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Parental and Teacher Support, Attitude Toward Math, and Performance in Mathematics of the Grade VI Pupils

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Abstract

Aim: This study aimed to examine the level of support from parents and teachers, the attitude towards Mathematics, and the academic performance in Mathematics of Grade VI students in different elementary schools in Barangay Semirara, Caluya, Antique. Specifically, it sought to determine the levels of parental and teacher support, assess students' attitudes towards Mathematics, evaluate their academic performance, and explore the relationships among these variables.

Methodology: The study employed a descriptive-correlational research design with a quantitative approach. A total of 150 Grade VI pupils from elementary schools in Barangay Semirara, Caluya, Antique were selected through proportional random sampling. Data were gathered using a structured questionnaire that measured parental and teacher support, students' attitudes toward Mathematics, and their academic performance. A Likert scale was utilized for responses. Descriptive statistics summarized the data, while Pearson's Product-Moment Correlation was used to analyze relationships among variables.

Results: The findings revealed that students perceive strong academic support from both parents and teachers. Parental support showed a significant correlation with Mathematics performance, particularly when associated with disciplinary strategies such as threats of punishment and guilt-inducing criticism. In contrast, perceived teacher support did not significantly correlate with academic performance. Among the attitude dimensions, students exhibited a generally positive disposition toward Mathematics, with high scores in keenness and enjoyment. However, only keenness to learn showed a significant correlation with academic performance.

Conclusion: The academic performance of Grade VI students in Mathematics is generally satisfactory. The results underscore the complex dynamics between support systems and attitudes in influencing students' achievement in Mathematics.

Keywords: *attitude towards Math, parental support, performance in Mathematics, teacher support*

INTRODUCTION

Parental involvement continues to be recognized as a critical component of a child's educational development. According to Yang et al. (2023), there is currently a dearth of review work on the connection between parental involvement and student engagement, despite the fact that it is one of the most important components of social support for students' school engagement and achievement.

Parallel to this, teacher support has been widely acknowledged as another influential factor in student outcomes. The school environment has an impact on students' academic performance in terms of motivation, social effects, and socioeconomic effects, claims Ozcan (2021). Teachers have an impact on students' academic achievement by their professional competence, role modeling, communication, attitude, encouragement, and direction.

The motivational beliefs of learners also play a crucial role. Self-efficacy in mathematics affects students' selection of projects that require a lot of work, as well as their degree of persistence and patience in trying circumstances (Pajares, 1996; Zakariya et al., 2019). Therefore, mathematics self-efficacy is a self-assessment of students' proficiency in the given mathematical activities that serves as an internal motivation for task completion. In



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the context of mathematics education, these attitudes can significantly influence pupils' engagement and success. Supporting this, Sen (2022) provides evidence for this claim by citing a number of socioeconomic issues as well as the impact of peers, families, and schools on mathematics education.

Given the complexity of factors that contribute to mathematics achievement, understanding the interplay between parental support, teacher support, and learners' attitudes toward mathematics is vital. This study aims to explore how these three dimensions collectively influence the mathematics performance of Grade VI pupils. While existing literature has broadly discussed each factor independently or in other age groups, there is a notable scarcity of research focused explicitly on Grade VI students—a pivotal year as learners prepare to transition from primary to secondary education.

This research addresses the gap by examining the relationship between parental academic support, teacher support, and attitudes toward mathematics, and how these collectively affect the performance of Grade VI pupils in mathematics. Although prior studies have investigated these constructs separately or in different grade levels, there remains limited understanding of their interconnected impact within this specific educational stage.

In response to this need, the present study provided a focused analysis of Grade VI pupils' learning environment, attitudes, and academic outcomes. By doing so, it aimed to offer insights that could inform teaching practices, parental engagement strategies, and policy interventions designed to improve mathematics learning outcomes. Ultimately, this research sought to contribute to a more comprehensive understanding of the factors that shaped mathematical achievement at a crucial point in elementary education.

Objectives

The primary objective of this research is to examine the influence of parental academic support, teacher support, and attitude toward mathematics on the mathematics performance of Grade VI pupils.

The research sought to answer the following research questions:

1. What is the perceived level of parental academic support among Grade VI pupils in terms of:
 - a. Choice within certain limits;
 - b. Rationale for demands and limits;
 - c. Acknowledgement of feelings;
 - d. Threats to punish; and
 - e. Guilt-inducing criticism?
2. What is the perceived level of teacher support among Grade VI pupils in terms of:
 - a. Interest;
 - b. Positive regard;
 - c. Expectations; and
 - d. Accessibility?
3. What is the attitude of Grade VI pupils toward learning mathematics in terms of:
 - a. Keenness to learn mathematics;
 - b. Enjoyment in learning mathematics; and
 - c. Mathematics performance?
4. What is the level of mathematics performance of Grade VI pupils?
5. Is there a significant relationship between the level of parental academic support and the mathematics performance of Grade VI pupils?
6. Is there a significant relationship between the level of teacher support and the mathematics performance of Grade VI pupils?
7. Is there a significant relationship between pupils' attitude toward learning mathematics and their mathematics performance?

Hypothesis

Given the stated research problems, the following hypotheses were tested at 0.05 level of significance:

H0₁: There is no significant relationship between parental academic support and the performance in mathematics of Grade VI pupils.

Ha₁: There is a significant relationship between parental academic support and the performance in mathematics of Grade VI pupils.

H0₂: There is no significant relationship between teacher support and the performance in mathematics of Grade VI pupils.



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Ha₂: There is a significant relationship between teacher support and the performance in mathematics of Grade VI pupils.

H₀₃: There is no significant relationship between attitude toward learning mathematics and the performance in mathematics of Grade VI pupils.

Ha₃: There is a significant relationship between attitude toward learning mathematics and the performance in mathematics of Grade VI pupils.

METHODS

Research Design

This study employed a descriptive-correlational research design to examine the relationships among parental support, teacher support, attitudes toward mathematics, and the academic performance of Grade VI pupils in mathematics. This design enabled the researchers to describe and analyze the nature and strength of associations among the variables under investigation without manipulating any of them.

Population and Sampling

This study was carried out in selected elementary schools located in Barangay Semirara, Caluya, Antique, involving a total of 150 Grade VI pupils. The respondents were selected through proportional random sampling based on the specific criterion that they were officially enrolled Grade VI students in the participating schools during the Second Quarter of School Year 2023–2024. The selection considered accessibility, diversity of the student population, and the willingness of the schools to participate.

Instrument

The primary data collection tool was a structured, printed questionnaire for Grade VI pupils, covering four key areas. Parental support was measured using the P-PASS by Mageau et al. (2015), assessing aspects like choice, rationale, acknowledgment, threats, and guilt. Teacher support was evaluated using the scale by Metheny et al. (2008), focusing on interest, regard, expectations, and accessibility. Attitude toward mathematics was measured using adapted items from Mutohir et al. (2018), covering keenness, enjoyment, and self-perception. Mathematics performance was based on self-reported grades, validated with actual records when available. All items were age-appropriate and easy to understand.

Data Collection

The researchers collected data using printed questionnaires administered to Grade VI pupils. Data collection was conducted during scheduled sessions arranged in coordination with the school administration. These sessions took place within regular class hours or during other appropriate time slots, depending on the school's availability.

Before the administration, the researchers gave a brief orientation to the pupils, explaining how to complete the questionnaire accurately. Clear instructions were provided to ensure proper understanding. The printed questionnaires were then distributed individually or in small groups, and pupils were allotted sufficient time to complete them at their own pace.

Once completed, the researchers collected the printed questionnaires and encoded the responses into a digital format for analysis. Throughout the data collection and entry process, the researchers maintained accuracy and ensured confidentiality of the participants' responses.

Treatment of Data

The data were analyzed using both descriptive and inferential statistics. Weighted means assessed levels of perceived parental and teacher support, as well as students' attitudes toward mathematics. Frequency counts, means, and percentages summarized students' mathematics performance. To examine relationships between variables—parental support, teacher support, attitude toward mathematics, and academic performance—the Pearson Product-Moment Correlation Coefficient (r) was used to determine the strength and direction of associations.

Ethical Considerations

The study strictly followed ethical standards. Informed consent was obtained from parents or guardians, and participants were assured of their voluntary involvement and right to withdraw at any time. They were fully informed about the study's purpose, procedures, and potential risks or benefits. Confidentiality and anonymity were

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maintained by de-identifying data and limiting access to researchers only. All procedures were non-invasive, ensuring no harm to participants. The study also promoted fairness by giving all eligible pupils equal opportunity to participate, upholding transparency, accountability, and ethical research practices throughout.

RESULTS and DISCUSSION

This chapter presents the results of the study and the discussion of the study's findings.

Level of Parental Academic Support as Perceived by the Grade VI Pupils

Grade VI students perceive the academic support provided by their parents, showcasing a range of experiences that reflect the distinct and individualized approaches of each parent. The results show a wide range of experiences and viewpoints, which represent the dynamics of their family's strategy for providing academic support towards mathematics.

Table 1. The level of parental academic support as perceived by Grade VI pupils in terms of choice is within certain limits.

Indicators	Mean	Interpretation
My parents praise and appreciate me for better academic achievement.	4.61	Very high
Encourage children's participation in co-curricular activities.	4.09	High
My parents help me in completing their homework.	3.58	High
My parents regularly check my exercise book.	3.47	Moderate
My parents encouraged me to work harder at school.	4.43	High
Overall Mean	4.04	High
<i>Scale: 1.00-1.49 Very Low 1.50-2.49 Low 2.50-3.49 Moderate 3.50-4.49 High 4.50-5.00 Very High</i>		

Grade VI pupils generally perceived a high level of parental academic support in terms of choice within certain limits, as shown by the overall mean score of 4.04. Parents were most recognized for praising academic achievements (mean = 4.61) and encouraging school participation (mean = 4.43), fostering motivation and engagement. However, moderate support was noted in tasks such as checking exercise books (mean = 3.47), indicating areas for improvement. These results are consistent with Shahzad's et al. (2020) assertion that parental support is one of the most important aspects of a child's education and is favorably correlated with academic achievement. Parental support, which is closely related to the educational, emotional, and financial assistance that parents and other family members give at home, is used to track its effects on students' academic achievement.

Table 2. Level of parental academic support as perceived by the Grade VI pupils in terms of rationale for demands and limits.

Indicators	Mean	Interpretation
My parents evaluate and sign children's progress reports regularly.	4.28	High
My parents communicate with teachers about children's regular attendance.	3.56	High
My parents attend different school programs to encourage children	3.95	High
My parents encourage good relationships with peers at school and in society.	3.69	High
My parents made a home environment suitable for my educational progress.	4.03	High
Overall Mean	3.90	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Table 2 presents Grade VI pupils' perceptions of parental academic support regarding rationale for demands and limits, with an overall high mean score of 3.90. Pupils noted that parents regularly evaluate and sign progress reports (mean = 4.28) and maintain communication with teachers about attendance and school involvement (means ranging from 3.56 to 3.95). Parents were also seen as providing a supportive home environment for learning (mean



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= 4.03). These findings align with Đurišić and Bunijevac (2017), in current popular and political discussion, it is parents who must take responsibility for their child for social, emotional, and educational success or failure. The connection made between two things, one is the actions of parents, and another thing is related to the outcomes for children. In the current educational context, parental involvement is considered a panacea of student's achievement. Over the past few years, various studies have examined that there is a considerable influence of parental involvement on students' academic performance.

Table 3. Level of parental academic support as perceived by the Grade VI pupils in terms of acknowledgment of feelings.

Indicators	Mean	Interpretation
My parents always ask me about my feelings.	3.81	High
My parents asked me first before doing and deciding for me.	3.81	High
My parents always check on me to see if I'm okay.	3.99	High
My parents ask me if I am having a hard time learning math.	3.72	High
My parents always talk to me regarding my emotional problems.	3.54	High
Overall Mean	3.77	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Grade VI pupils perceive a high level of parental academic support in acknowledging their feelings, with mean scores ranging from 3.54 to 3.99 and an overall mean of 3.77. Pupils reported that parents frequently inquire about their emotions, seek their input before decisions, consistently check on their well-being, and discuss academic challenges, especially in subjects like math. This strong emotional support fosters a positive home environment conducive to learning. According to Magaoay (2023), parental education largely helps students succeed in their studies, and family involvement promotes academic achievement. The financial situation of the family may also have an impact on the students' academic achievement. The least variable, however, concerned the appropriate school support. The family environment had a big impact on the students' academic performance. When homes are favorable to learning, students perform better in the classroom.

Table 4. Level of parental academic support as perceived by the Grade VI pupils in terms of threats to punish.

Indicators	Mean	Interpretation
My parents threatened me to reduce my allowance if I failed my math subject.	4.27	High
My parents threatened me not to permit me to play if I didn't finish my task or assignment.	3.40	Moderate
My parents punished me for not being able to perfect the quizzes or exams.	4.08	High
My parents threatened me not to eat unless I correctly answered all the activities.	4.46	High
My parents hit my hands whenever I got terrible scores in math exercises.	4.69	Very high
Overall Mean	4.18	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Grade VI pupils perceive a high level of parental academic support expressed through threats and punitive measures, with an overall mean of 4.18. Common punishments include hitting pupils' hands for poor math scores, threatening to reduce allowances (mean = 4.27), restricting playtime if tasks are unfinished (mean = 3.40), and withholding food until activities are correctly completed (mean = 4.46). While discipline is important for academic development, the frequent use of physical punishment raises concerns about its potential negative effects on students' emotional well-being and motivation. These results emphasize the necessity for parents to embrace more positive reinforcement, motivation, and effective communication techniques. This group of behaviors can be identified by exterior manifestations that have a detrimental impact on a child's surroundings and can be a significant risk factor for conduct issues, aggression, delinquency, and antisocial behavior. One idea to explain this occurrence is



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the social learning theory, which holds that when parents use physical punishment, it teaches kids that violence is sometimes necessary or useful (Wiggers & Paas, 2022).

Table 5. Level of parental academic support as perceived by the Grade VI pupils in terms of guilt-inducing criticism.

Indicators	Mean	Interpretation
My parents showed their disappointment look every time they saw my scores in math.	3.21	Moderate
My parents were getting mad at me for not having a perfect score on the exam.	3.19	Moderate
My parents scolded me and said that I was dumb.	4.75	High
My parents always tell me that I'm a slow learner.	3.01	Moderate
My parents show I'm not like them, who can easily understand lessons.	3.47	Moderate
Overall Mean	3.53	High
<i>Scale:</i> 1.00-1.49 Very Low 1.50-2.49 Low 2.50-3.49 Moderate 3.50-4.49 High 4.50-5.00 Very High		

Grade VI pupils perceive high levels of guilt-inducing criticism from parents, including harsh words like "dumb" (reversed mean = 4.75) and expressions of disappointment and anger over academic performance (overall mean = 3.53). Adolescents' self-esteem is negatively impacted by poor parenting practices, which include harsh criticism, placing blame, giving them unfavorable assessments, and punishing them. This strategy may cause teenagers to question and discount their own value and skills, which will lower their self-esteem (Huang et al., 2024).

Additionally, prior studies have demonstrated that parents' reactions to their children's performance have a specific impact on the psychological functioning of the children, according to Li et al. (2022). Children's self-esteem is positively impacted by parents' success-oriented reactions to their performance, whereas children's low self-esteem is linked to parents' failure-oriented reactions. Few research have looked at the mediating mechanisms that "explain" the relationship between children's self-esteem and parents' reactions to their performances. However, from the viewpoint of the caretakers, the response to this question is crucial for preserving and enhancing children's self-esteem.

Perceived Level of Teacher Support of the Grade VI Pupils

Grade VI students view the academic support they get from teachers which highlights diverse experiences, representing each teacher's unique approach. These perceptions may relate to academic achievement, motivation, and involvement. The goal is to offer a comprehensive view of teacher support in the area, aiding educators, parents, and the community in creating a positive environment for academic success.

Table 6. The Grade VI pupils' perceived level of teacher support in terms of interest.

Indicators	Mean	Interpretation
My teacher convinces the students that math is fun.	4.25	High
My teacher convinces the students that math is not hard to learn.	3.51	High
My teacher motivates students through inspiring teaching.	4.09	High
My teacher lets students take risks in classroom learning activities.	3.47	Moderate
My teacher uses various strategies to promote unity, order, satisfaction, and less conflict in the classroom	4.14	High
Overall Mean	3.89	High
<i>Scale:</i> 1.00-1.49 Very Low 1.50-2.49 Low 2.50-3.49 Moderate 3.50-4.49 High 4.50-5.00 Very High		

Table 6 shows that Grade VI pupils generally perceive high teacher support in making math enjoyable and approachable, with mean scores reflecting teachers' success in motivating students and reducing the subject's perceived difficulty (overall mean = 3.89). Students appreciate teachers' efforts to create a positive learning atmosphere and promote motivation (means ranging from 3.51 to 4.25). However, support for encouraging risk-



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taking in class activities is moderate (mean = 3.47), indicating room for improvement. Numerous studies indicate that kids who report having a good relationship with their teachers are more likely to have other favorable academic outcomes, such as higher math achievement. Positive teacher-student connections have been connected to higher math accomplishment in a number of studies. These interactions have been found to boost student self-efficacy, intrinsic motivation for learning math, classroom engagement, and sense of mathematics identity. According to other research, teachers who are emotionally supportive foster learning settings where all students—including those who are unsure of their mathematical aptitude—feel comfortable enough to engage completely in the process of learning (Fitz & Price, 2025).

Table 7. The Grade VI pupils' perceived level of teacher support in terms of positive regards.

Indicators	Mean	Interpretation
My teacher provides support and guidance in learning mathematics.	3.26	Moderate
My teacher creates a positive and encouraging environment for learning math.	4.98	Very high
My teacher encourages active participation and engagement in math.	3.05	Moderate
My teacher provides additional resources or materials to enhance math learning.	3.87	High
My teacher motivates and inspires me to excel in mathematics.	3.60	High
Overall Mean	3.75	High
<i>Scale: 1.00-1.49 Very Low 1.50-2.49 Low 2.50-3.49 Moderate 3.50-4.49 High 4.50-5.00 Very High</i>		

Table 7 presents Grade VI pupils' perceptions of teacher support in terms of positive regard, with an overall mean of 3.75, indicating a generally high level of support. Students noted that teachers create a supportive math learning environment (mean = 4.98), motivate them (mean = 3.60), and provide additional resources (mean = 3.87). Moderate support was perceived in areas such as guidance in learning math (mean = 3.26) and encouraging active participation (mean = 3.05). However, positive teacher-student relationships can enhance students' enjoyment of the course, stimulate positive academic emotions, and reduce math anxiety (Birch & Ladd, 1998; Pinxten et al., 2014; Zee and Roorda, 2018). Conversely, poor teacher-student relationships can lead to a dislike of course-related activities, negative academic emotions, and increased math anxiety.

Table 8. Perceived level of teacher support of the Grade VI pupils in terms of expectations.

Indicators	Mean	Interpretation
My teacher wants us to learn math.	4.58	Very high
My teacher motivates me to give my best effort.	4.25	High
My teacher expects me to succeed.	4.20	High
My teacher acknowledges student effort through recognition and praise.	4.19	High
My teacher wants us to participate in math class.	4.18	High
Overall Mean	4.28	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Table 8 presents Grade VI pupils' perceptions of teacher expectations, with an overall mean of 4.28, indicating a high level of perceived support. The highest-rated item was the teacher's intent on students learning math (mean = 4.58), reflecting strong teacher commitment. Students also noted motivation to do their best (mean = 4.25), high expectations for success (mean = 4.20), praise for effort (mean = 4.19), and encouragement to participate (mean = 4.18). One form of teacher mindset that affects student accomplishment is teacher expectations. (Rubie-Davies et al., 2020) and convictions. Two studies demonstrated a substantial and positive relationship between teacher expectations and student accomplishment after adjusting for teacher professional knowledge (subject knowledge, pedagogical content knowledge, and general pedagogical knowledge) (Hollenstein et al., 2019;



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Muntoni et al., 2020). Student achievement is favorably predicted by teacher expectations, and student self-concept (see Wang et al., 2018 review for a summary).

Table 9. Perceived level of teacher support of the Grade VI pupils in terms of accessibility.

Indicators	Mean	Interpretation
My teachers provide support to the students.	4.19	High
My teacher has a positive attitude daily.	4.03	High
My teacher cares about my academic and social well-being.	4.07	High
My teacher connects emotionally with the students.	3.77	High
My teacher guides students in a positive direction for their personal growth.	4.03	High
Overall Mean	4.02	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Table 9 highlights Grade VI pupils' perceptions of teacher support in terms of accessibility, with an overall mean of 4.02—indicating a high level of perceived support. Students reported that teachers are approachable, show daily positivity, care about their well-being, and guide them toward personal growth (means ranging from 3.77 to 4.19). These findings suggest that students feel both academically and emotionally supported.

Since the time of Plato and Socrates, teacher-student connection and the outcomes associated with that connection have been the focus of much research (Violanti et al. 2018), and it has been rather unanimously found that positive teacher-student interpersonal relationships are strong facilitators of a wide range of desirable student-related outcomes, including engagement, learning, achievement, well-being, motivation, success, and hope, among others. This is because teaching is mostly a relational vocation. According to McIntyre et al. (2020), "teachers make great impact ... in every moment of classroom learning" because "teachers' moment-to-moment behaviors create an ever-evolving picture of who the teacher is."

Attitude Toward Learning Mathematics of the Grade VI Pupils

Pupils' perceptions, beliefs, and emotions about learning math reflect their attitude towards learning mathematics.

Table 10. Attitude toward Learning Mathematics of the Grade VI pupils in terms of keenness to learn mathematics.

Indicators	Mean	Interpretation
I am practicing answering math activities at home.	3.85	High
I want to develop my math skills.	4.45	High
I am trying my best to understand the math lessons.	4.49	High
I am asking the teacher when I don't understand the lessons.	3.83	High
I am listening well to the lectures regarding math.	4.05	High
Overall Mean	4.13	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Grade VI pupils show a strong keenness to learn mathematics, with a high overall mean of 4.13, indicating positive attitudes toward the subject. They actively answer math activities at home (mean=3.85), strive to develop their skills (mean=4.45), and try their best to understand lessons (mean=4.49). Students also seek clarification for difficult lessons (mean=3.83) and listen attentively during math lectures (mean=4.05). Enjoyment of mathematics is an essential construct in and of itself, as it may impact children's willingness to do mathematical activities, allowing them to improve in the subject. Most research show that younger children like mathematics, with a few exceptions (Markovits & Forgasz, 2017). Additionally, individual academic performance is positively impacted by tutors' emotional support, according to research findings by Kashy-Rosenbaum et al. (2018). According to a long-term study, students' academic self-efficacy can be predicted by their teachers' support (Jungert & Koestner, 2015). Additionally, students' perceptions of positive emotional support from their teachers may increase their enjoyment of learning, learning self-efficacy, and learning engagement (Liu et al., 2018).



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Table 11. Attitude toward Learning Mathematics of the Grade VI pupils in terms of enjoyment of learning mathematics.

Indicators	Mean	Interpretation
I enjoy learning math.	4.33	High
Math is fun.	4.25	High
Math word problem fascinates me.	3.91	High
Math is very interesting to me.	3.89	High
I feel comfortable dealing with math problems.	3.65	High
Overall Mean	4.01	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Table 11 shows that Grade VI pupils generally have a positive attitude toward learning mathematics, particularly in terms of enjoyment. The highest mean score (4.33) reflects strong agreement that students enjoy learning math, indicating positive engagement. Other indicators—finding math fun (mean=4.25), being fascinated by word problems (mean=3.91), viewing math as interesting (mean=3.89), and feeling comfortable with math problems (mean=3.65)—also received high scores. The overall mean is 4.01.

These findings imply that motivation can be defined as a personal preference and a situation-specific, positive state experienced while completing a task. Pupils that are more motivated to learn a subject devote more time and energy to their studies and performance, and they use more efficient study techniques. Anxiety characterizes the propensity to avoid a task or circumstance, whereas desire characterizes the propensity to approach (Luttenberger et al., 2018).

Table 12. Attitude toward Learning Mathematics of the Grade VI pupils in terms of mathematics performance.

Indicators	Mean	Interpretation
Working with math makes me nervous.	3.98	High
I am participating in math recitations during class.	3.59	High
I raise a hand when the teacher asks math-related questions.	3.48	High
I have confidence in taking math quizzes and exams.	3.54	High
I have a good grade in math.	3.41	High
Overall Mean	3.60	High
<i>Scale: 1.00-1.49 Very Low; 1.50-2.49 Low; 2.50-3.49 Moderate; 3.50-4.49 High; 4.50-5.00 Very High</i>		

Table 12 presents Grade VI pupils' attitudes toward learning mathematics, particularly related to performance. Despite reporting anxiety when working with math (mean = 3.98), students overall displayed a positive attitude (overall mean = 3.60), suggesting that anxiety does not fully hinder engagement or performance (Foley et al., 2017).

Students showed active participation in recitations (mean = 3.59), were willing to raise hands during math questions (mean = 3.48), felt confident in quizzes (mean = 3.54), and expected good grades (mean = 3.41). Students' learning experiences are greatly influenced by motivational elements (Živković et al., 2023). Math self-efficacy (SE), which can be defined as the set of beliefs regarding the ability to perform a specific task and achieve specific goals in math (Bandura, 1977, 1994), is one of the key motivating factors in math learning. It affects how people feel, think, motivate themselves, and behave when performing math-related tasks (Marsh et al., 2019).

Table 13. Performance in mathematics of the Grade VI pupils.

Grade	Frequency	Percent	Interpretation
90-100	19	12.67	Outstanding
85-89	48	32.00	Very satisfactory
80-84	58	38.67	Satisfactory



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75-79
Below 75

25
0

16.67
0.00

Fairly satisfactory
Failed

Overall Mean Grade

84.03

Satisfactory

Table 13 summarizes the mathematics performance of Grade VI pupils by grade range. Most students fall into the "Very Satisfactory" (32.00%, scores 85–89) and "Satisfactory" (38.67%, scores 80–84) categories. A notable 12.67% achieved "Outstanding" scores (90–100), while 16.67% were in the "Fairly Satisfactory" range (75–79). Importantly, no student scored below 75, indicating no failures.

The overall mean grade is 84.03, categorized as "Satisfactory." This reflects generally strong performance. Among the participating countries, the Philippines came in second from the bottom nations included in the most recent PISA 2018 Programme for International Student Assessment based on the 2019 DepEd National Report of the Philippines. This concerning outcome showed that the average math performance for Filipino students was 353 points literacy, which falls well short of the 489-point OECD average. Additionally, it is reported that just one Filipino student out of five, or roughly 19.7%, achieved at least the required degree of mathematical literacy proficiency (degree 2).

Relationship between Parental Academic Support and the Performance in Mathematics of the Grade VI Pupils

Table 14. Relationship between the parental academic support and the performance in mathematics of the Grade VI pupils.

Parental Academic Support	Performance in Mathematics	R	p-value	Interpretation
Choice within certain limits	Performance in mathematics	-.115	.160	Not significant
Rationale for demands and limits	Performance in mathematics	-.002	.983	Not significant
Acknowledgement of feelings	Performance in mathematics	-.065	.427	Not significant
Threats to punish	Performance in mathematics	-.323**	<.001	Significant
Guilt inducing criticism	Performance in mathematics	-.183*	.025	Significant
Parental Academic Support	Performance in mathematics	.224**	.006	Significant

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Table 14 shows the correlation between parental academic support and Grade VI pupils' math performance. Positive practices, such as overall parental academic support, show a significant positive correlation ($r = 0.224$, $p = .006$), indicating better performance with supportive parenting. In contrast, threats to punish ($r = -0.323$, $p < .001$) and guilt-inducing criticism ($r = -0.183$, $p = .025$) have significant negative correlations with math performance.

Two dimensions—supportive parental homework participation (SPI) and intrusive parental homework involvement (IPI)—were typically used to quantify the various forms of parental homework involvement, which were informed by the Self-Determination Theory (SDT) (Ryan and Deci, 2000, 2017) (Moroni et al., 2015; Xu et al., 2018). SDT states that while parental involvement that is intrusive, like controlling, has a negative impact on children's important outcomes, such as making them feel less engaged, making them appear less competent to teachers, and eventually making them more physically aggressive, parental involvement that is supportive, like autonomy support, has a positive impact on maintained intrinsic motivation, enhanced internalization, and greater psychological adjustment and wellbeing.



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Table 15. Relationship between the perceived teacher support and the performance in mathematics of the Grade VI pupils.

Teacher Support	Performance in Mathematics	r	p-value	Interpretation
Interested	Performance in mathematics	.007	.931	Not significant
Expectations	Performance in mathematics	-.019	.820	Not significant
Accessible	Performance in mathematics	-.043	.599	Not significant
Positive Regards	Performance in mathematics	-.115	.163	Not significant
Perceived Teacher Support	Performance in mathematics	-.072	.380	Not significant

****.** Correlation is significant at the 0.01 level (2-tailed).

***** Correlation is significant at the 0.05 level (2-tailed).

Table 15 shows no significant correlation between perceived teacher support and Grade VI pupils' mathematics performance, with p-values for Interest (0.931), Expectations (0.820), Accessibility (0.599), Positive Regards (0.163), and overall support (0.380) all above the significance level. In addition to having a greater impact on course grades than standardized test results, perceived teacher support had the most effect on accomplishment among upper-secondary students. On the other hand, autonomy and academic assistance had less of an impact on student accomplishment than perceived emotional support. According to mediating analysis, the relationship between perceived teacher support and student accomplishment was partially mediated by general student involvement as well as its subtypes, behavioral, cognitive, and emotional engagement (Tao et al., 2022).

Table 16. Relationship between the attitude toward learning mathematics and the performance in mathematics of the Grade VI pupils.

Attitude Towards Learning Mathematics	Performance in Mathematics	R	p-value	Interpretation
Keenness to learn mathematics	Performance in mathematics	.165*	.044	Significant
Enjoyment to learn mathematics	Performance in mathematics	-.047	.566	Not significant
Mathematics performance	Performance in mathematics	.089	.278	Not significant
Attitude toward Learning Mathematics	Performance in mathematics	.075	.362	Not significant

****.** Correlation is significant at the 0.01 level (2-tailed).

***** Correlation is significant at the 0.05 level (2-tailed).

Table 16 shows a significant positive relationship between Grade VI pupils' keenness to learn mathematics and their performance in the subject ($r = 0.165$, $p = 0.044$). This indicates that students who are more motivated and eager to learn math tend to perform better academically. Lazarides et al. (2017) support this, noting that high motivation and engagement with math concepts often lead to better achievement. However, the relationships between enjoyment of learning math, overall attitude toward math, and performance were not statistically significant ($p > 0.05$). Numerous factors affect students' performance in mathematics, with motivation being the most important one. There is a claim that motivated students would focus more on their math education, which will lead to higher math scores (Putwain et al., 2018). Conversely, children who lack desire or experience negative emotions, including fear, will struggle to do well in mathematics (Rodríguez et al., 2020).



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Conclusions

In line with the findings of the study, the study found that Grade VI pupils generally perceive strong parental support, especially in providing choices and avoiding punitive actions. Teacher support is also perceived positively, mainly regarding expectations and accessibility. Pupils show a positive attitude toward learning mathematics, with eagerness and enjoyment, though their self-perceived performance is slightly lower. Overall math performance is satisfactory, with most students achieving very satisfactory or satisfactory grades. Positive parental involvement, particularly minimizing threats and guilt, significantly boosts math performance, while perceived teacher support showed no significant link to achievement. Among attitudes, keenness to learn math is most strongly related to better performance.

Recommendations

Parents should be encouraged to support their children emotionally and avoid guilt-inducing criticism. Teachers should enhance interest and positive regard to improve support. Personalized learning, extra practice, and constructive feedback can boost students' math skills and confidence. Targeted interventions and differentiated instruction are recommended to meet diverse learning needs. Collaboration between parents and teachers is key to creating a supportive learning environment. Further research should explore other factors influencing math performance beyond teacher support. Promoting a positive attitude toward math is essential for improving student achievement.

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