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# Revealing Barriers and Drivers: Internal and External Factors in Educators' Research Culture Development

**DANALYN, Impuesto[1]; BERONIO, Delia[2]; HUNGO, Melbert[3]**

[1] 0000-0000-0000-0000; Department of Education,San Isidro, Tomas Oppus, Philippines. dannalyn.salapi@deped.gov.ph
[2] 0000-0002-5382-8958; Southern Leyte State University-Tomas Oppus, San Isidro, Tomas Oppus, Philippines. beronio.delian@gmail.com
[3] 0000-0002-3306-2924; Southern Leyte State University-Tomas Oppus, San Isidro, Tomas Oppus, Philippines. mhungo@southernleytestateu.edu.ph.

**ABSTRACT**

The absence of sufficient support systems including mentorship opportunities along with financial backing and institutional recognition prevents teachers from participating in significant research activities. This research investigated the internal and external factors that impacted research culture development and the extent of teachers' participation in research. The research revealed that gender, family obligations, communication skills, socioeconomic status, economic conditions, personal priorities, teacher attitudes, self-efficacy, and perception of research were the determining internal factors. External factors comprised administrative, school culture, colleague influence, environmental factors, facilities, salary supplements, course relevance, cost, and ongoing research. Majority of the respondents across teaching positions had yet to engage in research. There was no correlation between internal and external factors affecting research culture. There existed a slight and insignificant negative correlation between research productivity and internal and external drivers of research culture. Nevertheless, taking these factors into consideration is crucial in an effort to increase teachers' research involvement. The recommended solutions include extensive training, providing incentives, establishment of collaboration with higher learning, establishment of supporting structures, mentorship programs, award schemes, and monitoring on a regular basis in an effort to minimize challenges and develop education research supporting environment.

**RESUMO**

A ausência de sistemas de apoio suficientes, incluindo oportunidades de mentoria, juntamente com respaldo financeiro e reconhecimento institucional, impede os professores de participarem de atividades de pesquisa significativas. Esta pesquisa investigou os fatores internos e externos que impactam o desenvolvimento da cultura de pesquisa e o grau de participação dos professores em atividades de pesquisa. A investigação revelou que os fatores internos determinantes incluíam: gênero, obrigações familiares, habilidades de comunicação, status socioeconômico, condições econômicas, prioridades pessoais, atitudes dos professores, autoeficácia e percepção sobre a pesquisa. Os fatores externos abrangeram aspectos administrativos, cultura escolar, influência de colegas, fatores ambientais, instalações, suplementos salariais, relevância dos cursos, custos e pesquisas em andamento. A maioria dos respondentes, independentemente de seus cargos de ensino, ainda não havia se envolvido em atividades de pesquisa. Não foi identificada correlação entre os fatores internos e externos que afetam a cultura de pesquisa. Observou-se uma correlação negativa leve e insignificante entre a produtividade em pesquisa e os fatores internos e externos que impulsionam a cultura de pesquisa. No entanto, levar em consideração esses fatores é essencial para aumentar o envolvimento dos professores em pesquisas. As soluções recomendadas incluem treinamentos extensivos, oferta de incentivos, estabelecimento de colaborações com instituições de ensino superior, criação de estruturas de apoio, programas de mentoria, sistemas de premiação e monitoramento regular com o objetivo de minimizar os desafios e desenvolver um ambiente favorável à pesquisa educacional.

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## Introduction

The implementation and value of research in basic education develop within environments shaped by both organizational and external factors that influence its application in schools. The cultivation of a research-oriented culture depends largely on internal elements such as leadership support, teacher capacity development, resource availability, time constraints, and student involvement in research (Devesh & Nanjundaswamy, 2025). Educational administrators and teachers require structured policies, enhanced research funding, and specialized professional development to effectively integrate research methodologies into classroom practices.

External factors—including government policies, partnerships between higher education institutions and communities, access to technology, and public perceptions of research—play a crucial role in sustaining research activities (Ito & Watanabe, 2020). The Basic Education Research Agenda (BERA) and university collaborations establish essential frameworks and mentoring systems that benefit from increased stakeholder engagement and support (Baumfield, 2023). However, progress is hindered by limited access to technology and research materials, as well as negative community attitudes toward research. Successfully developing a research culture in basic education requires strong institutional commitment, continuous capacity building, and collaboration with external partners to foster meaningful improvements in teaching and learning (O'Dwyer et al., 2023).

The research culture in basic education develops through the continuous interaction of internal and external factors that determine its adoption, sustainability, and impact on educational practices. Scholars emphasize that successful integration of research in schools depends on leadership commitment, teacher competence supported by adequate resources, and institutional policy backing (Hoang & Le, 2025). School administrators who allocate funding, provide training, and implement structured policies for research development encourage teachers to apply research findings to improve instruction (Hallinger et al., 2020). Conversely, teachers often encounter barriers such as heavy workloads, limited access to academic materials, and insufficient research skills, which hinder their participation in research activities. External factors identified by researchers include government policies, university collaborations, community involvement, and prevailing social attitudes, all of which influence the research culture within schools (Suson et al., 2020).

The Basic Education Research Agenda (BERA) sets research priorities and benefits teachers through university partnerships that provide resources and mentorship to build research competencies. Additionally, the support of local community stakeholders and funding partnerships between local government units (LGUs) and non-governmental organizations (NGOs) strengthen research efforts (Baumfield, 2023). However, technological disparities and negative community perceptions of research impede the integration of evidence-based

approaches within some educational settings. For basic education research to thrive, sustained institutional commitment must be coupled with continuous capacity development for individuals and partnerships between institutions and external stakeholders (Hartley et al., 2022).

Advocacy for educational policies that link research with teacher training, ensure equitable access to research tools, and promote research-based decision-making in educational planning is essential. The ongoing development of a research culture requires a dual focus on school-centered factors and broader environmental elements to enhance instructional methods, curriculum design, and academic achievement outcomes (Orphan et al., 2021).

Basic education research faces significant gaps in understanding the factors that influence its development, sustainability, and the interplay of internal and external elements. Few empirical studies have thoroughly examined the barriers to institutionalizing research within schools, particularly regarding leadership support, teacher incentives, and resource availability (Matsler et al., 2023). Moreover, there is a lack of comprehensive investigation into the roles of external stakeholders—such as government agencies, higher education institutions, and local communities—in sustaining school-based research initiatives (Koh & Askell-Williams, 2021).

A notable research gap exists concerning self-directed learning approaches employed by teachers to guide students in conducting student-driven research. While most studies focus on well-resourced urban schools, there is insufficient documentation of the research culture in rural and underfunded schools (Parker et al., 2020). Teachers' understanding of research and their ability to apply research findings to enhance instruction and achieve long-term benefits remain poorly documented. Additionally, the impact of online research tools on shaping basic education research culture, especially in resource-limited areas, has received limited attention (Barrot, 2021). Current knowledge about how research findings are received and utilized in policy-making and school-level decision-making is also limited. Addressing these gaps requires empirical data collection alongside evaluations of long-term outcomes and approaches that integrate technology with stakeholder collaboration. Implementing evidence-based strategies in basic education research will foster a stronger research culture, ultimately enhancing teacher participation, curriculum development, and academic achievement.

This research paper aimed to explore the culture of research in basic education. Specifically, it examined the respondents' profiles in terms of age, civil status, teaching position, and highest educational attainment. Additionally, it investigated the internal and external factors contributing to the development of a research culture, the level of teachers' participation in research, and the factors influencing this participation. The study provides quantitative evidence on the key components of research culture in primary schools, offering valuable insights for educational policy and curriculum design. The findings supply numerical data that policymakers can use to develop strategic interventions, such as research-oriented

training programs, teacher incentives for research engagement, and the integration of research-based evidence into school decision-making processes.

The collaborative research between Central Mindanao University and the Colleagues in Teaching School Based in Arakan, Balo-I, Lanao del Norte Province demonstrated that collective research competencies of both institutions and their determinants of their engagement in research development with research developments will guide policymakers to address research barriers specifically within resource-challenged educational settings. Enhanced curricula will incorporate inquiry-based learning and action research by integrating these practices into core teaching and learning activities.

This research supports education systems in achieving higher student outcomes by enabling teachers to adopt evidence-based instructional methods through the development of research competencies across the field. The identification of factors affecting research involvement allows schools to establish systems that promote evidence-based practices, collaborative research activities, and professional development programs. The study contributes to a data-driven strategy for educational improvement, positioning research as a sustainable and lifelong foundational element of basic education.

## Methodology

This study employed a descriptive-correlational research design to assess the level of teachers' participation in research activities and identify factors influencing their attitudes toward engaging in research, with the ultimate goal of fostering a culture of research within basic education. This design is appropriate as it facilitates a comprehensive analysis of the current status while examining significant relationships among variables relevant to the study's objectives. The descriptive component was utilized to gather data on teachers' actual participation in research activities, providing an accurate representation of existing practices. Concurrently, the correlational component enabled the exploration of potential associations between key variables, thereby enhancing understanding of how specific factors may affect teachers' engagement in research. Correlational analyses were conducted using systematically computed data to establish statistically significant relationships (Lapuz & Manlapaz, 2025).

The Division of Southern Leyte serves as an administrative educational unit composed of numerous schools and teaching personnel, organized into four Instructional Area Districts (IADs), each comprising a cluster of schools. Central schools, which are the focal point of this study, hold a pivotal role in the division's educational framework. These schools are distributed across the four IADs as follows: IAD I cover municipalities from Macrohon to Tomas Oppus; IAD II includes areas from Bontoc to Libagon; IAD III spans from Liloan to Pintuyan; and IAD IV encompasses Saint Bernard to Silago. This study aims to explore teachers' participation in research activities and their attitudes toward conducting research by selecting a representative

sample of teachers from the identified central schools across all IADs within the Division of Southern Leyte.

The researchers used simple random sampling is a method in quantitative research where each individual in a homogeneous population has an equal chance of being selected through unbiased techniques such as random number generators, ensuring objective and representative sampling (Marancik et al., 2020). The population sample consisted of all the central school teachers in the twenty-three (23) central schools in the Division of Southern Leyte. There were 552 teachers in the population, and 227 teachers were randomly selected to serve as the sample representing about 40% of the population. Random sampling gave each teacher in the population an equal opportunity of being part of the sample. Because teachers are present in every central school, teacher representation from various (IADs) or schools within the division can be diverse. To counteract these probable biases, the researchers made sure that the procedure of random sampling was conducted methodically and unbiased.

**Table 1**. The Distribution of Respondents

| SCHOOL | Population Size | Sample Size |
|---|---|---|
| **IAD I MACROHON – TOMAS OPPUS** | | |
| Macrohon Central School | 30 | 12 |
| Limasawa Central School | 13 | 5 |
| Padre Burgos Central School | 23 | 9 |
| Malitbog Central School | 26 | 11 |
| Tomas Oppus Central School | 20 | 8 |
| **IAD 2 BONTOC – LIBAGON** | | |
| Divisoria Central School | 17 | 7 |
| Bontoc Central School | 36 | 15 |
| Sogod Central School | 82 | 34 |
| Consolacion Elementary School | 26 | 11 |
| Libagon Central School | 17 | 7 |
| **IAD 3 LILOAN – PINTUYAN** | | |
| Liloan Central School | 23 | 9 |
| San Roque Elementary School | 16 | 7 |
| San Francisco Central School | 22 | 9 |
| Pintuyan Central School | 23 | 9 |
| San Ricardo Central School | 17 | 7 |
| **IAD 4 SAINT BERNARD – SILAGO** | | |
| Saint Bernard Central School | 20 | 8 |
| Catmon Integrated School | 17 | 7 |
| San Juan Central School with Sped Center | 43 | 18 |
| Anahawan Central School | 26 | 11 |
| Hinundayan Central School | 16 | 7 |
| Hinunangan East Central School | 20 | 8 |
| Hinunangan West Central School | 16 | 7 |
| Silago Central School | 19 | 8 |
| **TOTAL** | **552** | **227** |

The research utilized an instrument based on the questionnaire originally developed by Gumus (2013). The questionnaire was modified to suit the specific context of the study, that is, in investigating the determinants of research culture. The new questionnaire consisted of two parts: The first was on setting the respondents' profile, such as age, civil status, position at the time of teaching, and highest educational attainment achieved. The research questions were

differentiated into internal and external factors in the second part, and the panel members agreed on what factors to include under the internal and external factors.

The Internal Factors section encompassed personal characteristics, gender, family responsibilities, communication, socioeconomic status, financial condition, personal priority, teachers' attitude, self-efficacy, time, self-confidence, motivation, perception of stress, and a strong belief in research endeavors. The External Factors section covered administrative factors, school culture, colleague influence, social pressure, environmental factors, job conditions, facilities/equipment, salary supplements, course relevance, cost, and teachers' continuing research activities.

A modified pilot test process was undertaken to ascertain the suitability and accuracy of the modified questionnaire to the context. It involved pre-testing the questionnaire on a small sample of respondents, such as Tomas Oppus Central School teachers where pilot testing was administered. The pilots' responses were compared against one another through Cronbach's Alpha tests to ascertain the questionnaire's reliability and validity in eliciting intended information. Pilot testing results were then used to improve and test the questionnaire prior to application in the actual study.

**Table 2.** The Validity and Reliability Test Results

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| **Rows** | 85.04578519 | 18 | 4.724765844 | 6.035248133 | 1.45632E-14 | 1.608551039 |
| **Columns** | 1415.501926 | 122 | 11.6024748 | 14.82058935 | 1.2596E-206 | 1.227425929 |
| **Error** | 1719.164741 | 2196 | 0.782861904 | | | |
| **Total** | 3219.712452 | 2336 | | | | |
| | **Cronbach Alpha** | **0.83** | **High** | **The Instrument has a high reliability** | | |

The researcher sent a formal letter to the Schools Division Superintendent through the Division Planning and Research Units, requesting data on teachers' participation in research activities. Subsequently, approval was obtained to conduct the study's pilot testing at Tomas Oppus Central School. The same approval was extended to all central schools within the division. Following this, the approval letter was forwarded to the School District Supervisors and Principals of the identified schools.

After securing all necessary permissions, the researcher distributed the survey instrument to respondents via Google Forms. This online distribution was implemented due to pandemic-related restrictions that prohibited face-to-face interactions. However, the researcher encountered difficulties in collecting data as some respondents were unable to access or complete the survey online. To address this challenge, hard copies of the

questionnaire were provided, ensuring compliance with health protocols while facilitating participation.

The researcher clearly explained the instrument and its purpose to respondents, providing orientation on the study's objectives. Respondents were assured of the confidentiality and anonymity of their responses. Personal identifiers, such as names, addresses, and phone numbers, were removed prior to data analysis to maintain privacy. Throughout the data collection process, the researcher adhered to required health and safety protocols, prioritizing the well-being of respondents while complying with pandemic guidelines. The collected data were subsequently tabulated, coded, analyzed, and interpreted using both descriptive and inferential statistical methods.

After data collection, the responses were analyzed and interpreted using appropriate statistical tools aligned with the research objectives. Frequency and percentages were employed to summarize categorical data concerning teachers' demographic profiles, personal perspectives on educational research, and levels of participation in research-related activities. These descriptive statistics facilitated the identification of trends, patterns, and the proportional distribution of responses across various categories.

This descriptive analysis was essential in outlining prevalent characteristics and general dispositions toward research engagement within the educational setting. In addition to frequencies and percentages, the mode was utilized to identify the most frequently occurring internal factors that influence the development of a research culture among teachers. As a measure of central tendency particularly suitable for nominal and categorical variables, the mode effectively highlighted recurring themes such as perceived administrative support, self-efficacy in conducting research, and access to institutional resources.

This measure provided valuable insight into which internal factors were most commonly associated with teachers' research involvement. To examine the relationship between continuous variables—specifically, between teachers' demographic attributes (e.g., age, teaching experience, academic qualifications) and their level of participation in research-related activities—Pearson's product-moment correlation was employed as the inferential statistical tool.

This method measures the strength and direction of the linear relationship between two continuous variables, making it appropriate for evaluating associations among interval or ratio-scale data. The application of Pearson's correlation allowed the study to determine whether statistically significant correlations exist between teachers' profiles and their engagement in research, thereby identifying which attributes are most strongly linked to active research participation. The integration of these statistical procedures enabled a comprehensive analysis of both descriptive and inferential aspects of the dataset. Frequencies, percentages, and mode revealed dominant trends and internal influences, while Pearson's product-moment correlation provided empirical evidence of the degree to which variables are interrelated. The

interpretation of findings considered whether the relationships observed were statistically significant, positive or negative, and weak, moderate, or strong—ultimately yielding insights into the internal determinants that facilitate or hinder teachers' engagement in educational research.

## Results and Discussions

### Respondents' Profile

Table 3 presents demographic and professional information about the respondents using four key attributes that include age groups, civil status, teaching positions, and educational attainment. The majority of 67.2% of respondents are part of the age group 36–55 which indicates their mid-career status but the older age group 56–65 comprises only 14.6% of the total participants. Majority of the respondents (86.1%) are married with the remaining (13.9%) being single indicating professionals who also take care of their family. Most teachers surveyed occupy Teacher I–III positions making up 85.0% of the total respondents who teach at entry- to mid-level educational stages. The poll reveals Master Teachers and SPED Teachers to be a minority category with 7.7% and 7.3% membership whereas Teacher I–III rank form the majority of the teaching force. A very high percentage of teachers (75.5%) have undergone courses credited towards a master's degree program reflecting their choice for graduate education. The figures reveal massive enrollments in higher studies considering those taking their MA/MAEd and Ed.D./Ph.D. degrees even though only 10.9% and 2.2% indicated program completion. The teacher demographic profile reveals essential information that enables the understanding of basic education research engagement levels and overall research culture.

Professional development and instructional innovation activities characterize mid-career teachers who lead the workforce (Carraher-Wolverton & Zhu, 2021). At the same time early-career educators struggle to participate in research because their limited training interferes with their instructional responsibilities (Merga & Mason, 202).

The need for sustained research capacity development spans the entire teaching career due to reduced research involvement among educators approaching retirement. The majority of married teachers experience obstacles when performing research because they also have family duties so educational institutions should provide flexible research programs and adjust workloads (Creagh et al., 2025).

Complex research roles assigned to Master Teachers explain their research involvement concentration yet the process needs to include both pre-service and in-service training to establish research practices across the entire teaching profession (Cao et al., 2023). The number of teachers who obtain graduate degrees is small which restricts their research abilities even after learning research methods (Mcbride & Philippou, 2022). Enhances research capacities of teachers require both mentoring systems, financial backing, and institutional

rewards. Research grants coupled with work reduction and opportunities for leave would motivate teachers to participate in research according to policy considerations. The implementation of research education within training programs for future teachers should become mandatory to develop their research capabilities for service entry but teacher professional development programs must provide research mentoring and group research projects. Schools should receive better institutional backing while removing practical and financial hurdles to allow teachers for conducting research which will develop evidence-based teaching methods that lead to improved student achievement.

**Table 3.** The Respondents' Profile

| VARIABLE | | FREQUENCY COUNT | PERCENTAGE |
|---|---|---|---|
| **AGE** | | | |
| | 20 – 35 | 50 | 18.2 |
| | 36 – 45 | 95 | 34.7 |
| | 46 – 55 | 89 | 32.5 |
| | 56 – 65 | 40 | 14.6 |
| **CIVIL STATUS** | | | |
| | Single | 38 | 13.9 |
| | Married | 236 | 86.1 |
| **TEACHING POSITION** | | | |
| | Teacher 1 – 3 | 233 | 85.0 |
| | Master Teacher 1 – 3 | 21 | 7.7 |
| | SPED Teacher 1 – 2 | 20 | 7.3 |
| **EDUCATIONAL ATTAINMENT** | | | |
| | Baccalaureate Graduate | 19 | 6.9 |
| | MA/MAEd (with units) | 207 | 75.5 |
| | MA/MAEd (graduated) | 30 | 10.9 |
| | Ed.D/Ph.D (with units) | 12 | 4.4 |
| | Ed.D/Ph.D (Graduated) | 6 | 2.2 |

## Internal and External Factors that Influence Research Culture

Table 4 presents an analysis of personal and professional internal factors that influence research culture among teachers. Most of these internal factors were rated at 4 (Agree), suggesting that respondents recognize their significant role in fostering a culture of research within basic education.

Key internal contributors include gender, family responsibilities, communication, socio-economic status, financial condition, self-confidence, teacher attitudes, and belief in the value of research. Interestingly, personal priorities, perceived time constraints, and stress were not deemed major barriers to research involvement, as indicated by the mode of 2 (Disagree). These findings reflect a cohesive tendency among teachers to participate in research, supported by a shared perception that internal factors positively impact their engagement.

The data indicate that teacher participation is shaped by various personal and institutional elements, including gender characteristics, familial obligations, financial stability, confidence levels, and beliefs about research (Yan et al., 2021). While family and financial obligations can limit research activity, institutional mechanisms can mitigate these challenges (Hargreaves, 2000). Notably, gender-related disparities in research productivity are minimal,

as studies reveal no significant differences in academic output between male and female educators (Ceci et al., 2023).

Teachers' positive attitudes and confidence toward research are essential, as they influence scholarly behaviors and frame research as both feasible and important (Zientek et al., 2018). However, research participation cannot be solely explained by personal traits, as literature reveals no consensus that individual characteristics alone drive engagement (Kallitsoglou & Mahmud, 2023). Instead, a policy-oriented approach is necessary. Time constraints and workload management should be addressed through strategies such as research incentives, reduced teaching loads, and structured mentorships. Institutions must also provide financial support through grants and funding programs to overcome economic obstacles.

Creating a sustainable research culture demands more than individual commitment—it requires institutional dedication to minimize time barriers, alleviate funding challenges, and dispel the misconception that research is an optional duty. Research should be integrated into professional development frameworks and institutional mandates, ensuring that schools provide an environment where research is a core instructional practice rather than a voluntary endeavor.

In terms of external factors, the study shows that most respondents rated them at 4 (Agree), indicating strong consensus on their significant impact on research culture in educational institutions. Eight external components were identified as supportive of research engagement: administrative support, school culture, colleague influence, environmental conditions, facilities, salary supplements, course relevance, and opportunities for continuing research.

The presence of these factors fosters conducive environments for research, with institutional support and financial incentives enhancing participation. Conversely, job conditions and social pressures received a mode rating of 2 (Disagree), suggesting that these elements are not perceived as significant deterrents to research engagement. External expectations and occupational stress do not appear to substantially influence research participation. However, external support, particularly from administrators and school leaders, remains critical for nurturing a positive research climate. Leadership is pivotal, as supported by findings that institutional backing and shared school culture provide necessary time, resources, and motivation for inquiry-based practices (Heng et al., 2020; Lundqvist & Westerlund, 2024).

Despite these supports, the voluntary nature of research participation leads to inconsistencies, as many teachers engage in research based on personal motivation and institutional recognition rather than policy mandates (Alwafi et al., 2020). While resources and financial incentives are important, they must be paired with long-term strategies that build intrinsic motivation by demonstrating how research improves teaching effectiveness and

student outcomes. The findings underscore the need for comprehensive institutional reforms. These should include policy changes that integrate research into teachers' professional duties, workload adjustments, structured mentoring systems, and embedded research training in pre-service education programs.

Graduate programs must emphasize applied research for classroom inquiry, while schools should provide collaborative opportunities through professional learning communities and adequate research facilities. Ultimately, establishing and maintaining a robust research culture in basic education requires coordinated efforts to embed research within the daily work of educators, supported by leadership, infrastructure, and a shared belief in the transformative power of research on pedagogy and learning.

**Table 4.** Internal and External Factors that Influence Research Culture

| Indicators | Mode | Description |
|---|---|---|
| **Internal Factors** | | |
| Personal Characteristics | 2 | Disagree |
| Gender Factor | 4 | Agree |
| Family Responsibilities | 4 | Agree |
| Communication | 4 | Agree |
| Social Economic Status | 4 | Agree |
| Financial Conditions | 4 | Agree |
| Personal Priorities | 4 | Agree |
| Teacher Attitude | 4 | Agree |
| Time Factor | 2 | Disagree |
| Self Confidence | 4 | Agree |
| Perception on Stress | 2 | Disagree |
| Belief in Research | 4 | Agree |
| **Overall** | **4** | **Agree** |
| **External Factors** | | |
| Administrative | 4 | Agree |
| School Culture | 4 | Agree |
| Colleague Influence | 4 | Agree |
| Social Pressure | 2 | Disagree |
| Environmental Factors | 4 | Agree |
| Job Conditions | 2 | Disagree |
| Facilities | 4 | Agree |
| Salary Supplements | 4 | Agree |
| Course Relevance | 4 | Agree |
| Cost | 4 | Agree |
| Continuing Research | 4 | Agree |
| **Overall** | **4** | **Agree** |

## Teachers' Level of Participation in Research

Table 5 illustrates the level of teacher participation in research activities, providing a detailed breakdown based on employment classifications and productivity measures.

Alarmingly, a substantial majority of teachers (96%) reported no participation in formal research activities. Disaggregated data reveal similarly low levels across employment ranks: 97% of Teacher I–III, 90.5% of Master Teacher I–III, and 90% of SPED Teacher I–II positions indicated no research involvement.

Only a minimal number of educators demonstrated moderate participation, with just four teachers (approximately 1.5% of the 274 respondents) having conducted research at the division level. Furthermore, only seven teachers (2.6%) qualified as high-level participants, having completed research and presented it at the regional level. Interestingly, SPED teachers showed a slightly higher rate of high participation (10%), which may be attributed to the specialized nature of their teaching assignments that often emphasize research-based approaches and data-driven interventions.

The data reflect a significant deficiency in research engagement across all teaching ranks, pointing to systemic barriers such as lack of time, insufficient institutional support, limited training opportunities, and a lack of recognition or incentives for research output. According to Crabtree et al. (2021), these constraints—namely time limitations, inadequate research preparation, and lack of administrative encouragement—consistently hinder teachers from engaging in scholarly work. Despite the expectation for Master Teachers to lead in research and mentor peers, their participation remains low, further highlighting that structural and systemic challenges outweigh individual initiative. This discrepancy underlines the need for a more robust and supportive institutional environment to promote research engagement across all professional levels. Without these, research remains peripheral to teachers' professional practice rather than being an integral component. To address these barriers, comprehensive reforms are essential.

As Sliwka et al. (2024) emphasize, policies must include mandatory research training for early-career educators, financial assistance, flexible work arrangements, and structured professional development to foster sustained research involvement. Mentorship programs that pair novice researchers with experienced teacher-scholars can further promote research participation by offering guidance, feedback, and motivation throughout the research process. Additionally, teacher education curricula must integrate action research training to build foundational research competence and confidence (Békés, 2020).

Graduate-level programs should prioritize applied research that directly informs and enhances classroom instruction. Collaborative initiatives within professional learning communities (PLCs) should also be promoted, encouraging shared inquiry and sustained engagement through institutional collaboration.

To institutionalize research as a professional norm, school administrators must establish supportive frameworks that include dedicated time allocations, improved facilities, and access to digital and material resources. Without these core supports, research risks

continuing as an optional or supplementary task rather than a valued element of professional practice.

Ultimately, building a strong research culture requires aligning institutional policies with the practical realities of teaching. Research participation should not only bridge theory and practice but also drive instructional innovation and educational progress. Therefore, all teaching positions—from novice educators to senior mentors—must be empowered and incentivized to engage in meaningful research, ensuring that evidence-based practice becomes central to educational development.

**Table 5.** Teachers' Level of Participation in Terms of Research Activities

| POSITION | RESEARCH OUTPUT | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|
| | LOW | % | MODERATE | % | HIGH | % | |
| Teacher 1 – 3 | 226 | 97% | 3 | 1.3% | 4 | 1.7% | **233** |
| Master Teacher 1 – 3 | 19 | 90.5% | 1 | 4.8% | 1 | 4.8% | **21** |
| SPED Teacher 1 - 2 | 18 | 90% | 0 | 0% | 2 | 10% | **20** |
| **TOTAL** | **263** | **96%** | **4** | **1.5%** | **7** | **2.6%** | **274** |

**Low:** No Research **Moderate:** Completed Research within the Division **High:** Completed Research presented to region

## Relationship between Respondents' Profile and Teachers' Research Output

Table 6 presents the analysis of the relationship between respondents' demographic profiles and their corresponding levels of research output. The data reveal very weak positive correlations between research productivity and demographic variables—specifically age, civil status, teaching position, and educational attainment—with contingency coefficient values ranging from 0.017 to 0.081 and corresponding p-values between 0.181 and 0.774. These findings indicate no statistically significant relationship between the selected demographic characteristics and teachers' research involvement. This minimal correlation underscores that individual attributes such as seniority or educational attainment are not substantial predictors of research productivity.

Instead, the evidence points to institutional factors—such as access to research resources, availability of training, manageable workloads, and incentive structures—as more influential in shaping teachers' engagement with scholarly work. These findings challenge the assumption that higher academic rank or qualifications inherently lead to increased research activity. Consistent with the work of Hattery et al. (2022) and Owan et al. (2024), the results highlight how systemic barriers—rather than personal characteristics—limit participation in research.

Constraints such as excessive teaching loads, lack of mentorship, insufficient institutional support, and inadequate opportunities for capacity-building hinder the cultivation of a research culture in schools. From a policy standpoint, this suggests the need for robust institutional support structures, including protected research time, financial incentives, and structured mentorship programs. Instead of emphasizing demographic credentials, policies must shift toward fostering research-conducive environments that enable

sustainable scholarly engagement. At the curricular level, embedding applied and action research methods into both pre-service and graduate-level teacher education is essential. Doing so equips educators with the methodological skills and confidence to conduct contextually relevant research, positioning it as a core professional competency rather than an abstract academic task. Ultimately, building a research-oriented culture requires systemic transformation.

Educational leaders must establish conditions that normalize research through collaborative efforts, embed inquiry into professional learning communities, and ensure sustained access to research tools and infrastructure. By removing structural barriers and redefining research as a fundamental component of professional growth, institutions can bridge the gap between classroom practice and scholarly inquiry—creating a culture where reflective teaching and evidence-based decision-making are interwoven and mutually reinforcing.

**Table 6.** The Relationship between Respondents' Profile and Teachers' Research Output

| Profile | Contingency Coefficient | Interpretation | p-value |
|---|---|---|---|
| Age | 0.068 | Very Weak Positive | 0.262 |
| Civil Status | 0.026 | Very Weak Positive | 0.673 |
| Teaching Position | 0.081 | Very Weak Positive | 0.181 |
| Educational Attainment | 0.017 | Very Weak Positive | 0.774 |

1-perfect positive correlation -1 - perfect negative correlation 0-no correlation

## Relationship between Internal Factors and Teacher's Research Output

Table 7 presents the relationship between internal factors and teachers' research output, examining the strength of association between various personal characteristics and levels of research engagement. The analysis reveals that most internal variables—such as socioeconomic status, time management, financial condition, gender, family obligations, and self-efficacy—exhibit weak positive correlations with research participation, as indicated by contingency coefficient values ranging from 0.016 to 0.133 and p-values between 0.084 and 0.967.

These results confirm that the internal factors assessed do not significantly influence research output among teachers. Notably, among all the variables examined, only teachers' perception of stress showed a statistically significant—though still weak—association with research engagement (contingency coefficient = 0.195; p = 0.004). This finding suggests that teachers who view stress constructively may be more inclined to engage in research activities, possibly interpreting stress as a motivating force or an outlet for professional growth.

This supports the view of Dehtjare and Uzule (2023), who assert that well-managed stress can enhance productivity and scholarly initiative. Overall, the weak correlations reinforce that internal personal characteristics alone are insufficient predictors of research participation. These findings align with previous research by Gómez and Rivas (2022), which emphasized that intrinsic motivation, psychological resilience, and contextual support

mechanisms outweigh individual traits in explaining research productivity. From a policy perspective, this underscores the importance of institutionalizing research capacity-building initiatives that provide structured mentorship, protected research time, and incentive systems. Given the relevance of stress perception, professional development programs should integrate mindfulness training, emotional regulation strategies, and workload management to help teachers convert stress into productive engagement.

At the curriculum level, embedding research instruction that develops resilience, critical thinking, and problem-solving skills can shift teachers' perception of research from a burdensome obligation to a practical tool for classroom innovation. Programs designed to foster self-regulation and stress-responsive productivity can further empower educators to approach research tasks with greater agency and confidence.

Graduate education must also prioritize research approaches that are collaborative, contextual, and directly transferable to classroom practice. Integrating action research and evidence-based instructional models into teacher preparation can ensure not only skill development but also sustained appreciation of research as part of the teaching profession. Institutionally, a sustainable research culture requires more than individual effort. It calls for systemic supports—reducing administrative burdens, supporting professional learning communities, and ensuring access to research infrastructure. Although the correlation between financial condition and research productivity is weak, providing tangible support such as grants, travel funds, and stipends remains critical, especially for educators in resource-constrained environments.

Ultimately, establishing a research-supportive institutional environment—where inquiry is embedded into professional norms—can transform research from a marginal task into an essential and integrated element of effective teaching practice.

**Table 7.** Relationship between Internal Factors and Teachers' Research Output

| Internal Factors | Contingency Coefficient | Interpretation | p-value |
|---|---|---|---|
| Personal Characteristics | 0.093ns | Very Weak Positive | 0.305 |
| Gender Factor | 0.117 ns | Very Weak Positive | 0.147 |
| Family Responsibilities | 0.055 ns | Very Weak Positive | 0.662 |
| Communication | 0.072 ns | Very Weak Positive | 0.493 |
| Social Economic Status | 0.089 ns | Very Weak Positive | 0.336 |
| Financial Conditions | 0.133 ns | Very Weak Positive | 0.084 |
| Personal Priorities | 0.056 ns | Very Weak Positive | 0.652 |
| Teacher Attitude | 0.047 ns | Very Weak Positive | 0.436 |
| Teacher Self - Efficacy | 0.103 ns | Very Weak Positive | 0.229 |
| Time Factor | 0.016 ns | Very Weak Positive | 0.967 |
| Self Confidence | 0.033 ns | Very Weak Positive | 0.858 |
| **Perception on Stress** | **0.195**** | **Weak Positive** | **0.004**** |
| Belief in Research | 0.033 ns | Very Weak Positive | 0.584 |

1-perfect positive correlation -1 - perfect negative correlation 0-no correlation

## Relationship between External Factors to Teachers' Research Output

Table 8 examines the relationship between external factors and teachers' research output, revealing generally weak positive associations across all variables, with contingency coefficients ranging from 0.005 to 0.094 and corresponding p-values between 0.296 and

0.931. These results indicate that external factors—such as administrative support, school climate, peer influence, working conditions, facilities, salary bonuses, course relevance, research expenses, and ongoing research opportunities—do not exert statistically significant influence on teachers' research participation.

While these external elements may offer some facilitation, their minimal correlation suggests that they are insufficient alone to drive meaningful engagement in research activities. Although prior literature highlights the importance of economic incentives and institutional frameworks in fostering a research culture, this study suggests that without concurrent efforts to build intrinsic motivation and research competencies, structural support may fall short (Stupnisky et al., 2023). Instead, less tangible factors such as targeted research training, institutional mandates, and personal motivation appear more critical in promoting teacher-led scholarly activity (Khatib et al., 2025).

From a policy perspective, these findings call for a paradigm shift that extends beyond infrastructural investment to cultivating a professional identity that embraces research as integral to teaching. Formal mentoring programs, dedicated research training, and motivational incentives—including recognition and publication support—are essential to developing a research-proficient workforce. School policies should institutionalize research as a core professional responsibility, fostering a continuous culture of inquiry rather than relegating it to an extracurricular role.

In curriculum development, both pre-service and in-service programs must explicitly integrate research methodologies, emphasizing applied, action, and inquiry-based approaches that position research as a practical pedagogical strategy rather than an academic burden. Graduate education should continue aligning research competencies with classroom practice to enhance instructional quality.

Systemically, the limited effect of external factors underscores the need for comprehensive strategies that embed research into career advancement, employee development goals, and broader school improvement plans. Schools should institutionalize collaborative mechanisms such as professional learning communities, interdepartmental research networks, and structured mentoring to transform research into a collective institutional endeavor.

Moreover, given the marginal influence of ongoing research opportunities, institutions must embed research engagement into school-based programs, academic conferences, and formal platforms for scholarly communication, ensuring that research becomes a sustained and normalized professional practice rather than an occasional activity.

**Table 8.**

Relationship between External Factors to Teachers' Research Output

| External Factors | Contingency Coefficient | Interpretation | p-value |
|---|---|---|---|
| Administrative | 0.049 | Very Weak Positive | **0.722** |
| School Culture | 0.031 | Very Weak Positive | **0.612** |
| Colleague Influence | 0.041 | Very Weak Positive | **0.795** |
| Social Pressure | 0.037 | Very Weak Positive | **0.833** |
| Environmental Factor | 0.005 | Very Weak Positive | **0.931** |
| Job Conditions | 0.067 | Very Weak Positive | **0.541** |
| Facilities | 0.042 | Very Weak Positive | **0.789** |
| Salary Supplements | 0.046 | Very Weak Positive | **0.746** |
| Course Relevance | 0.094 | Very Weak Positive | **0.296** |
| Cost | 0.050 | Very Weak Positive | **0.709** |
| Continuing Research | 0.088 | Very Weak Positive | **0.344** |

1-perfect positive correlation -1 - perfect negative correlation 0-no correlation

## Conclusion

Planning and undertaking research tasks necessitate a holistic consideration of both internal and external factors. Internally, attention must be directed toward individual characteristics such as interests, motivations, and capabilities—particularly in the case of teachers operating within educational institutions.

These personal attributes form the foundation for initiating and sustaining meaningful engagement in research activities. However, individual readiness alone is insufficient. Externally, the success of research endeavors is equally dependent on institutional facilitation, access to resources, and the broader socio-political environment, all of which exert considerable influence on the trajectory and outcomes of research work.

The dynamic interplay between internal motivation and external support highlights the necessity of a comprehensive approach to fostering teacher research engagement. When both dimensions are acknowledged and addressed, teacher involvement in research can be significantly enhanced—an outcome essential not only for professional development but also for promoting a pedagogy grounded in inquiry and reflective practice.

Nevertheless, cultivating an intrinsic research identity among teachers is far from straightforward. It involves more than equipping individuals with research competencies or mandating participation in training programs. Establishing such an identity is a complex, long-term process that demands sustained effort, continuous learning, and institutional commitment. Without a deeply embedded culture of research within the school environment, isolated initiatives often fail to yield lasting impact.

To this end, building a research culture requires that research be valued not just as an academic exercise but as an integral part of instructional practice. Through long-term institutional investment, teachers can gradually develop the autonomy and confidence necessary to undertake independent scholarly inquiry. These conditions, in turn, lead to more effective academic contributions and a more enriched learning environment for students. Furthermore, administrative policies must evolve beyond the mere provision of physical infrastructure.

To genuinely support teachers' research engagement, institutions must implement systemic reforms that foster sustained participation. This includes establishing formal mentorship programs to guide novice researchers, creating incentive and reward structures to recognize research contributions, and encouraging collaboration across departments to build supportive research networks. When institutional strategies are aligned with individual aspirations, a more robust and enduring research culture can emerge—one that empowers teachers as both educators and scholars.

To meaningfully facilitate teacher participation in research, institutions must implement comprehensive and supportive policies that integrate research into both professional practice and career development pathways. Embedding research into the fabric of the teaching profession ensures that it is not treated as an isolated endeavor but as a vital component of continuous professional growth.

A key strategy in achieving this is the establishment of institutionalized mentorship programs, where experienced researchers guide novice teacher-researchers. These mentorships not only facilitate the transfer of knowledge and research skills but also encourage sustained engagement by creating collaborative and supportive academic relationships. Building on this foundation, research training must be incorporated into both pre-service and in-service teacher education. By equipping teachers with methodological skills and demonstrating the relevance of research to classroom practice, these training modules can empower educators to approach teaching as an inquiry-based profession. This integration promotes a deeper appreciation of evidence-informed instruction and strengthens teachers' capacity to contribute to educational advancement through scholarly work. Alongside technical training, fostering intrinsic motivation is essential to sustaining research engagement. Institutions should explore recognition mechanisms such as research awards, publication grants, and non-monetary incentives to complement financial support. These forms of acknowledgment not only validate teachers' research efforts but also reinforce a culture of academic achievement and professional excellence. Moreover, institutional support must include structural adjustments, particularly through workload reductions paired with dedicated time for research. When teachers are given protected time to pursue scholarship, they can engage in research activities without compromising their instructional responsibilities. This balance is crucial for maintaining high standards in both teaching and research.

To reinforce these efforts, schools should cultivate a research-conducive environment by organizing school-based conferences, promoting interdepartmental research collaboration, and developing professional learning communities (PLCs). These platforms serve as avenues for disseminating findings, fostering dialogue, and building a shared culture of inquiry among staff. Given the generally low external pressure for teacher research engagement, it is imperative for institutions to position research as a recurring, embedded element of school

operations rather than a temporary requirement for promotion. This involves aligning research efforts with school improvement initiatives and teacher development plans, ensuring that scholarly inquiry becomes an ongoing, institutionally supported practice. Through such systemic integration, research ceases to be an add-on and evolves into a core aspect of professional identity and school advancement.

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