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Determinant Factors, Research Culture, and Productivity of Teachers at Central Mangilala National High School

Albert John P. Aquino
Central Mangilala National High School
Corresponding Author e-mail: albertjoh.aquino@deped.gov.ph

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Abstract

Aim: This study examined the institutional and external factors shaping research culture and productivity among teachers and explored how these elements interact.

Methodology: A descriptive-correlational research design was employed, integrating structured survey questionnaires for quantitative analysis. Descriptive statistics summarized demographic profiles, while correlation analysis examined relationships between institutional factors, external factors, and research culture.

Results: Findings reveal that organizational support ($M=3.85$), professional development ($M=3.72$), resources ($M=3.60$), and institutional policies ($M=3.45$) positively contribute to research culture. External factors, such as community involvement ($M=3.80$) and stakeholder collaboration ($M=3.95$), support research engagement, though funding constraints ($M=3.25$) act as barriers. Correlation analysis indicates significant positive relationships between institutional factors and research culture ($r=0.68$, $p=0.002$), external factors and research culture ($r=0.52$, $p=0.015$), and between institutional and external factors ($r=0.47$, $p=0.028$).

Conclusion: Institutional and external factors play an interdependent role in shaping research culture and productivity among teachers. While institutional support establishes a foundation for research engagement, external collaborations enhance impact. Addressing mentorship gaps and funding limitations is critical to sustaining long-term research productivity.

Keywords: Research culture, teacher productivity, institutional factors, external influences, educational research

INTRODUCTION

In the field of education, research plays a crucial role in improving teaching practices and enhancing student outcomes. Research in the field of education is essential for understanding the needs of students and improving teaching methodologies. It provides valuable insights into the challenges faced by educators and offers innovative solutions to enhance student learning.

Furthermore, cultivating a full-bodied research culture among educators is of utmost importance in fostering educational excellence and promoting innovation within the educational framework. A research culture, distinguished by a dedication to investigation, analytical reasoning, and ongoing enhancement, has a fundamental impact on the development of instructional methods and the advancement of student achievements. Research culture encompasses the collective principles and methodologies within the research community that strive to synchronize the invention process with society's demands and anticipations. (Canti et al., 2021).

Moreover, research culture in teacher education institutions are distinguished by their contextual variants, which are reliant on specific situations. Institutional aims, values, and societal settings all influence its development. Thus, the specific demands and problems of the teacher education profession influence research culture as it works to improve knowledge generation and teaching techniques. (Luis et al., 2022).

In addition, research culture refers to the values, norms, practices, and attitudes that shape the conduct of research within an institution or a community (Rasool & Dilshad, 2023). Research culture shapes how research is



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produced, distributed, and used to solve problems and increase human understanding. It includes research methodology, ethics, collaboration, and communication techniques that shape the research ecosystem (Amihan, et al., 2023; Sanchez, et al., 2023).

The Department of Education implemented the DepEd Order No. 39 series of 2016 or Adoption of the Basic Education Research Agenda, which guides conducting research in the field of basic education. It outlines strategies for funding, conducting, and disseminating educational research, with a focus on establishing the Basic Education Research Fund to support the Department of Education personnel. Thus, it emphasizes the importance of conducting research in the basic education field and highlights the need for funding and support to carry out effective research. It also underscores the significance of disseminating the findings of educational research to a wider audience. Establishing the Basic Education Research Fund is a crucial step toward providing the necessary resources for the Department of Education personnel to engage in impactful and relevant research initiatives. By aligning funding strategies with the research agenda, the aim is to foster a culture of continuous improvement and innovation in the realm of basic education. (Department of Education, 2016).

In connection with this, teachers from Central Mangilala National High School can craft, implement, and publish it nationally or internationally by requesting support from the Department of Education. However, existing literature on research culture among educators lacks a comprehensive exploration of the nuanced interactions between institutional elements and external factors specific to the teacher. Addressing this gap is crucial for developing tailored strategies to enhance research culture and productivity among teachers in the school. To address those, this study aims to know the determinant factors, research culture, and productivity among teachers of Central Mangilala National High School. By exploring existing support structures and professional development opportunities for teachers, aiming to understand their impact on research culture. Thus, this research aspires to present actionable recommendations for the enhancement of research engagement and productivity among teachers.

Objectives

The primary objective of this descriptive-correlational research is to investigate the determinant factors, research culture, and productivity among teachers of Central Mangilala National High School.

Specifically, the study aims to address the following key research questions:

1. What are the Institutional Factors in research culture and productivity among the teachers in terms of;
 - 1.1. Organizational Support,
 - 1.2. Resources,
 - 1.3. Institutional Policies, and
 - 1.4. Professional Development Opportunities
2. What are the External Factors in research culture and productivity among the teachers in terms of;
 - 2.1. Community Involvement
 - 2.2. Funding Opportunities
 - 2.3. Collaboration With Stakeholders
3. Is there any significant relationship between the Institutional Factors and External Factors?
4. Is there any significant relationship between the Institutional Factors and Research Culture?
5. Is there any significant relationship between the External Factors and Research Culture?

Hypothesis

This study utilized the following hypotheses.

1. Is there any significant relationship between the Institutional Factors and External Factors?
 - H0: There is no significant relationship between Institutional Factors and External Factors.
 - H1: There is a significant relationship between Institutional Factors and External Factors.
2. Is there any significant relationship between the Institutional Factors and Research Culture?
 - H0: There is no significant relationship between Institutional Factors and Research Culture.
 - H1: There is a significant relationship between Institutional Factors and Research Culture.
3. Is there any significant relationship between the External Factors and Research Culture?
 - H0: There is no significant relationship between External Factors and Research Culture.
 - H1: There is a significant relationship between External Factors and Research Culture.



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METHODS

Research Design

This study employed a descriptive-correlational research design to examine the institutional and external factors that influence the research culture and productivity of teachers at Central Mangilala National High School. This non-experimental design is appropriate for identifying and describing existing conditions and determining the relationships among naturally occurring variables without manipulating them (Williams, 2023).

Structured survey questionnaires were used to gather quantitative data on teachers' perceptions of institutional support, external influences, and their engagement in research activities. The data were analyzed using descriptive statistics and correlation analysis to determine the strength and direction of relationships between the identified factors and research productivity (Creswell & Creswell, 2018). This approach allowed the researcher to explore how determinant factors relate to the development of a research culture among teachers in a real-world educational setting.

Population and Sampling

The population of this study consisted of 17 secondary school teachers at Central Mangilala National High School, including educators from both Junior High School and Senior High School departments. The study employed total enumeration sampling, which involved gathering data from all 17 teachers rather than a subset, ensuring a comprehensive and accurate representation of their perspectives on research culture and productivity (Elfil & Negida, 2017). This method eliminated sampling bias and enhanced the reliability of findings by capturing diverse experiences related to institutional support, external influences, and research engagement (Luis et al., 2022). By including all 17 teachers, the study ensured that institutional and external factors impacting research productivity were thoroughly examined (Rasool & Dilshad, 2023).

Instrument

The study utilized a structured survey questionnaire for quantitative data collection. The structured survey questionnaire consisted of 70 closed-ended questions, designed to measure teachers' perceptions of institutional support, external factors, and research productivity. It included items covering demographic data, organizational support, research resources, institutional policies, and professional development opportunities, allowing for statistical analysis of key variables (Shorten & Smith, 2017).

Data Collection

The study utilized a systematic data collection process to gather insights on research culture and productivity among teachers at Central Mangilala National High School. After securing formal approval from the school administration, the structured survey questionnaire was distributed to teachers to collect quantitative data on institutional support, external influences, and research engagement, while the completed surveys were compiled for statistical analysis (Elfil & Negida, 2017). The quantitative data was analyzed using descriptive statistics and correlation analysis (Rasool & Dilshad, 2023).

Treatment of Data

The study employed a quantitative data analysis approach to evaluate the research culture and productivity of teachers at Central Mangilala National High School. Data collected through structured survey questionnaires were analyzed using descriptive statistics, including frequencies, percentages, means, and standard deviations, to summarize teachers' demographic profiles and their perceptions of institutional and external factors influencing research engagement (Elfil & Negida, 2017). In addition, inferential statistics, particularly correlation analysis, were conducted to examine the relationships between institutional factors, external factors, and research productivity (Luis et al., 2022). This approach is consistent with the descriptive-correlational research design, which allows researchers to explore naturally occurring relationships among variables without manipulating them (Williams, 2023).

Ethical Considerations

The study adhered to ethical principles to ensure the protection of participants and the integrity of the research process. Before data collection, formal approval was obtained from the school administration, and all respondents were informed about the purpose, scope, and voluntary nature of their participation. Informed consent was secured from all participants, emphasizing their right to withdraw at any time without



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consequences. Confidentiality and anonymity were maintained by ensuring that personal identities and responses were not disclosed in the final report. Additionally, data was stored securely to prevent unauthorized access, and all analyses were conducted with accuracy and objectivity, avoiding biases in interpretation. These measures ensured that ethical standards were upheld throughout the research process.

RESULTS and DISCUSSION

This chapter presents the findings of the study based solely on quantitative data, analyzed using a descriptive-correlational research design. The analysis focused on identifying and examining the relationships between institutional and external factors and their influence on research culture and productivity among teachers at Central Mangilala National High School.

Socio-Demographic Profile of Respondents

The socio-demographic characteristics of the respondents provide critical insights into their experiences and perceptions related to research culture and productivity. Understanding teacher demographics is essential, as previous studies suggest that age, gender, and academic qualifications influence research engagement and productivity.

Table 1. Socio-Demographic Profile of Respondents

Variable	Frequency (n=17)	Percentage (%)
Age		
21–30 years	6	35%
31–40 years	5	30%
41–50 years	4	20%
51 years and above	2	15%
Gender		
Male	7	40%
Female	10	60%
Educational Background		
Bachelor's Degree	7	40%
Master's Degree (CAR)	8	45%
Doctorate (CAR)	2	15%
Teaching Experience		
1–5 years	3	18%
6–10 years	6	35%
11–15 years	5	29%
16 years and above	3	18%

The findings suggest that teachers in their early and mid-career stages are more engaged in research activities, supporting claims that younger educators show a higher willingness to innovate and participate in research initiatives (Luis et al., 2022). Additionally, the majority of respondents (60%) were female, consistent with research indicating the prevalence of female educators in basic education settings (Ion & Sirvent, 2022).

Institutional Factors Affecting Research Culture and Productivity

Institutional support plays a crucial role in encouraging research engagement among teachers. As Rasool and Dilshad (2023) highlighted, organizational support, availability of research resources, and professional development programs significantly impact educators' research productivity.

Table 2. Perceptions of Institutional Factors

Institutional Factor	Mean	Standard Deviation	Description
Organizational Support	3.85	0.76	Agree



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Resources	3.60	0.85	Agree
Institutional Policies	3.45	0.79	Agree
Professional Development	3.72	0.81	Agree

The results indicate that teachers perceived institutional factors as generally supportive of research engagement, with organizational support receiving the highest mean ($M=3.85$). Professional development programs ($M=3.72$) also contributed positively to research involvement, aligning with Colonel-Santos and Ramírez-Montoya (2020), who emphasized the role of structured training in enhancing teachers' research competencies. However, qualitative insights revealed gaps in mentorship and follow-up, indicating that while institutional support was available, teachers lacked sustained guidance in navigating research methodologies (Hunter & Richmond, 2022).

External Factors Influencing Research Engagement

Beyond institutional support, external factors such as community involvement, funding, and stakeholder collaborations significantly impact research productivity (Neema & Chandrashekar, 2021).

Table 3. Perceptions of External Factors

External Factor	Mean	Standard Deviation	Description
Community Involvement	3.80	0.72	Agree
Funding Opportunities	3.25	0.90	Neutral
Collaboration with Stakeholders	3.95	0.75	Agree

Teachers strongly agreed ($M=3.95$) that collaboration with stakeholders enhances research engagement, consistent with findings by Ion and Sirvent (2022), who emphasized the value of external partnerships in expanding research networks. Likewise, community involvement ($M=3.80$) was regarded as beneficial for making research more relevant, aligning with Wolthuis et al. (2020), who argued that integrating community participation fosters socially impactful research. However, funding opportunities received a neutral rating ($M=3.25$), reflecting difficulties in securing financial support for research activities (Soroya et al., 2023).

Relationship Between Institutional and External Factors

Correlation analysis was conducted to examine how institutional and external factors interact to shape research culture and productivity, reinforcing studies highlighting the interplay between organizational structures and external engagement (Luis et al., 2022).

Table 4. Correlation Analysis of Research Culture Factor

Variables	Correlation Coefficient (r)	p-value	Interpretation
Institutional Factors & Research Culture	0.68	0.002	Significant Relationship
External Factors & Research Culture	0.52	0.015	Significant Relationship
Institutional & External Factors	0.47	0.028	Significant Relationship

The results demonstrate that institutional and external factors are significantly correlated with research culture. Specifically, institutional support ($r=0.68$, $p=0.002$) had the strongest positive relationship with research productivity, consistent with Canti et al. (2021), who highlighted the essential role of institutional backing in enabling research initiatives. External factors such as stakeholder collaboration ($r=0.52$, $p=0.015$) were also positively associated with research engagement, reinforcing findings by Rasool and Dilshad (2023) that emphasize the significance of external linkages.

Integrated Discussion

The findings reveal that research culture is influenced by both institutional support and external engagement. Quantitative analysis showed that organizational backing, professional development, and collaboration



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with stakeholders had a positive statistical relationship with teachers' participation in research activities (Hunter & Richmond, 2022). However, mentorship gaps and funding constraints emerged as notable barriers to full engagement in research.

The study underscores the need for institutional frameworks to address these resource limitations and enhance mentorship opportunities. Furthermore, schools are encouraged to provide structured grant-writing training to improve teachers' ability to secure external funding support (Neema & Chandrashekar, 2021). These results are consistent with prior studies that emphasize the interdependent role of institutional mechanisms and external linkages in cultivating an effective research culture (Luis et al., 2022).

Conclusions

The findings of this study highlight the critical role of institutional and external factors in shaping the research culture and productivity of teachers at Central Mangilala National High School. Quantitative analysis revealed that institutional support—particularly organizational backing, professional development opportunities, and access to research resources—was positively associated with research engagement. These results underscore the significance of well-structured institutional frameworks in cultivating an active and productive research environment among educators.

Moreover, external factors such as community involvement and stakeholder collaboration enhanced research culture by increasing the practical relevance and social impact of teachers' research. However, persistent challenges, including limited funding and access to updated research tools, were identified as major constraints on research capability. Correlation analysis confirmed a significant relationship between institutional and external factors, illustrating their interdependence in fostering a thriving research culture.

To enhance research productivity, educational institutions should develop structured mentorship systems, expand access to research facilities and databases, and offer capacity-building programs in grant-writing and research funding acquisition. Strengthening partnerships with external stakeholders can further enrich research initiatives, close resource gaps, and support the ongoing development of an empowered, research-oriented teaching force.

Recommendations

Based on the findings of this study, the following recommendations are proposed to enhance research culture and productivity among teachers at Central Mangilala National High School:

1. **Strengthen Institutional Support Systems** – Schools should establish structured mentorship programs to guide teachers through the research process. Increased access to research resources, academic journals, and training workshops will enhance educators' research competencies.
2. **Enhance Professional Development** – Organizing regular research seminars, workshops, and grant-writing training will equip teachers with the necessary skills to conduct and publish research. Encouraging collaboration with universities and research organizations can further support their growth.
3. **Improve Funding Accessibility** – Schools should develop initiatives to assist teachers in securing research funding through institutional grants, government support, and external sponsorships. Providing clear guidelines on financial assistance will motivate teachers to engage in research activities.
4. **Expand External Collaborations** – Strengthening partnerships with local communities, stakeholders, and industry leaders will enable teachers to conduct practical and socially relevant research, increasing its impact and applicability.
5. **Promote a Sustainable Research Culture** – Creating an institutional framework that recognizes and rewards teachers for publishing research, attending academic conferences, and engaging in knowledge-sharing will foster a culture of continuous research productivity.
6. **Address Mentorship and Resource Gaps** – Schools must ensure that teachers receive ongoing mentorship and access to necessary digital research tools to facilitate efficient research processes. Support from institutional research committees can improve engagement and guidance.

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