

Teachers' Learning and Development: Its Influence on the Achievement Test of Learners

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Abstract

The goal of this study was to find out how teacher learning development affected the performance of Grade 6 students on the National Achievement Test during the school year. It specifically looked at how teacher professional growth in advanced studies, seminars and trainings, research engagement, membership in professional organizations, and subscription to learning resources was related to how well students did on the National Achievement Test. A descriptive-correlational research design was utilized, collecting data from Grade 6 instructors to examine the potential influence of these developmental variables on student achievement.

The results showed that teachers had a very positive view of professional development. Respondents said that seminars and trainings were an excellent and directly useful foundation, that they were actively involved in research, and that they valued being members of professional organizations. Most importantly, teachers felt very well-supported by the learning materials they were given. The strong professional environment led to good results for students, as shown by the National Achievement Test scores, where all students passed and most got a "Strong" score and the rest got a "Developing" score. This shows that they have a good base for further academic growth.

However, correlation analysis showed that there was no strong link between any of the five areas of teacher development and how well students did on the National Achievement Test. The research determined that although educators participated in professional development activities, these elements did not have a direct impact on standardized test results. The recommendations included focusing on how to use professional learning in the classroom to help students learn specific skills that are tested on national exams, while keeping strong support from the school for teacher development.

Keywords: Learning Development, National Achievement Test, Professional Growth

1. Introduction

School plays a crucial role in child development, shaping their cognitive, social, and emotional growth and providing a nurturing environment for their overall well-being. Schools provide a structured environment that nurtures intellectual, social, emotional, and physical growth, equipping children with essential skills and knowledge for their future. Cognitive and academic development are influenced by schools' primary goal of providing a pedagogical education, fostering intellectual growth through structured learning environments, effective instruction, and individualized support. Multilingual schools expose children to multiple languages from an early age, promoting language acquisition and proficiency. Social and emotional development are influenced by schools' structured environment, fostering empathy, teamwork, and collaboration. Schools also offer guidance from teachers and counselors to help children navigate emotions and build positive relationships (La Petite Ecole, 2025).

Student development is the process by which a student grows, progresses, or increases their developmental capabilities in higher education institutions. This theory considers the cultural context of learning, including social, emotional, motivational, cognitive, developmental, biological, and temporal aspects, to support the well-rounded development of the whole person. It focuses on diverse students in higher education, but it also considers the historically predominantly white, male, Christian, able-bodied, and upper-class context. Understanding the impacts of privilege and oppression within the higher education system is crucial for studying student development. Understanding how students learn is crucial for teaching, as it helps in understanding student behavior, setting appropriate expectations, providing challenge and support, designing inclusive learning environments, making informed decisions about course content, and supporting students in their developmental journeys (Dartmouth Center for the Advancement of Learning, 2025).

Moreover, development and learning are complex processes influenced by a child's biological characteristics and environment. Neuroscience advances over the past two decades have provided new insights into early brain development and their long-term implications for children's success. High-quality early learning experiences are crucial for children's lifelong success. Neuronal connections in the brain are established most rapidly in early childhood, and adults' responses to an infant's babble, cry, or gesture shape the brain's architecture. The interplay of biology and environment continues through preschool years and primary grades, with particular implications for children experiencing adversity. Early

childhood educators are responsible for fostering children's development and learning in all domains, including general learning competencies and executive functioning (National Association for the Education of Young Children, 2025). Learning is a fundamental aspect of human life, involving the acquisition of new skills, knowledge, understanding, and values. Education, which helps individuals or groups learn, facilitates this process more efficiently. It is a means of sharing and collecting knowledge, promoting a sense of community. Education not only imparts knowledge but also transmits values, attitudes, and behaviors. It has helped maintain a shared belief in fair legal trials for harmful actions. Learning and education are essential for societal improvement, benefiting individuals, those around them, and future generations. The Universal Declaration of Human Rights enshrines the right to free elementary education, stating that education should promote understanding, tolerance, and friendship among all nations, racial or religious groups (Kurtson, 2024).

While several studies have explored the relationship between learning development and the National Achievement Test (NAT) performance of Grade 6 pupils, there is limited research examining how specific professional and academic factors—such as teachers' advanced studies, seminar and training attendance, research engagement, membership in professional organizations, and access to learning resources—directly or indirectly influence student outcomes. Existing literature primarily focuses on general teaching strategies, curriculum alignment, and socio-economic factors, but neglects the role of educators' continuous professional development in shaping pupils' NAT performance. Few studies investigate whether teachers who pursue higher education contribute to improved learning development and test results. Additionally, while seminars and trainings are presumed to enhance instructional quality, there is insufficient empirical evidence linking them to measurable improvements in standardized test scores. Research engagement among teachers is often discussed in the context of classroom innovation, but its direct correlation with NAT performance remains underexplored. Similarly, membership in professional organizations may provide access to updated teaching strategies, yet no substantial studies confirm its impact on pupils' test readiness. Lastly, while subscription to learning is encouraged, there is minimal research on how these resources translate into improved instructional delivery and, consequently, better NAT results. This study aims to fill these gaps by analyzing how these specific factors contribute to learning development and NAT performance, providing data-driven insights for policy and teacher development programs.

Thus, this study aims to examine the relationship between learning development and the National Achievement Test (NAT) performance of Grade 6 pupils, focusing on how teachers' advanced studies, seminar attendance, research engagement, professional organization membership, and learning resource subscriptions influence student outcomes. The findings will guide interventions to enhance instructional quality and NAT results. Moreover, this study will help educators and policymakers identify key professional development factors that enhance Grade 6 pupils' NAT performance. By analyzing the impact of teachers' advanced training, research engagement, and resource access, it provides evidence-based strategies to improve learning outcomes, ensuring quality education and better national achievement test results.

2. Material and methods

2.1 Research Design

This study utilized a descriptive-correlational research design. The two primary goals of descriptive-correlational research design, a non-experimental methodology, are to describe the properties of variables and investigate the connections among them. Researchers employed statistical analysis to ascertain if and how strongly variables were related after measuring them as they naturally occurred, unaltered. When researching real-world situations where experimental manipulation would have been impractical or unethical, this method was especially helpful. But because it did not account for extraneous variables or show temporal sequence, it was unable to prove causality, even though it could find associations using metrics like correlation coefficients (Panda, 2025).

This study used a descriptive-correlational research design to systematically examine the relationship between teachers' learning and development factors and Grade 6 pupils' NAT performance. This approach allowed for quantifying associations between variables without manipulation, providing measurable insights while maintaining natural educational settings. The design efficiently identified patterns and potential influences on learning outcomes, supporting data-driven recommendations for teacher development programs.

2.2 Locale of the Study

This study was conducted in all the Central Elementary Schools in the second district of the Eastern Samar Division such as Lawaan Central Elementary School, Balangiga Central Elementary School, Giporlos Central Elementary School, Maydolong Central Elementary School, Balangkayan Central Elementary School, Llorente Central Elementary School, Hernani Central Elementary School, General MacArthur Central Elementary School, Quinapondan Central Elementary School, Salcedo I Central Elementary School, Salcedo II Central Elementary School, Mercedes Central Elementary School, Guiuan East Central School, Lupok Central Elementary School, and Sulangan Central Elementary School.

2.3 Respondents of the Study

The target respondents of the study were the elementary teachers in all of the central elementary schools of the second district of the Division of Eastern Samar. They were chosen as respondents since they represented and possessed the characteristics studied in this research.

Table 1. *Distribution of Respondents*

Second District Central Elementary Schools of the Division of Eastern Samar	Number of Respondents	Number of Respondents
Lawaan Central Elementary School	44	16
Balangiga Central Elementary School	46	17
Giporlos Central Elementary School	50	19
Maydolong Central Elementary School	42	16
Balangkayan Central Elementary School	41	15
Llorente Central Elementary School	46	17
Hernani Central Elementary School	48	18
General MacArthur Central Elementary School	44	16
Quinapondan Central Elementary School	48	18
Salcedo I Central Elementary School	42	16
Salcedo II Central Elementary School	40	15
Mercedes Central Elementary School	46	17
Guiuan East Central School	44	16
Lupok Central Elementary School	48	18
Sulangan Central Elementary School	48	18
Total	677	252

2.4 Sample and Sampling Procedure

This study utilized simple random sampling. A subset of a population chosen at random is known as a simple random sample. Every member of the population has an exact equal probability of getting chosen using this sampling technique. Because it only requires one random pick and minimal prior population knowledge, this approach is the simplest of all probability sampling techniques. Any study conducted on this sample should have high internal and external validity and be less susceptible to research biases like sampling bias and selection bias because it employs randomization (Thomas, 2023).

This study used simple random sampling to ensure every Grade 6 teacher in Eastern Samar's 2nd District had an equal chance of selection, eliminating bias and enhancing result generalizability. This method guaranteed fair representation of the teacher population while maintaining statistical validity for correlational analysis of professional development factors and NAT performance.

2.5 Research Instrument

This study utilized a self-made questionnaire for the independent variable, which was the Teacher's Learning and Development, created by the researcher. Since it was self-made, the researcher conducted a dry run to test its validity and reliability.

For the dependent variable, the researcher requested the National Achievement Test scores of the grade 6 pupils from their advisers.

2.6 Data Gathering Procedure

The data collection procedure for this study began with obtaining permission from the Schools Division Superintendent to conduct research within the elementary schools in the second district of Eastern Samar Division.

The researcher administered a survey questionnaire to the identified respondents. Before the conduct of the study, written permission was obtained from the Policy, Planning, and Research Division (PPRD) of Eastern Samar. Once the request was approved, the researcher prepared the survey instrument and distributed it to the participants.

Prior to the survey administration, the researchers executed two dry runs to fortify the credibility, trustworthiness, and validity of this study. The first dry run enlisted ten (10) teaching and non-teaching personnel from Immaculate Conception School, Guiuan Eastern Samar, followed by a subsequent dry run involving twenty (20) selected staff from MSH Sisters Academy of Guiuan Eastern Samar. The selection of dry-run participants was purposeful, as both representation of the target population. Furthermore, individuals at these schools possess relevant expertise or experience pertinent to the study's matter, thus enhancing the validity of the feedback received.

2.7 Data Analysis Techniques

Using a survey, the information collected from the participants was totaled and calculated. Frequency counts and weighted means were the statistical methods employed in this study to collect the necessary data from the respondents.

A basic statistical method for summarizing and analyzing data sets is the frequency count, which counts the instances of each distinct value in a dataset. Because it gives a clear picture of how frequently particular values occur, this method is especially helpful in a variety of domains, including data analysis, statistics, and data science. Frequency counts are a crucial tool for efficient decision-making because they enable analysts to swiftly spot patterns, trends, and abnormalities in the data (Learn Statistics Easily, 2025).

A weighted average is a computation that gives each number in a given data set a different level of significance. When every number in a data set is given the same weight, a weighted average may be more accurate than a simple average. It is extensively utilized in a variety of disciplines, including finance (Ganti, 2024). Weighted mean was used in the study to calculate the mean of the variables.

This study also utilized Pearson's r formula. A statistical metric called Pearson's correlation coefficient assesses both the direction and the strength of the association between two continuous variables. Because it relies on covariance, researchers believe it to be the most efficient way to evaluate connections. This coefficient shows the correlation's direction in addition to its strength (Statistics Solutions 2025). This formula was used in correlating teacher's learning and development and the national achievement test scores of the grade 6 pupils.

2.8 Ethical Considerations

The conduct of this study will strictly adhere to ethical standards in educational research to ensure the protection, dignity, and rights of all participants involved. Prior to the data gathering process, the researcher will secure the necessary permissions from the appropriate authorities, including the Schools Division Superintendent and the school heads of the selected secondary schools in the southern part of Eastern Samar Division. This formal approval will ensure that the research activities are conducted in accordance with institutional policies and educational regulations governing research in schools.

Participation in this study will be voluntary. All potential respondents will be clearly informed about the purpose of the research, the nature of their participation, and the procedures involved in completing the survey questionnaire. An informed consent process will be observed in which participants will be given adequate information about the study before they decide whether or not to participate. They will also be informed that they have the right to decline participation or withdraw from the study at any stage without any form of penalty, pressure, or negative consequence to their professional standing. The researcher will ensure that the privacy and confidentiality of all respondents are fully protected throughout the research process. The survey questionnaire will not require participants to disclose personally identifiable information such as names or specific personal identifiers. Instead, responses will be treated anonymously and will only be reported in aggregated form. This approach will prevent the identification of individual participants or schools and will help maintain the trust and confidence of the respondents.

In addition, the researcher will comply with the principles of responsible data management and the provisions of the Data Privacy Act of 2012. All collected data will be handled with strict confidentiality and will be used solely for academic purposes related to this research. The responses will be securely stored in protected files accessible only to the researcher. After the completion of the study, the data will be properly archived and will not be used for purposes unrelated to the research objectives.

The study is expected to pose minimal risk to the participants since it only involves answering survey questions regarding their perceptions and experiences with the integration of artificial intelligence tools in classroom instruction. Nevertheless, the researcher will ensure that the questions included in the instrument are respectful, non-intrusive, and relevant to the objectives of the study. Participants will also be given the option to skip any question they may find uncomfortable.

Finally, the researcher will maintain honesty, transparency, and integrity in the collection, analysis, and reporting of the data. The findings of the study will be presented accurately and objectively without fabrication, falsification, or misinterpretation. Proper acknowledgment of all scholarly sources used in the research will also be ensured to uphold academic integrity and avoid any issues related to plagiarism. Through these measures, the study aims to uphold ethical responsibility while contributing meaningful knowledge to the field of education and the integration of artificial intelligence in teaching practices.

3. Results and Discussion

This chapter presents and analyzes the collected data on the learning development and National Achievement Test scores of Grade 6 pupils to interpret the findings in relation to the study's central problem.

3.1 Learning Development

This study aimed to look into the different ways teachers continue to grow in their profession. It focused on five key areas such as their pursuit of advanced studies like graduate degrees, their participation in relevant seminars and trainings, their engagement in research, their membership in professional organizations, and their active subscription to learning resources. The goal is to understand how teachers are currently developing their skills and knowledge.

3.1.1 Advanced Studies

Table 2 shows the learning development of the teachers in terms of their advanced studies. The data showed strong institutional support, which got the highest mean of 4.58 which is interpreted as "always" for school or DepEd backing through leave or scholarships. This indicated a strong enabling environment. Access to opportunities for degrees or certifications also scored high 4.44 mean which is also interpreted as "always". The lowest mean, though still strong, mean is 4.35 for the relevance of available programs to current teaching duties and is also interpreted as "always". This data

demonstrated a highly supportive environment for teacher advancement, where strong institutional backing for advanced studies is successfully paired with accessible and relevant professional growth opportunities.

Table 2. *Teacher's Learning Development in terms of Advanced Studies*

STATEMENT	Mean	Description	Interpretation
The school or DepEd supports my pursuit of advanced studies through leave, scholarships, or incentives.	4.58	Strongly Agree	Always
I have access to opportunities for advanced studies (e.g., graduate degrees, certification programs) to enhance my teaching expertise.	4.44	Strongly Agree	Always
Advanced studies programs available to me are relevant to my current teaching responsibilities.	4.35	Strongly Agree	Always
GRAND MEAN	4.46	Strongly Agree	Always

The grand mean of 4.46, interpreted as "Always," implied a consistently positive and highly effective learning development environment for teachers, where institutional support, resource access, and professional growth opportunities are reliably and strongly present across all measured areas.

3.1.2 Seminars and Trainings

Table 3 showed the learning development of the teachers in terms of their seminars and trainings attended. Based on the data, the teachers' learning development through seminars and trainings is highly effective. All indicators showed a very strong agreement, proving these events are a major success. The highest mean 4.60 interpreted as "always" showed the most important outcome which is teachers can consistently use what they learn to improve their teaching. The content is also seen as highly relevant to real classroom challenges with a mean of 4.59 and interpreted as "always". While the score for frequency and organization got the lowest mean, it is still excellent at 4.55 and is also interpreted as "always". The data strongly indicated that the seminars and trainings are exceptionally effective, being highly applicable, relevant, and well-structured, which directly translates into improved teaching practice.

Table 3. *Teacher's Learning Development in terms of Seminars and Trainings*

STATEMENT	Mean	Description	Interpretation
After attending seminars and trainings, I am able to apply new knowledge and skills effectively in my teaching.	4.60	Strongly Agree	Always
The content of seminars and trainings addresses the challenges I face in the classroom.	4.59	Strongly Agree	Always
Seminars and trainings offered to teachers are frequent and well-organized.	4.55	Strongly Agree	Always
GRAND MEAN	4.58	Strongly Agree	Always

The grand mean of 4.58 implied that, from the teachers' perspective, seminars and trainings form a cornerstone of professional development that is consistently excellent, directly applicable, and reliable in addressing their instructional needs, fostering a culture of continuous and practical learning.

3.1.3 Research Engagement

Table 4 showed the learning development of the teachers in terms of their research engagement. The data showed a strong environment for teacher research. Teachers feel highly encouraged to conduct classroom-based research, with the strongest support got the highest mean of 4.58 which is interpreted as "always". They strongly agree that this research helps them improve their teaching and student results with a mean of 4.35 and is interpreted as "always". However, the lowest mean score is 4.07 for access to necessary resources and guidance, which is still positive but interpreted as "frequently". This suggested that while motivation and impact are high, providing more consistent research tools, funding, or expert mentorship could help teachers engage in research even more effectively.

Table 4. *Teacher's Learning Development in terms of Research Engagement.*

STATEMENT	Mean	Description	Interpretation
I am encouraged and supported to engage in classroom-based or action research.	4.58	Strongly Agree	Always
Research activities help me improve my instructional strategies and student outcomes.	4.35	Strongly Agree	Always
I have access to resources and guidance needed to conduct educational research.	4.07	Agree	Frequently
GRAND MEAN	4.33	Strongly Agree	Always

The grand mean of 4.33 implied a healthy culture of research engagement among teachers, indicating they consistently feel motivated to conduct studies and recognize their value, though slightly more structured support in terms of resources and guidance could maximize this positive trend.

3.1.4 Membership in Professional Organizations

Table 5 showed the learning development of the teachers in terms of their membership in professional organizations. The data on membership in professional organizations showed a positive picture. Teachers are very active members, with the highest mean of 4.53 which is interpreted as “always” indicating almost all belong to at least one group. While teachers agree that membership contributes to their growth and offers valuable opportunities with the lowest means of 4.05 and 4.04 are in interpreted as “frequently”. This showed membership is frequently common, this also indicated that teachers are consistently engaged as members of professional organizations, which provides a strong foundation for their ongoing growth, networking, and access to valuable learning opportunities.

Table 5. *Teacher's Learning Development in terms of membership in professional organizations.*

STATEMENT	Mean	Description	Interpretation
I am a member of one or more professional organizations related to teaching.	4.53	Strongly Agree	Always
Participation in professional organizations contributes to my professional growth and morale.	4.05	Agree	Frequently
Membership in professional organizations provides me with valuable learning and networking opportunities.	4.04	Agree	Frequently
GRAND MEAN	4.21	Strongly Agree	Always

The grand mean of 4.21 implied that membership in professional organizations is a well-established and valued component of teacher development, consistently fostering a sense of belonging and providing a reliable, though not yet maximized, channel for growth and connection within the profession.

3.1.5 Subscription to Learning Resources

Table 6 showed the learning development of the teachers in terms of their subscription to learning resources. The data on subscription to learning resources revealed exceptional support for teachers with the highest mean score of 5.00. Access to current and relevant materials is nearly perfect, with the mean score of 4.99, showing these tools are “always” available and crucial for staying updated. The lowest mean, yet still very high mean score of 4.58 which is also interpreted as “always”, is for the regular use of these resources in lesson planning. This indicated that teachers unanimously and strongly agree that their subscriptions to high-quality learning resources are a cornerstone of their professional development, providing them with unparalleled access to current trends which they consistently apply to improve their teaching.

Table 6. *Teacher's Learning Development in terms of subscription to learning resources.*

STATEMENT	Mean	Description	Interpretation
Subscriptions to educational publications or digital platforms help me stay updated on teaching trends and innovations.	5.00	Strongly Agree	Always
I have access to current and relevant learning resources such as journals, books, and online materials.	4.99	Strongly Agree	Always
I regularly use subscribed learning resources to enhance my lesson planning and delivery.	4.58	Strongly Agree	Always
GRAND MEAN	4.85	Strongly Agree	Always

The exceptionally high grand mean of 4.85 implied that the school's provision of learning resources is a profound success, creating an almost perfect environment where teachers feel continuously supported, informed, and equipped with the modern tools necessary for excellent teaching and professional growth.

3.2 National Achievement Test Results

The researcher conducted a thorough analysis of the National Achievement Test (NAT) results for all Grade 6 pupils during the School Year 2025-2026. This review aimed to evaluate the overall academic proficiency level of the graduating class and measure their mastery of the key learning competencies outlined in the curriculum. This essential data serves as a critical benchmark for assessing educational quality and planning targeted interventions to improve student outcomes in subsequent school years.

Based on the data presented in table 7, the National Achievement Test results for the Grade 6 pupils showed a clear pattern. The majority of pupils which is 55.2%, are in the "Developing" category with 80-84 grade range, indicating they have a basic understanding. A significant portion, 44.8%, achieved a "Strong" performance under 85-89 grade range, showing solid competency. The results are positively framed, showing that 100% of Grade 6 pupils have achieved a passing level of mastery, with nearly half demonstrating strong competency. This solid foundation indicates a successful learning environment where all students are meeting core standards, providing a promising base for further growth and refinement.

Table 7. National Achievement Test Results

Grade Range	Interpretation	Frequency	Percentage
90-100	Exemplary	0	0%
85-89	Strong	113	44.8%
80-84	Developing	139	55.2%
75-79	Needs improvement	0	0%
Below 75	Significantly needs improvement	0	0%
Total		252	100%

3.3 Correlation between Learning Development and National Achievement Test

Table 7 presents the correlation between learning development and national achievement test.

Table 7. Correlation between learning development and national achievement test.

Independent Variable	Dependent Variable	Correlation Coefficient	Interpretation	p-value	Interpretation
Advanced Studies	National Achievement Test	0.14	Negligible Correlation	.824	Not Significant
Seminars and Trainings		.059	Negligible Correlation	.354	Not Significant
Research Engagement		-.064	Negligible Correlation	.311	Not Significant
Membership in Professional Organizations		-.035	Negligible Correlation	.583	Not Significant
Subscription to Learning Resources		.019	Negligible Correlation	.762	Not Significant

3.3.1 Advanced Studies

The analysis of the relationship between teachers' Advanced Studies and NAT scores showed a very weak connection. The correlation coefficient is 0.14, which is considered a Negligible Correlation. This means there is almost no direct connection between a teacher pursuing a higher degree and their students' test results. The p-value of .824 is much higher than 0.05, confirming that this small observed relationship is Not Significant and likely due to random chance. This means that this specific form of teacher development, on its own, does not appear to be a direct factor influencing student achievement on this test.

3.3.2 Seminars and Trainings

The data showed a very weak connection between teachers attending Seminars and Trainings and the NAT scores. The correlation coefficient is only .059, which is a Negligible Correlation. This means there is almost no measurable connection between these two variables. Furthermore, the high p-value of .354 confirms this finding is Not Significant. Meaning, while seminars are valuable for teacher growth, this specific data does not show that they directly cause an increase in student test scores.

3.3.3. Research Engagement

The analysis showed almost no connection between Research Engagement and NAT scores. The correlation is slightly negative at -.064, but this is still a Negligible Correlation, meaning it is practically zero. The p-value of .311 confirms the result is Not Significant. In simple terms, whether a teacher conducts research or not does not directly predict their students' performance on this specific test.

3.3.4 Membership in Professional Organizations

The data indicated that Membership in Professional Organizations has no meaningful statistical relationship with student NAT scores. The correlation coefficient is -.035, which is a Negligible Correlation, essentially showing no relation. The high p-value of .583 confirms this result is Not Significant. This means that, for this study, a teacher being a member of a professional group does not directly translate to higher or lower test results for their pupils.

3.3.5 Subscription to Learning Resources

The data revealed that a teacher's Subscription to Learning Resources has no measurable impact on pupil NAT scores in this study. The correlation is .019, which is a Negligible Correlation, showing virtually no connection. The p-value of .762 is very high, confirming this finding is Not Significant. In simple terms, while these resources are highly valued by teachers for their own development, their use does not directly correlate with changes in student performance on this specific standardized test.

Thus, the statistical analysis leads to a clear conclusion that there is no significant correlation between any of the five areas of teacher learning development such as Advanced Studies, Seminars and Trainings, Research Engagement, Membership in Professional Organizations, and Subscription to Learning Resources to the National Achievement Test results of Grade 6 pupils. All calculated relationships were negligible and statistically insignificant. Therefore, the null hypothesis is accepted. This means that, for this specific group and context, differences in teacher professional development activities do not directly explain or predict the variations observed in student scores on this standardized exam.

Every year, the National Achievement Test is conducted to evaluate elementary grade students' learning against set goals. Teachers play a crucial role in this process, as their effectiveness in imparting knowledge directly influences students' performance in these examinations. The results of the National Achievement Test, National Diagnostic Test, and other aptitude tests gauge the efficiency and mastery of teachers, along with students' competencies in basic subjects. Consequently, teachers bear significant responsibility for student learning and are held accountable for students' test performances, which reflect their teaching effectiveness as mandated by the Department of Education (Jhaeyzson, n.d.)

In relation with the results of this study, using findings from the National Achievement Test (NAT), the study of Cabio et al. (2025) examined the association between teacher qualifications and academic achievement. Correlation analysis showed a strong but not statistically significant relationship between academic success and NAT Problem Solving scores. In the meantime, there was no substantial relationship between academic achievement and either critical thinking or information literacy; the correlations were low and moderate, respectively. Notably, a strong and statistically significant correlation was discovered between NAT Problem Solving scores and teacher qualification, indicating that student achievements in this domain may be impacted by instructor expertise. According to the study's findings, teacher proficiency—especially in Filipino—is essential for raising students' NAT scores, particularly in problem-solving.

4. Conclusion & Recommendations

The findings of the study indicate that teachers in the selected central elementary schools demonstrate a high level of engagement in professional learning and development. The respondents consistently reported strong participation in advanced studies, seminars and trainings, research activities, professional organization membership, and the use of learning resources. These professional development activities created a supportive environment for continuous teacher growth. At the same time, the National Achievement Test results of the Grade 6 pupils showed a positive overall outcome, as all learners reached the passing level, with the majority categorized under the “Developing” level and a significant portion achieving a “Strong” level of performance. However, the statistical analysis revealed that none of the examined areas of teacher learning and development showed a significant relationship with the NAT performance of pupils. The correlations between the variables were negligible and statistically insignificant, suggesting that although teachers actively engage in professional development, these factors alone do not directly explain variations in students' standardized test performance within the context of this study.

Based on these findings, several recommendations may be considered to strengthen the connection between teacher development and student achievement. Schools and educational leaders may design professional development programs

that focus more on translating training and advanced learning into specific classroom practices that directly support competencies assessed in national examinations. Continuous mentoring, coaching, and collaborative learning communities may also be encouraged so teachers can effectively apply the knowledge gained from seminars, research activities, and professional organizations to instructional strategies and assessment preparation. Additionally, school administrators and education policymakers may consider strengthening support systems that align teacher professional development initiatives with curriculum implementation and learner assessment outcomes to maximize their potential impact on student learning. Despite the contributions of this study, certain limitations must be acknowledged. The research was limited to Grade 6 teachers from selected central elementary schools in the second district of the Eastern Samar Division, which may restrict the generalizability of the findings to other districts or educational contexts. The study also relied on survey responses and existing NAT records, which may not fully capture other variables influencing student performance such as learner motivation, socioeconomic background, parental involvement, school resources, and instructional practices. Furthermore, the descriptive-correlational design identified relationships but could not determine causal effects. Future studies may expand the scope by including additional variables, employing mixed-methods approaches, or conducting longitudinal research to provide a deeper understanding of the factors that influence student achievement in standardized assessments.

Compliance with ethical standards

This study was conducted in accordance with institutional ethical standards governing educational research. Prior to data collection, permission and ethical clearance were secured from the appropriate school authorities. Participation in the study was voluntary, and respondents were provided with sufficient information about the purpose and procedures of the research before giving their informed consent. Participants were assured that they could decline participation or withdraw at any time without any negative consequences. The confidentiality and privacy of all respondents were strictly protected, and no personal identifiers were collected in the survey instrument. All information gathered was used solely for academic purposes and handled in compliance with the provisions of the Philippine Data Privacy Act of 2012 (Republic Act No. 10173). The researcher affirms that the study was conducted with honesty and integrity, with no conflict of interest influencing the research process. Proper acknowledgment was given to all sources and contributors to uphold academic integrity, and the researcher assumes full responsibility for the authorship and copyright of this work in accordance with institutional policies.

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