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Research Capability of Public Elementary School Teachers: Inputs to Basic Educational Development Plan

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Abstract — This study assessed public elementary school teachers' research capabilities in Pangasinan's four city divisions in 2022–2023. This investigation will use descriptive correlation. The researcher employed a four-part questionnaire to gather respondents' profiles, public elementary school teachers' attitudes toward research, school heads' support for research, and instructors' research capabilities. Three hundred ninety-five public elementary school teachers from Pangasinan's four City Schools Divisions—Alaminos, Dagupan, San Carlos, and Urdaneta—were randomly selected. Slovin's Formula lowered responses to 395. The questionnaire comprises four parts. Part I collected instructors' age, sex, civil status, most outstanding educational attainment, years of teaching, relevant training, research done, and research agenda. Shaqfat, Manzoor, Khan, and Mahmood's Part II evaluated public elementary school administrators' research orientation, rewards influence, personal interests in research, research use, and research fear (2018). Part III focused on the support provided by school heads to public elementary school teachers in the areas of research, collaboration, challenges, inspiration, and encouragement. The teachers underwent a research evaluation to test their abilities. They had to demonstrate their capacity to conceptualize a research project, create a research problem and hypotheses, search for and identify relevant literature, determine the appropriate research methodology and design, formulate conclusions and recommendations based on the results, evaluate the finished research, and apply the research findings. The socio-demographics of the respondents were determined using frequency counts and percentages. We used the average weighted mean to assess the research attitudes of public elementary school teachers, school heads' support, and teachers' research abilities. Coded Pearson Product Correlation and Analysis of Variance (ANOVA) were utilized to determine the difference in respondents' profiles and research ability.

The results showed that most teachers were men in their middle age, married, and had attained a Master's degree. They held a favorable outlook toward research, placing more importance on its benefits than its utilization. School principals were supportive, mainly when working together, but needed more motivation research. Different teachers displayed different levels of research skills, being good at implementing research findings but requiring enhancement in creating research problems and hypotheses. It is imperative to note that attending relevant training, completing more research projects, and possessing diverse research competencies were found to have a high correlation. Therefore, to uplift teachers' research skills, there is an urgent need to create a research plan that targets explicitly enhancing their abilities in conceptualization and literature searching. The program aims to improve teaching quality and student outcomes, aligned with the Basic

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Education Development Plan 2030, through professional development, mentorship, and a rewards system. Continuous support, customized training, and regular monitoring and assessment are imperative for the program's success.

Keywords — Research, Research Capability, Research Ability, Administrative Support

I. Introduction

Background of the Study

It is significant to understand that research is, in one way or the other, designed to solve a particular existing problem; there is a larger population willing to use research to address immediate concerns. At the same, it should be clear how research impacts decision-making. Observation tells us that, somehow, there are people who make decisions without gathering information to back them up. Research requires time, effort, and sometimes money to have the evidence to make a sound decision, so many hold back from pursuing research writing. The research that one does and the evidence gathered impact the future. Therefore, researchers should seek counsel and evaluate the dangers or repercussions of making a significant decision with insufficient proof.

The Philippine Department of Education (DepEd) has issued a directive to all school administrators, managers, and teachers urging them to follow "the enclosed Basic Education Research Agenda," which encourages the conduct of education research nationwide. Its goal is to pinpoint the issues teachers and the department face and provide remedies based on the outcomes and conclusions.

Action research is part of the yearly performance evaluation process for all teachers, with professional growth and development being one of the primary outcome areas for each teacher's performance commitment and review. Evaluating teacher individually accounts for 5% of the final score. However, many of these teachers need more training in conducting action research. It may be rare in Philippine public elementary and secondary schools. Although DepEd has made significant efforts to educate and engage public school teachers about the value of doing research, many of them in elementary and secondary schools needed more motivation and enthusiasm. Some public school teachers need more motivation and interest in research due to various factors, including limited teaching time and severe workloads (Ulla, 2017).

Ulla (2017) added that the entire set of educational capabilities directly related to the student's knowledge acquisition processes of thought, search, logic, and creativity refers to research capability as a result of activity to transfer from functional to creating a research development program as the enthusiasm and aptitude to master and accept systems of new knowledge independently.

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Additionally, research provides a rich source of evidence for teachers, school leaders, teacher educators, and policymakers; it gives opportunities for teachers to engage in inquiry-based practice, inspire innovation, and build solid and sustainable relationships between teachers and educational leaders in various schools and between them and the research community (British ER Association, 2018).

According to the final report of the BERA-RSA Inquiry (2018), the role of research in teacher education identifies four primary areas in which research contributes to teacher education. Research informs the content of teacher education programs; research informs the design of teacher education programs; research equips teachers with the necessary knowledge to engage with it; and research equips teachers with the necessary skills to conduct individual or collaborative research. Thus, through research, teachers and teacher teachers can investigate the effectiveness of specific tactics and treatments. They can study the positive and negative consequences of various educational practices.

Moreover, educational institutions rich in inquiry or research are the symbols of high-performing education systems. Hence, to become effective, teachers are encouraged to engage with research and inquiry in order to be updated with the latest developments in academic subjects and the various disciplines of education (BERA, 2018),

Furthermore, teachers must gain adequate training to engage in inquiry-oriented practices and focus on the inquiry-based practice they need to sustain during initial teacher education programs and throughout their professional careers. Innovations in specific fields and inquiries were done in collaboration within the schools and later became standard practice in teaching and learning (Serdyukov, 2017). Thus, with inquiry-based practice, teachers are armed with proper discipline and the necessary innovations to meet the needs of the learners.

The capabilities are instances of knowledge and skill used. Capabilities offer measurable proof of successfully attaining the skills needed to meet the standards. Academic research findings and studies acknowledge the value of research capability in disciplines inside and outside the legal community. A person's capability is the various combinations of functions they can achieve. Capability is a set of vectors of functions reflecting the person's freedom to lead one type of life or another (Tell, 2014).

Teacher capabilities, regarding their values, conceptions, practices, and classroom activities, are always current issues in teacher research due to their dynamic nature and reciprocal relationships with the surrounding society and the changing needs. They aim to find and bridge the gaps between values, conceptions, classroom observations, and pedagogical practices. They support teacher learning, especially regarding social relations and professional community, with mutual engagement, joint enterprise, and shared repertoire. Through functioning professional community, authenticity, and integrity as core characteristics of the teaching profession, they may contribute to the best of students. In this issue, various approaches linked to a teacher's professional

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core capabilities in different phases and contexts of a teacher's career are investigated and questioned explicitly or implicitly (Toom, 2017).

On the other hand, research capability is the capacity to address a problem using the scientific methods of preparation, data collection, and interpretation using the proper statistical tool or qualitative analysis (Salom, 2013). As a skill that requires constant practice, the faculty members' capacity for research may increase over time (Manongsong et al., 2018) by actively participating in the many activities that help build research capacity and the seminar write shop. The ability to do it should be in line with the interest.

Additionally, Caingcoy (2020) added that research capability could be determined and predicted by how motivated teachers are to write research, how productive they are in research, and how young they are when they engage in this rigorous endeavor. The study identified and recommended topics for continuing professional development.

Meanwhile, research productivity highly depends on the faculty's belief and general orientation to advance in their discipline. Clark (1983 in Smart & John, 1996) stresses that in order to understand the productivity of universities, it is crucial not only to focus on the organizational structure but also to include the organizational culture — that is, the non-rational or symbolic side of universities ~ as a vital factor. Research culture is assumed to be a sub-culture of the broader organizational culture in terms of research culture, such as observed behavior regularities (the language and rituals, research group norms, and research leadership focus); the philosophy guiding the organization's research policies; and the climate or feeling that the organization conveys on research. Salazar and Almonte (2007) stated that research culture includes institutional research policies and agenda, departmental culture, research budget, and policies and guidelines concerning research benefits and incentives.

Research culture is a shared attitude about research by the organization's members. It is a framework of common meanings concerning research. Additionally, Dacles et al. (2016) also found that research culture encompasses the norms and conventions of research activity, which participants in an organization typically take up and repeat until their behaviors blend into a so-called 'collective attitude.' Although it is implicitly accepted, research culture determines how each person in the group thinks, behaves, and makes choices regarding research (Robbins et al., 1994 in Dacles et al., 2016),

Moreover, culture reflects the personality of each university and distinguishes one from another. It is a system of widely shared and firmly held values. For a university or school to claim a strong research culture, research must be the top priority of most of its members. It serves many purposes, such as socializing new staff and guiding day-to-day activities. It influences universities' ability to implement strategy and deliver outcomes. As organizations gradually realize that changing culture is more significant than changing structure, culture has received more attention in recent years. It is easy to restructure the organization chart, but it is hard to reconfigure the

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hearts, minds, and values of individuals in the chart's boxes (Robbins, 2008 in Shahzad, Luqman, Khan &Shabbir, 2012).

Meanwhile, The Department of Education (DepEd) encourages its personnel to conduct research studies to understand better and advance primary education in the country. DepEd Order No. 39 series 2016, entitled "Adoption of the Basic Education Research Agenda," guides in conducting education research and utilizing research results to DepEd and its stakeholders. It also aims to inform the department's planning, policy, and program development aligned with its mission, vision, and core values.

Based on an evaluation of the agency's policies and programs, a survey of the literature, and nationwide consultations with DepEd central and field office representatives, identify four research themes or essential education topics. The findings generated from each theme fuel up evidence-based actions that deliberately support the attainment of the department's vision and mission and target outcomes of ensuring access to complete primary education, quality education, and practical, transparent, and engaging governance of primary education.

Moreover, it revolves around four main themes: 1) teaching and learning; 2) child protection; 3) human resource development; and 4) governance. Each theme has unique contributions which support the DepEd's overall mandate. For instance, Child Protection directly enriches the access outcome, while Teaching and Learning impact the quality of education. Likewise, the identified themes dovetail with the department's mission, particularly its four key stakeholders. Teaching and learning respond to students' and teachers' needs. Child Protection focuses on the students.

Based on the premises, the researcher explored the extent to which the teachers perform their duties and responsibilities as highly-capable researchers.

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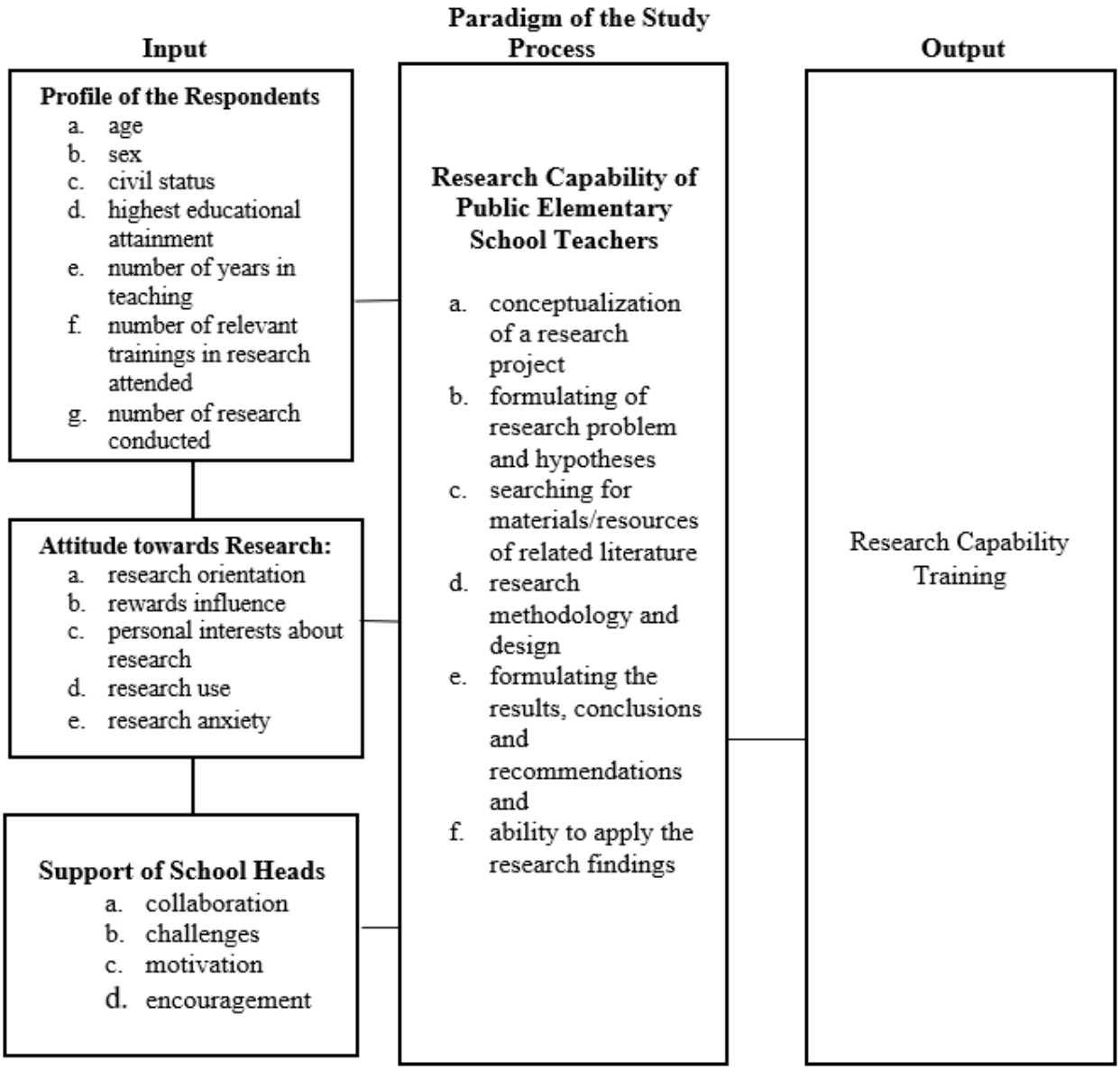

Figure 1. A paradigm showing the dependent and independent variables of the study

Statement of the Problem

This study sought to determine the research capability of public elementary school teachers in the four (4) City Divisions in the Province of Pangasinan, SY 2022-2023.

Specifically, it sought to answer the following problems:

1. Profile of the respondents in terms of:

   age;

   sex;

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civil status;

highest educational attainment;

number of years in teaching;

number of relevant training in research attended;

the number of research conducted?

2. What is the level of attitude the public elementary school teachers toward research:

   a. research orientation;

   b. rewards influence;

   c. personal interests in research;

   d. research use, and

   e. research anxiety

2. What is the school heads' support level to the public elementary school teachers in conducting research along the following?

   a. collaboration;

   b. challenges;

   c. motivation, and

   d. encouragement?

3. What is the level of research capability of public elementary school teachers along:

   a. conceptualization of a research project;

   b. formulating of research problem and hypotheses;

   c. searching for materials/resources of related literature;

   d. research methodology and design;

   e. formulating the results, conclusions, and recommendations; and

   f. ability to apply the research findings?

4. Are there significant differences in the level of research capability of public elementary school teachers across their profile variables?

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5. Are there significant relationships between public elementary school teachers' level of research capability and their profile variables?

6. What will be the proposal for the research capability developmental plan?

Research Hypotheses

1. Significant differences exist in the level of research capability of public elementary school teachers across their profile variables.

2. Significant relationships exist between the level of research capability of public elementary school teachers and their profile variables.

II. Methodology

Research Design

In this study, we used the descriptive-correlation method of research. Fox & Bayat (2004) stressed that descriptive research aims to cast light on current issues or problems through a data collection process that enables them to describe the situation more completely than possible without employing this method. In other words, descriptive research is the process of gathering, analyzing, classifying, and tabulating information about current conditions, practices, beliefs, processes, trends, and cause-and-effect relationships. This information is then interpreted appropriately and accurately, with or without the help of statistical methods. As Calderon (2012) described, descriptive research concerns the present state, composition, or processes of phenomena. It involves observing, recording, analyzing, and interpreting data to understand how a person, group, or thing behaves or functions in the present. This type of research often includes comparisons or contrasts.

Best and Khan (2008) define *descriptive research* as studying existing conditions or relationships, prevailing practices, ongoing processes, felt effects, and developing trends. This research method involves comparing or contrasting and attempts to discover relationships between existing variables.

This study adopted the descriptive method to determine and analyze the level of research capabilities of public school teachers. The statistical analysis results were the basis of inferences, conclusions, and recommendations.

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Population and Locale of the Study

Sampling involves the study of a few representative units of the universe. In this study, the respondents were public elementary school teachers of the four (4) city schools division of the Province of Pangasinan who were selected using the simple random sampling technique. The method of simple random sampling is a type of probability sampling in which a researcher randomly selects a sample from a population. In this study, Slovin's Formula was used to determine the sample size of the respondents.

Table 1. Distribution of Respondents

Divisions	Population	Sample
Alaminos City	527	70
Dagupan City	746	100
San Carlos City	1,032	138
Urdaneta City	652	87
Total	2,957	395

When selecting a sample from a larger population, a simple random sample is an unbiased representation of the group. This methodology is equitable in that it guarantees that each individual within the population has an equal opportunity for selection. Simple random sampling is known for its randomness and is less likely to result in sampling bias.

Data Gathering Tools

Research often utilizes survey questionnaires. On this premise, this research used a questionnaire as the data collection instrument. It is a formalized list of questions used to gather information from the respondents. The researcher then prepared the survey questionnaires after comprehensively searching related literature and studies.

With the help of the knowledge and information obtained from books, journals, periodicals, and other sources, the questionnaire was prepared following the criteria for its construction, like the writer's experiences and observations, and reinforced by readings from the various kinds of literature available.

The researcher utilized a questionnaire checklist instrument designed for the study based on the constructed problems. Public school teachers utilized this tool to gather data.

The participants had to complete a survey questionnaire with four sections as part of the research study. In the initial section, we gathered information about the teaching profiles of the participants. The information gathered encompassed their age, gender, marital status, highest level of education, teaching experience, number of training sessions attended, as well as their research activities and future research plans.

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Moreover, Part II of the survey questionnaire focused on the attitude of public elementary school heads toward research. It explored various aspects such as research orientation, the influence of rewards, personal interests in research, research utilization, and research anxiety. The researcher incorporated some aspects from a study by Shaqfat, Manzoor, Khan, and Mahmood (2018). However, the researcher made minor adjustments to ensure alignment with the objectives and context of the current research.

In Part III of the questionnaire, we aimed to evaluate the support provided by school heads to public elementary school teachers in conducting research. We looked at collaboration, challenges, motivation, and encouragement. This section of the questionnaire provided valuable insights into the support system available to teachers. The researcher designed this section to fit the research objectives while considering the specific requirements of the study.

Lastly, Part IV of the survey questionnaire evaluated the research capabilities of public elementary school teachers. It encompassed various aspects such as the ability to conceptualize a research project, formulate research problems and hypotheses, search for relevant literature, select appropriate research methodologies and designs, formulate results, conclusions, and recommendations, critique and evaluate finished research, and apply research findings. The researcher developed this section to comprehensively assess the research capabilities of the teachers participating in the study.

In summary, the survey questionnaire utilized in this research study consisted of four parts. Part I focused on gathering background information about the teachers. Part II assessed the attitude of public elementary school heads towards research, with inputs adopted from a previous study and modified to suit the research context. Part III explored the level of support school heads provide teachers in conducting research. Part IV focused on assessing the research skills of elementary school teachers in different areas.

The adopted survey questionnaires underwent content validation. The content validators consisted of experts in research and development from various colleges. The first draft was pre-tested with five (5) teachers not participating in the study. We considered their suggestions when we rephrased some of the items in the questionnaire to make the statements more straightforward in the final version of the instrument.

The survey questionnaire underwent rigorous validation by experts and underwent testing in a pilot study before being handed over to the intended participants. The pilot study included fifteen former educators who had not participated in any prior research. The pilot study showed consistent results, leading to the approval of the questionnaire for distribution.

A group of evaluators rated each of the ten items on a scale from 1 to 5 in the questionnaire evaluation. Mean scores were calculated for each item, showing consistently high scores ranging from 4.33 to 5.00, indicating that the evaluators perceived all items as highly valid. The overall mean scores of 4.7, 4.6, and 4.9 for the three evaluators further support the questionnaire's high

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content validity. Researchers can confidently rely on the questionnaire to accurately measure the intended constructs or concepts.

Data Gathering Procedure

After refining and finalizing the research instrument, the researcher secured a permit to float them from the office of the Regional Director and the Schools Division Superintendents of the four (4) City Schools Divisions of the Province of Pangasinan. Eventually, the researcher then administered the questionnaire to the public school teachers using a Google form. It was the best option for collecting the needed data for this study in the Covid-19 pandemic. It is to avoid face-to-face interaction of the researcher in gathering responses from the respondents adhering to minimum public health standards. The researcher also coordinated with the cluster supervisors for the Google form link. The researcher completed analyzing and interpreting the data collected through research tools.

Statistical Treatment

The data collected were sorted out, tallied, organized, and tabulated into the Excel Spreadsheet and were subject to treatment using the Statistical Package for Social Sciences (SPSS). To address the concerns brought up by the research, the data gathered underwent several statistical analyses to identify possible solutions.

In order to answer the research questions, the study utilized different statistical methods.

To establish the demographics of the respondents, problem number 1 collected data on age, gender, marital status, educational level, years of teaching experience, training attended, and research conducted. The information was displayed using frequency counts and percentages. The calculation process was streamlined by sorting each variable in the profile and assigning it a numerical value.

In order to tackle problem number 2, we conducted a thorough assessment of the attitudes of public elementary school teachers towards research, including their research orientation, the impact of rewards, personal interest in research, research utilization, and research anxiety. We employed a five-point rating scale to interpret the results and calculated the average weighted mean to collect the necessary data.

Scale	Statistical Range	Descriptive Equivalent	Transmuted Rating
5	4.50 – 5.00	Always	Strongly Agree
4	3.50 – 4.49	Often	Agree
3	2.50 – 3.49	Sometimes	Neutral
2	1.50 – 2.49	Seldom	Disagree
1	1.00 – 1.49	Rarely	Strongly Disagree

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To address problem number 3, the researcher collected data using the average weighted mean to assess the level of support provided by school heads to public elementary school teachers in conducting research, collaborating, facing challenges, staying motivated, and receiving encouragement. The evaluation process for the data involves a fixed five-point rating system that cannot be modified. To assess the level of support school heads give to public elementary school teachers in various aspects, such as research, collaboration, challenges, motivation, and encouragement, the researcher computed the average weighted mean of the gathered data for problem number 3. The rating system utilized was a five-point scale to evaluate the data accurately.

Scale	Statistical Range	Descriptive Equivalent
5	4.50 – 5.00	Highly Supportive
4	3.50 – 4.49	Supportive
3	2.50 – 3.49	Moderately Supportive
2	1.50 – 2.49	Slightly Supportive
1	1.00 – 1.49	Least Supportive

For problem number 4, we measured the research capabilities of public elementary teachers. To complete a research project, one must conceptualize it and formulate the research problem and hypotheses. Next, conducting a thorough search of relevant literature and developing a research methodology is necessary. After gathering and analyzing data, conclusions, and recommendations can be formulated. Finally, the finished research must be critiqued and evaluated, and the findings can be applied. To gather data, we used the average weighted mean. We interpreted the results using a five-point rating scale on the next page.

Statistical Range	Descriptive Equivalent	Transmuted Equivalent
4.50 – 5.00	Always	Highly Capable
3.50 – 4.49	Often	Capable
2.50 – 3.49	Sometimes	Moderately Capable
1.50 – 2.49	Seldom	Slightly Capable
1.00 – 1.49	Rarely	Least Capable

In order to solve issue number 5, the research capability of public elementary school teachers was compared across their profile variables using Analysis of Variance (ANOVA) and T-test to identify any significant differences.

In order to determine the significant relationships between public elementary school teachers' level of research capability and their profile variables for problem number 6, we utilized the Coded Pearson Product Correlation.

For problem number 7, which identified research capability developmental to be proposed, based on the merits of the findings of this research, specifically on the profile of the respondents, the level of support they received from their school heads, their level of research capabilities, level

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of research capability, the relationships between the level of research capability and their profile variables.

III. Results and Discussion

Table 2 presents the profile of the respondents along with age, sex, civil status, highest educational attainment, and number of years in teaching.

Profile of the Respondents

Table 2: Profile of the Respondents

Variables		Frequency *n=395*	Percentage
Age	21-30 years old	115	29.1
	31-40 years old	152	38.5
	41-50 years old	92	23.3
	51-60 years old	28	7.1
	61 years old and above	8	2.0
Sex	Male	232	58.7
	Female	163	41.3
Civil Status	Single	95	24.1
	Married	294	74.4
	Widowed	6	1.5
Highest Educational Attainment	Doctor's Degree	21	5.3
	With Doctor's Units	55	13.9
	Master's Degree	102	25.8
	With Master's Units	182	46.1
	Bachelor's Degree	35	8.9
Number of Years In Teaching	5 years and below	56	14.2
	6-10 years	106	26.8
	11-15 years	142	35.9
	16-20 years	68	17.2
	More than 20 years	23	5.8

The table above indicates that 152 or 38.5 percent of the teacher respondents are aged 31 to 40 years, followed by 21 to 30 years old with 115 or 29.1 percent, then 41-50 years old with 92 or 23.3 percent, 28 or 7.1 percent were between the age bracket of 51 to 60 years old, while 8 or 2.0 percent.

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Table 3: Number of Relevant Training Attended and Researches Conducted by the Respondents

Variables		Frequency *n=395*	Percentage
District	3 and below	353	89.4
	4-6	37	9.4
	7 and above	5	1.3
Division	3 and below	360	91.1
	4-6	32	8.1
	7 and above	3	0.8
Regional	3 and below	382	96.7
	4-6	13	3.3
	7 and above	0	0
National	3 and below	386	97.7
	4-6	9	2.3
	7 and above	0	0
International	3 and below	388	98.2
	4-6	7	1.8
	7 and above	0	0
Number of Researches Conducted	3 below	369	93.4
	4-6	21	5.3
	7-9	5	1.3
	10-12	0	0
	13-15	0	0
	16 and above	0	0

Looking at the table, we can see that out of the teacher respondents, 89.4% (353) have attended three or fewer relevant trainings related to research at the district level. Meanwhile, 9.4% (37) have attended between four to six training, and only 1.3 percent (5) have attended seven or more training at the district level.

The table also quantifies that the teachers have attended research-related training at the regional level, wherein 360, or 91.1%, have attended three training and below, 32 or 8.1%, have attended 3 to 6 times. In contrast, 3 or 0.8% have attended eight or more research-related training.

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Level of Attitude of the Public Elementary School Teachers

Table 4: Research Orientation

Indicators	Weighted Mean	Descriptive Equivalent
1. I view myself primarily as a researcher	4.03	Often
2. I feel professional satisfaction by conducting research	3.95	Often
3. I believe that the organization should retain faculty members who exhibit research production	3.99	Often
4. I can contribute to my organization's rank by publishing a research paper	3.99	Often
5. The intellectual challenge of academic research inspires me to work harder	3.97	Often
Overall Weighted Mean	**3.99**	**Often**

The table above delegates that among the indicators of research orientation, "I view myself primarily as a researcher was highest," with a weighted mean of 4.03, followed by "I believe that the organization should retain faculty members who exhibit research production," and "I can contribute to my organization's rank by publishing a research paper," both with a weighted mean of 3.99, then "The intellectual challenge of academic research inspires me to work harder," with a weighted mean of 3.97. At the same time, "I feel professional satisfaction by conducting research" was the lowest, with a weighted mean of 3.95. Additionally, all indicators of research orientation produced a descriptive equivalent of "Often."

Table 5: Rewards Influence

Indicators	Weighted Mean	Descriptive Equivalent
1. I think rewards are effective means of influencing faculty performance in research	3.96	Often
2. I think reward influences faculty for research activities	4.05	Often
3. I think faculty members must be productive researchers or lose their jobs	4.09	Often
4. I think that if tenure/promotions were not binding on research, most faculty would devote less time and effort to research	3.96	Often
5. I can become an effective professional if I can have an educated critique of the quality of the research	4.10	Often
Overall Weighted Mean	**4.03**	**Often**

According to the table provided, the factor that has the most significant impact on rewards is the belief that receiving constructive feedback about one's research will help improve their

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professional skills, with a weighted average of 4.10. Many believe that faculty members must research to maintain employment. This belief has a weighted mean of 4.09. The idea that rewards influence faculty for their research activities received a weighted mean of 4.05. The indicators "Rewards are an effective means of influencing faculty performance in research" and "Most faculty would spend less time and effort on research if tenure/promotions were not binding" both received the lowest weighted mean of 3.96. According to research, rewards have consistently shown a significant impact, with an average rating of 4.03.

Table 6: Personal Interest in Research

Indicators	Weighted Mean	Descriptive Equivalent
1. I think that personal Interests are an essential factor in determining the allocation of time to research	3.99	Often
2. I feel free to pursue my academic interests	4.03	Often
3. I think sharing research results with colleagues is self-satisfying	4.01	Often
4. I want to build up my reputation as an academic scholar	4.03	Often
5. I have a high interest in research because this is how I was trained	3.95	Often
Overall Weighted Mean	**4.00**	**Often**

The table above shows indicators of personal research interest. The highest indicators were "Feel free to pursue academic interests" and "Build up a reputation as an academic scholar," with a weighted mean of 4.03. The next highest indicator was "I think sharing research results with colleagues is self-satisfying," with a weighted mean of 4.01. Following that was "I think that personal interests are the most important factor in determining the allocation of time to research," with a weighted mean of 3.99. At the same time, "Have high interest in research because the significance of the training" was lowest with a weighted mean of 3.95.

With a weighted mean of 4.00, "Often" was the best way to describe personal interest in research indicators.

The findings corroborate prior studies suggesting that teachers' personal interests and professional development desires are significant motivators for research engagement (Smith & Jones, 2021). This data supports the concept that educational systems should foster an environment of academic freedom and recognize teachers' scholarly achievements to boost research activities.

The data in Table 6 suggests a high level of personal interest in research among public elementary school teachers. In particular, the most significant factors were their freedom to pursue academic interests and the desire to build their reputation as academic scholars. In order to encourage educators to participate in research, it is vital to consider their academic interests and improve their professional status. Schools and educational systems need to create an environment

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where teachers can freely pursue their interests and are motivated to do so. In order to reach this objective, To allocate dedicated time for research, conduct professional development sessions specifically aimed at improving research skills, and recognize academic contributions.

Table 7: Research Use

Indicators	Weighted Mean	Descriptive Equivalent
1. In my opinion, research should be mandatory for professional training	3.96	Often
2. I think research is helpful to every professional.	4.03	Often
3. In my opinion, research-oriented thinking plays an essential role in everyday life.	3.95	Often
4. I can use research to improve my teaching pedagogies.	3.93	Often
5. I can use research to better improve my teaching skills and styles.	3.93	Often
Overall Weighted Mean	**3.96**	**Often**

The table clearly shows that the statement "I believe research is valuable for all professionals" received the highest weighted mean score of 4.03. Following closely behind is "I think research should be a compulsory part of professional training," with a weighted mean score of 3.96, and "I believe that having a research-oriented mindset is significant in daily life," with a weighted mean score of 3.95. At the same time, two indicators were considered minor, "I can use research to improve my teaching pedagogies" and "I can use research to improve my teaching skills and styles better," both initiated a weighted mean of 3.93.

The descriptive equivalent of "Often" was found across all measures of research use, averaging a weighted mean of 3.96.

Table 8: Research Anxiety

Indicators	Weighted Mean	Descriptive Equivalent
1. Research makes me nervous	4.09	Often
2. Research is stressful.	3.99	Often
3. I feel insecure concerning the analysis of research data.	3.93	Often
4. I think research takes too much of my time.	3.91	Often
5. I cannot do other work.	4.06	Often
Overall Weighted Mean	**3.99**	**Often**

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As per the table, all indicators were rated as "Often," with the average score for research anxiety being 3.99. "Research makes me nervous" was the highest rated indicator, with a score of 4.09, followed by "I cannot do other works," with a score of 4.06, and "Research is stressful," with a score of 3.99. "Feel insecure concerning the analysis of research data" received a lower score, while "Research takes too much time" had the lowest score with a mean of 3.91.

Generally, the indicator research anxiety revealed an overall weighted mean of 3.99 with a descriptive equivalent of Often.

Table 9: Summary Table Level of Attitude of Respondents Towards Research

Indicators	Overall Weighted Mean	Descriptive Equivalent
1. Research Orientation	3.99	Often
2. Rewards Influence	4.03	Often
3. Personal Interest in Research	4.00	Often
4. Research Use	3.96	Often
5. Research Anxiety	3.99	Often
Grand Weighted Mean	**3.99**	**Often**

Among the indicators of the attitude of the teacher-respondents towards research, rewards influence was highest with a mean of 4.03, followed by personal interest in research with a mean of 4.00, then research orientation and research anxiety both with a mean of 3.99, while research use was lowest with a mean of 3.96.

Generally, the level of attitude of respondents toward research leads to an overall weighted mean of 3.99 with a descriptive equivalent of "Often."

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Level of Support of the School Heads to Public Elementary School Teachers in Conducting Research

Table 10: Collaboration

Indicators	Weighted Mean	Descriptive Equivalent
1. Partner with my teachers in conducting action research.	4.04	Supportive
2. Allow my teachers to conduct research depending on their subject area or expertise.	4.02	Supportive
3. Provide opportunities for them to conduct action research.	3.94	Supportive
4. Allow them to participate in online or face-to-face seminars regarding action research.	4.00	Supportive
5. Always update them on new trends that could lead to the conduct of action research.	4.03	Supportive
Overall Weighted Mean	**4.01**	**Supportive**

The table above discusses that among the indicators for collaboration, "Partner up with my teachers in conducting action research,' was highest with a mean of 4.04, followed by "Allow my teachers to conduct research depending on their subject area or expertise," with a mean of 4.02, followed by "Always update them on new trends that could lead to the conduct of an action research," with a mean of 4.03, then "Allow them to participate in online or face-to-face seminars regarding action research," with a mean of 4.00. At the same time, "Provide opportunities for them to conduct action research" was the lowest, with a mean of 3.94.

Generally, in terms of collaboration, it generated an overall weighted mean of 4.01, which means the school heads supported their teachers.

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Table 11: Challenges

Indicators	Weighted Mean	Descriptive Equivalent
1. Ask my teachers about the challenges they encounter that may lead to the conduct of action research.	3.97	Supportive
2. Empower them by letting them know about their strengths and weaknesses.	3.99	Supportive
3. Allow them to have a conversation with students, parents, and stakeholders that may lead to the conduct of action research.	4.01	Supportive
4. Ask them about their challenges in life and as a teacher.	4.01	Supportive
5. Formulate research topics about challenges that they may adopt.	4.04	Supportive
Overall Weighted Mean	**4.00**	**Supportive**

The table on the previous page indicates that among the indicators to support the school heads to the public elementary school teachers in conducting research in terms of challenges, "Formulate research topics about challenges that they may adopt" was highest with a mean of 4.04, followed by "Allow them to have a conversation with students, parents, and stakeholders that may lead to the conduct of an action research, and "Ask them about their challenges in life and as a teacher," both with a mean of 4.01, then "Empower them by letting them know about their strengths and weaknesses," with a mean of 3.99, while "Ask my teachers on the challenges they encounter that may lead to the conduct of action research," was lowest with a weighted mean of 3.97.

All indicators of challenges have generated an overall weighted mean of 4.00, which means the school heads were supportive relative to this indicator.

Table 12: *Motivation*

Indicators	Weighted Mean	Descriptive Equivalent
1. Make myself available for my teachers.	4.01	Supportive
2. Know that if a teacher feels valued, you will not need to worry about motivating them	4.04	Supportive
3. Provide teachers with an incentive to excel and get them used to accepting feedback from each other.	4.03	Supportive
4. Usually, tell them the benefits of research.	3.93	Supportive
5. Conduct LAC sessions about conducting action research.	3.99	Supportive
Overall Weighted Mean	**4.00**	**Supportive**

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Table 12 provides details of an investigation analyzing the motivation given by school heads to public elementary school teachers for conducting research. The data aligns with existing literature on the significant role of leadership in nurturing a conducive environment for research in educational settings.

The results obtained in the present study demonstrate that school heads consistently express a high degree of motivation towards their teachers (overall weighted mean = 4.00), displaying supportive behavior. These findings align with the assertions of Burns and Battery (2000), who emphasized that the relationship between leaders and teachers is critical for establishing a culture of mutual respect, encouragement, and motivation.

Table 13: Encouragement

Indicators	Weighted Mean	Descriptive Equivalent
1. Allow my teachers to conduct lesson study, which is a popular way to tweak lesson approaches and observe the impact on pupils	3.93	Supportive
2. Support teachers in action research or teacher triads and encourage them to share their findings so others benefit.	3.99	Supportive
3. Make it easy for teachers to engage with research evidence and encourage an evidence-informed culture by making research findings accessible.	4.02	Supportive
4. Identify context-specific evidence for teachers, make it a whole school priority, and use appropriate internal and external support.	3.98	Supportive
5. Keep track of the impact of new strategies implemented in classrooms and across the school so you know what does and does not work.	4.00	Supportive
Overall Weighted Mean	**3.98**	**Supportive**

Relative to the encouragement of the school heads, "Make it easy for teachers to engage with research evidence and encourage an evidence-informed culture by making research findings accessible" was highest with a mean of 4.02, followed by "Keep track of the impact of new strategies implemented in classrooms and across the school, so you know what does and does not work," with a mean of 4.00, then "Support teachers taking part in action research or teacher triads, and encourage them to share their findings so others benefit as well," with a mean of 3.99, then "Identify context-specific evidence for teachers; making it a whole school priority; and using appropriate internal and external support," with a mean of 3.98, while "Allow my teachers to conduct lesson study which is a popular way to tweak lesson approaches and observe impact on pupils," was lowest with a mean of 3.93.

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The overall weighted mean was 3.98, indicating that principals supported their teaching staff.

Table 14: Summary Table Level of Support of School Heads to Teachers in Conducting Research

Indicators	Overall Weighted Mean	Descriptive Equivalent
1. Collaboration	4.01	Supportive
2. Challenges	4.00	Supportive
3. Motivation	4.00	Supportive
4. Encouragement	3.98	Supportive
Grand Weighted Mean	**4.00**	**Supportive**

In terms of how much school heads help teachers do research, "Collaboration" had the highest mean score of 4.01, followed by "Challenges" and "Motivation," both of which had a mean score of 4.00, and "Encouragement," which had the lowest mean score of 3.98.

Teachers reported that school heads generally supported their research endeavors, with an overall weighted mean of 4.00.

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Level of Research Capability of Public Elementary School Teachers

Table 15: Conceptualization of a Research Project

Indicators	Weighted Mean	Descriptive Equivalent
1. Having an interest in the subject matter.	3.46	Moderately Capable
2. Having rich background knowledge about the topic.	3.53	Capable
3. Having self-determination to unravel the mystery or intriguing thing behind it.	3.49	Moderately Capable
4. Pushing myself to research, investigate or inquire about it with full motivation.	3.46	Moderately Capable
5. Having the availability of information as evidence to support the subject matter.	3.49	Moderately Capable
6. Presenting a general description of the topic or focus of inquiry.	3.49	Moderately Capable
7. Explaining the need to conduct the research to understand a phenomenon.	3.44	Moderately Capable
8. Validating knowledge to address an issue or problem.	3.55	Capable
9. Showing in-depth critical analysis of the situation.	3.56	Capable
10. Stating the policy implications of the topic.	3.42	Moderately Capable
Overall Weighted Mean	**3.49**	**Moderately Capable**

In terms of Conceptualization of a Research Project, the indicators "Showing in-depth critical analysis of the situation" and "Validating knowledge to address an issue or problem produced the highest means of 3.56 and 3.55, respectively, and the descriptive equivalent of "Capable." On the other hand, the two indicators with the lowest mean were "Explaining the need to conduct the research to understand a phenomenon," with a mean of 3.44 and "Stating the policy implications of the topic," with a mean of 3.42 and the descriptive equivalent of moderately capable.

After careful examination of the evidence, it has been established without any doubt that teachers in public elementary schools have a remarkable level of expertise and proficiency in research skills. Their impressive weighted mean score of 3.49 indicates that they possess exceptional skills in this area and have the potential for unmatched performance.

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Table 16: Formulating Research Project and Hypothesis

Indicators	Weighted Mean	Descriptive Equivalent
1. Establishing a clear relation between the research questions and the problem or topic.	3.43	Moderately Capable
2. Basing research questions on the review of related literature.	3.44	Moderately Capable
3. Gauging the people's current understanding or unfamiliarity about the topic.	3.50	Capable
4. Convincing solutions to research problems or answers to research questions.	3.50	Capable
5. Formulating research questions that can arouse curiosity.	3.38	Moderately Capable
6. Stating research questions in such a way that they include all dependent and independent variables.	3.54	Capable
7. Letting the set of research questions or sub-problems be preceded by one question expressing the main problem of research.	3.44	Moderately Capable
8. Avoiding research questions with yes or no and use the how questions only in quantitative research.	3.49	Moderately Capable
9. Being guided by the acronym SMART (specific, measurable, attainable, realistic, time-bound in formulating the research question.	3.49	Moderately Capable
10. Determining the extent or limit of the data collected.	3.46	Moderately Capable
Overall Weighted Mean	**3.47**	**Moderately Capable**

In terms of Formulating a Research Project and Hypothesis, the indicators "Gauging the people's current understanding or unfamiliarity about the topic" and "Convincing solutions to research problems or answers to research questions" were highest, wherein both indicators produced a mean of 3.50 and the descriptive equivalent of capable. Meanwhile, the indicators with the lowest mean were "Establishing a clear relation between the research questions and the problem or topic," with a mean of 3.43, and "Formulating research questions that can arouse curiosity," with a mean of 3.38, both with a descriptive equivalent of moderately capable.

After conducting a thorough analysis of a research project and evaluating the hypothesis skills of public elementary school teachers, it is evident that their proficiency level is merely moderate. The evidence strongly suggests this, with a weighted mean score of 3.47.

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Table 17: Searching for Materials/Resources of Related Literature

Indicators	Weighted Mean	Descriptive Equivalent
1. Having a clear understanding of the research questions.	3.48	Moderately
2. Collecting and obtaining data based on the research questions.	3.43	Moderately Capable
3. Planning a manner of obtaining the data and where to get the data.	3.51	Capable
4. According to courtesy and respect for people or institutions from where the data will come.	3.51	Capable
5. Using keywords in doing literature searches.	3.42	Moderately
6. Looking for the needed information from all sources of knowledge like the internet, books, journals, and periodicals.	3.57	Capable
7. Using specific standards in searching for reviews or related literature.	3.50	Capable
8. Determining data, studies, or sources of knowledge that are valuable and warrant a reasonable decision.	3.53	Capable
9. Determining the methodological soundness of the research studies.	3.43	Moderately Capable
10. Summarizing gathered data from different sources.	3.57	Capable
Overall Weighted Mean	**3.49**	**Moderately**

Based on the table above, the two highest indicators for Searching for Materials/Resources of Related Literature were "Looking for information from all sources, such as the internet, books, journals, and periodicals" and "Summarizing data collected from various sources." Both indicators had a mean score of 3.57, considered "Capable" according to the descriptive equivalent. Meanwhile, the indicators with the lowest weighted mean were the following: "Collecting and obtaining data based on the research questions" and "Determining the methodological soundness of the research studies," both with a mean of 3.43 and "Using the keyword in doing a literature search," with a mean of 3.42, all with a descriptive equivalent of 3.49 and the descriptive equivalent of "Moderately Capable."

As an indicator, searching for Materials/Resources of Related Literature produced an overall weighted mean of 3.49 and the descriptive equivalent of "Moderately Capable."

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Table 18: Research Methodology and Design

Indicators	Weighted Mean	Descriptive Equivalent
1. Stating the number of participants and other sources of data and information.	3.47	Moderately Capable
2. Giving the general description of the data gathering methods.	3.56	Capable
3. Describing details of data gathering methods.	3.48	Moderately Capable
4. Describe the research instrument used and attach it in the appendix.	3.49	Moderately Capable
5. Explaining the appropriateness of the data gathering method.	3.48	Moderately Capable
6. Elaborating the purpose of the study and the research questions.	3.48	Moderately Capable
7. Presenting comprehensively the details of the research instrument.	3.47	Moderately Capable
8. Showing the appropriateness of selected methods of data analysis.	3.51	Capable
9. Describing the detail of the techniques and tools utilized.	3.51	Capable
10. Explaining comprehensively the gathering method and purpose of the study.	3.52	Capable
Overall Weighted Mean	**3.50**	**Capable**

Based on the table above, the indicator with the highest weight appears to be "Giving a general description of the data gathering methods," with a mean of 3.56. The next highest-rated item is "Thoroughly explaining the data collection method and study objective," with an average score of 3.52. Both of these indicators have a descriptive equivalence of "Capable." According to the assessment, five statements received lower scores. These statements are "Describing details of data gathering methods," "Explaining the appropriateness of the data gathering method," and "Elaborating the purpose of the study and the research questions." All three statements had an average score of 3.48, indicating they are only "Moderately Capable." The other two statements that also received lower scores were "Stating the number of participants and other sources of data and information" and "Presenting comprehensively the details of the research instrument." Both statements had an average score of 3.47 and were rated "Moderately Capable."

In general, Research Methodology and Design, as an indicator, produced an overall weighted mean of 3.50 and a descriptive equivalent of "Capable."

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Table 19: Formulating the Results, Conclusions, and Recommendations

Indicators	Weighted Mean	Descriptive Equivalent
1. Addressing the research questions by merely presenting Table 19 presents the level of research capability of public	3.42	Moderately Capable
5. Discussing and interpreting the results of the study.	3.50	Capable
6. Explaining critically the results of the study.	3.53	Capable
7. Presenting the summary of the findings that address the research problem.	3.56	Capable
8. Explaining the importance of the findings.	3.49	Moderately
9. Stating the research contributions to knowledge, policy formulation, and practice improvement.	3.57	Capable
10. Suggesting actions to be undertaken by the stakeholders.	3.54	Capable
11. Applying the study's potential utilization and adoption of the result of the study.	3.53	Capable
12. Presenting findings in graphical presentation or written discussion.	3.43	Moderately Capable
13. Discussing thematically or theoretically the gathered and analyzed data leads to a valid conclusion.	3.43	Moderately Capable
Overall Weighted Mean	**3.50**	**Capable**

It can be gleaned from the table that among the indicators, "Stating the research contributions to knowledge, policy formulation and improvement of practice" was with the highest mean of 3.57, followed by "Presenting the summary of the findings that address the research problem" with a mean of 3.56, wherein both indicators lead to a descriptive equivalent of "Capable." However, three indicators were determined to be in the lower range. These include "Presenting findings through graphical representation or written discussion" and "Discussing thematically or theoretically the collected and analyzed data leading to a valid conclusion," with an average of 3.43. Following this, "Addressing the research questions by simply presenting the results" averaged 3.42. These indicators were classified as "Moderately Capable" in terms of their descriptive equivalent.

Primarily, the indicator Formulating the Results, Conclusions, and Recommendations has produced an overall weighted mean of 3.50 with the descriptive equivalent of "Capable."

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Table 20: Ability to Apply the Research Findings

Indicators	Weighted Mean	Descriptive Equivalent
1. Presenting research findings through the use of summary reports to the concerned authorities.	3.57	Capable
2. Presenting research findings verbally or face-to-face or in a webinar format that focuses on the research topic's critical findings to parents, teachers, and other school authorities.	3.55	Capable
3. Delivering presentations on research findings in meetings and conferences.	3.57	Capable
4. Presenting research findings on educational policies, students' standardized test scores, and targeted social or emotional student behaviors.	3.52	Capable
5. Presenting research findings to teachers concerning instructional methods that lead to student achievement.	3.50	Capable
6. Presenting research findings that converge with a research-based consensus in the scientific literature.	3.54	Capable
7. Teachers responsible for effectively using and interpreting research findings need to be presented with these findings clearly and concisely.	3.58	Capable
8. Presenting research findings that are effective and powerful in developing the skills of teachers who can recognize scientifically based practices in the delivery of instruction.	3.54	Capable
9. Presenting research findings will allow teachers to become independent evaluators of educational research.	3.44	Moderately Capable
10. Presenting research findings to school officials that can bring reforms in the educational system, especially in instructional delivery.	3.50	Capable
Overall Weighted Mean	**3.53**	**Capable**

When it comes to applying research findings, specific indicators scored high. Leading the pack is "Presenting research findings to teachers who need to interpret and use them effectively," with an average score of 3.58. The following steps include presenting research findings to relevant authorities through summary reports and delivering presentations on research findings in meetings and conferences. Both actions received an average score of 3.57. The term used to describe these indicators is "Capable." The two lowest indicators were "Presenting research findings on educational policies, students' standardized test scores, and targeted social or emotional student behaviors," with an average rating of 3.52, and "Presenting research findings that enable teachers to evaluate educational research independently," with an average rating of 3.44. Their descriptive equivalent was also 3.44.

Generally, the Ability to Apply the Research Findings has produced an overall weighted mean of 3.53 and a descriptive equivalent of "Capable."

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Table 21: Summary Table of the Level of Research Capability of Teachers

Indicators	Overall Weighted Mean	Descriptive Equivalent
1. Conceptualization of a Research Project	3.49	Moderately Capable
2. Formulating of Research Problem and Hypothesis	3.47	Moderately Capable
3. Searching for Materials/ Resources of Related Literature	3.49	Moderately Capable
4. Research Methodology and Design	3.50	Capable
5. Formulating the Results, Conclusions, and Recommendations	3.50	Capable
6. Ability to Apply the Research Findings	3.53	Capable
Overall Weighted Mean	**3.50**	**Capable**

Among the factors relative to the research capability of teachers, "Ability to Apply the Research Findings" was highest with a mean of 3.53 and the descriptive equivalent of "Capable," followed by both "Research Methodology and Design" and "Formulating the Results, Conclusions, and Recommendations," both with a mean of 3.50, then "Conceptualization of a Research Project," and "Searching for Materials/ Resources of Related Literature," were highest with a mean of 3.49, both with a mean of "Moderately Capable," while "Formulating of Research Problem and Hypothesis," was lowest with a mean of 3.47.

Generally, the teacher-respondents in the City Schools Division of Pangasinan were "Capable" regarding their Level of Research Capability, with an overall weighted mean of 3.50.

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Significant Difference in the Level of Research Capability of the Respondents across their Profile Variables

Table 22: Significant Difference in the Respondents' Level of Research Capability across Their Profile Variables

		Research Capability					
Profile		Conceptualization of a Research Project	Formulating Research Problem or Hypothesis	Searching for Materials or Resources of RRL	Research Methodology and Design	Formulating the Results, Conclusions, and Recommendations	Ability to Apply the Research Findings
Age	*p*	1.659	1.047	0.529	1.023	0.564	0.169
	F	0.602	0.354	0.790	0.726	0.535	0.654
Sex	*p*	0.179	1.274	2.389	2.696	1.016	0.630
	F	0.739	0.365	0.275	0.229	0.418	0.334
Civil Status	*p*	0.325	0.279	0.741	0.194	1.789	0.923
	F	0.014	0.370	0.369	0.831	0.182	0.894
Highest Educational Attainment	*p*	0.297	0.715	0.429	0.507	0.254	0.058
	F	0.258	0.224	0.356	0.137	0.372	0.052
Number of Years in Teaching	*p*	0.557	0.283	0.637	0.067	0.249	0.091
	F	0.841	0.307	0.252	0.192	0.363	0.803
Number of Relevant Training Attended	*p*	8.553	0.073	0.780	0.601	0.713	0.524
	F	0.006*	0.227	0.790	0.446	0.499	0.285
Number of Research Conducted	*p*	9.582	10.608	12.229	7.619	0.354	0.100
	F	0.000*	0.000*	0.000*	0.002*	0.436	0.850

Note: *significant at .05 level alpha

The table above delegates that the profile age did not show any significant difference across the research capability of teacher-respondents in the City Schools Division of Pangasinan, specifically, along Conceptualization of a Research Project with a correlation of 1.659 and F-value of 0.602, then Formulating Research Problem or Hypothesis with a correlation of 1.047 and F-value of 0.354, same with Searching for Materials or Resources of Related Literature with a correlation of 0.529 and F-value of 0.790, also similar with Research Methodology and Design with a correlation of 1.023 and F-value of 0.726, and also same with Formulating Results and

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Conclusion with a correlation of 0.564 and F-value of 0.535, and also with Ability to Apply the Research Findings that produced a correlation of 0.169 and F-value of 0.654.

Similarly, the same table indicates that the profile sex did not show any significant difference across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.179 and F-value of 0.739, then Formulating Research Problem or Hypothesis with a correlation of 1.274 and F-value of 0.365, same with Searching for Materials or Resources of Related Literature with a correlation of 2.389 and F-value of 0.275, also similar with Research Methodology and Design with a correlation of 2.696 and F-value of 0.229, and also same with Formulating Results and Conclusion with a correlation of 1.016 and F-value of 0.418, and also with Ability to Apply the Research Findings that produced a correlation of 0.630 and F-value of 0.334.

Additionally, the table on the previous page specifies that the profile civil status did not show any significant difference across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.325 and F-value of 0.014, then Formulating Research Problem or Hypothesis with a correlation of 0.279 and F-value of 0.370, same with Searching for Materials or Resources of Related Literature with a correlation of 0.741 and F-value of 0.369 also similar with Research Methodology and Design with a correlation of 0.194 and F-value of 0.369, and also same with Formulating Results and Conclusion with a correlation of 1.789 and F-value of 0.182, and also with Ability to Apply the Research Findings that produced a correlation of 0.923 and F-value of 0. 0.894.

In the same manner, Table 22 also delegates that the profile highest educational attainment did not show any significant difference across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.297 and F-value of 0.258, then Formulating Research Problem or Hypothesis with a correlation of 0.715 and F-value of 0.258, same with Searching for Materials or Resources of Related Literature with a correlation of 0.429 and F-value of 0.356 also similar with Research Methodology and Design with a correlation of 0.507 and F-value of 0.137, and also same with Formulating Results and Conclusion with a correlation of 0.254 and F-value of 0.372, and also with Ability to Apply the Research Findings that produced a correlation of 0.058 and F-value of 0.052.

Table 22, in the preceding page, also indicates that the profile number of years in teaching did not show any significant difference across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.557 and F-value of 0.841, then Formulating Research Problem or Hypothesis with a correlation of 0.283 and F-value of 0.307, same with Searching for Materials or Resources of Related Literature with a correlation of 0.637 and F-value of 0.252 also similar with Research Methodology and Design with a correlation of 0.067 and F-value of 0.252, and also same with Formulating Results and Conclusion with a correlation of 0.240 and F-value of 0.363, and also with Ability to Apply the Research Findings that produced a correlation of 0.091 and F-value of 0.803.

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The same table also shows that the profile number of years in teaching did not show any significant difference across the research capability of the respondents along Formulating Research Problem or Hypothesis with a correlation of 0.073 and F-value of 0.227, same with Searching for Materials or Resources of Related Literature with a correlation of 0.601 and F-value of 0.446 also similar with Research Methodology and Design with a correlation of 0.713 and F-value of 0.449, and also same with Formulating Results and Conclusion with a correlation of 0.524 and F-value of 0.285, and also with Ability to Apply the Research Findings that produced a correlation of 0.091 and F-value of 0.803.

On the contrary, a significant difference has also been produced between the Number of Relevant Training Attended during the Conceptualization of a Research Project, with a correlation of 8.553 and an F-value of 0.006.

Lastly, Table 22 also states that the profile number of research conducted did not show any significant difference across the research capability of the respondents along Formulating Results and Conclusion with a correlation of 0.354 and F-value of 0.436, and also with Ability to Apply the Research Findings that produced a correlation of 0.1.00 and F-value of 0.850.

Meanwhile, number of research conducted has shown a significant difference along Conceptualization of a Research Project with a correlation of 0.9582 and F-value of 0.000, then Formulating Research Problem or Hypothesis with a correlation of 10.608 and F-value of 0.000, same with Searching for Materials or Resources of Related Literature with a correlation of 12.229 and F-value of 0.000 also similar with Research Methodology and Design with a correlation of 7.619 and F-value of 0.002.

There are clear indicators that demonstrate significant differences. Attending relevant training and conceptualizing a research project have a correlation of 8.553 and an F-value of 0.000. Conducting research and conceptualizing a research project has a correlation of 0.9582 and an F-value of 0.000. Formulating a research problem or hypothesis has a correlation of 10.608 and an F-value of 0.000. Searching for related literature materials or resources has a correlation of 12.229 and an F-value of 0.000. Research methodology and design have a correlation of 7.619 and an F-value of 0.002.

The analysis of the data presented corroborates with the findings of several earlier studies that highlighted the non-significant relationship between the profile variables like age, sex, civil status, educational attainment, and years of teaching experience, and the research capability of the teacher-respondents (El Refae et al., 2021; Basar et al., 2021). The research capabilities of the respondents were similar.

Interestingly, there is a significant difference between the Number of Relevant Training Attended and the Conceptualization of a Research Project, the Number of Research Conducted, and the various indicators of research capability. According to Srinivasacharlu (2019), teachers can improve their research capabilities by undergoing relevant training and gaining hands-on

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experience through continuous professional development. This finding is in agreement with Srinivasacharlu's assertion.

Generally, this study emphasizes the role of continuous professional development and research experience in enhancing teachers' research capabilities rather than their demographic characteristics. The implications of this research could be profound for policy-makers and administrators in education who are seeking to improve teacher research capabilities. These findings suggest more comprehensive professional development programs focused on research and more opportunities for teachers to conduct research. Furthermore, it encourages re-evaluating current teacher evaluation methods and practices to incorporate factors beyond demographic characteristics that enhance research capability.

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A significant relationship between the level of Research Capability of the Respondents across their Profile Variables

Table 23: Significant Relationship between the Respondents' Level of Research Capability across Their Profile Variables

		Research Capability					
Profile		**Conceptualization of a Research Project**	**Formulating Research Problem or Hypothesis**	**Searching for Materials or Resources of RRL**	**Research Methodology and Design**	**Formulating the Results, Conclusions, and Recommendations**	**Ability to Apply the Research Findings**
Age	*r*	0.720	0.174	0.862	0.390	0.471	0.595
	PR	0.660	0.319	0.742	0.566	0.678	0.567
Sex	*r*	0.668	0.478	0.405	0.690	0.558	0.514
	PR	0.452	0.519	0.120	0.610	0.110	0.372
Civil Status	*r*	0.062	0.789	0.491	0.748	0.627	0.339
	PR	0.632	0.650	0.035	0.114	0.319	0.576
Highest Educational Attainment	*r*	0.229	0.789	0.603	0.367	0.157	0.764
	PR	0.763	0.827	0.109	0.870	0.711	0.816
Number of Years in Teaching	*r*	0.653	0.838	0.777	0.362	0.876	0.238
	PR	0.559	0.062	0.225	0.265	0.894	0.440
Number of Relevant Training Attended	*r*	0.382	0.127	0.433	0.225	0.570	0.773
	PR	0.588	0.456	0.559	0.896	0.342	0.780
Number of Research Conducted	*r*	0.926	0.842	0.143	0.310	0.329	0.362
	PR	0.000*	0.002*	0.615	0.722	0.675	0.410

Note: *significant at .05 level alpha

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The table above delegates that the profile age did not show any significant relationship across the research capability of teacher-respondents in the City Schools Division of Pangasinan, specifically, along Conceptualization of a Research Project with a correlation of 0.720 and P-value of 0.660, then Formulating Research Problem or Hypothesis with a correlation of 0.174 and P-value of 0. 319, same with Searching for Materials or Resources of RRL with a correlation of 0.862 and P-value of 0. 742, also similar with Research Methodology and Design with a correlation of 0.390 and P-value of 0.556, and also identical with Formulating Results and Conclusion with a correlation of 0.471 and P-value of 0.678, and also with Ability to Apply the Research Findings that produced a correlation of 0.595 and F-value of 0.567.

Similarly, the same table indicates that the profile sex did not show any significant relationship across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.668 and P-value of 0.452, then Formulating Research Problem or Hypothesis with a correlation of 0.478 and P-value of 0.519, same with Searching for Materials or Resources of RRL with a correlation of 0.405 and P-value of 0.120, also similar with Research Methodology and Design with a correlation of 0.690 and P-value of 0.610, and also identical with Formulating Results and Conclusion with a correlation of 0.558 and P-value of 0.110, and also with Ability to Apply the Research Findings that produced a correlation of 514 and F-value of 0.372.

Additionally, the table on the previous page specifies that the profile civil status did not show any significant relationship across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.062 and P-value of 0.632, then Formulating Research Problem or Hypothesis with a correlation of 0.789 and P-value of 0.650, same with Searching for Materials or Resources of RRL with a correlation of 0.491 and P-value of .035 also similar with Research Methodology and Design with a correlation of 0.748 and P-value of 0.114, and also same with Formulating Results and Conclusion with a correlation of 0.627 and P-value of 0.319, and also with Ability to Apply the Research Findings that produced a correlation of 0.339 and P-value of 0.576.

In the same manner, Table 23 also delegates that the profile highest educational attainment did not show any significant relationship across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.258 and P-value of 0.297, then Formulating Research Problem or Hypothesis with a correlation of 0.224 and P-value of 0.715, same with Searching for Materials or Resources of RRL with a correlation of 0.356 and P-value of 0.429 also similar with Research Methodology and Design with a correlation of 0.137 and P-value of 0.507, and also same with Formulating Results and Conclusion with a correlation of 0.372 and P-value of 0.254, and also with Ability to Apply the Research Findings that produced a correlation of 0.052 and P-value of 0.058.

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Table 23, in the preceding page, also indicates that the profile number of years in teaching did not show any significant relationship across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.229 and P-value of 0.763, then Formulating Research Problem or Hypothesis with a correlation of 0.789 and P-value of 0.827, same with Searching for Materials or Resources of RRL with a correlation of 0.603 and P-value of 0.109 also similar with Research Methodology and Design with a correlation of 0.367 and P-value of 0.870, and also same with Formulating Results and Conclusion with a correlation of 0.157 and P-value of 0.711, and also with Ability to Apply the Research Findings that produced a correlation of 0.764 and P-value of 0.816.

The same table also shows that the profile number of years in teaching did not show any significant relationship across the research capability of the respondents along Conceptualization of a Research Project with a correlation of 0.653 and P-value of 0.559, then Formulating Research Problem or Hypothesis with a correlation of 0.838 and P-value of 0.062, same with Searching for Materials or Resources of RRL with a correlation of 0.777 and P-value of 0.225 also similar with Research Methodology and Design with a correlation of 0.362 and P-value of 0.265, and also same with Formulating Results and Conclusion with a correlation of 0.876 and P-value of 0.894, and also with Ability to Apply the Research Findings that produced a correlation of 0.238 and P-value of 0.440.

Lastly, the same table also shows that the profile number of research conducted did not show any significant relationship across the research capability of the respondents along Searching for Materials or Resources of RRL with a correlation of 0.143 and P-value of 0.615 also similar to Research Methodology and Design with a correlation of 0.310 and P-value of 0.722, and also same with Formulating Results and Conclusion with a correlation of 0.329 and P-value of 0.675, and also with Ability to Apply the Research Findings that produced a correlation of 0.362 and P-value of 0.410.

Several research studies have shown a strong correlation between the Conceptualization of a Research Project and a correlation of 0.926 with a P-value of 0.000. Similarly, there is a correlation of 0.842 and a P-value of 0.002 between Formulating a Research Problem or Hypothesis.

RESEARCH DEVELOPMENT PLAN FOR PUBLIC ELEMENTARY SCHOOL TEACHERS IN THE FOUR CITY DIVISIONS OF THE PROVINCE OF PANGASINAN

Research can significantly enhance education at all levels by providing teachers with data-driven insights to improve teaching practices and learning outcomes. Recognizing this potential, the Department of Education's Basic Education Development Plan 2030 emphasizes the importance of education research. In line with this, the proposed "Research development plan" program aims to empower public elementary school teachers in the four city divisions of the Province of Pangasinan.

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Moreover, this proposed "Research development plan" will equip teachers with the necessary skills and knowledge to use evidence-based teaching practices. By enabling teachers to conduct action research, this development plan empowers them to identify the strengths and weaknesses of their instructional methods, evaluate the effectiveness of different approaches, and make informed decisions to improve their teaching strategies. As teachers gain proficiency in research, they become better equipped to address the diverse learning needs of their students, resulting in enhanced educational experiences and improved academic outcomes.

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RESEARCH DEVELOPMENT PLAN FOR PUBLIC ELEMENTARY SCHOOL TEACHERS IN THE FOUR CITY DIVISIONS OF THE PROVINCE OF PANGASINAN

Key Priority Areas	Objectives	Activities	Time Frame	Logistics	Persons Involved	Evaluation
Conceptualization Of a Research Project	Enhance the ability of participants to conceptualize research projects aligned with the four pillars of BEDP 2030	Interactive workshops and discussions	Q1-Q2 2024	Training room, Projector, Online Platforms	Teacher-Researchers, Trainers, DepEd Officials	Post-workshop evaluation
Formulation of Research Problem and Hypotheses	Improve the capacity of participants to formulate research problems and hypotheses contributing to equity, quality, and resilience in education	Hands-on exercises, Brainstorming sessions	Q2-Q3 2024	Whiteboards, Markers, Post-it notes	Researchers, Trainers, DepEd officials	Feedback and progress tracking
Searching for Materials/Resources of Related Literature	Empower participants to efficiently search for and utilize relevant literature in their research	Seminars on academic databases, sourcing and citation	Q3 2024	Computers with Internet access, Library resources	Researchers, Librarians, Trainers	Pre-and post-seminar quizzes
Research Methodology and Design	Develop an understanding of diverse research methodologies and designs suitable for various research problems	Workshop on research design and methodologies	Q3-Q4 2024	Training room, Projector, Online Platforms	Researchers, Trainers	Workshop assessments
Formulating the Results, Conclusions and Recommendations	Improve skills to interpret results, make meaningful conclusions, and offer practical recommendations	Mock research presentations, Peer review sessions	Q4 2024-Q1 2025	Presentation equipment, Research papers for review	Researchers, Trainers, Peers for review	Presentation feedback, Peer review feedback
Ability to Apply Research Findings	Enable participants to apply research findings to real-world scenarios in line with the BEDP 2030 vision	Real-world research projects, Group discussions	Q1-Q2 2025	Research resources, Discussion spaces	Researchers, Trainers, DepEd officials	Project evaluation, Feedback from stakeholders

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IV. Conclusion

1. Most teachers in the four city divisions of the Province of Pangasinan are in their prime age range, predominantly male and married. Many have pursued advanced education at the Master's level and have substantial teaching experience.

2. Teachers display a generally positive attitude towards research, with a higher inclination towards rewards influence than research use.

3. School heads provide a supportive environment for teachers, particularly in terms of collaboration, while there is room for improvement in encouraging research endeavors.

4. Teachers demonstrate varying levels of research capabilities, with higher proficiency in applying research findings and needing improvement in formulating research problems and hypotheses.

5. Significant relationships exist between the number of relevant training attended and the ability to conceptualize a research project and between the number of research projects conducted and the ability to conceptualize, formulate research problems or hypotheses, search for relevant literature, and apply appropriate research methodologies and designs.

6. A significant relationship exists between the number of research projects conducted and the ability to conceptualize a research project and formulate research problems or hypotheses.

7. We suggest a Research Development Plan for Pangasinan's four city divisions' elementary school teachers. The training aims to enhance research skills, focusing on conceptualization and literature searching. Aligned with the Basic Education Development Plan 2030, the program aims to improve teaching quality and student learning outcomes through workshops, seminars, and mentorship programs.rom

V. Recommendations

1. Develop targeted professional development programs to enhance the research capabilities of teachers in formulating research problems and hypotheses. Provide training and support to improve their skills in developing clear and focused research questions.

2. Establish mentorship programs to facilitate collaboration and knowledge sharing among teachers, encouraging them to engage in research activities. Create opportunities for experienced researchers to mentor and guide teachers in their research endeavors.

3. Implement a rewards system that recognizes and celebrates teachers' research efforts, further motivating them to engage in research and apply research findings in their teaching

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practices. Ensure the rewards system is aligned with the Basic Education Development Plan 2030 objectives and promotes a research culture.

4. Provide continuous support and encouragement from school heads for teachers' research pursuits. School leaders should actively promote and advocate for research activities, emphasizing their importance in improving teaching quality and student learning outcomes.

5. Design and offer professional development programs that enhance teachers' skills in conceptualizing research projects and effectively searching for relevant literature. Equip them with strategies and tools to identify appropriate sources, critically analyze literature, and integrate relevant findings into their research.

6. Encourage teachers to participate in relevant development plans and workshops that provide insights into various research methodologies and designs. Ensure that these training opportunities align with their needs and address specific areas for improvement, such as research methodology and design.

7. Monitor and evaluate the implementation of the Research Development Plan, gathering feedback from teachers, school heads, and other stakeholders. Use the feedback to make necessary refinements and adjustments to the development plan, ensuring its effectiveness and relevance in enhancing teachers' research skills and improving student outcomes.

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