

Research Competence and Practices of Secondary School Teachers in SDO Batangas City

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Abstract

This study, entitled “Research Competence and Practices of Secondary School Teachers in SDO Batangas City,” examined how teachers’ knowledge and application of research contribute to the development of a research culture in public secondary schools. Anchored on Constructivism Theory and the Capacity Building Framework, the study emphasized the importance of research-based practices as supported by the Department of Education through policies such as DepEd Order No. 16, s. 2017 and DepEd Order No. 39, s. 2016, which encourage teachers to become active contributors to educational innovation.

The study aimed to determine the teachers’ level of research competence and practices, the extent of utilization of research practices in developmental activities, and the challenges encountered in conducting research. To achieve these objectives, the study employed a descriptive-correlational research design. A total of 266 public secondary school teachers in Batangas City participated in the study using a validated researcher-made questionnaire. Slovin’s formula was utilized in determining the sample size, while descriptive statistics were used to analyze the gathered data.

The findings revealed significant relationships between teachers’ level of research competence and the extent of utilization of their research practices, indicating that higher levels of competence lead to more effective application of research in teaching, school programs, and classroom-based innovations. The study also identified key challenges that hinder teachers from fully engaging in research activities. Based on the findings, a developmental activity was proposed to strengthen teachers’ research competence and practices through capacity-building programs such as seminars, workshops, mentoring, and increased administrative support to further promote a strong research culture in schools.

Keywords: *research competence, research practices, developmental activities, secondary school teachers, research culture*

Introduction

Education plays a critical role in helping a country grow as it gives people the competence, skills, and values needed to improve themselves and contribute to society. In the Philippines, the Department of Education (DepEd) ensures access to quality education and continuous improvement of teaching practices. Teachers are considered the core of this mission, not only as classroom facilitators but also as contributors to educational innovation through research and evidence-based practice. Teacher competence, based on the Philippine Professional Standards for Teachers (PPST), includes subject mastery, pedagogical skills, reflective practice, and continuous professional development. Research competence is an important part of this as it enables teachers to identify classroom problems and improve instruction. It also enhances student learning outcomes through evidence-based practices. DepEd supports this through policies such as DepEd Order No. 16, s. 2017 and DepEd Order No. 39, s. 2016. These policies encourage teachers to engage in research and contribute to school improvement.

The integration of research into teaching supports Sustainable Development Goal 4 (SDG 4), which promotes inclusive and quality education. SDG 4.7 emphasizes developing learners' knowledge, skills, and values for sustainable development and global citizenship. Teachers who are research competent are better able to apply evidence-based strategies in teaching. This leads to improved instructional practices and better learning outcomes. However, despite these goals and policies, many teachers still experience challenges in conducting research. These include limited training, lack of mentoring, insufficient resources, and heavy workloads. Such conditions reduce teachers' participation in research activities. The Philippine Institute for Development Studies (PIDS) emphasized that improving teacher quality and preparation is essential for better learning outcomes.

In the Schools Division Office (SDO) of Batangas City, research is strongly encouraged through classroom-based action research and participation in division research activities. This aligns with DepEd Order No. 39, s. 2016 or the Basic Education Research Agenda. Despite these initiatives, only a limited number of teachers actively engage in research. This suggests possible gaps in competence, confidence, and institutional support. Teachers often struggle with balancing workload and research responsibilities. They also experience difficulties in writing, data analysis, and applying research processes. Limited access to mentoring and training further affects their participation. These challenges reduce the sustainability of research engagement among teachers.

The researcher's interest in this study was strengthened by personal experience as a beginning teacher in the Department of Education. At 22 years old, she was assigned as a research coordinator despite having limited experience in conducting research. This role exposed her to difficulties in preparing research proposals and guiding colleagues in research work. She also struggled with technical aspects such as data analysis and research ethics. In addition, she observed that many teachers shared similar experiences of lack of confidence and limited knowledge in research. Teachers often found research complex and difficult to apply in classroom practice. These experiences highlighted the need for stronger support systems and

capacity-building programs. They also emphasized the importance of improving research competence among teachers.

Based on these observations, there is a need to examine how teachers' research competence affects their engagement in research activities. This study therefore focuses on the research competence and practices of secondary school teachers in SDO Batangas City. It also examines the extent of utilization of research practices in developmental activities. In addition, it identifies the challenges encountered in conducting research. The study further considers the need for support systems such as training, mentoring, funding, and collaboration. Strengthening these areas may improve teachers' research engagement. It may also enhance the application of research in school improvement. Ultimately, this contributes to a stronger research culture in schools.

In summary, strengthening teachers' research competence is essential for improving instructional quality and addressing classroom challenges. It also supports evidence-based decision-making in education. When teachers are equipped with proper research skills, they can better contribute to school improvement. Adequate support and training further enhance their confidence in conducting research. This leads to more active participation in research activities. It also promotes innovation in teaching practices. More importantly, it strengthens the research culture in schools. Overall, it contributes to the continuous development of the education system.

Research Questions

This study aimed to determine the research competence and practices of secondary school teachers as the basis for designing developmental activity in SDO Batangas City Secondary Schools. Specifically, it seeks to answer the following questions:

1. What is the profile of teachers in terms of their research experience in terms of:
 - 1.1 number of training attended related to research;
 - 1.2 research works completed; and
 - 1.3 research involvement?
2. What is the level of research competence of teachers as assessed in terms of:
 - 2.1 codified;
 - 2.2 cultural; and
 - 2.3 personal?
3. How may the extent of utilization of teachers research practices be assessed by the respondents with reference to:
 - 3.1. enhancing instructional strategies;
 - 3.2. improving school programs ;and
 - 3.3. initiating school-based innovations?
4. Is there significant relationship between the assessments on the level of research competence of teachers and on the extent of utilization of their research practices?
5. What challenges do teachers encounter in conducting research?
6. Based on the results of the study, what research developmental activity may be proposed?

Methodology

Research Design

This study utilized a descriptive-correlational research design to describe the teachers' level of research competence and to determine whether there was a significant relationship between their level of research competence and the extent of utilization of their research practices. The descriptive component was employed to determine the level of teachers' research competence and the extent of utilization of their research practices in developmental activities, while the correlational component assessed the significant relationship between these variables.

Participants

Participants of the study were 266 Junior High School teachers from 23 public secondary schools under the Schools Division Office (SDO) of Batangas City. A stratified random sampling technique with proportionate allocation was used to ensure proper representation from different schools within the division, with the total population of 794 teachers determined using Slovin's formula at a 5 percent margin of error. The population was grouped according to their respective schools, and respondents were randomly selected from each stratum based on proportional distribution. The teacher-respondents were selected due to their direct involvement in classroom instruction and their potential engagement in research-related activities, making them appropriate sources of information on teachers' research competence and the utilization of research practices in developmental activities.

Research Instrument

The study utilized a validated researcher-made questionnaire composed of four parts: teachers' research profile, research competence based on the Eraut-Shulman theory, extent of utilization of research in practice, and challenges encountered in research engagement. The instrument underwent expert validation and pilot testing, yielding Cronbach's Alpha coefficients ranging from 0.82 to 0.88, indicating high reliability. A four-point Likert scale was used to measure respondents' perceptions. Unstructured interviews were also conducted with selected respondents to supplement and validate the quantitative findings.

Data Collection Procedure

Formal approval was first secured from the Schools Division Superintendent (SDS) of the Schools Division Office (SDO) of Batangas City prior to the conduct of data collection. Coordination was then established with designated focal persons in each school to facilitate the distribution and retrieval of the questionnaires upon approval.

The participants were informed of the purpose and objectives of the study, and informed consent was obtained to ensure ethical compliance. Participation was voluntary, and strict confidentiality was observed, with no personal identifiers collected.

A secure online version of the questionnaire was also provided for teachers who preferred digital access, ensuring flexibility and accessibility for all respondents. The data collection process was closely monitored, and all responses were gathered within the agreed timeframe.

Ethical standards, including respect for privacy and protection of data, were strictly upheld throughout the study. The researcher adhered to the principles of transparency, legitimate purpose, and proportionality in handling data. Only information relevant to the study was collected, and all data was securely stored to prevent unauthorized access or misuse. Throughout the process, fairness, respect, and the dignity of all participants were consistently observed, with measures implemented to prevent any form of harm or discomfort.

Data Analysis

Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to summarize teacher profiles and responses. Frequency was used to determine the number of respondents in specific categories such as trainings attended, research works completed, and research involvement, while percentage described the proportion of respondents in each category. The weighted mean was used to determine the average level of teachers' research competence, extent of utilization of research practices, and challenges encountered, while standard deviation measured the variability of responses. Pearson's r was used to determine the significant relationship between teachers' research competence and their extent of utilization of research practices

Results

1. Teachers' Profile in Research.

1.1 Trainings Attended Related to Research.

Table 2
Teachers' Profile in terms of Trainings Attended related to Research

Number of Trainings Attended Related to Research	frequency	%
none	83	31.2
one	140	52.6
two	27	10.2
three	15	5.6
four	1	.4

(Legend: N = 266; frequency – number of respondents; % – percentage of respondents)

The data revealed that the majority of the respondents attended one research-related training (52.6%), followed by those who had not attended any training (31.2%). Meanwhile, 10.2% attended two trainings, 5.6% attended three trainings, and only 4% attended four research-related trainings. This indicates that although most teachers had some exposure to research

training, participation in continuous research capability-building activities remained limited. Limited training exposure may affect teachers' competence and confidence in conducting research activities such as research writing, data analysis, and action research implementation. According to Department of Education DepEd Order No. 16, s. 2017, teachers are encouraged to participate in research capability-building programs to strengthen their research competence and support evidence-based decision-making in schools.

1.2 Research Works Completed.

Table 3
Teachers' Profile in terms of Research Works Completed

Research Works Completed	frequency	%
none	142	53.4
one	96	36.1
two	14	5.3
three	14	5.3

(Legend: N = 266; frequency – number of respondents; % – percentage of respondents)

The results revealed that 53.4% of the respondents had not completed any research work, while 36.1% had completed one research study. Only 5.3% completed two research works, and another 5.3% completed three studies. This indicates that the majority of teachers still have limited experience in completing research, suggesting that research writing and implementation remain challenging among secondary school teachers. Factors such as heavy teaching workload, limited time, insufficient research training, and inadequate access to research resources may have affected teachers' ability to complete research studies. Interview responses further supported these findings, as respondents identified lack of time and limited institutional support as major barriers to research completion. According to Morales (2020), teachers commonly experience difficulties in conducting research due to limited training opportunities, time constraints, and insufficient administrative support, although research engagement remains essential in improving professional growth and evidence-based teaching practices.

1.3 Research Involvement.

Table 4
Teachers' Profile in terms of Research Involvement

Research Involvement	frequency	%
Sole author	108	40.6
Co-author	10	3.8
Research presenter	28	10.5
Research adviser	71	26.7
Not involved in any research	49	18.4

(Legend: N = 266; frequency – number of respondents; % – percentage of respondents)

The results showed that 40.6% of the respondents served as sole authors, 26.7% served as research advisers, and 10.5% acted as research presenters, while 18.4% reported no involvement in any research activity. This indicates that many teachers are actively engaged in research-related activities, reflecting their participation in research and developmental initiatives within the division. However, the presence of teachers with no research involvement suggests the need for additional mentoring, professional development, and administrative support to strengthen teachers' participation in research activities. According to the Department of Education Research Management Guidelines, teacher involvement in research contributes to evidence-based practices and the improvement of educational quality through innovation and developmental activities.

1. Level of Teachers' Research Competence.

This refers to the extent to which teachers possess the knowledge, skills, and abilities needed to conduct and use research effectively.

2.1 Codified Knowledge

The highest mean of 2.52, interpreted as Moderately Competent, was obtained in the ability to formulate clear research questions and hypotheses, indicating that teachers have a basic understanding of identifying research problems as the foundation of research. This supports Creswell and Creswell (2023), who emphasized that clear research questions guide the entire research process. The second highest mean of 2.48, interpreted as Slightly Competent, was observed in knowledge of proper citation and referencing styles, showing partial awareness of academic writing standards, as stressed by the American Psychological Association (2024). Skills in writing research reports (2.32) and awareness of ethical considerations (2.30), both Slightly Competent, reflect difficulties in research writing and ethical application, as noted by Johnson (2023) and Miller (2024).

Lower means were found in research design (2.26), sampling and data collection (2.20), and qualitative analysis (2.20), all Slightly Competent, indicating limited technical knowledge as supported by Garcia and Lopez (2025). The lowest mean of 2.07 was in statistical analysis,

showing it as the most difficult area, consistent with Santos (2024). Overall, the composite mean of 2.30 shows teachers are only slightly competent in research skills, highlighting the need for further training aligned with DepEd Research Management Guidelines (2023).

Table 5
Level of Teachers' Research Competence
in terms of Codified Knowledge

Statements	Weighted Mean	Verbal Interpretation	Rank
1. Ability to formulate clear research questions and hypotheses	2.52	Moderately Competent	1
2. Familiarity with basic research designs and methodologies	2.26	Slightly Competent	5
3. Knowledge of sampling techniques and data collection procedures	2.20	Slightly Competent	6.5
4. Competence in using statistical tools for data analysis	2.07	Slightly Competent	8
5. Understanding of qualitative research approaches and coding	2.20	Slightly Competent	6.5
6. Skill in writing research reports following academic standards	2.32	Slightly Competent	3
7. Awareness of ethical considerations in conducting research	2.30	Slightly Competent	4
8. Knowledge of proper citation and referencing styles	2.48	Slightly Competent	2
Composite Mean	2.30	Slightly Competent	

(Legend: 3.50–4.00 – Highly Competent; 2.50–3.49 – Moderately Competent; 1.50–2.49 – Slightly Competent; 1.00–1.49 – Least Competent)

2.2 Cultural Knowledge.

The level of teachers' research competence in terms of cultural knowledge obtained a composite mean of 2.19, interpreted as Slightly Competent, indicating limited support, collaboration, and research culture in schools. The highest mean of 2.33, interpreted as Slightly Competent, was obtained in adherence to school norms and practices related to research, suggesting that teachers are aware of existing policies but have limited engagement, as supported by Hargreaves and O'Connor (2022), who emphasized the role of school norms in shaping research practices. This was followed by support from school leadership (2.30) and inclusion of research in school improvement plans (2.25), both Slightly Competent, indicating moderate institutional encouragement, as noted by Hallinger (2023) and DepEd Basic Education Research Agenda (2023).

Lower means were observed in collaboration with colleagues (2.23), encouragement to participate in research (2.14), and participation in conferences (2.12), all interpreted as Slightly Competent, showing limited opportunities for engagement and professional exposure, as supported by Johnson and Brown (2024) and Santos (2022). The lowest means were obtained in recognition or incentives (2.07) and peer mentoring and feedback (2.06), indicating weak motivational and support systems, as emphasized by Garcia and Molina (2025). Overall, the results suggest that while teachers are aware of research-related norms, the school research culture remains weak due to limited collaboration, incentives, and mentoring. As Fullan (2024) explained, strong professional growth depends on a supportive culture that promotes collaboration, innovation, and continuous learning.

Table 6
Level of Teachers' Research Competence
in terms of Cultural Knowledge

Statements	Weighted Mean	Verbal Interpretation	Rank
1. Encouragement from the school to participate in research	2.14	Slightly Competent	5
2. Collaboration with colleagues on research-related activities	2.23	Slightly Competent	4
3. Participation in school or division research conferences	2.12	Slightly Competent	6
4. Adherence to school norms and practices related to research	2.33	Slightly Competent	1
5. Support from school leadership in conducting research	2.30	Slightly Competent	2
6. Opportunities for peer mentoring and feedback on research	2.06	Slightly Competent	8
7. Inclusion of research activities in school improvement plans	2.25	Slightly Competent	3
8. Recognition or incentives for teachers who complete research	2.07	Slightly Competent	7
Composite Mean	2.19	Slightly Competent	

(Legend: 3.50–4.00 – Highly Competent; 2.50–3.49 – Moderately Competent; 1.50–2.49 – Slightly Competent; 1.00–1.49 – Least Competent.)

2.3 Personal Knowledge.

The level of teachers' research competence in terms of personal knowledge obtained a composite mean of 2.76, interpreted as Moderately Competent, indicating a fair use of teaching experiences as a basis for research activities. The highest mean of 2.91, interpreted as Moderately Competent, was obtained in the ability to connect classroom problems with research solutions, suggesting that teachers can relate instructional issues to research-based interventions. This aligns with Mertler (2023), who emphasized that linking classroom problems to research leads to more meaningful studies that improve instruction. Reflection on teaching experiences and use of classroom observations both obtained a mean of 2.84, also Moderately Competent, showing moderate reflective practice, as supported by Farrell (2024), who highlighted reflection as essential for generating research ideas.

Belief that research improves teaching practice obtained a mean of 2.76, while willingness to adapt teaching methods based on research findings obtained 2.68, both Moderately Competent, indicating positive attitudes toward research use, as noted by DepEd Research Agenda (2023) and Fullan (2024). Lower means were observed in initiative to explore new strategies (2.58) and confidence in applying personal insights (2.56), suggesting limited confidence in formalizing experiential knowledge into research, as explained by Garcia and Reyes (2025). Overall, the composite mean of 2.76 shows that teachers have a moderate level of personal knowledge in research, indicating that while they can use experience and reflection effectively, they still need support in translating insights into structured research outputs.

Table 7
Level of Teachers' Research Competence
in terms of Personal Knowledge

Statements	Weighted Mean	Verbal Interpretation	Rank
1. Reflection on teaching experiences to identify research topics	2.84	Moderately competent	3
2. Use of classroom observations to guide research inquiries	2.84	Moderately competent	4
3. Belief that research improves teaching practice	2.76	Moderately competent	5
4. Confidence in applying personal insights to research	2.56	Moderately competent	8
5. Valuing personal experience as a source of research ideas	2.94	Moderately competent	1
6. Ability to connect classroom problems with research solutions	2.91	Moderately competent	2
7. Initiative to explore new strategies based on personal observations	2.58	Moderately competent	7
8. Willingness to adapt teaching methods	2.68	Moderately	6

informed by research findings		competent
Composite Mean	2.76	Moderately competent

(Legend: 3.50–4.00 – Highly Competent; 2.50–3.49 – Moderately Competent; 1.50–2.49 – Slightly Competent; 1.00–1.49 – Least Competent.

3. Extent of Teachers' Utilization of Research Practices. It refers to how much teachers apply research findings in their teaching and school activities.

3.1 Enhance Instructional Strategies.

The extent of teachers' utilization of research practices in enhancing instructional practices obtained a composite mean of 2.87, interpreted as Moderately Utilized, indicating that teachers apply research knowledge in teaching to a fair extent but not yet at a fully maximized level. The highest mean of 3.02 was obtained in using research findings to improve teaching strategies, followed closely by applying action research results to address classroom challenges at 3.01, supporting Hattie (2023) and Mertler (2023), who emphasized that research-based and action research practices improve instruction and learner outcomes.

Table 8
Extent of Teachers' Utilization of Research Practices with reference to Enhancing Instructional Strategies

Statements	Weighted Mean	Verbal Interpretation	Rank
1. Research findings are used to improve teaching strategies.	3.01	Moderately Utilized	1
2. Action research results are applied to address classroom challenges.	3.02	Moderately Utilized	2
3. Research-based methods are integrated in lesson planning and delivery.	2.97	Moderately Utilized	3
4. Teaching practices are reflected upon using research insights.	2.77	Moderately Utilized	7
5. Instructional approaches are modified based on evidence from research.	2.63	Moderately Utilized	8
6. Innovative techniques supported by research are incorporated into lessons.	2.78	Moderately Utilized	6
7. Effectiveness of teaching is evaluated using research-based criteria.	2.82	Moderately Utilized	5

8. Research-informed practices are shared with colleagues to enhance instruction.	2.93	Moderately Utilized	4
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Composite Mean	2.87	Moderately Utilized	
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(Legend: 3.50–4.00 – Highly Utilized; 2.50–3.49 – Moderately Utilized; 1.50–2.49 – Slightly Utilized; 1.00–1.49 – Least Utilized)

Research-based methods in lesson planning and sharing of research-informed practices obtained 2.97 and 2.93, respectively, showing moderate integration and collaboration, as noted by Darling-Hammond (2022) and DuFour & Fullan (2024). Lower means were observed in evaluating teaching using research-based criteria (2.82), incorporating innovative techniques (2.78), and reflecting on practice (2.77), indicating limited consistency in application, as supported by Stronge (2022) and OECD (2023). The lowest mean of 2.63 was obtained in modifying instructional approaches based on research evidence, suggesting difficulty in changing practices due to constraints such as workload and limited support, as noted by Garcia and Ramos (2025). Overall, teachers moderately utilize research in instruction, but stronger training and institutional support are needed to sustain evidence-based practice, consistent with Fullan (2024).

3.2 Improve School Programs.

Table 9
Extent of Teachers' Utilization of Research Practices with reference to Improving School Programs

Statements	Weighted Mean	Verbal Interpretation	Rank
1. Research-based ideas are contributed to enhance school programs.	2.30	Slightly Utilized	5
2. Research data is used to support decisions in school improvement planning.	2.49	Slightly Utilized	1
3. Participation in evaluating school programs using research tools.	2.28	Slightly Utilized	6
4. Collaboration with school leaders to align programs with research findings.	2.36	Slightly Utilized	3
5. Recommendations for changes to school programs are based on classroom research outcomes.	2.12	Slightly Utilized	8
6. School initiatives are designed using evidence from educational research.	2.34	Slightly Utilized	4

7. Research results are shared to guide program development and improvement.	2.27	Slightly Utilized	7
8. Best practices from research are applied when proposing school projects.	2.39	Slightly Utilized	2
Composite Mean	2.32	Slightly Utilized	

(Legend: 3.50–4.00 – Highly Utilized; 2.50–3.49 – Moderately Utilized; 1.50–2.49 – Slightly Utilized; 1.00–1.49 – Least Utilized)

The extent of teachers' utilization of research practices in improving school programs obtained a composite mean of 2.32, interpreted as Slightly Utilized, indicating limited application of research in school planning and program development. The highest mean of 2.49 was observed in using research data to support decisions in school improvement planning, followed by collaboration with school leaders (2.36) and designing initiatives using educational research (2.34), all showing limited but present engagement, as emphasized by Fullan (2023) and Hallinger (2023), who highlighted the importance of research-based and collaborative decision-making in school improvement.

Lower means were found in sharing research results for program development (2.27), participating in program evaluation using research tools (2.28), and basing recommendations on classroom research (2.12), indicating minimal involvement in systematic evaluation and application of research findings, as supported by Garcia and Reyes (2025). Research-based ideas for school programs (2.30) and application of best practices from research also showed limited use, suggesting weak translation of research into practical school initiatives, as noted by the DepEd Research Agenda (2023).

Overall, the findings show that while teachers recognize the value of research, its integration into school program development remains limited, requiring stronger collaboration, mentorship, and professional development support.

3.3 School-Based Innovations.

Table 10
Extent of Teachers' Utilization of Research Practices with reference to Initiating School-Based Innovations

Statements	Weighted Mean	Verbal Interpretation	Rank
1. School-based research projects are initiated to address institutional concerns.	2.25	Slightly Utilized	3
2. Active participation is performed in collaborative research initiatives within the school.	2.10	Slightly Utilized	4

3. Research findings are shared during school-based professional development sessions.	1.85	Slightly Utilized	7
4. School activities that promote research engagement among teachers are organized.	1.75	Slightly Utilized	8
5. Colleagues are mentored in conducting classroom-based or school-based research.	2.07	Slightly Utilized	5
6. Reports showcasing school-based research outcomes are prepared.	2.06	Slightly Utilized	6
7. Peers are encouraged to apply research findings in their teaching practices.	2.50	Moderately Utilized	1
8. A culture of research within the school community is fostered.	2.42	Slightly Utilized	2
COMPOSITE Mean	2.12	Slightly Utilized	

(Legend: 3.50–4.00 – Highly Utilized; 2.50–3.49 – Moderately Utilized; 1.50–2.49 – Slightly Utilized; 1.00–1.49 – Least Utilized)

The extent of teachers' utilization of research practices in initiating school-based innovations obtained a composite mean of 2.12, interpreted as Slightly Utilized, indicating that research-related activities are implemented to a limited extent and that a strong research culture is not yet fully established. The highest mean of 2.50 was obtained in encouraging peers to apply research findings in teaching, showing some level of collegial support, as supported by Hattie (2023), who emphasized that sharing evidence-based practices improves instructional effectiveness when sustained.

Moderate but still limited means were observed in fostering a culture of research (2.42) and initiating school-based research projects (2.25), both indicating that innovation efforts exist but are not systematic, as noted by Hallinger and Kulophas (2022). Lower means were found in collaborative research participation (2.10), mentoring colleagues (2.07), and preparing research reports (2.06), suggesting weak collaboration and documentation practices, as emphasized by DepEd Basic Education Research Agenda (2023). The lowest means were obtained in sharing research during professional development sessions (1.85) and organizing research engagement activities (1.75), indicating minimal opportunities for research dissemination and engagement, as supported by Garcia, Santos, and Cruz (2024).

Overall, the composite mean shows that school-based research innovation remains limited, highlighting the need for stronger leadership support, mentoring, and structured research programs to build a sustainable research culture.

4. Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices.

4.1 Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices as to Enhance Instructional Strategies.

Table 11
Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices as to Enhance Instructional Strategies

Research Competence	p-value	r-value	Decision	Verbal Interpretation
Codified knowledge	0.000	0.625	Rejected	Highly Significant
Cultural knowledge	0.000	0.721	Rejected	Highly Significant
Personal knowledge	0.000	0.812	Rejected	Highly Significant

*** correlation is at 0.01 level (2-tailed test)*

The data presented in Table 11 show that there is a significant relationship between teachers' research competence and the extent of utilization of their research practices in enhancing instructional strategies. All computed r-values indicate positive correlations, namely codified knowledge ($r = 0.625$), cultural knowledge ($r = 0.721$), and personal knowledge ($r = 0.812$), with p-values of 0.000, which are lower than the 0.01 level of significance. This leads to the rejection of the null hypothesis, implying that the relationship between the variables is highly significant.

Among the indicators, personal knowledge obtained the highest correlation, suggesting that teachers' personal understanding and experiences in research have the strongest influence on how they utilize research practices to improve instructional strategies. This is followed by cultural knowledge and codified knowledge, which also show substantial relationships. Overall, the findings imply that higher levels of research competence among teachers are associated with greater utilization of research practices in enhancing classroom instruction.

4.2 Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices as to Application to Improve School Programs.

The data presented in Table 12 show that there is a significant relationship between teachers' research competence and the extent of utilization of their research practices in application to improve school programs. All computed r-values indicate positive correlations, namely codified knowledge ($r = 0.750$), cultural knowledge ($r = 0.648$), and personal knowledge

($r = 0.774$), with p-values of 0.000, which are lower than the 0.01 level of significance. This leads to the rejection of the null hypothesis, implying that the relationship between the variables is statistically significant.

Among the indicators, personal knowledge obtained the highest correlation, suggesting that teachers' personal understanding, skills, and experiences in research have the strongest influence on how they utilize research practices in improving school programs. This is followed by codified knowledge and cultural knowledge, which also show substantial positive relationships. Overall, the findings imply that higher levels of research competence among teachers are associated with greater utilization of research practices in improving school programs.

Table 12
Relationship Between the Assessments on the Research Competence of Teachers
and on the Extent of Utilization of their Research Practices
as to Application to Improve School Programs

Research Competence	p-value	r-value	Decision	Verbal Interpretation
Codified knowledge	0.000	0.750	Rejected	Highly Significant
Cultural knowledge	0.000	0.648	Rejected	Highly Significant
Personal knowledge	0.000	0.774	Rejected	Highly Significant

*** correlation is at 0.01 level (2-tailed test)*

4.3 Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices as to Initiate School-Based Innovations. This determines whether higher levels of research competence are associated with a greater extent of using research outputs to develop and implement school-based innovations.

The data presented in Table 13 show that there is a significant relationship between teachers' research competence and the extent of utilization of their research practices in initiating school-based innovations. All computed r-values indicate strong positive correlations, namely codified knowledge ($r = 0.836$), cultural knowledge ($r = 0.882$), and personal knowledge ($r = 0.777$), with p-values of 0.000, which are lower than the 0.01 level of significance. This leads to the rejection of the null hypothesis, implying that the relationship between the variables is statistically significant.

Table 13
Relationship Between the Assessments on the Research Competence of Teachers
and on the Extent of Utilization of their Research Practices
as to Initiate School-Based Innovations

Research Competence	p-value	r-value	Decision	Verbal Interpretation
Codified knowledge	0.000	0.836	Rejected	Highly Significant
Cultural knowledge	0.000	0.882	Rejected	Highly Significant
Personal knowledge	0.000	0.777	Rejected	Highly Significant

*** correlation is at 0.01 level (2-tailed test)*

Among the indicators, cultural knowledge obtained the highest correlation, suggesting that teachers shared practices, beliefs, and collaborative understanding within the school environment have the strongest influence on how they utilize research practices in initiating school-based innovations. This is followed by codified knowledge and personal knowledge, which also show substantial positive relationships. Overall, the findings imply that higher levels of research competence among teachers are associated with greater utilization of research practices in initiating school-based innovations.

5. Challenges in Conducting Research. It presents difficulties they face, such as limited time, lack of resources, and insufficient training, which may affect their ability to effectively conduct research activities

The results show a composite mean of 3.13, interpreted as Agree, indicating that teachers generally experience several challenges in conducting and completing research, particularly in terms of skills, time, support, and motivation. The highest mean of 3.31 was obtained in the need for additional training in research writing, statistical analysis, and use of digital tools, showing a strong demand for professional development, as supported by Creswell and Guetterman (2022), who emphasized that adequate training is essential for effective research engagement. This is followed by lack of confidence in conducting and publishing research (3.26), indicating that self-efficacy influences research productivity, as noted by Hattie (2023).

Table 14
Challenges in Conducting Research

Statements	Weighted Mean	Verbal Interpretation	Rank
1. I find it difficult to manage research work because teaching tasks and other school duties limit my available time.	3.16	Agree	5
2. I often postpone or deprioritize research activities due to heavy workload and urgent school requirements.	3.06	Agree	6
3. I feel that I lack sufficient technical skills, such as data analysis, research design selection, and proper organization of research papers.	3.20	Agree	4
4. I need additional training in research writing, statistical analysis, and the use of digital tools or software for research purposes.	3.31	Agree	1
5. I experience challenges due to limited access to research materials, technology, and financial or institutional support needed for research.	2.85	Agree	8
6. I believe that mentoring, guidance, and professional development opportunities for research in my school are insufficient.	2.96	Agree	7
7. I feel uncertain or lack confidence in conducting, presenting, or publishing research independently.	3.26	Agree	2
8. I need more motivation, encouragement, and positive feedback to pursue research projects consistently.	3.25	Agree	3
Composite Mean	3.13	Agree	

(Legend: 3.50–4.00 – Strongly Agree; 2.50–3.49 – Agree; 1.50–2.49 – Disagree; 1.00–1.49 – Strongly Disagree)

Teachers also agreed on lack of technical skills in research design and data analysis (3.20), limited time due to teaching workload (3.16), and postponement of research tasks (3.06), reflecting workload and competence barriers, as explained by Darling-Hammond (2022). Insufficient mentoring and limited access to research resources (2.96 and 2.85) also emerged as concerns, highlighting the importance of

institutional support, as emphasized by DepEd Basic Education Research Agenda (2023). Additionally, teachers reported the need for greater motivation and encouragement (3.25), consistent with Ryan and Deci (2024), who stressed the role of motivation in sustaining engagement.

Overall, the findings indicate moderate to high challenges in research engagement, suggesting the need for stronger training, mentoring, and workload support to improve teachers' research competence.

6. Proposed Developmental Activities to Strengthen Research Capability and Productivity of Teachers.

Rationale: Strengthening teachers' research capability and productivity is important in promoting evidence-based teaching and continuous school improvement. However, many teachers face challenges such as limited training, heavy workload, and lack of mentoring that affect their participation in research activities. Thus, there is a need to design developmental activities that will enhance their skills in conducting, writing, and applying research in their professional practice.

General Objective: To strengthen teachers' research capability and productivity by strengthening their skills in conducting, writing, and using research professional development in schools in schools.

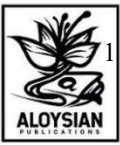
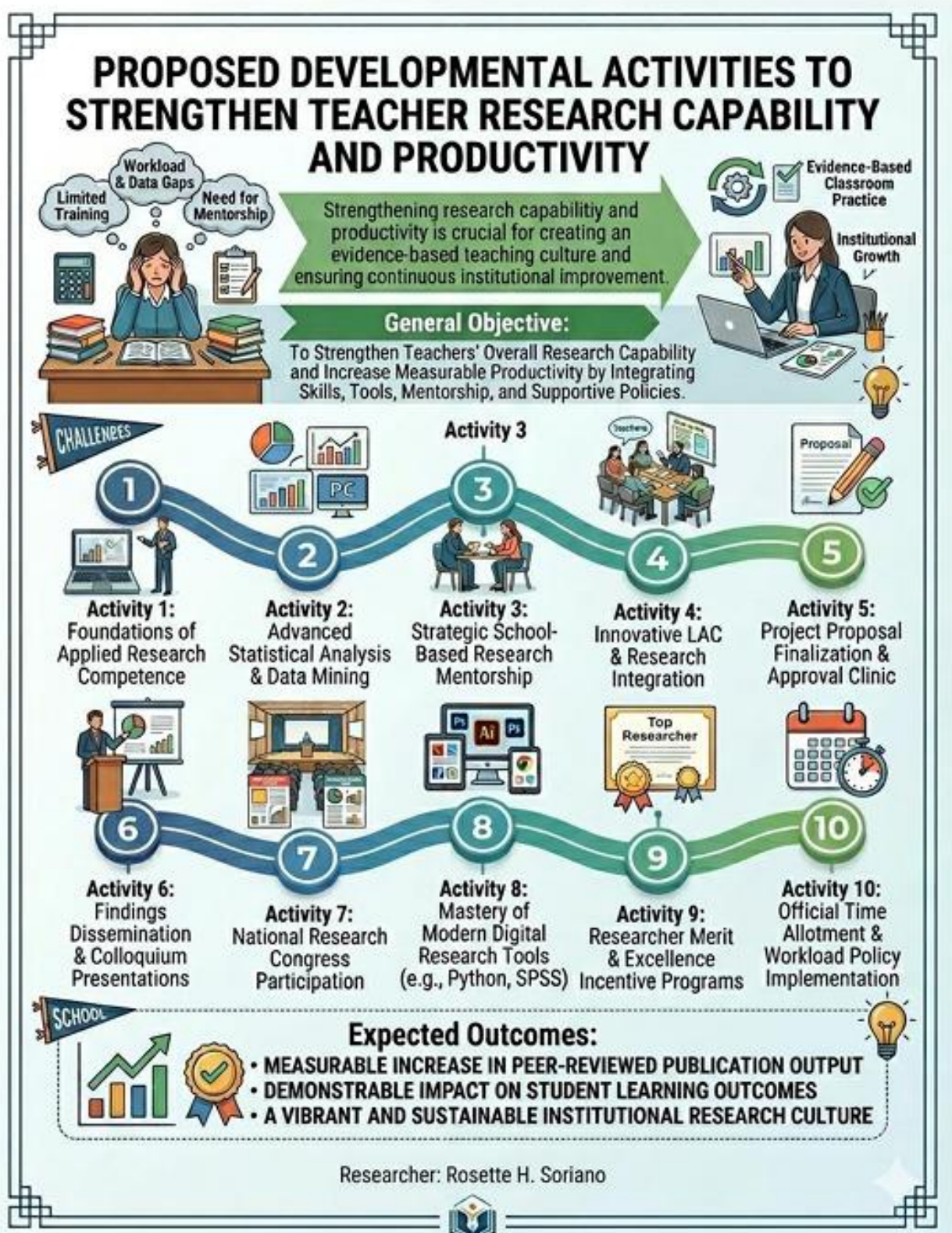


Table 15
Proposed Developmental Activities to Strengthen Research

Capability and Productivity of Teachers

Activity	Objective	Description	Procedures	Persons Involved	Time Frame	Monitoring & Evaluation	Proposed Topics
1. Research Capability Enhancement Seminar	To improve teachers' knowledge in research design, sampling, and statistical analysis	Seminar focused on strengthening foundational research knowledge	1. Conduct pre-test 2. Deliver lectures and discussions 3. Facilitate workshops and open forums 4. Conduct post-test	Teachers, School Heads, Division Research Coordinator, Master Teachers	2 days	Pre-test & post-test results; training evaluation form	- Teachers' competence in research design - Effectiveness of seminar
2. Workshop on Research Writing and Data Analysis	To develop skills in writing research papers and analyzing data	Hands-on training on writing and statistical tools	1. Conduct guided writing sessions 2. Provide datasets for analysis 3. Facilitate output presentation	Teachers, Research Experts, ICT Coordinator	3 days	Completed research outputs; output-based evaluation	- Research writing skills - Effectiveness of data analysis training
3. School-Based Research Mentoring Program	To guide teachers in completing action research	Mentoring system pairing experts with teachers	1. Assign mentors and mentees 2. Conduct regular consultation sessions 3. Monitor progress	Master Teachers, Research Coordinators, Teachers	Whole school year	Progress reports; mentoring documentation	- Effect of mentoring - Research productivity
4. LAC on Research Integration	To integrate research into classroom instruction	Monthly collaborative sessions	1. Conduct LAC sessions 2. Share research findings 3. Develop research-based lesson plans	Teachers, Department Heads, School Heads	Monthly	LAC reports; lesson plan review	- Research utilization - Effect on teaching practices
5. Research Proposal Writing Clinic	To assist in preparing quality proposals	Technical assistance in proposal writing	1. Review draft proposals 2. Provide expert feedback 3. Finalize proposals	Teachers, Division Research Committee	2 days/quarter	Number of approved proposals	- Proposal quality - Effectiveness of assistance

6. Research Presentation and Colloquium	To provide platform for sharing research	Forum for presenting outputs	1. Call for research papers 2. Conduct presentation sessions 3. Provide feedback	Teachers, School Heads, Division Office	Once per semester	Number of presenters; evaluation sheets	• Presentation skills • Dissemination
7. School-Based Research Congress	To promote research culture	Annual event showcasing outputs	1. Organize presentations 2. Invite evaluators 3. Conduct awarding	Teachers, Administrators, Division Supervisors	Once a year	Completed research; feedback	• Research productivity • Research culture
8. Training in Digital Tools for Research	To enhance skills in digital tools	Training in research software	1. Conduct hands-on training 2. Provide guided exercises 3. Require output submission	ICT Coordinator, Teachers, Research Coordinator	2 days	Outputs; skills assessment	• Digital competence • ICT training effectiveness
9. Incentive and Recognition Program	To motivate teachers to conduct research	Recognition for contributions	1. Set criteria for awards 2. Evaluate research outputs 3. Conduct awarding ceremony	School Heads, Division Office, Teachers	End of school year	Published research count	• Incentives impact • Motivation
10. Time Allotment Policy	To provide sufficient research time	Policy for dedicated research time	1. Develop policy guidelines 2. Adjust schedules if necessary 3. Monitor implementation	School Heads, Teachers, Division Office	Whole school year	Increase in outputs	• Time allotment effect • Workload impact



ACTIVITY 1

Research Capability Enhancement Seminar



<https://www.facebook.com/ALOYSIANPUBLICATIONS/>

SESSION TITLE:	Module 1: Enhancing Teachers' Competence in Research Design
TARGET PARTICIPANTS:	Teachers, Master Teachers, School Heads, Division Research Coordinator
TOTAL DURATION:	3 Hours

I. OBJECTIVES

To improve teachers' knowledge in research design, sampling, and statistical analysis

II. KEY CONCEPTS AND CONTENT

- Descriptive, Correlational, Ex Post Facto, Quasi-Experimental, and Experimental frameworks.
- School-based Case Studies: Phenomenological tracking, and narrative operational diagnostics.
- Procedural compliance mapped to DepEd Order (DO) No. 16, s. 2017 (Research Management Guidelines).

III. TRAINING MATERIALS AND REFERENCES

- High-definition multimedia projection deck system, pointer tool, and interval timer metrics.
- Color-coded structural meta cards, Manila workshop sheets, and high-visibility markers.
- Reference Standard: DepEd Order No. 16, s. 2017 (Research Management Guidelines).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (15 Minutes)	Welcome: Set goals for the session. Pre-Test: Pass out the Research Design Sub-test Hook: Explain how this helps win BERP grants.	Projector Slide Deck Sub-test forms Timer tool
Activity (30 Minutes)	Group Up: Split everyone into 5 groups by grade or subject. The Game: Give groups 3 school scenarios (e.g., remedial app data). Task: Groups match research problem cards to the correct design labels.	Selective meta cards Manila paper sets Board tape kits
Analysis (30 Minutes)	Present: Group leaders share their matching choices. Debrief Questions: 1. What words made you pick that specific design? 2. How do numbers vs. stories change your choice? 3. What happens if your design doesn't match your title? If the structure mismatches the title?	Facilitator guide Board markers Whiteboard
Abstraction (60 Minutes)	Lecture: Explain Experimental vs. Non-Experimental designs. Fix Mistakes: Explain that tools (surveys/questionnaires) are not the overall research design. Q&A: Open forum on ethics, limits, and validity.	Presentation deck DO 16, s. 2017 copies
Application (45 Minutes)	Contextual Matrix Workshop: Individual or peer-pair workflow segment. Deliverable Goal: Using active or perspective school action research targets, participants map their title into the formal Research Design Matrix. Criterion: Provide clear methodological reasoning matching local school constraints.	Matrix worksheets Sample templates Workshop laptops

V. EVALUATION AND ASSESSMENT

Verification of individual mastery and training effectiveness follows a two-tier verification mechanism:

- Summative Check (Post-Test):** A 10-item situational tool evaluating design choice accuracy and procedural diagnostic skills under realistic school variables.
- Portfolio Quality Assessment:** Rigorous evaluation of the submitted Research Design Matrix by the Division Committee based on framework synchronization and local action feasibility.

ACTIVITY 3

School-Based Research Mentoring Program



<https://www.aloysianpublications.com/ALOYSIANPUBLICATIONS/>

SESSION TITLE:	Module 1: Effect of mentoring
TARGET PARTICIPANTS:	Master Teachers, Research Coordinators, Teachers
TOTAL DURATION:	Whole School Year (Continuous Professional Development Framework)

I. OBJECTIVES

To guide teachers in completing action research.

II. KEY CONCEPTS AND CONTENT

- Pairing expert researchers and Master Teachers with classroom practitioners for context-aware support.
- Navigating problem identification, localized data gathering, intervention mapping, and text formulation.
- Ensuring peer review processes adhere strictly to DepEd Order (DO) No. 16, s. 2017 standards.

III. TRAINING MATERIALS AND REFERENCES

- Mentoring validation logs, program progress trackers, and milestone evaluation guides.
- Sample research worksheets, templates, digital tracking environments, and feedback protocols.
- Regulatory Standard: DepEd Order No. 16, s. 2017 (Research Management Guidelines).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Orientation (Cycle Launch)	Program Alignment: Formally establish the vision, boundaries, and pairing structures of the mentoring platform. Strategy Description: Introduce the systematic pairing setup where Master Teachers guide classroom practitioners toward full completion.	Orientation deck Alignment guide Pairing roster
Activity (Implementation)	Step 1: Assign Mentors and Mentees - Establish formal pairings based on grade levels, fields, or research themes. Step 2: Conduct Regular Consultation Sessions - Execute bi-weekly text evaluations and data review cycles.	Pairing rubrics Consultation logs Laptops
Analysis (Mid-Cycle Review)	Step 3: Monitor Progress - Systematically evaluate cohort developments using milestone tracking cards. Processing Questions: 1. What primary challenges arise during your regular peer review interactions? 2. How do structural checks impact the overall completion rate?	Milestone cards Progress metrics
Abstraction (Technical Briefs)	Best Practice Synthesis: Conduct clinical sessions clarifying complex data extraction steps and structure issues. Framework Stabilization: Anchor ongoing developments directly inside DO 16, s. 2017 quality indicators.	Synthesis slides Style manual cards
Application (Year-End Close)	Manuscript Finalization: Mentees complete full text revisions backed by their assigned mentors. Peer Evaluation: Run a comprehensive analysis block measuring the direct effect of mentoring on writing speeds and quality.	Draft documents Impact matrices

V. EVALUATION AND ASSESSMENT

Quality tracking is sustained through structured artifact verification:

- Program Progress Reports & Documentation:** Mandatory regular logging of structural consultation sheets, design changes, and written drafts.
- Effect of Mentoring Assessment:** Evaluating change profiles across overall manuscript completion speeds and validation scores.

ACTIVITY 2

Workshop on Research Writing and Data Analysis



<https://www.aloysianpublications.com/ALOYSIANPUBLICATIONS/>

SESSION TITLE:	Module 1: Effectiveness of data analysis training
TARGET PARTICIPANTS:	Teachers, Research Experts, ICT Coordinator
TOTAL DURATION:	3 Days (Intensive Hands-on Seminar-Workshop Framework)

I. OBJECTIVES

To develop skills in writing research papers and analyzing data

II. KEY CONCEPTS AND CONTENT

- Drafting formal Results, structural Analysis, and matching Discussion blocks.
- Sanitizing tracking records, processing incomplete entries, and populating tables.
- Aligning analytical metrics with DepEd Order (DO) No. 16, s. 2017 parameters.

III. TRAINING MATERIALS AND REFERENCES

- Interactive projection presentation system, workspace laptops, and evaluation timers.
- Curated educational datasets, template structural modules, and analytical guides.
- Reference Standard: DepEd Order No. 16, s. 2017 (Research Management Guidelines).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Day 1 Morning)	Objective Setting: Clear presentation of target outputs and 3-day milestone parameters. Baseline Check: Assess entry-level familiarity with technical tools and structural composition guidelines.	Slide deck Skills inventory Timer metrics
Activity (Day 1 - Day 2)	Guided Writing Sessions: Interactive, block-by-block development of manuscript sections. Dataset Provision: Deliver raw educational sample blocks to cohorts for processing. Technical Initialization: Team with the ICT Coordinator to initialize computing environments.	Draft templates Sample datasets Workspace laptops
Analysis (Day 2 Afternoon)	Technical Group Deconstruction: Critically evaluate rows, sorting procedures, and code entries. Critical Processing Questions: 1. What parameters determined your specific data sorting methodology? 2. How do errors in baseline cleaning affect final descriptive outcomes?	Process layouts Guidance matrices
Abstraction (Day 3 Morning)	Data Interpretation Synthesis: Professional instruction on translating analytical numbers into formal text narratives. Error Rectification: Systematically target common errors in reporting statistical tables.	Synthesis slides Style manual cards
Application (45 Minutes)	Facilitated Output Presentation: Formal delivery of cohort research outputs to the body. Verification Review: Panel of Research Experts evaluates artifacts using standard rubrics to measure the effectiveness of data analysis training.	Review matrices Evaluation rubrics

V. EVALUATION AND ASSESSMENT

Quality assurance of learning outcomes is executed via a dual-mechanism approach:

- Completed Research Outputs:** Submission of draft manuscript sections featuring clean, fully structured tabular layouts.
- Output-Based Presentation Evaluation:** Critical appraisal against standard rubrics measuring the overall effectiveness of data analysis training.

ACTIVITY 4

LAC on Research Integration



<https://www.aloysianpublications.com/ALOYSIANPUBLICATIONS/>

SESSION TITLE:	Module 1: Research utilization
TARGET PARTICIPANTS:	Teachers, Department Heads, School Heads
TOTAL DURATION:	Monthly

I. OBJECTIVES

To integrate research into classroom instruction

II. KEY CONCEPTS AND CONTENT

- Translating empirical findings, data models, and proven interventions directly into actionable classroom lessons.
- Using monthly LAC circles to safely share, dissect, and unpack professional knowledge assets.
- Designing research-backed daily lesson logs (DLL) or detailed lesson plans (DLP) matching DepEd quality indicators.

III. TRAINING MATERIALS AND REFERENCES

- Monthly LAC implementation reports, lesson plan review criteria, and presentation guides.
- Action research briefs, evaluation logs, curriculum guide templates, and peer feedback worksheets.
- Regulatory Framework: DepEd Order No. 35, s. 2016 (The Learning Action Cell as a K to 12 Continuous Professional Development Strategy).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the monthly target focus for integrating empirical insights into local subject curricula. Benchmarking: Review previous lesson delivery logs to identify diagnostic gaps where evidence-based actions are required.	LAC Slide Presentation Core objectives overview
Activity (LAC Session)	Step 1: Conduct LAC Sessions - Assemble educators in monthly, highly collaborative structured circles. Step 2: Share Research Findings - Review specific school or division action research data relevant to student obstacles.	Research summaries Session attendance sheets Laptop computers
Analysis (Collaborative Review)	Analyze shared research outcomes to match specific lesson objectives. Processing Questions: 1. How do these research findings reframe our understanding of the student problem? 2. What instructional parts must change to absorb this evidence?	Lesson plan guidelines Whiteboard trackers
Abstraction (Technical Build)	Step 3: Develop Research-Based Lesson Plans - Work across subject teams to weave tested intervention steps seamlessly into regular lesson content fields. Align modifications clearly with DepEd lesson plan standards.	Lesson plan templates DepEd curriculum guides
Application (Classroom Delivery)	Implement the newly engineered research-based lesson plans during real classroom instructional periods. Department heads observe delivery runs to assess active Research Utilization indicators.	Final lesson plans Peer observation forms

V. EVALUATION AND ASSESSMENT

Verification of instructional quality and evidence absorption follows a strict verification pair:

- Monthly LAC Implementation Reports:** Systematic logging of discussion minutes, attendance details, shared data findings, and core teacher insights.
- Research-Based Lesson Plan Review & Observation:** Structured pre- and post-delivery audits executed by Department Heads checking for definitive indicators of active research utilization, speeds and validation scores.

ACTIVITY 5

Research Proposal Writing Clinic



<https://media.aloysianpublications.com/research-proposal-writing-clinic>

SESSION TITLE:	Module 1: Proposal quality
TARGET PARTICIPANTS:	Teachers, Division Research Committee
TOTAL DURATION:	2 days/ quarter

I. OBJECTIVES

To assist in preparing quality proposals

II. KEY CONCEPTS AND CONTENT

- Identifying structural gaps, technical errors, and misalignments in raw research proposals (Title, Rationale, Questions, and Methodology)
- Ensuring a logical, data-driven thread that connects the Research Questions (RQs) directly to the Research Design, Data Gathering Instruments, and Data Analysis Plans
- Formatting proposals according to DepEd Order No. 16, s. 2017 (Research Management Guidelines) and complying mandatory submission annexes

III. TRAINING MATERIALS AND REFERENCES

- Draft research proposals, participant laptops, extension cords, and writing materials
- Evaluation rubrics, expert feedback intake forms, technical assistance logs, and peer review checklists
- Regulatory Framework: DepEd Order No. 16, s. 2017 (Research Management Guidelines) and DepEd Order No. 39, s. 2016 (Adoption of the Basic Education Research Agenda)

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the target expectations for refining raw research drafts into discussion-approved proposals. Benchmarking: Review common evaluation bottlenecks and past rejection reasons to establish baseline areas where evidence-based actions are required.	Clinic Slide Presentation Core objectives overview SDRC Evaluation Rubrics
Activity (LAC Session)	Step 1: Conduct Peer-Review Sessions – Assemble educators in structured peer circles to read and discuss initial draft components. Step 2: Share Research Findings – Review localized school or division baseline data (e.g., student performance, meeting levels) to justify the urgency of proposed studies.	Draft proposals Session attendance sheets Laptop computers
Analysis (Collaborative Review)	Operational Deconstruction: Analyze peer-review outcomes against the standard DepEd quality criteria to spot gaps in logic, missing indicators, or weak methodology. Processing Questions: 1. How do these structural gaps or misalignments weaken the validity of the research questions? 2. What specific methodological parts must change to make this study feasible and compliant?	Technical Correction Checklist DepEd Order No. 16, s. 2017 Whiteboard trackers
Abstraction (Technical Build)	Step 3: Develop Research Alignment Matrices – Work closely across subject/grade-level teams to align modified research questions directly with valid data collection tools, ethical considerations, and logical data analysis plans.	Alignment matrix templates DepEd Order No. 16, s. 2017 Templates
Application (Classroom Delivery)	Implement the newly engineered research proposals through a mock presentation/defense simulation with the Division Research Committee. Department heads and committee members observe presentations to assess the research's readiness for official submission.	Finalized research proposals Technical Assistance Intake Log

V. EVALUATION AND ASSESSMENT

Verification of proposal quality and institutional compliance follows a strict verification pair:

- Formative:** A fully accomplished Research Alignment Matrix signed off by an assigned clinic mentor prior to packaging.
- Summative:** The final research proposal document scoring a minimum of "Very Satisfactory" on the standardized SDRC Evaluation Rubric. Check (evaluating Content, Innovation, Methodology, and Cost Estimates).

ACTIVITY 7

School-Based Research Congress



<https://media.aloysianpublications.com/school-based-research-congress>

SESSION TITLE:	Module 1: Research productivity
TARGET PARTICIPANTS:	Teachers, Administrators, Division Supervisors
TOTAL DURATION:	Once a year

V. OBJECTIVES

To promote research culture.

II. KEY CONCEPTS AND CONTENT

- Embedding evidence-based inquiry into the school to drive data-backed decision-making and continuous improvement.
- Utilizing external expert evaluators to assess the validity, methodology, and contextual impact of completed school research.
- Motivating teachers through an institutionalized awarding system to increase research visibility, morale, and ongoing productivity.

III. TRAINING MATERIALS AND REFERENCES

- Congress programs, abstract certificates, plaques/certificates of recognition, and technical criteria scoring sheets.
- Evaluator feedback logs, research rubrics, and summary score tracking sheets.
- Regulatory Framework: DepEd Order No. 10, s. 2017 (Research Management Guidelines) and DepEd Order No. 35, s. 2016 (The Learning Action Cell as a K to 12 Continuous Professional Development Strategy).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the annual targets for the Congress, focusing on showcasing completed studies and evaluating year-long research outputs. Benchmarking: Analyze the previous year's submission rates to establish baseline targets for increasing the school's overall research production.	Congress Concept Note Criteria for Best Research Event Timeline/Matrix
Activity (LAC Session)	Step 1: Organize Presentations – Group completed abstract and basic research papers into concurrent panel norms or poster presentation halls. Step 2: Share Research Findings – Host the formal opening and simultaneous presentation tracks where educators deliver data summaries to peers and panels.	Completed research manuscripts Session attendance sheets Laptops / Presentation Decks
Analysis (Collaborative Review)	Operational Deconstruction: Invite external evaluators (Division Supervisors, Specialists) to review the presentations and break down the technical strengths or flaws of the studies. Processing Questions: 1. How do they presented findings change or support our current School Improvement Plan (SIP)? 2. What policy modifications or instructional adjustments must be applied based on the evaluators' critiques?	Evaluator Scoring Sheets Congress Logs
Abstraction (Technical Build)	Step 3: Synthesis of Best Practices – Assemble subject area groups to compile the verified solutions from the winning or highly-rated papers. Align the recommendations of the evaluated studies with standard DepEd lesson formats and localized school policies.	Synthesis templates DepEd Curriculum Guides Research Tools
Application (Classroom Delivery)	Conduct the formal Awarding Ceremony to recognize exceptional papers, driving momentum for the next cycle of studies. Administrators track the actual implementation of these winning interventions in classrooms to gauge sustained research utilization.	Certificates / Trophies Research Tracking Logbook

V. EVALUATION AND ASSESSMENT

Verification of instructional quality and evidence absorption follows a strict verification pair:

- Formative Metric:** A comprehensive registry of Completed Research manuscripts submitted, accompanied by the consolidated panel Feedback Logs.
- Summative Metric:** A measurable increase in the school's Research Productivity Index, documented by the total number of papers successfully making it through the annual congress evaluation into the final publication or implementation phase.

ACTIVITY 8

Training in Digital Tools for Research



SESSION TITLE:	Module 1: Digital competence
TARGET PARTICIPANTS:	ICT Coordinator, Teachers, Research Coordinator
TOTAL DURATION:	2 days

I. OBJECTIVES

To enhance skills in digital tools.

II. KEY CONCEPTS AND CONTENT

- Digital Research Software and Platforms: Utilizing modern software for literature mapping, referencing (e.g., Mendeley, Zotero), and data management.
- Quantitative and Qualitative Data Automation: Applying digital tools (e.g., spreadsheet advanced formulas, statistical packages, or automated coding software) to streamline data analysis.
- Plagiarism and AI-Detection Compliance: Leveraging institutional digital checkers to ensure research integrity, originality, and adherence to DepEd ethical standards.

III. TRAINING MATERIALS AND REFERENCES

- Laptop computers with pre-installed research tools/software, stable internet connectivity, and projection equipment.
- Guided exercise worksheets, software installation guides, and skills assessment rubric sheets.
- Regulatory Framework: DepEd Order No. 16, s. 2017 (Research Management Guidelines) and DepEd Order No. 35, s. 2016 (The Learning Action Cell as a K to 12 Continuous Professional Development Strategy).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the 2-day training targets focused on mastering research software to optimize data accuracy and citation management. Benchmarking: Review current technical baselines to identify the software gaps slowing down the data processing stage of teacher-researchers.	Digital Tool Slide Decks Software installation links Skills pre-test checklist
Activity (LAC Session)	Step 1: Conduct Hands-on Training – Walk through step-by-step software configurations (e.g., setting up a referencing plugin or structuring database sheets). Step 2: Share Research Findings – Practice importing existing raw datasets or research abstracts into the digital platforms to run test parameters.	Sample datasets / Drafts Session attendance sheets Laptops / Research tools
Analysis (Collaborative Review)	Operational Deconstruction: Analyze technical errors encountered during software navigation, such as broken citation links or incorrect formula outputs. Processing Questions: 1. How do automated digital tools lower the margin of error compared to manual calculation and citation methods? 2. What specific software configurations must be masterfully applied to ensure the validity of our research data?	Guided exercise tasks Troubleshooting guides
Abstraction (Technical Build)	Step 3: Develop Research-Based Lesson Plans – Work across collaborative teams to integrate data analytics and software usage models into regular curriculum research tools. Synchronization: Align newly engineered data flows with DepEd research standards to ensure all automated processes adhere to institutional formatting rules.	Reference templates DepEd Curriculum Guides
Application (Classroom Delivery)	Complete the required output submission where participants generate automated reference lists and compiled tables from their actual papers. The ICT and Research Coordinators observe the system runs and check submission dashboards to evaluate live troubleshooting capabilities.	Completed digital outputs Skills assessment logs

V. EVALUATION AND ASSESSMENT

Verification of instructional quality and evidence absorption follows a strict verification pair:

- Formative Metric:** The timely Output Submission consisting of a digitally generated reference library and an error-free automated data analysis matrix.
- Summative Metric:** A verifiable increase in the participants' Digital Competence rating, verified through standard hands-on Skills Assessment sheets evaluating software proficiency, execution speed, and tool

ACTIVITY 9

Incentive and Recognition Program

SESSION TITLE:	Module 1: Incentives Impact
TARGET PARTICIPANTS:	School Heads, Division Office, Teachers
TOTAL DURATION:	End of school year

I. OBJECTIVES

To motivate teachers to conduct research.

II. KEY CONCEPTS AND CONTENT

- Performance-Driven Motivation: Establishing a rewards system that structurally encourages educators to transition from passive teaching to active, data-driven action research.
- Merit-Based Evaluation Frameworks: Utilizing objective, transparent institutional standards to assess the impact, scalability, and validity of teacher-led innovations.
- Research Dissemination and Prestige: Elevating the professional status of teacher-researchers through formal commendations that count toward career progression and promotion.

III. TRAINING MATERIALS AND REFERENCES

- Award criteria guidelines, score sheets, evaluation rubrics, and committee vetting logs.
- Certificates of recognition, trophies/plaques, incentive tracking ledgers, and rewards program brochures.
- Regulatory Framework: DepEd Order No. 16, s. 2017 (Research Management Guidelines) and DepEd Order No. 35, s. 2016 (The Learning Action Cell as a K to 12 Continuous Professional Development Strategy).

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the end-of-school-year goals for the rewards program, establishing how professional accolades are tied to tangible research metrics. Benchmarking: Review historical research submission data to pinpoint which departments or grade levels require stronger motivation and targeted support.	Program Mechanics Presentation Incentive policy briefs Baseline submission logs
Activity	Step 1: Set Criteria for Awards – Conduct collaborative committee sessions to map out clear, point-based qualification pathways for research recognitions. Step 2: Share Research Findings – Review data summaries from the year's research repository to showcase completed studies that successfully solved critical classroom problems.	Criteria draft sheets Session attendance sheets
Analysis (Collaborative Review)	Operational Deconstruction: Evaluate research outputs against the institutional criteria to screen for methodology rigor, ethics compliance, and data integrity. Processing Questions: 1. How do clear, transparent evaluation guidelines prevent bias during the research vetting process? 2. What quality indicators must be present for a study to qualify as a benchmark-worthy school contribution?	Rubric tally templates Vetting committee logs
Abstraction (Technical Build)	Step 3: Align with Professional Standards – Work across administrative teams to ensure that the criteria for research awards match the promotional points outlined in DepEd career progression policies. Synchronization: Link research-based teaching successes directly to standard performance appraisal forms (RPMS-PPST indicators).	DepEd Career Progression guides RPMS-PPST manual sheets
Application (Classroom Delivery)	Conduct the formal Awarding Ceremony at the end of the school year to celebrate outstanding research contributions and distribute incentives. School Heads and Division Supervisors monitor post-award school dynamics to track how targeted recognition influences future research sign-ups.	Program scripts / Plaques Post-event evaluation logs

V. EVALUATION AND ASSESSMENT

Verification of instructional quality and evidence absorption follows a strict verification pair:

- Formative Metric:** An updated and verified registry of the Published Research Count along with completed evaluation tallies from the selection committee.
- Summative Metric:** A documented increase in the overall Incentives Impact, measured through a year-over-year rise in teacher research participation, enhanced institutional morale, and a stronger school-wide culture of evidence-based practice.

ACTIVITY 10

Time Allotment Policy

SESSION TITLE:	Module 1: Effect of Time Allotment
TARGET PARTICIPANTS:	School Heads, Teachers, Division Office
TOTAL DURATION:	Whole school year

I. OBJECTIVES

To provide sufficient research time.

II. KEY CONCEPTS AND CONTENT

- Strategic Time Management Frameworks: Designing structural schedules that deliberately protect and insulate professional development hours from regular instructional loads.
- Workload Optimization and Rebalancing: Adjusting operational school timetables, class assignments, and auxiliary duties to insert dedicated research windows without disrupting learner contact time.
- Institutional Accountability and Monitoring: Setting up tracking tools and feedback loops to ensure that allocated administrative time converts directly into active, high-value data inquiry.

III. TRAINING MATERIALS AND REFERENCES

- Policy draft templates, school master schedules, class timetables, and teacher loading logs.
- Time-utilization monitoring logs, implementation trackers, and monthly progress evaluation sheets.
- Regulatory Framework: DepEd Order No. 16, s. 2017 (Research Management Guidelines), DepEd Order No. 7, s. 2024 (or current guidelines on teacher workload/feasible working hours), and DepEd Order No. 35, s. 2016.

IV. DETAILED LEARNING PLAN (THE 4As INSTRUCTIONAL METHOD)

Phase & Duration	Methodology & Key Instructional Steps	Materials / Notes
Introduction & Pre-Assessment (Cycle Briefing)	Objective Setting: Unpack the whole school year timeline for enforcing a dedicated time policy to protect teacher-researchers from administrative burnout. Benchmarking: Review current master schedules and ancillary assignments to map existing time bottlenecks that prevent teachers from starting or completing studies.	Policy Initiative Slide Decks Current Teacher Loading Logs Baseline schedule data
Activity	Step 1: Develop Policy Guidelines – Form collaborative planning circles to draft specific, structured rules that officially allocate dedicated hours for research activities. Step 2: Share Research Findings – Review localized data regarding delayed or abandoned research papers to identify where past time constraints caused the most project drops.	Policy draft worksheets Session attendance sheets Laptops / Timetable software
Analysis (Collaborative Review)	Operational Deconstruction: Dissect the proposed policy drafts and existing class schedules to pinpoint friction areas, such as conflicting remedial classes or meeting times. Processing Prompts: 1. How does an official, structural time allotment policy protect a teacher's work-life balance while building a research culture? 2. What exact schedule modifications must happen to guarantee these research hours remain uninterrupted?	Master schedule matrices Conflict mapping sheets
Abstraction (Technical Build)	Step 3: Adjust Schedules If Necessary – Work across administrative and department teams to rearrange school timetables, integrating the dedicated research slots smoothly into daily operations. Synchronization: Align the newly engineered time blocks with DepEd's core instructional hour policies to ensure regular student learning standards are never compromised.	Revised master timetables DepEd Teacher Loading Guides
Application (Classroom Delivery)	Launch the adjusted schedules and continuously Monitor Implementation using structured weekly time-utilization logs. School Heads and Division Supervisors conduct routine walk-throughs and review tracking dashboards to ensure the allocated time is used strictly for research tasks.	Time-utilization tracking forms Implementation check-logs

V. EVALUATION AND ASSESSMENT

Verification of instructional quality and evidence absorption follows a strict verification pair:

- Formative Metric:** A documented and sustained increase in Outputs (including finalized proposals, mid-term data sets, or completed manuscripts) across the quarters.
- Summative Metric:** A positive evaluation score measuring the Effect of Time Allotment, verified through end-of-year surveys and performance metrics showing a direct link between protected research hours, lower teacher stress levels, and higher research quality.

Discussion

1.1. Trainings Attended Related to Research

The majority of teachers attended one research-related training (52.6%), while a smaller proportion had no training (31.2%), and only a few attended two or more trainings (5.6-10.2%). This indicates that most teachers have limited exposure to formal research capacity-building programs.

1.2 Research Works Completed

Slightly more than half of the respondents (53.4%) had not completed any research work, while (36.1%) completed one research project, and only a few (5.3%) completed two or more research works. This suggests that the majority of teachers have minimal practical experience in conducting formal research.

1.3 Research Involvement

Regarding research roles, (40.6%) of teachers acted as sole authors, (26.7%) as research advisers, (10.5%) as research presenters, and (18.4%) reported no involvement in research. This implies that while a portion of teachers actively engage in research, a significant number are not directly involved in research activities.

2. Level of Teachers' Research Competence in terms of:

2.1 Codified Knowledge

Teachers were slightly competent with a composite mean of 2.30, showing strength in formulating research questions but weakness in statistical analysis, indicating a need for improvement in technical research skills.

2.2 Cultural Knowledge

Teachers were slightly competent with a composite mean of 2.19, demonstrating awareness of research norms but limited mentoring and support, suggesting the need to strengthen school research culture.

2.3 Personal Knowledge

Teachers were moderately competent with a composite mean of 2.76, valuing experience as a source of ideas but lacking confidence in applying it to research, indicating a need for support in producing research outputs.

3. Extent of Teachers' Utilization of Research Practices with reference to:

3.1 Enhancing Instructional Strategies

Research practices were moderately utilized (2.87), with teachers applying findings to improve teaching but showing less consistency in modifying instructional approaches.

3.2 Improving School Programs

Research utilization in school programs was slightly utilized (2.32), indicating limited use in decision-making, planning, and evaluation, with minimal integration of classroom research into program development.

3.3 Initiating School-Based Innovations

School-based research practices were slightly utilized (2.12), showing limited participation in collaborative research, mentoring, and dissemination, reflecting a weak research culture that needs stronger institutional support.

4. Significant Relationship Between the Assessments on the Research Competence of Teachers and on the Extent of Utilization of their Research Practices

4.1 Enhance Instructional Strategies

There is a highly significant positive relationship between research competence and instructional strategies, with codified (0.625), cultural (0.721), and personal (0.812), where personal knowledge is highest. This means teachers' experience strongly influences how research improves teaching.

4.2 Improve School Programs

A highly significant positive relationship exists between research competence and school program improvement, with codified (0.750), cultural (0.648), and personal (0.774), where personal knowledge is highest. This indicates that teachers' skills and experiences support better program development.

4.3 Initiate School-Based Innovations

There is a highly significant positive relationship between research competence and school-based innovations, with codified (0.836), cultural (0.882), and personal (0.777), where cultural knowledge is highest. This shows that collaboration and shared practices drive innovation.

5. Challenges Encountered in Conducting Research

The findings revealed that teachers agreed that they encounter several challenges in conducting research, as indicated by the composite mean of 3.13 (Agree). The most common difficulties include the need for additional training in research writing, statistical analysis, and use of digital tools, lack of confidence in conducting and presenting research, and limited time due to heavy teaching workload and school responsibilities.

Teachers also reported insufficient mentoring, limited access to research resources, and lack of motivation and institutional support, which hinder their active involvement in research activities. These results indicate that both personal and organizational factors affect teachers' ability to conduct research effectively.

6. Proposed Plan of Developmental Activities to Strengthen Research Capability and Productivity

The proposed developmental activities address gaps in teachers' research competence, including limited training, low productivity, and uneven research involvement. The program aims to strengthen teachers' skills in conducting, writing, and utilizing research through seminars,

workshops, and data analysis training. It is supported by mentoring programs and LAC sessions to promote collaboration and practical application in teaching.

It also includes activities such as proposal writing clinics, research colloquia, and research congresses to enhance output and presentation of studies. Training on digital tools, incentives, and a time allotment policy further support research engagement. Overall, the program aims to build a strong research culture, increase research outputs, and improve evidence-based teaching and school performance.

CONCLUSIONS

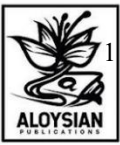
Based on the above findings, the following conclusions were drawn:

1. Teachers have limited research training, output, and participation, indicating the need to strengthen research capacity-building and engagement opportunities.
2. Teachers demonstrated slight competence on codified and cultural knowledge, while moderate competence on personal aspect.
3. The self-assessment of the teachers showed slight utilization of practices on improving school programs and on enhancing school-based innovation, while they have moderate utilization of practices on enhancing instructional strategies.
4. The researcher found out that the assessments on the research competence of teachers and on the extent of utilization of research practices were highly significant.
5. The teachers agreed that there were lack of training , lack of confidence and the need for further motivation, encouragement and positive feedback
6. A developmental activity is necessary to address gaps in teachers' research competence, utilization, and challenges, ensuring sustained research productivity and engagement.

RECOMMENDATIONS

In the light of the above findings of the study, the following recommendations are hereby endorsed:

1. The researcher may intensify research capacity-building programs through the proposed developmental activity plan, focusing on the weakest indicators identified in the study to further enhance teachers' research competence and research practices.
2. Continuous professional development may be provided to enhance teachers codified, cultural, and personal research knowledge through mentoring programs, research clinics, collaborative activities, and hands-on training in research design, statistics, and academic writing.



3. A similar study may be conducted in other schools to further improve teachers' research competence. The study may focus on research capability, research competence, teacher productivity, research utilization, and professional development in SDO Batangas City.

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