.54	0.64	Strongly Agree
...produce unique contributions to knowledge through research writing.	4.57	0.60	Strongly Agree
Weighted Mean	4.56		
SD	0.62		
Verbal Interpretation	Very High		

Table 9 presents the level of teachers' behavior in writing research in terms of authenticity. From the statements in this table, the indicators 'Develop original research topics based on personal or school-related concerns,' 'Write research outputs that reflect honest findings and conclusions,' and 'Produce unique contributions to knowledge through research writing' all obtained the highest mean ($M=4.57$), interpreted as Strongly Agree. This demonstrates that teachers place the highest premium on originality, honesty, and meaningful contribution in their research writing as the most essential markers of authentic research practice.

On the other hand, the indicator 'Demonstrate transparency in explaining the research process and methods used' registered the lowest mean ($M=4.54$, $SD=0.64$), still Strongly Agree, while teachers value transparency in their research, explicitly articulating the methodological process remains comparatively less developed, possibly reflecting difficulty in clearly communicating procedural steps within the formal structure of academic research reports.

The overall weighted mean for authenticity is 4.56, verbally interpreted as Very High. The results indicate that teachers maintain a high level of genuine, original, and honest engagement in their research writing.

Table 10. Level of Teachers' Behavior in Writing Research in terms of Intentions

Statements	Mean	SD	Remarks
The school heads...			
...plan to write and complete a research study within the school year.	4.41	0.64	Strongly Agree
...express willingness to participate in school-based research projects	4.39	0.69	Strongly Agree
...commit to publishing or presenting research outputs when opportunities arise.	4.44	0.69	Strongly Agree
...demonstrate readiness to attend seminars and trainings related to research writing.	4.48	0.66	Strongly Agree
...aim to contribute research outputs that address school or community needs.	4.44	0.67	Strongly Agree
Weighted Mean	4.43		
SD	0.67		
Verbal Interpretation	Very High		

Table 10 shows the level of teachers' behavior in writing research in terms of intentions. The statement 'Demonstrate readiness to attend seminars and trainings related to research writing' garnered the highest mean ($M=4.48$, $SD=0.66$),

interpreted as Strongly Agree. This demonstrates that teachers are most strongly motivated by opportunities for formal professional development in research, indicating that structured learning contexts are key drivers of research intentions.

On the other hand, the indicator 'Express willingness to participate in school-based research projects' obtained the lowest mean ($M=4.39$, $SD=0.69$), still Strongly Agree, reflecting that while teachers hold positive intentions toward research writing, openly declaring willingness to join school-initiated research projects is the comparatively least affirmed dimension, possibly due to apprehensions about workload, time constraints, or the scope of collaborative commitments.

As revealed in the table above, the overall weighted mean for intentions is 4.43, verbally interpreted as Very High. The results show that teachers are strongly motivated and disposed toward engaging in research writing as a professional activity.

Table 11 presents the consolidated summary of the weighted means for all four dimensions of teachers' behavior in writing research. Reliability obtained the highest weighted mean ($M=4.57$), followed by authenticity ($M=4.56$), resourcefulness ($M=4.54$), and intentions, with the lowest weighted mean among the four dimensions ($M=4.43$), all verbally interpreted as Very High.

Table 11. Consolidated Table on the Level of Teachers' Behavior in Writing Research

Teachers' Behavior in Writing Research	Weighted Mean	Verbal Interpretation
Resourcefulness	4.54	Very High
Reliability	4.57	Very High
Authenticity	4.56	Very High
Intentions	4.43	Very High
Grand Weighted Mean	4.53	
Grand Verbal Interpretation	Very High	

The grand weighted mean of 4.53, verbally interpreted as Very High, reflects that teachers exhibit a consistently strong and positive behavioral orientation toward research writing. The highest-performing dimension of reliability underscores teachers' deep commitment to ethical, consistent, and dependable research practices, while the comparatively lower score in intentions implies that while teachers are motivated, translating research intentions into completed outputs within a given timeframe may be influenced by workload and contextual constraints.

Level of Teachers' Competencies in Writing Research

The level of teachers' competencies in writing research in terms of research experience, communication competencies, ICT competencies, and enough knowledge and skills were described statistically using mean and standard deviation.

Table 12 discusses the level of teachers' competencies in writing research in terms of research experience. From the statements presented, the indicator "Publish research outputs in journals, proceedings, or institutional platforms" obtained the highest mean ($M=4.61$, $SD=0.62$), interpreted as Strongly Agree. This reveals that teachers most strongly demonstrate research experience through active participation in the

publication and formal dissemination of their research outputs.

Table 12. Level of Teachers' Competencies in Writing Research in terms of Research Experience

Statements The school heads...	Mean	SD	Remarks
...engage in research writing activities during professional or academic undertakings.	4.56	0.64	Strongly Agree
...apply past research experiences in writing new research studies.	4.51	0.67	Strongly Agree
...utilize research knowledge gained from graduate or postgraduate studies.	4.56	0.64	Strongly Agree
...present research papers in conferences, forums, or in-school gatherings.	4.60	0.62	Strongly Agree
...publish research outputs in journals, proceedings, or institutional platforms.	4.61	0.62	Strongly Agree
Weighted Mean	4.57		
SD	0.64		
Verbal Interpretation	Very High		

On the other hand, the indicator "Apply past research experiences in writing new research studies" registered the lowest mean ($M=4.51$, $SD=0.67$), still interpreted as Strongly Agree, indicating that while teachers have accumulated research experience, the deliberate application of prior experience to inform new research remains the comparatively least developed aspect of their research engagement.

The overall weighted mean for research experience is 4.57, verbally interpreted as Very High. The results indicate that teachers have actively engaged in research writing activities and have accumulated meaningful experience through academic undertakings, presentations, and publications, reflecting a strong foundation of practical research involvement across their professional careers.

Table 13 presents the level of teachers' competencies in writing research in terms of communication competencies.

Table 13. Level of Teachers' Competencies in Writing Research in terms of Communication Competencies

Statements The school heads...	Mean	SD	Remarks
...express research ideas clearly and logically in written form.	4.52	0.61	Strongly Agree
...organize research reports with coherence and proper structure.	4.49	0.66	Strongly Agree
...explain research concepts and results in a way that is easily understood.	4.51	0.63	Strongly Agree
...respond to questions about research findings with clarity and accuracy.	4.56	0.64	Strongly Agree
...write conclusions and recommendations that are concise and impactful.	4.55	0.66	Strongly Agree
Weighted Mean	4.52		
SD	0.64		
Verbal Interpretation	Very High		

From the indicators in Table 16, the statement "Respond to questions about research findings with clarity and accuracy" obtained the highest mean ($M=4.56$, $SD=0.64$), interpreted as Strongly Agree. This shows that teachers most strongly demonstrate communication competency through the ability to defend and clarify their findings. On the other hand, the indicator "Organize research reports with coherence and

proper structure" registered the lowest mean ($M=4.49$, $SD=0.66$), still interpreted as Strongly Agree, indicating that while teachers are proficient communicators of research, structural organization in academic writing is the comparatively least developed aspect of their communication competencies.

The overall weighted mean for communication competencies is 4.52, verbally interpreted as Very High. The results indicate that teachers demonstrate a strong ability to express, organize, and communicate research findings in both written and verbal form, reflecting their readiness to engage in scholarly discourse and research dissemination.

Table 14 presents the level of teachers' competencies in writing research in terms of ICT competencies.

The indicator "Search online databases and digital libraries for reliable research sources" obtained the highest mean ($M=4.64$, $SD=0.61$), interpreted as Strongly Agree, reflecting that teachers most competently demonstrate ICT use through information retrieval from digital platforms. Conversely, the indicator "Integrate digital tools for organizing and storing research-related files" recorded the lowest mean ($M=4.47$, $SD=0.73$), still interpreted as Strongly Agree, showing that while teachers are proficient in sourcing research information digitally, the organizational use of digital tools for research file management is the comparatively least developed aspect of their ICT competencies.

Table 14. Level of Teachers' Competencies in Writing Research in terms of ICT Competencies

Statements The school heads...	Mean	SD	Remarks
...use word processing software (e.g., MS Word, Google Docs) effectively for research writing.	4.50	0.76	Strongly Agree
...apply spreadsheet or statistical tools (e.g., Excel, SPSS) for data analysis in research.	4.51	0.63	Strongly Agree
...search online databases and digital libraries for reliable research sources.	4.64	0.61	Strongly Agree
...navigate online journals and repositories to access recent research studies.	4.53	0.62	Strongly Agree
...integrate digital tools for organizing and storing research-related files.	4.47	0.73	Strongly Agree
Weighted Mean	4.53		
SD	0.67		
Verbal Interpretation	Very High		

The overall weighted mean for ICT competencies is 4.53, verbally interpreted as Very High. The results implied that teachers demonstrate a high level of proficiency in using digital tools to support the research writing process, from information retrieval to data analysis and digital file management.

Table 15 presents the level of teachers' competencies in writing research in terms of enough knowledge and skills. The indicator "Apply appropriate research designs and methodologies" obtained the highest mean ($M=4.57$, $SD=0.65$), and was interpreted as Strongly Agree. This implies that teachers most strongly demonstrate their research knowledge and skills through the application of appropriate methodologies in their studies.

Meanwhile, the indicator “Formulate clear research questions, objectives, and hypotheses” registered the lowest mean ($M=4.47$, $SD=0.66$), still interpreted as Strongly Agree, indicating that while teachers possess adequate foundational knowledge, the formulation of precise and well-articulated research problems remains the comparatively least developed area among the knowledge and skills dimensions.

Table 15. Level of Teachers’ Competencies in Writing Research in terms of Enough Knowledge and Skills

Statements	Mean	SD	Remarks
The school heads...			
...identify relevant and researchable problems in the field of education.	4.56	0.62	Strongly Agree
...formulate clear research questions, objectives, and hypotheses.	4.47	0.66	Strongly Agree
...apply appropriate research designs and methodologies.	4.57	0.65	Strongly Agree
...construct valid and reliable research instruments for data collection	4.56	0.64	Strongly Agree
...demonstrate competence in completing research from proposal to final manuscript.	4.52	0.61	Strongly Agree
Weighted Mean	4.51		
SD	0.64		
Verbal Interpretation	Very High		

The previous table shows that the overall weighted mean for enough knowledge and skills is 4.51, verbally interpreted as Very High. The results indicate that teachers possess sufficient knowledge and skills to engage in the full research writing process, from problem identification through the construction of research instruments to the completion of a final manuscript.

Table 16 presents the consolidated summary of the weighted means for all four dimensions of teachers’ competencies in writing research.

Table 16. Consolidated Table on the Level of Teachers’ Competencies in Writing Research

Teachers’ Competencies in Writing Research	Weighted Mean	Verbal Interpretation
Research Experience	4.57	Very High
Communication Competencies	4.52	Very High
ICT Competencies	4.53	Very High
Enough Knowledge and Skills	4.51	Very High
Grand Weighted Mean	4.53	
Grand Verbal Interpretation	Very High	

As shown in the table, research experience obtained the highest weighted mean ($M=4.57$), followed by ICT competencies ($M=4.53$), communication competencies ($M=4.52$), and enough knowledge and skills with the lowest weighted mean ($M=4.51$), all verbally interpreted as Very High. The grand weighted mean of 4.53, verbally interpreted as Very High, reflects that teachers demonstrate a consistently high level of competence across all four dimensions of research writing. Research experience registered the strongest performance, underscoring the critical role of accumulated practical exposure in building research competence. Conversely, enough knowledge and skills obtained the comparatively lowest weighted mean, suggesting that while teachers are knowledgeable, there remains room for targeted capacity-building in foundational research knowledge and

methodological skills. Overall, the results affirm that teachers in the study area are well-equipped and positively disposed to engage meaningfully in research writing as part of their professional practice.

Test of Relationship between the Role of School Heads and the Teachers’ Behavior and Competencies in Writing Research

The following tables present the correlation results between the role of school heads and the teachers’ behavior and competencies in writing research. Table 17 presents the test of relationship between the role of school heads and the teachers’ behavior in writing research using Pearson product-moment correlation.

Table 17. Test of Relationship between the Role of School Heads and the Teachers’ Behavior in Writing Research

Role of School Heads	Stat	Teachers’ Behavior in Writing Research			
		Res.	Rel.	Authenticity	Intentions
Research Orientation	Pearson r	0.242	0.623	0.309	0.160
	p-value	<0.001	<0.001	<0.001	0.032
	Analysis	Significant	Significant	Significant	Significant
Mentorship and Coaching	Pearson r	0.348	0.312	0.439	0.310
	p-value	<0.001	<0.001	<0.001	<0.001
	Analysis	Significant	Significant	Significant	Significant
Support System	Pearson r	0.071	0.579	0.079	0.115
	p-value	0.347	<0.001	0.294	0.125
	Analysis	Not Significant	Significant	Not Significant	Not Significant
Research Use	Pearson r	0.659	0.190	0.759	0.626
	p-value	<0.001	0.010	<0.001	<0.001
	Analysis	Significant	Significant	Significant	Significant
Rewards and Incentives	Pearson r	0.003	0.579	0.041	0.011
	p-value	0.966	<0.001	0.588	0.884
	Analysis	Not Significant	Significant	Not Significant	Not Significant

Note: $\alpha=.05$

As illustrated in the table, research orientation yielded Pearson r values of 0.242 with resourcefulness, 0.623 with reliability, 0.309 with authenticity, and 0.160 with intentions. All four relationships are statistically significant at $\alpha=.05$, with p-values of <0.001, <0.001, <0.001, and 0.032, respectively. Since all p-values fall below the 0.05 significance level, there is sufficient evidence to conclude that a significant relationship exists between research orientation and all four dimensions of teachers’ behavior in writing research. The strongest relationship was observed with reliability ($r=0.623$), indicating that school heads’ active promotion of a research culture most directly reinforces teachers’ consistency and ethical standards in research writing.

Mentorship and coaching yielded Pearson r values of 0.348 with resourcefulness, 0.312 with reliability, 0.439 with authenticity, and 0.310 with intentions, all with p-values of <0.001. Since all p-values are below the 0.05 level of significance, there is sufficient evidence to conclude that a significant relationship exists between mentorship and

coaching and all four dimensions of teachers' behavior in writing research. The strongest correlation was observed with authenticity ($r=0.439$), indicating that the guidance and constructive feedback provided by school heads through mentorship most effectively cultivates teachers' capacity to produce honest and original research outputs. Support system, on the other hand, yielded r values of 0.071 with resourcefulness ($p=0.347$), 0.579 with reliability ($p<0.001$), 0.079 with authenticity ($p=0.294$), and 0.115 with intentions ($p=0.125$). Since only the relationship with reliability yielded a p -value below 0.05, there is sufficient evidence of a significant relationship only between support system and reliability, while the relationships with the remaining behavioral dimensions are not significant, suggesting that institutional support structures primarily reinforce teachers' adherence to research guidelines rather than broader behavioral dispositions.

Research use yielded Pearson r values of 0.659 with resourcefulness ($p<0.001$), 0.190 with reliability ($p=0.010$), 0.759 with authenticity ($p<0.001$), and 0.626 with intentions ($p<0.001$). Since all p -values fall below the 0.05 significance level, there is sufficient evidence to conclude that a significant relationship exists between research use and all four dimensions of teachers' behavior in writing research. Research use registered the strongest overall correlations in this table, particularly with authenticity ($r=0.759$) and resourcefulness ($r=0.659$), indicating that when school heads actively integrate research findings into school decisions and improvement planning, it has the most pervasive influence on teachers' research behavior. Rewards and incentives, meanwhile, yielded r values of 0.003 with resourcefulness ($p=0.966$), 0.579 with reliability ($p<0.001$), 0.041 with authenticity ($p=0.588$), and 0.011 with intentions ($p=0.884$). Since only the relationship with reliability yielded a p -value below 0.05, there is sufficient evidence of a significant relationship only between rewards and incentives and reliability, while the relationships with resourcefulness, authenticity, and intentions are not significant, indicating that recognition mechanisms primarily reinforce teachers' dependability in research rather than their broader behavioral engagement.

The findings in Table 17 revealed that the role of school heads has a generally significant relationship with teachers' behavior in writing research, particularly in terms of resourcefulness, reliability, authenticity, and intentions. Research orientation, mentorship and coaching, and research use showed significant relationships across all behavioral dimensions, while support system and rewards and incentives were significantly related only to reliability. Since most of the computed p -values were lower than the 0.05 level of significance, the null hypothesis stating that there is no significant relationship between the role of school heads and teachers' behavior in writing research is rejected. This indicates that school heads greatly influence how teachers behave toward research engagement through leadership guidance, mentoring, and the promotion of research-based practices.

This finding is supported by Abun et al. (2024), who explained that teachers' positive attitudes toward research

strongly influence their behavioral intention to conduct research. Their study showed that when teachers receive strong leadership support, encouragement, and motivation from school heads, they become more resourceful, reliable, and intentional in writing research. Positive cognitive and affective attitudes toward research also strengthen authenticity and commitment to scholarly work. Similarly, Leuverink and Aarts (2021) revealed that teachers' engagement in research improves professional behavior and contributes to school development, particularly when supported by favorable personal and contextual factors such as leadership support and institutional encouragement. Their study emphasized that school leaders who create supportive research environments help strengthen teachers' consistency, responsibility, and motivation in conducting research. Therefore, the significant relationships found in Table 17 affirm that school heads play a critical role in shaping teachers' research behavior. Through research orientation, mentorship, and the practical use of research in school improvement, teachers become more engaged, responsible, and committed in conducting research.

Table 18 presents the test of relationship between the role of school heads and the teachers' competencies in writing research using Pearson product-moment correlation.

Table 18. Test of Relationship between the Role of School Heads and the Teachers' Competencies in Writing Research

Role of School Heads	Stat	Teachers' Competencies in Writing Research			
		R E	C C	ICT Comp.	Enough Knowledge and Skills
Research Orientation	Pearson r	0.142	0.042	0.534	0.047
	p -value	0.057	0.571	<0.001	0.529
	Analysis	Not Significant	Not Significant	Significant	Not Significant
Mentorship and Coaching	Pearson r	0.190	0.393	0.153	0.469
	p -value	0.010	<0.001	0.040	<0.001
	Analysis	Significant	Significant	Significant	Significant
Support System	Pearson r	-0.128	-0.097	0.530	-0.092
	p -value	0.086	0.195	<0.001	0.222
	Analysis	Not Significant	Not Significant	Significant	Not Significant
Research Use	Pearson r	0.185	0.084	0.079	0.133
	p -value	0.013	0.264	0.290	0.075
	Analysis	Significant	Not Significant	Not Significant	Not Significant
Rewards and Incentives	Pearson r	-0.107	-0.055	0.366	-0.086
	p -value	0.153	0.464	<0.001	0.249
	Analysis	Not Significant	Not Significant	Significant	Not Significant

Note: $\alpha=0.05$

As presented in the table, research orientation yielded Pearson r values of 0.142 with research experience ($p=0.057$), 0.042 with communication competencies ($p=0.571$), 0.534 with ICT competencies ($p<0.001$), and 0.047 with enough knowledge and skills ($p=0.529$). Since only the relationship with ICT competencies yielded a p -value below the 0.05

significance level, there is sufficient evidence to conclude that a significant relationship exists only between research orientation and ICT competencies, while the relationships with research experience, communication competencies, and enough knowledge and skills are not significant. This demonstrates that school heads' efforts to orient teachers toward research are most directly reflected in teachers' capacity to use digital tools and platforms for research purposes.

Mentorship and coaching yielded Pearson r values of 0.190 with research experience ($p=0.010$), 0.393 with communication competencies ($p<0.001$), 0.153 with ICT competencies ($p=0.040$), and 0.469 with enough knowledge and skills ($p<0.001$). Since all four p -values fall below the 0.05 significance level, there is sufficient evidence to conclude that a significant relationship exists between mentorship and coaching and all four dimensions of teachers' competencies in writing research. The strongest correlation was observed with enough knowledge and skills ($r=0.469$), indicating that the personalized guidance and coaching provided by school heads most effectively strengthens teachers' foundational research knowledge and methodological skills. Support system yielded r values of -0.128 with research experience ($p=0.086$), -0.097 with communication competencies ($p=0.195$), 0.530 with ICT competencies ($p<0.001$), and -0.092 with enough knowledge and skills ($p=0.222$). Since only the relationship with ICT competencies yielded a p -value below 0.05, there is sufficient evidence of a significant relationship only between support system and ICT competencies, while its relationships with the remaining competency dimensions are not significant.

Research use yielded Pearson r values of 0.185 with research experience ($p=0.013$), 0.084 with communication competencies ($p=0.264$), 0.079 with ICT competencies ($p=0.290$), and 0.133 with enough knowledge and skills ($p=0.075$). Since only the relationship with research experience yielded a p -value below 0.05, there is sufficient evidence of a significant relationship only between research use and research experience, while the relationships with communication competencies, ICT competencies, and enough knowledge and skills are not significant. Rewards and incentives yielded r values of -0.107 with research experience ($p=0.153$), -0.055 with communication competencies ($p=0.464$), 0.366 with ICT competencies ($p<0.001$), and -0.086 with enough knowledge and skills ($p=0.249$). Since only the relationship with ICT competencies yielded a p -value below 0.05, there is sufficient evidence of a significant relationship only between rewards and incentives and ICT competencies, while the relationships with the remaining dimensions are not significant.

Table 18 revealed that mentorship and coaching was the only dimension of the role of school heads that showed significant relationships with all four dimensions of teachers' competencies in writing research—research experience, communication competencies, ICT competencies, and enough knowledge and skills. Research orientation, support system, and rewards and incentives showed significant relationships only with ICT competencies, while research use showed significant relationship only with research experience. Since

several computed p -values were lower than the 0.05 level of significance, particularly under mentorship and coaching, the null hypothesis stating that there is no significant relationship between the role of school heads and teachers' competencies in writing research is partially rejected. This means that not all dimensions of the role of school heads significantly influence teachers' competencies, but mentorship and coaching emerged as the strongest leadership factor affecting research competence.

This finding is supported by Kram (2017), who explained that mentoring relationships significantly contribute to career development, psychosocial support, and professional growth. Structured mentoring helps teachers improve their research confidence, writing ability, and overall competence by providing continuous guidance and feedback. Mentorship also strengthens communication competencies and helps teachers gain enough knowledge and skills needed in conducting research. Similarly, Ulla (2018) found that teachers who receive continuous institutional support and research mentoring demonstrate significant improvement in research methodology, data analysis, academic writing, and dissemination of findings. The study emphasized that coaching and mentoring are essential in developing teachers' research productivity and ICT competencies, especially in using digital tools for literature review, data processing, and scholarly communication. Thus, the results of Table 18 confirmed that while school heads contribute to competency development, mentorship and coaching remains the most critical leadership practice in strengthening teachers' full range of research competencies. Personalized guidance and continuous technical support are more effective than general support mechanisms in developing competent teacher-researchers.

IV. CONCLUSION AND RECOMMENDATIONS

The significant relationship between the role of school heads and teachers' behavior in writing research confirms that leadership plays an essential role in shaping how teachers engage in research activities. The rejection of the first null hypothesis indicates that research orientation, mentorship and coaching, and research use are strong predictors of teachers' resourcefulness, reliability, authenticity, and intentions in writing research. This implies that when school heads actively promote research, provide consistent guidance, and encourage the practical use of research findings, teachers become more motivated and committed to conducting quality research.

The significant relationship between the role of school heads and teachers' competencies in writing research confirms that leadership also contributes to the development of teachers' research skills and capabilities. The partial rejection of the second null hypothesis shows that mentorship and coaching is the most influential leadership dimension affecting teachers' research experience, communication competencies, ICT competencies, and knowledge and skills. This implies that sustained mentoring, individualized coaching, and technical support from school heads are more effective than general support systems in developing competent and confident teacher-researchers.

Based on the findings and conclusions of the study, the following recommendations are offered:

School heads may strengthen mentorship and coaching programs, enhance research utilization in school practices, and provide sustainable rewards and incentives to motivate teachers.

School heads may also implement continuous training and capacity-building activities to further improve teachers' research skills and sustain a strong research culture.

Future researchers may replicate this study in secondary schools or across multiple divisions and consider longitudinal or qualitative designs to explore the long-term dynamics of school leadership and teachers' research engagement.

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