Manifestation of Research Culture in Public Elementary Teachers: Basis for Proposed Research Mentoring Plan

Rich Michael C. Canela*[1], Imelda M. Flores[2]
[1] Batangas State University-The National Engineering University, Batangas, Philippines
[2] Batangas State University-The National Engineering University, Batangas, Philippines
*Corresponding Author email: *rich.michael15canela@gmail.com*

Abstract

Aim: The primary objective of this study is to comprehensively assess the research performance of public elementary school teachers in the Division of Batangas across key dimensions, compare the assessments of different respondent groups, identify barriers and difficulties in conducting research, and propose a research mentoring plan to foster a unified research culture.

Methodology: The study utilized embedded mixed-methods research design, integrating both quantitative and qualitative approaches to provide a well-rounded analysis of the research problem. A total of 351 teachers and 170 research coordinators participated in the study. For the quantitative component, data were collected using a structured survey questionnaire with a high reliability index of 0.995, ensuring consistency and accuracy of responses. The data were analyzed using weighted mean to determine the level of research performance of the teachers while independent t-test was used to assess statistically significant differences between the assessments of the two groups of respondents regarding the level of their research performance. In the qualitative part, thematic analysis was used to identify the barriers and difficulties they've encountered in conducting research.

Results: Teachers rated their research performance to a slightly moderate level while the research coordinators found out that they performed to a moderate level. There was a significant difference from the assessment of two groups of respondents. Teachers struggle with research due to heavy workloads, time constraints, inadequate training, and insufficient school support.

Conclusion: Research performance of teachers across various dimensions were moderately performed according to research coordinators while they rated themselves slightly performed. There was a significant difference on the assessments of teachers and research coordinators on the level of research performance of teachers. Most cited barriers and difficulties in conducting research include lack of time due to heavy workloads, limited institutional support, inadequate training, and insufficient access to resources and mentorship. A research mentoring plan was proposed.

Keywords: *research mentoring plan, research performance, barriers and difficulties, research culture*

INTRODUCTION

Change is a constant in education, and research remains its most powerful catalyst—driving innovation, informing practice, and improving outcomes across generations (Mertens, 2021; Rabe, 2021). In the teaching profession, research enhances pedagogy, informs policy, and empowers educators to apply evidence-based strategies tailored to the diverse needs of learners (Ismael, et al. 2020). Teachers are central to this process;

equipping them with both effective teaching techniques and the ability to engage in meaningful research enables them to address classroom challenges, refine their methods, and foster improved student learning. The Department of Education (DepEd), through policies such as DepEd Order No. 16, s. 2017 and DepEd Order No. 43, s. 2015, highlights the pivotal role of research in evidence-based decision-making and professional development. Teachers, as agents of change, are expected not only to impart knowledge but also to cultivate inquiry and critical thinking among students. Core competencies such as critical thinking, written communication, and academic literacy are essential throughout the research process (Ghanizadeh, 2017; Moore & Morton, 2017). Al-Thani and Ahmad (2025) stresses that building teachers' practical research skills is vital for navigating research complexities, while Ambag (2015) and Dalwampo (2017) assert that teacher competency directly influences the delivery of quality education.

Collaboration further amplifies the impact of professional learning. Fullan and Hargreaves (2016) advocate for professional collaboration as a means to foster innovation, and Ramos et al. (2022) emphasize its role in deepening understanding and applying knowledge across various contexts. In such environments, essential skills—like problem-solving, communication, and creative thinking—are developed organically (Wagino et al. 2023). Collaborative research promotes the exchange of diverse perspectives and expertise, often leading to innovative and practical solutions, especially in education and other applied disciplines. In addition, professional growth in research must also consider long-term development. Early career guidance and structured mentoring help educators align their academic goals with career trajectories (Cox & Eubanks, 2018; Kaddoura, 2024). Networking, a key component of this development, facilitates knowledge-sharing and resource exchange also it highlights how digital platforms and academic networking sites now enable teachers to collaborate more easily, fostering scholarly engagement beyond institutional boundaries (Manca, 2018; Singh et al. 2021).

Despite the value placed on research, many teachers encounter persistent challenges such as limited time, inadequate training, insufficient resources, and lack of institutional support (Booth et al. 2021; Davis et al., 2022). These obstacles hinder their capacity to conduct meaningful studies and contribute to educational innovation. Observations reveal a recurring lack of motivation and support among teachers to engage in research, underscoring the need for structured mentorship and targeted interventions. Engagement in research activities—including conducting studies, disseminating findings, and seeking funding—bridges the gap between theory and classroom practice. Teachers who embrace research can better identify effective strategies, innovate instructional tools, and address educational disparities. Research-integrated pedagogy transforms classrooms into dynamic spaces of inquiry, developing critical thinking and problem-solving skills in students. To build this capacity, mentorship plan and skill-development initiatives are essential. Providing structured support in academic writing, collaborative learning, and professional networking can elevate teachers' research capabilities and instill a sustainable culture of inquiry. Within public elementary schools, particularly in the Division of Batangas, creating such a culture demands robust institutional backing. Support mechanisms such as capacity-building workshops, research presentation platforms, publication opportunities, and recognition of scholarly contributions are crucial in overcoming common barriers.

This study proposed the development of a comprehensive research mentoring plan for public elementary teachers. The plan aims to build foundational research skills, promote collaboration, foster professional networks, and provide career development pathways. By addressing common challenges such as lack of expertise, formal training, and limited access to materials this initiative empowers teachers to conduct rigorous and impactful research. Experienced mentors can guide them through study design, data analysis, and dissemination, making the process less daunting and more effective. Promoting research as a collaborative and sustainable endeavor enhances peer networks, encourages resource-sharing, and supports a professional culture rooted in continuous improvement. Such initiatives not only contribute to individual teacher growth but also ensure their research significantly enriches the broader educational landscape.

Theoretical Framework

This study draws from four key educational and psychological theories that collectively provide a strong foundation for effective research mentoring: Vygotsky's Social Development Theory, Bandura's Social Learning

Thank you for embracing the culture of research with us!

Theory, Kolb's Experiential Learning Theory, and Mayo's Behavioral Management Theory. Vygotsky highlights how learning happens best through social interaction and support, particularly when a more experienced individual helps guide someone just beyond their current skill level—a concept known as the Zone of Proximal Development. In parallel, Bandura underscores how people develop skills by observing others, especially trusted role models like mentors. Through this kind of exposure and encouragement, mentees not only learn new techniques but also build confidence in their ability to succeed in research. These two theories reinforce the idea that learning thrives in an environment rich with collaboration and mentoring.
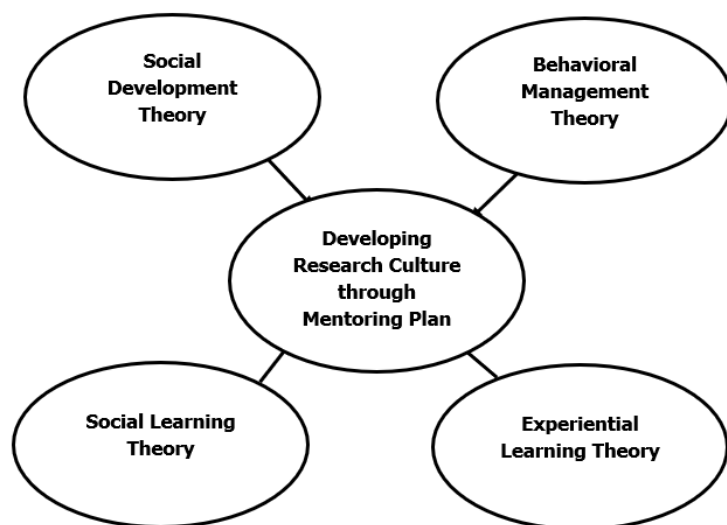

Figure 1
Theoretical Framework
A Theoretical Model for Research Culture Development

Kolb's theory adds depth by explaining how people learn best through a cycle of doing, reflecting, forming insights, and trying out new ideas—something that fits naturally with how educators engage in classroom research. Mentors play a crucial role in supporting teachers through each of these stages, helping them grow more thoughtful and skilled over time. Meanwhile, Mayo's Behavioral Management Theory brings focus to the emotional and relational side of mentoring. It emphasizes the power of encouragement, meaningful feedback, and strong personal connections in helping people feel motivated and capable. When all four theories come together, they create a well-rounded, people-centered approach to mentoring—one that not only builds research competence but also nurtures a supportive and thriving professional learning community.

Objectives

The primary objective of this study is to comprehensively assess the research performance of public elementary school teachers in the Division of Batangas across key dimensions, compare the assessments of different respondent groups, identify barriers and difficulties in conducting research, and propose a research mentoring plan to foster a unified research culture.

Specifically, it sought to achieve the following objectives.
1. determine the level of research performance of teachers across four dimensions.
   1.1. academic and research skills
   1.2. collaborative learning
   1.3. career development

Thank you for embracing the culture of research with us!

1.4. networking and resource sharing,
2. find significant differences on the assessments of the two groups of respondents regarding the level of research performance of the teachers;
3. identify the barriers and difficulties encountered in conducting research; and
4. propose a research mentoring plan.

Hypothesis

Given the stated research problems, the hypothesis was tested at 0.05 level of significance:

H_0: There is no significant difference on the assessments of the two groups of respondents regarding the level of research performance of the teachers.

METHODS

Research Design

This study employed a mixed-methods research design to gain a well-rounded and in-depth understanding of the research problem. At its core, the study drew from a descriptive approach, which aimed to systematically present the existing characteristics of a specific population, situation, or phenomenon. This allowed the researchers to observe and document what was happening in its natural context, without manipulating any variables. However, the study went beyond description by incorporating inferential statistical tools, such as the t-test, to analyze patterns, compare groups, and identify significant relationships within the data. To further enrich the findings and provide context to the quantitative results, the study also included qualitative methods, such as focus group discussions and interviews. These techniques offered valuable insights into participants' experiences, perceptions, and motivations—elements that numbers alone could not fully capture. As Creswell and Creswell (2022) explained, descriptive research typically relied on tools like surveys, observations, and case studies to collect detailed, real-world information.

Population and Sampling

This study involved 351 teachers and 170 research coordinators as the main respondents of the study from public elementary schools within the Division of Batangas Province. Using the Raosoft calculator with a 0.05 margin of error, the researchers determined the sample size for each group of respondents. Simple random sampling was used to ensure fair and representative selection. The top three municipalities per district were chosen based on specific criteria to ensure comprehensive data collection. Seventeen sub-offices in Batangas were included to maintain balance across educational settings.

Instruments

The study utilized a survey questionnaire as the primary data collection tool, supplemented by interview guide and focus group discussion to enhance the depth of gathered information. Respondents rated their agreement using a 4-point Likert scale.

Data Collection

To make sure that all participants had the chance to take part comfortably, data were gathered using both online and face-to-face methods. From March 1 to March 31, 2025, respondents were given the option to answer a structured survey either via Google Forms or through printed copies distributed in person, depending on what was more accessible and convenient for them. This flexible setup allowed a wider range of individuals to participate and gave them enough time to reflect and respond meaningfully. To explore the topic more deeply, a Focus Group Discussion (FGD) was held on March 7, 2025 in a supportive and engaging school setting. During this session, participants openly discussed the challenges they faced in promoting a research culture in schools and suggested possible strategies to improve it. Their stories and insights added depth and helped paint a clearer picture of the

Thank you for embracing the culture of research with us!

situation on the ground. In addition, individual interviews were conducted online throughout the month of March with selected participants who are not part of the actual survey. Holding these interviews virtually ensured convenience for both the interviewees and the researchers.

Data Analysis

The gathered data were analyzed using both quantitative and qualitative approaches to provide a comprehensive understanding of the research problem. For the quantitative aspect, appropriate statistical techniques were employed. These included the weighted mean, which was used to determine the level of research performance as assessed by research coordinators and teachers, and the independent t-test, which identified significant differences between the two groups' assessments. On the other hand, the qualitative data collected through focus group discussions (FGDs) and semi-structured interviews provided deeper insights into the participants' perspectives and experiences. These methods allowed researchers to explore emerging themes, validate patterns observed in the quantitative findings, and capture rich, contextualized narratives. The responses were transcribed and subjected to thematic analysis, where recurring concepts and sentiments were identified, coded, and categorized.

Ethical Considerations

Throughout the research process, ethical principles were strictly upheld to ensure the safety, dignity, and rights of all participants. The study began with a clear and comprehensive informed consent procedure, in which the objectives, methodologies, possible risks and benefits, and the participants' rights—including the right to withdraw at any time without penalty—were fully explained to the public school district supervisor, school heads, and participating teachers. Written consent was secured from the teachers to affirm their voluntary participation and understanding of the study's scope. Confidentiality and privacy were rigorously maintained in accordance with the Data Privacy Act of 2012. Participants' identities were protected using anonymous coding, and all collected data were securely stored in password-protected and access-controlled systems to prevent unauthorized access, loss, or misuse. During data analysis and report writing, all identifying details were excluded to prevent any unintended disclosure of personal information. The principle of fairness was applied consistently, ensuring that all participants regardless of age, gender, experience, or background were treated with equity and respect and given equal opportunities to participate. The study also aimed to provide meaningful benefits to all involved, offering insights for professional development and practical recommendations for school improvement. After the study concluded, participants were given feedback on the findings, demonstrating how their input contributed to the overall outcomes. To express appreciation, participants received relevant professional development resources, training opportunities, or personalized acknowledgments. These comprehensive ethical measures ensured that participants' privacy, autonomy, and rights were preserved while promoting trust, inclusivity, and positive engagement throughout the research process.

Thank you for embracing the culture of research with us!

RESULTS and DISCUSSION

1.1 Determine the level of research performance of teachers along the following dimensions as assessed by the two groups of respondents

1.1.1 Academic and research skills

Table 1 presents the evaluation of teachers' research performance based on their academic and research skills, as assessed by two groups of respondents.

Table 1. Level of research performance as assessed by research coordinators and teachers in terms of academic and research skills

Items	Research coordinator		Teachers	
	WM.	VI	WM.	VI
1. Write significant and researchable problems relevant to teaching and learning	3.09	MP	2.26	SP
2. Align research topics with institutional goals and educational policies	3.13	MP	2.25	SP
3. Construct clear research questions, objectives, and hypotheses based on a thorough literature review	3.10	MP	2.27	SP
4. Demonstrate synthesis of multiple sources and integrates findings into the research framework	3.04	MP	2.28	SP
5. Apply appropriate research theories to support the study	3.09	MP	2.19	SP
6. Use proper citation and follows ethical academic writing standards	3.16	MP	2.25	SP
7. Demonstrate familiarity with multiple research paradigms to contextualize findings	2.98	MP	2.21	SP
8. Select relevant research design.	3.08	MP	2.27	SP
9. Use valid and reliable research instruments for data collection	3.10	MP	2.28	SP
10. Interpret research findings in relation to research questions	3.15	MP	2.28	SP
11. Present information through graphical representations.	3.12	MP	2.32	SP
12. Demonstrate an understanding of fundamental research theories and frameworks.	3.05	MP	2.30	SP
13. Utilize correct citation format.	3.16	MP	2.33	SP
14. Use plagiarism detection tools.	3.0	MP	2.27	SP
15. Design a well-organized research paper.	3.14	MP	2.22	SP
Composite Mean	**3.09**	**MP**	**2.27**	**SP**

Legend: MP=Moderately Performed   SP=Slightly Performed

An assessment of teachers' research performance, concentrating on their academic and research abilities, is shown in Table 1 and was conducted by two different groups: the teachers and the research coordinators.

The majority of research coordinators thought that teachers performed at a moderate level with 3.09 composite mean, which suggests that they were competent in these areas but may yet be improved. Teachers, on the other hand, gave their own performance as slightly performed with 2.27 mean score indicating that they believe their abilities are still in their infancy or in the process of developing. This disparity can be the result of teachers' lack of confidence in their own abilities or of different viewpoints on what qualifies as research skill mastery. Additionally, it draws attention to possible deficiencies in resources, training, or support that might aid in closing this self-assessment gap. As emphasized by Asenahabi (2019), a well-chosen research design connects the research problem to practical, achievable methods. If a researchers fail to plan the design before collecting data, the conclusions drawn

1623

ETCOR's Website   : https://etcor.org
Facebook Page   : https://www.facebook.com/EmbracingTheCultureOfResearch
Twitter Account   : https://twitter.com/ETCOR_research
YouTube Channel   : https://tinyurl.com/YouTubeETCOR
E-mail Address   : embracingthecultureofresearch@etcor.org
Mobile Number   : 0939-202-9035

Thank you for embracing the culture of research with us!

may be weak or unconvincing, ultimately preventing the research from achieving its objectives. The data highlights a clear performance gap between research coordinators and teachers, with coordinators demonstrating greater expertise across various research topics. Teachers' low level of involvement and proficiency suggest the need for structured professional development programs to enhance their skills. Targeted training, mentorship, and institutional support can help bridge this gap, fostering a more research-oriented culture among educators. Strengthening teachers' research capabilities will not only enable them to contribute more effectively to academic discussions but also promote evidence-based teaching practices, improving the overall educational environment. The findings indicate that research coordinators have a stronger command of research duties and actively engage in the research process, while teachers face challenges in effectively conducting and applying research, highlighting the need for additional support and supervision.

1.1.2. Collaborative Learning
Table 2 evaluates the research performance of research coordinators and teachers in collaborative learning.

Table 2. Level of research performance as assessed by research coordinators and teachers in terms of collaborative learning

Items	Research coordinator		Teachers	
	WM.	VI	WM.	VI
1. Engage in interdisciplinary research collaborations to address educational challenges	3.04	MP	2.24	SP
2. Participate in joint research projects, co-authorship, and group data collection	3.04	MP	2.28	SP
3. Share leadership and task responsibilities effectively within research groups	3.07	MP	2.28	SP
4. Align personal research objectives with team and institutional goals	3.09	MP	2.24	SP
5. Integrate different viewpoints and methodologies in research projects	3.08	MP	2.27	SP
6. Collaborate with teachers from different subjects and educational levels	3.02	MP	2.27	SP
7. Support colleagues in developing research skills and methodologies	3.12	MP	2.26	SP
8. Encourage a culture of inquiry where teachers view research as a means for continuous improvement.	3.08	MP	2.27	SP
9. Engage on research that informs educational policy and school leadership decisions	3.11	MP	2.25	SP
10. Work with colleagues or teams in collaborative research efforts.	3.12	MP	2.29	SP
11. Motivate peers to participate actively and collaboratively in research initiatives.	3.16	MP	2.29	SP
12. Support colleagues in writing research and manuscript.	3.14	MP	2.28	SP
13. Engage in all phases of research, from planning to dissemination.	3.15	MP	2.17	SP
14. Foster shared environment where teachers can share research challenges and solutions.	3.10	MP	2.23	SP
15. Able to communicate in group discussions and brainstorming sessions for research development.	3.11	MP	2.27	SP
Composite Mean	**3.09**	**MP**	**2.26**	**SP**

Legend: MP=Moderately Performed   SP=Slightly Performed

An assessment of the research performance of teachers and research coordinators, particularly in the field of collaborative learning, is shown in Table 2. Research coordinators believe that teachers execute at a reasonable

Thank you for embracing the culture of research with us!

level in collaborative learning, as evidenced by their composite mean score of 3.09. With an average mean score of 2.26, the teachers' self-assessment, on the other hand, shows a substantially lower performance level, suggesting just a minor participation or efficacy in collaborative learning methods. The findings show that research coordinators viewed those teachers are more engaged in collaborative research activities, actively participating in cooperation and knowledge sharing processes. Teachers, on the other hand, demonstrate a lower level of commitment, implying that they may have difficulty contributing to research-oriented collaborations. This highlights the variations in research engageent, with coordinators being more entrenched in collaborative activities, whereas teachers may require further help to increase their participation. Gao (2020) and Gutiérrez et al. (2017) both highlight the growing importance of collaborative and e-learning in improving student engagement and academic success. Collaborative learning allows teachers to actively participate in their education by exchanging ideas, assessing problems, and working together to discover answers. Hence, Collaborative learning in research is defined as teachers actively engaging in multidisciplinary studies, sharing expertise and resources to address educational difficulties. While research coordinators believed that teachers exhibited moderate interest and performed, teachers showed slight participation. This emphasizes the importance of structured interventions, such as professional learning communities, peer mentoring, and institutional support, in strengthening collaborative research methods and improving academic achievements. It's clear that while some good practices are already happening, there's still a lot of room to grow. Teachers need stronger systems in place to help them collaborate more effectively through training, leadership support, and a school culture that truly values research as a part of teaching. When teachers are supported this way, collaborative research won't feel like an extra burden it will feel like a natural and fulfilling part of their professional journey.

1.1.3 Career Development

Table 3 summarizes the level of research performance as evaluated by both research coordinators and teachers.

Table 3. Level of Research Performance as Assessed by Research Coordinators and Teachers in terms of career development

Items	Research coordinator		Teachers	
	WM.	VI	WM.	VI
1. Feature in institutional reports or journals for impactful research studies	2.65	MP	2.17	SP
2. Share expertise by speaking at educational research forums	2.68	MP	2.09	SP
3. Acknowledge as key research contributor.	2.75	MP	2.20	SP
4. Engage in professional research organizations.	2.73	MP	2.17	SP
5. Achieve promotion and career advancement on higher position.	2.71	MP	2.23	SP
6. Introduce novel instructional strategies grounded in research	2.62	MP	2.11	SP
7. Demonstrate research leadership in an institution.	2.81	MP	2.14	SP
8. Propose evidence-based changes to school or district policies	2.72	MP	2.21	SP
9. Engage in capacity-building events to enhance research skills	2.84	MP	2.25	SP
10. Earn certifications or postgraduate degrees in research-related fields	2.68	MP	2.16	SP
11. Utilize digital platforms for continuous learning in research	2.81	MP	2.19	SP
12. Participate in thesis and dissertation defenses or institutional research reviews	2.62	MP	2.15	SP
13. Engage in international research collaborations	2.34	MP	2.13	SP
14. Design and implement research that improves teaching and learning outcomes	2.91	MP	2.20	SP
15. Apply findings from research to enhance teaching methodologies and instructional strategies.	2.89	MP	2.16	SP

Thank you for embracing the culture of research with us!

Composite Mean	***2.72***	***MP***	***2.17***	***SP***

Legend: MP=Moderately Performed   SP=Slightly Performed

It can be gleaned in the table above that the research coordinators evaluated teachers' research performance at a moderate level, with a composite mean score of 2.72. In contrast, teachers assessed their own performance as only slightly performed, reflected by a lower mean score of 2.17. Teachers exhibit lower participation in career development research initiatives, suggesting potential challenges in utilizing research to enhance their teaching practices and career trajectories. This discrepancy highlights the varying degrees of research integration between the two groups, with research coordinators more frequently leveraging research as a means of professional advancement. Widodo et al. (2023) emphasized the important relationship between employee performance and an organization's overall success. To increase productivity and effectiveness, firms must prioritize employee satisfaction, particularly by providing possibilities for career advancement and professional development. The data reveals that research coordinators perceive teachers as more proactive in integrating research into their professional development, while teachers themselves report only slight involvement in this area. The results highlight the need for addressing barriers to teacher participation in research, such as inadequate training, lack of institutional support, and limited collaborative opportunities. The findings suggest that teachers continued professional development can be greatly supported through active engagement in research, with additional structured support needed to boost their research involvement.

1.1.4 Networking and Resource Sharing

Table 4 features a detailed study of research performance in networking and resource sharing, as assessed by research coordinators and teachers.

Table 4. Level of research performance as assessed by research coordinators and teachers in terms of Networking and Resource sharing

Items	*Research coordinator*		*Teachers*	
	WM.	*VI*	*WM.*	*VI*
1. *Involve in research groups and professional learning communities*	*2.72*	*MP*	*2.20*	*SP*
2. *Create forums or communities where teachers and academic mentors can exchange resources and best practices.*	*2.59*	*MP*	*2.14*	*SP*
3. *Associate with fellow educators on joint research projects*	*2.69*	*MP*	*2.20*	*SP*
4. *Attend and contributes to knowledge-sharing platforms.*	*2.66*	*MP*	*2.09*	*SP*
5. *Lead school-based research initiatives funded by external partners.*	*2.59*	*MP*	*2.09*	*SP*
6. *Connect research efforts with local educational needs*	*2.71*	*MP*	*2.11*	*SP*
7. *Engage in local, national, or international research organizations or forums.*	*2.56*	*MP*	*2.09*	*SP*
8. *Share access to institutional or external research databases, journals, and other resources.*	*2.58*	*MP*	*2.09*	*SP*
9. *Build a professional network through introductions to key figures in their field.*	*2.61*	*MP*	*2.09*	*SP*
10. *Maintain professional relationships in the research community.*	*2.86*	*MP*	*2.14*	*SP*
11. *Use social media (Facebook, LinkedIn, X) to share research insights and key takeaways.*	*2.65*	*MP*	*2.17*	*SP*
12. *Share their research with the broader academic community.*	*2.64*	*MP*	*2.13*	*SP*
13. *Work with others on research, publications, or projects to build*	*2.65*	*MP*	*2.12*	*SP*

Thank you for embracing the culture of research with us!

strong professional relationships.				
14. Join virtual platforms for discussions	*2.67*	*MP*	*2.08*	*SP*
15. Exchange ideas and perspectives on new trends on research.	*2.72*	*MP*	*2.09*	*SP*
Composite Mean	***2.66***	***MP***	***2.12***	***SP***

Legend: MP=Moderately Performed   SP=Slightly Performed

Research coordinators evaluated teachers' research performance at a moderate level, with a composite mean score of 2.66. In contrast, teachers assessed their own performance as only slightly performed, reflected by a lower mean score of 2.12. They have observed that teachers exhibit a moderate level of engagement in research activities, particularly in areas such as networking and securing funding. Supporting this, Baber et al. (2015) and Wang et al. (2022) highlight the importance of effective networking for career advancement, collaboration, and personal growth. Similarly, Wellman et al. (2020) stressed that building and maintaining professional relationships is vital for achieving career goals, and that communication and relationship-building skills play a key role in leveraging such networks for professional development. Effective networking is important for attaining this achievement because it enables educators to make strong professional connections, gain access to valuable resources, and utilize collaborative relationships.   However, many people lack natural networking ability and must use intentional techniques to improve their performance in this area. Research success is strongly linked to teacher participation in collaborative initiatives.   This study focuses on how teachers improve their research skills by sharing knowledge, working together on projects, and accessing shared resources within educational and research networks. Such encounters contribute to the development of professional networks and an increase in overall research capabilities.

1.2.1 Difference in the assessment of the two groups on the level of research performance of teachers

It was found out from Table 5 that there is significant difference in how research coordinators and teachers assess the level of teacher performance in research, particularly across dimensions such as academic and research skills, collaborative learning, career development, and networking and resource sharing.

Table 5. Difference in the assessment of the two groups on the level of research performance of teachers

Variables	P-values	Computed t-values	Decision on Ho	Verbal Interpretation
Academic and Research Skills	.000	13.648	Reject Ho	Significant
Collaborative Learning	.000	13.75	Reject Ho	Significant
Career Development	.000	7.964	Reject Ho	Significant
Networking and Resource Sharing	.000	7.829	Reject Ho	Significant

Criteria for rejection: p < .05

The most notable gap was in collaborative learning, where research coordinators rated teachers' participation more positively than the teachers themselves. This disparity suggests differing perceptions, possibly due to teachers facing time constraints, limited institutional support, and few opportunities for interdisciplinary collaboration. These findings align with Fullan and Hargreaves (2016), who emphasize the role of collaboration in fostering professional growth and innovation in education. Meanwhile, research coordinators, being more engaged in promoting research, may overestimate the actual level of collaboration occurring among teachers. The findings show a significant disparity in how research coordinators and teachers assess research achievement. Research coordinators often promote teachers' participation in research, although teachers themselves cite several barriers to participation. Schools should undertake focused interventions such as workshops to enhance research capacity, greater financing and networking opportunities, and policies that promote a balanced approach to teaching and research. Addressing

Thank you for embracing the culture of research with us!

these impediments allows schools to build a stronger research culture, increase teachers' confidence and engagement in research, and ultimately contribute to the growth of educational scholarship and practice.

1.3 Barriers and challenges in conducting research

The study highlighted the critical role of research in enhancing teaching strategies, improving student outcomes, and advancing the education system. However, it also reveals that teachers face numerous barriers that hinder their active participation in research. The challenges based on focus group discussions and interviews include lack of time due to heavy workloads, limited institutional support, inadequate training, and insufficient access to resources and mentorship. Teachers often juggle multiple responsibilities, leaving them with little opportunity to conduct or publish research. Naldo and Ubayubay (2024) emphasized that institutional constraints, such as performance targets and administrative burdens, make it difficult for teachers to engage in research. Similarly, Bullo et al. (2021) and Ulla (2018) found that a lack of training, mentorship, funding, and collaborative culture further discourages teachers from pursuing research activities.

Moreover, many schools lack access to updated libraries, research databases, and professional learning communities, leading to isolation among teachers who wish to engage in research. These limitations reduce motivation and weaken the quality of research outputs. Additionally, bureaucratic approval processes and lack of incentives further hinder research involvement. Despite these challenges, initiatives such as DepEd's Basic Education System Reform Agenda (BESRA), the Rationalization Plan, and the creation of the Policy Research and Development Division aim to promote a research culture in education (DepEd Order No. 39 s. 2016). It also advocates for institutional investment in research time, funding, and capacity-building programs.

1.4 Proposed Research Mentoring Plan for Public Elementary Teachers

Mentoring is essential to the professional development of public elementary school teachers, especially as they navigate the complexities of teaching and curriculum implementation. This Research Mentoring Plan, designed for Research Coordinators, aims to build a strong research culture among teachers by enhancing their academic skills, collaboration, career growth, and resource sharing. The plan fosters a supportive learning environment where experienced mentors guide teachers in pedagogical practices, research processes, and professional responsibilities.

It also addresses teacher burnout by promoting confidence, resilience, and a sense of belonging. Moreover, it supports leadership development and nurtures a professional learning community. To overcome barriers such as time constraints and lack of research skills, the plan offers structured support—from developing research questions to publishing findings and accessing funding. This empowers teachers to conduct high-quality research that enhances classroom practices and student outcomes.

Conclusions

Research coordinators evaluated teachers' research performance across various dimensions as moderately performed, while teachers themselves rated their performance as slightly performed. There are significant differences on the assessments of teachers and research coordinators on the level of research performance of teachers. Most cited barriers and difficulties in conducting research include lack of time due to heavy workloads, limited institutional support, inadequate training, and insufficient access to resources and mentorship. A research mentoring plan was proposed.

Recommendations

Based on the conclusions, the following recommendations were endorsed: the research mentoring plan may be implemented and regularly evaluated in schools to develop research culture, future research may expand the scope to include a broader range of schools and participants over a longer period and further studies may be

conducted to identify existing gaps, challenges, and areas for improvement in the implementation of the research mentoring plan, with the aim of enhancing its effectiveness and sustainability.

REFERENCES

Al-Thani, N. J., & Ahmad, Z. (2025). *Teaching research to teachers—Traversing from research-oriented education to research learning theory*. In *Springer briefs in education* (pp. 97–112). https://doi.org/10.1007/978-3-031-87544-1_6

Ambag, S. (2015). Assessment of competency level of pre-service teachers based on National Competency-Based Teacher Standards (NCBTS) in public school in the National Capital Region (NCR). *European Academic Research, 2*(11). https://euacademic.org

Asenahabi, B. M. (2019). Basics of research design: A guide to selecting appropriate research design. *ResearchGate*. https://www.researchgate.net/publication/342354309

Baber, A., Waymon, L., Alphonso, A., & Wylde, J. (2015). *Strategic connections: The new face of networking in a collaborative world*. AMACOM.

Booth, W. C., Colomb, G. G., & Williams, J. M. (2021). *The craft of research* (5th ed.). University of Chicago Press.

Bullo, M. M., Labastida, R. T., & Manlapas, C. C. (2021). Challenges and difficulties encountered by teachers in the conduct of educational research: Basis for teachers' enhancement program. *International Journal of Research Studies in Education*. https://doi.org/10.5861/ijrse.2021.a044

Cox, M. J., & Eubanks, D. L. (2018). *Navigating the academic career: Research and development for early career scholars*. Springer.

Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.

Dalwampo, R. (2017). *Contemporary learning styles of Grade 9 students in the Second District of the Division of Quezon: Basis for an enhancement program* [Master's thesis, Polytechnic University of the Philippines].

Davis, J. L., Sumara, D., & Luce-Kapler, R. (2022). Collaborative professional development as a means of fostering teacher research engagement. *Journal of Educational Research, 115*(4), 427–443. https://doi.org/10.1080/00220671.2022.2060971

DO 43, s. 2015 – *Revised Guidelines for the Basic Education Research Fund (BERF)* | Department of Education. (2015, September 16). https://www.deped.gov.ph/2015/09/16/do-43-s-2015-revised-guidelines-for-the-basic-education-research-fund-berf/

DO 39, s. 2016 – *Adoption of the Basic Education Research Agenda* | Department of Education. (2016, June 10). https://www.deped.gov.ph/2016/06/10/do-39-s-2016-adoption-of-the-basic-education-research-agenda/

DO 16, s. 2017 – *Research Management Guidelines* | Department of Education. (2017, March 20). https://www.deped.gov.ph/2017/03/20/do-16-s-2017-research-management-guidelines/

Fullan, M., & Hargreaves, A. (2016). *Collaborative professionalism: When teaching together means learning for all*. Corwin Press.

Gao, Y. (2020). International collaborations in the VET sector: Motivations and challenges. *Journal of Studies in International Education, 24*(2), 232–248. https://doi.org/10.1177/1028315319835531

Ghanizadeh, A. (2017). The interplay between reflective thinking, critical thinking, self-monitoring, and academic achievement in higher education. *Higher Education, 74*(1), 101–114.

Gutiérrez, I., Sánchez, M. M., Castañeda, L., & Prendes, P. (2017). Learning e-learning skills for vocational training using e-learning: The experience piloting the (e)VET2EDU project course. *International Journal of Information and Education Technology, 7*(4), 301–308. https://doi.org/10.18178/ijiet.2017.7.4.885

Ismael, K., Nopiah, Z. M., Rasul, M. S., & Leong, P. C. (2020). The perceptions of vocational teachers from Malaysian public skills training institutions on conducting research. *ResearchGate*. https://doi.org/10.1108/JRIT-10-2016-0007

Kaddoura, S. (2024). What are some ways to recognize and acknowledge the contributions of your research collaborators? *LinkedIn*. https://www.linkedin.com/advice/3/what-some-ways-recognize-acknowledge-contributions-kolle

Manca, S. (2018). ResearchGate and Academia.edu as networked socio-technical systems for scholarly communication: A literature review. *Research in Learning Technology, 26*. https://doi.org/10.25304/rlt.v26.2008

Mertens, D. M. (2021). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. SAGE Publications.

Moore, T., & Morton, J. (2017). The myth of job readiness? Written communication, employability, and the 'skills gap' in higher education. *Studies in Higher Education, 42*(3), 591–609.

Naldo, T. R. S., & Ubayubay, R. M. (2024). Cultivating action research culture among teachers. *International Journal of Multidisciplinary Research and Analysis, 7*(7). https://doi.org/10.47191/ijmra/v7-i07-15

Rabe, M. (2021). *Developing academic skills for university success*. Springer.

Ramos, J. L., Cattaneo, A. A. P., de Jong, F. P. C. M., & Espadeiro, R. G. (2022). Pedagogical models for the facilitation of teacher professional development via video-supported collaborative learning: A review of the state of the art. *Journal of Research on Technology in Education, 54*(5), 695–718. https://doi.org/10.1080/15391523.2021.1911720

Singh, C. K. S., Mohtar, T. M. T., Mostafa, N. A., Moneyam, S., Abdullah, N. Y., & Singh, T. S. M. (2021). Fostering effective networking in qualitative research. *Journal of Language and Linguistic Studies, 17*(4), 1728–1742. https://doi.org/10.52462/jlls.126

Ulla, M. B. (2018). Benefits and challenges of doing research: Experiences from Philippine public school teachers. *Issues in Educational Research, 28*(3), 797–811.

Wagino, W., Maksun, H., Purwanto, W., Krismadinata, K., Suhendar, S., & Koto, R. D. (2023). Exploring the full potential of collaborative learning and e-learning environments in universities: A systematic review. *TEM Journal, 12*(3), 1772–1785. https://doi.org/10.18421/TEM123-60

Wang, Y., Jiang, S., Wu, C., Cai, X., & Wang, F. (2022). *Impact of the global megatrends, COVID-19, and digital economy on professional career management transformation in Asian countries.* https://doi.org/10.3390/su141710981

Wellman, B., Quan-Haase, A., & Harper, M. G. (2020). The networked question in the digital era: How do networked, bounded, and limited individuals connect at different stages in the life course? *Network Science, 8*(3), 291–312. https://doi.org/10.1017/nws.2019.28

Widodo, B., Rostina, C. F., Syaifuddin, & Hendry. (2023). The influence of position promotion and career development on job satisfaction with motivation work as an intervening variable (Case study: Department of Labuhan Batu). *International Journal of Research and Review, 10*(2). https://doi.org/10.52403/ijrr.20230277