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Article

Motivation, Test Anxiety, And Mathematics Performance Among Junior High School Students

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Abstract: This study examined the relationship between students' motivation, test anxiety, and academic performance in mathematics at Gaas National High School during the school year 2025–2026. It aimed to understand how students' attitudes, confidence, and emotional responses influence their learning experiences and outcomes in mathematics. The research assessed five dimensions of motivation intrinsic value, self-regulation, self-efficacy, utility value, and attainment value as well as twelve indicators of test anxiety. Results revealed that students generally demonstrated a high level of motivation, with self-efficacy emerging as the strongest factor, indicating that students felt confident in their mathematical abilities. Intrinsic and utility values were also rated highly, suggesting that students both enjoy and recognize the usefulness of mathematics. Conversely, attainment value was rated lowest but still within a high range. Regarding test anxiety, findings showed a moderate level among students, characterized by common worries about failure and performance expectations, though not to a debilitating degree. Academic performance results indicated that most students achieved a "Very Satisfactory" level, reflecting solid understanding and competency in mathematics. Correlational analysis revealed a negative relationship between motivation and test anxiety students with higher motivation reported lower anxiety but neither variable showed a significant direct impact on academic performance. These findings suggest that emotional and motivational factors shape students' learning attitudes but are not the sole predictors of achievement. The study highlights the importance of fostering both emotional well-being and effective instructional strategies to enhance students' confidence, reduce anxiety, and improve mathematical performance.

Keywords: Students motivation, test anxiety, academic performance, self-regulation

Introduction

Mathematics is one of the most important subjects in education because it helps students develop problem-solving skills, logical reasoning, and decision-making

abilities. These skills are essential for daily life and future careers, especially in science, technology, engineering, and mathematics (STEM) fields (Jehadus et al., 2022). Learning math also improves analytical thinking, which students can apply to other subjects and situations (Elastika et al., 2021). Schools place high value on math because it lays the foundation for academic success and prepares students for real-world challenges (Süzen, 2021).

Many students find math difficult, especially during tests. They may experience confusion, low confidence, or a fear of failure. These problems are often caused by limited preparation, weak study habits, and a lack of motivation (El-Adl & Alkharusi, 2020; Elastika et al., 2021). Some students also struggle to manage their time and learning strategies, which affects their test performance (Bodhi et al., 2021). Others find it hard to connect math lessons to real-life uses, making the subject feel less meaningful (Jehadus et al., 2022). All of these factors increase pressure and stress during exams.

Test anxiety is a serious issue that affects many students during math exams. It causes nervousness, tension, and even mental blocks that prevent students from doing their best (Devine et al., 2020). Students with high test anxiety often forget what they studied, feel overwhelmed, and lose focus during exams (El-Adl & Alkharusi, 2020). Even students who are prepared can perform poorly because anxiety affects their working memory and problem-solving speed. This is especially true in math, where answers must be accurate and quick.

In the Philippines, many students experience stress and anxiety during math exams, especially in public schools with fewer resources. The 2022 PISA results showed that Filipino students ranked low in math among 79 countries, with most unable to reach the minimum proficiency level (OECD, 2023). Local studies confirm that students in public junior high schools often feel unmotivated and anxious about math (Revalde et al., 2020). At Gaas National High School, Math teachers observe that even well-prepared students freeze up during exams, showing signs of test anxiety such as sweating, shaking, or negative self-talk.

Although there are studies about test anxiety and academic performance, there is not enough research that connects specific types of motivation to test anxiety in math. Constructs such as intrinsic value (enjoyment in math), self-regulation (study habits), self-efficacy (confidence in math), and utility value (seeing math as useful in life or careers) are important but understudied in this area. Very few studies focus on how these motivation types affect anxiety in actual school settings, particularly among junior high students in the Philippines. This leaves a gap in understanding how motivation can help reduce math anxiety during tests.

This study aims to explore the relationship between mathematics motivation and test anxiety among junior high students at Gaas National High School Moreover, in this study, we will focus on five key motivation constructs intrinsic value, self-regulation, self-efficacy, utility value, and attainment value to examine how they relate to students' academic experiences. The primary outcome variable of interest is the test anxiety, which we aim to explain or predict based on these motivational factors. The findings of this study can guide classroom strategies that improve both math

performance and student well-being during examinations.

Literature Review

Students' motivation is widely recognized as a key factor influencing academic performance, particularly in mathematics where sustained effort and confidence are required. Contemporary studies emphasize that intrinsic value, self-efficacy, and self-regulation significantly contribute to students' engagement and achievement. Learners who find personal interest and enjoyment in academic tasks tend to demonstrate deeper understanding and persistence in learning activities (Eccles & Wigfield, 2020; Schunk & DiBenedetto, 2020). In addition, self-efficacy has been identified as a strong predictor of academic success, as students who believe in their capabilities are more likely to overcome challenges and perform well (Usher & Schunk, 2021; Honicke & Broadbent, 2021). Self-regulated learners are also more effective in managing their study habits, leading to improved academic outcomes (Panadero, 2021). Furthermore, utility and attainment values influence students' motivation by shaping their perceptions of the importance and usefulness of academic tasks, thereby affecting their level of effort and persistence (Wigfield et al., 2021).

Conversely, test anxiety remains a significant barrier to academic success, particularly in mathematics, where performance pressure is often high. Recent research indicates that test anxiety negatively impacts students' cognitive functioning, including memory recall, concentration, and problem-solving abilities (Putwain et al., 2021; von der Embse et al., 2021). Students with high levels of anxiety are more likely to experience fear of failure, which can hinder their academic performance despite adequate preparation (Zeidner, 2020; Thomas et al., 2022). Moreover, studies have shown that motivation and test anxiety are inversely related, as students with higher self-efficacy and intrinsic motivation tend to experience lower levels of anxiety (Brady et al., 2021; Wang et al., 2022). This relationship highlights the importance of fostering positive motivational beliefs to mitigate anxiety and enhance performance. Understanding how motivation interacts with test anxiety provides valuable insights for developing effective intervention strategies aimed at improving students' confidence, reducing anxiety, and ultimately enhancing their mathematics achievement.

Methodology

This study employed a descriptive-correlational research design to determine the levels of mathematics motivation, test anxiety, and academic performance among junior high school students, and to examine the relationships among these variables. The descriptive component focused on identifying students' motivation in terms of intrinsic value, self-regulation, self-efficacy, utility value, and attainment value, as well as their level of test anxiety. Meanwhile, the correlational component analyzed how these variables are interrelated, particularly whether motivation influences test anxiety and academic performance, and whether test anxiety serves as a mediating factor. Data were gathered using a standardized survey questionnaire, and statistical tools were applied to determine the significance of relationships among variables. The study also adopted the Input–Process–Output (IPO) model, where the input phase involved the collection of relevant data on students' motivation, test anxiety, and mathematics performance through structured instruments. The study was conducted at Gaas National High School in Balamban, Cebu during the School Year 2025–2026. The respondents

consisted of Grade 7 and Grade 9 students selected through stratified random sampling to ensure balanced representation across grade levels. The sample size was determined using Slovin's formula based on the school's enrollment data. The research instrument comprised three parts: motivation, test anxiety, and academic performance. Part I measured students' motivation using items adapted from the Mathematics Motivation Questionnaire (MMQ) by Fiorella et al. (2021), covering five motivational constructs. Part II assessed students' level of test anxiety using a 5-point Likert scale, while Part III gathered students' mathematics grades as indicators of academic performance. Data collected were analyzed using appropriate statistical methods to establish relationships and support the development of an intervention plan.

Results

Table 1. Student Motivation (Intrinsic Value)

S/N	Intrinsic Value	WM	SD	Median	Level of Motivation
	Indicators				
1	I enjoy learning math.	3.64	0.69	4.00	High
2	The math I learn is more important to me than the grade I receive.	3.74	0.78	4.00	High
3	I find learning math interesting.	3.96	0.79	4.00	High
4	I like math that challenges me.	3.32	0.55	3.00	Moderate
5	Understanding math gives me a sense of accomplishment.	3.68	0.71	4.00	High
	Aggregate Mean Rating	**3.67**	**0.74**	**4.00**	**High**

Table 1 presents the students' responses related to intrinsic value, a key component of motivation that reflects enjoyment, interest, and personal satisfaction in learning mathematics. The aggregate mean rating is 3.67, with a standard deviation of 0.74 and a median of 4.00, indicating an overall "High" level of intrinsic motivation among the 117 respondents. Most indicators fall within the high range, such as "I enjoy learning math" (M = 3.64) and "Understanding math gives me a sense of accomplishment" (M = 3.68). The highest mean score was recorded for the item "I find learning math interesting" (M = 3.96), suggesting that students are generally curious and positively engaged with math content. However, the lowest-rated item was "I like math that challenges me" (M = 3.32), which falls under the "Moderate" category, indicating that while students enjoy math overall, they may be less comfortable with tasks that push them beyond their current abilities.

These findings are consistent with existing literature that emphasizes the role of intrinsic value in promoting student engagement and persistence. According to Wigfield et al. (2015), intrinsic motivation in academic settings is strongly associated with deeper learning strategies and better emotional experiences in school. Similarly, Lepper et al. (2020) found that students who enjoy the process of learning are more likely to take ownership of their progress, especially in subjects like math that require continuous skill development. In contrast, lower motivation toward challenging tasks could signal a gap in academic resilience, which is critical for overcoming difficult concepts (Linnenbrink-Garcia & Patall, 2016). The moderate rating on this item may also be influenced by students' prior experiences with

failure or anxiety in mathematics, which can reduce their willingness to engage with more demanding material (Putwain et al., 2020).

Table 2. Student Motivation (Self-regulation)

S/N	Self-regulation	WM	SD	Median	Level of Motivation
	Indicators				
1	If I am having trouble learning the math, I try to figure out why.	3.70	0.67	4.00	High
2	I put enough effort into learning the math.	3.24	0.47	3.00	Moderate
3	I use strategies that ensure I learn math well.	3.43	0.67	3.00	High
4	It is my fault if I do not understand math.	3.81	0.72	4.00	High
5	I prepare well for math tests and quizzes.	3.41	0.71	3.00	High
	Aggregate Mean Rating	**3.52**	**0.69**	**3.00**	**High**

Table 2 presents the students' self-reported motivation in the area of self-regulation, which refers to the strategies and behaviors learners use to manage their own learning processes. The aggregate mean rating is 3.52, interpreted as "High", indicating that students generally report consistent use of self-regulatory strategies in mathematics. Among the individual items, the highest mean score was "It is my fault if I do not understand math" (M = 3.81), showing strong internal responsibility. Students also scored high on "If I am having trouble learning the math, I try to figure out why" (M = 3.70), suggesting active problem-solving behavior. However, the lowest-rated item was "I put enough effort into learning the math" (M = 3.24), which falls under "Moderate", revealing that not all students are consistently investing sufficient effort in their learning.

These findings reflect the mixed nature of self-regulation among adolescents. Recent research emphasizes that self-regulated learners are proactive in setting goals, monitoring progress, and adjusting strategies to improve outcomes. Students who take responsibility for their own learning are more likely to engage in adaptive and self-corrective behaviors (Llacuna & Mason, 2022). Studies also reveal that while many adolescents use metacognitive strategies such as self-monitoring, they often struggle with consistency and sustained motivation, particularly under challenging tasks (Bardach et al., 2023). Similarly, findings from recent reviews indicate that self-awareness is developing, yet effort regulation remains a critical area for improvement (Faza & Lestari, 2025). The results imply that while students demonstrate a high level of self-regulation overall, there are specific areas that require support particularly in maintaining consistent effort and strategic learning behaviors. Teachers should focus on helping students build routines that promote regular engagement with math content

Table 3 presents student responses concerning their self-efficacy in mathematics, defined as their belief in their ability to successfully complete math-related tasks. The results reveal an overall high level of self-efficacy, with an aggregate mean of 3.70, a standard deviation of 0.72, and a median of 4.00. Each individual indicator also falls within the "High" range. The highest-rated item was "I am confident I will do well on math tests" (M = 3.85), closely followed by "I am confident I will do well on math assignments and projects" (M = 3.80). This suggests that

most students feel prepared and capable in both assessment and classwork contexts. The lowest mean score, though still high, was "I believe I can earn a grade of 'A' in the math course" (M = 3.52), which may reflect realistic expectations or a slight lack of confidence in achieving top performance.

Table 3. Student Motivation (Self-efficacy)

S/N	Self-efficacy	WM	SD	Median	Level of Motivation
	Indicators				
1	I expect to do as well as or better than other students in the math course.	3.75	0.80	4.00	High
2	I am confident I will do well on math assignments and projects.	3.80	0.63	4.00	High
3	I believe I can master the knowledge and skills in the math course.	3.58	0.67	3.00	High
4	I am confident I will do well on math tests.	3.85	0.69	4.00	High
5	I believe I can earn a grade of "A" in the math course.	3.52	0.73	3.00	High
	Aggregate Mean Rating	**3.70**	**0.72**	**4.00**	**High**

Recent studies consistently highlight self-efficacy as a key predictor of academic success and emotional resilience in mathematics. According to Talsma et al. (2021), students with higher academic self-efficacy show stronger persistence, better learning strategies, and higher achievement. Similarly, Huang (2021) confirmed through meta-analysis that self-efficacy is significantly and positively correlated with math performance, regardless of age or background. These findings reinforce the importance of nurturing self-efficacy in mathematics education to support both performance and well-being. The high self-efficacy scores are encouraging, indicating that students at Gaas National High School generally feel capable in handling math tasks. However, the slightly lower confidence in achieving top grades suggests the need to strengthen students' goal-setting skills and encourage self-appraisal of progress.

Table 4 presents the responses of students regarding the utility value of mathematics, which refers to the perceived usefulness and relevance of the subject to their personal goals, careers, and future success. The results indicate a high overall level of utility value, with an aggregate mean of 3.62, a standard deviation of 0.73, and a median of 4.00. All five indicators fall within the "High" range, suggesting that students generally recognize the importance of mathematics beyond the classroom. The highest mean score is for the item "The math I learn relates to my personal goals" (M = 3.71), indicating a strong alignment between academic content and individual aspirations. The lowest-rated item, "I think about how the math I learn will be helpful to me" (M = 3.50), though still high, suggests that some students may not always connect classroom content to practical applications.

These findings are consistent with recent research that emphasizes the role of utility value in fostering academic engagement and motivation. According to Hulleman et al. (2020), when students perceive academic material as personally relevant, they are more likely to invest effort and persist through challenges. In mathematics, utility value has been shown to correlate positively with student engagement, interest, and achievement (Gaspard et al., 2020). These findings support the idea that perceived usefulness is a critical driver of both cognitive and emotional outcomes in math education.

Table 4. Student Motivation (Utility Value)

S/N	Utility value	WM	SD	Median	Level of Motivation
	Indicators				
1	The math I learn relates to my personal goals.	3.71	0.78	4.00	High
2	I think about how learning math can help me get a good job.	3.68	0.71	4.00	High
3	I think about how the math I learn will be helpful to me.	3.50	0.65	3.00	High
4	I think about how learning math can help my career.	3.64	0.72	3.00	High
5	I think about how I will use math I learn.	3.59	0.78	4.00	High
	Aggregate Mean Rating	**3.62**	**0.73**	**4.00**	**High**

The high ratings across all utility value indicators highlight a positive outlook among students toward the relevance of mathematics in their future lives. This suggests a strong foundation for further enhancing motivation through value-based interventions. Math teachers can build on this by explicitly linking math lessons to real-world contexts. Incorporating career talks, project-based learning, and interdisciplinary tasks that showcase math's real-world application may further strengthen utility beliefs.

Table 5. Student Motivation (Attainment Value)

S/N	Attainment value	WM	SD	Median	Level of Motivation
	Indicators				
1	The math I learn is relevant to my life.	3.35	0.56	3.00	Moderate
2	The math I learn has practical value for me.	3.59	0.65	4.00	High
3	I like to do better than the other students on the math tests.	3.40	0.57	3.00	Moderate
4	Earning a good math grade is important to me.	3.49	0.69	3.00	High
5	I think about how my math grade will affect my overall grade point average.	3.32	0.61	3.00	Moderate
	Aggregate Mean Rating	**3.43**	**0.62**	**3.00**	**High**

Table 5 displays student responses related to attainment value, which reflects the personal importance of doing well in mathematics and how students associate success in math with their identity, self-worth, or academic goals. The results show an aggregate mean of 3.43, interpreted as "High", with a standard deviation of 0.62 and a median of 3.00. Two indicators received a high interpretation: "The math I learn has practical value for me" (M = 3.59) and "Earning a good math grade is important to me" (M = 3.49). Meanwhile, three indicators were rated as moderate, including "The math I learn is relevant to my life" (M = 3.35), "I like to do better than other students on math tests" (M = 3.40), and "I think about how my math grade will affect my GPA" (M = 3.32). These results suggest that while many students care about

succeeding in math, fewer strongly associate it with personal identity or academic competitiveness.

Recent findings by Gaspard et al. (2020) show that attainment value can enhance both cognitive engagement and emotional resilience in subjects like mathematics. However, when students do not perceive strong alignment between academic success and personal goals or identity, their motivation may become dependent on external rewards rather than intrinsic commitment (Barron & Hulleman, 2021). The moderately rated item on outperforming peers may also reflect a decline in performance-oriented motivation, which can be positive if students instead prioritize mastery over competition.

While the overall level of attainment value is high, the presence of moderate scores on key indicators suggests that many students may not fully internalize the importance of math in relation to their long-term identity, goals, or academic success. This highlights a need for educators to help students make stronger personal connections to mathematics, not just in terms of utility, but in how success in the subject contributes to self-development and achievement. Teachers can support this by emphasizing the personal significance of math mastery, integrating reflective goal-setting exercises, and discussing how math success aligns with broader life aspirations.

Table 6. Test Anxiety

S/N	Test Anxiety	WM	SD	Median	Level of Anxiety
	Indicators				
1	I am nervous about how I will do on the math tests.	2.71	0.66	3.00	Low
2	I become anxious when it is time to take a math test.	3.28	0.90	3.00	Moderate
3	I worry about failing math tests.	3.25	0.52	3.00	Moderate
4	I am concerned that the other students are better in math.	3.17	0.59	3.00	Moderate
5	I hate taking the math tests.	3.12	0.59	3.00	Moderate
6	Thinking about a maths test the day before you take it.	3.13	0.69	3.00	Moderate
7	It is hard for me to remember the right answers.	3.20	0.67	3.00	Moderate
8	I worry about doing something wrong.	3.15	0.64	3.00	Moderate
9	I think about what will happen if I fail.	3.19	0.59	3.00	Moderate
10	I worry about what my parents will say.	3.05	0.63	3.00	Moderate
11	I think most of my answers are wrong.	3.12	0.54	3.00	Moderate
12	I worry about how hard the test is.	3.06	0.67	3.00	Moderate
	Aggregate Mean Rating	**3.11**	**0.66**	**3.00**	**Moderate**

Table 7 presents the level of test anxiety experienced by students in mathematics, based on 12 indicators. The aggregate weighted mean is 3.11, with a median of 3.00 and a standard deviation of 0.66, indicating an overall moderate level of test anxiety among the 117

respondents. Eleven out of twelve items fall within the "Moderate" range, with the exception of one item "I am nervous about how I will do on the math tests" (M = 2.71) which was rated as "Low." The highest mean score was for "I become anxious when it is time to take a math test" (M = 3.28), reflecting anticipatory anxiety, a common reaction when students approach high-stakes assessments. Students also expressed concern about failure and social comparisons, as seen in items such as "I worry about failing math tests" (M = 3.25), "I am concerned that the other students are better in math" (M = 3.17), and "I worry about what my parents will say" (M = 3.05). These findings are consistent with the view that math test anxiety is often tied to fear of negative evaluation, performance pressure, and low academic confidence (Pekrun et al., 2023). Moderate anxiety, while not debilitating, can still disrupt concentration and reduce working memory capacity during testing (Owens et al., 2020). This could particularly affect problem-solving in math, where sustained cognitive engagement is essential. Although students are not experiencing high or severe test anxiety, the consistent moderate levels across nearly all indicators suggest that this is a widespread and chronic issue. Moderate anxiety can still undermine performance, erode self-confidence, and, if unaddressed, lead to long-term avoidance of math-related tasks or careers. Practical interventions might include test-taking strategy instruction, peer mentoring, emotional regulation activities, and growth mindset lessons that normalize mistakes as part of learning.

Table 7. Level of Academic Performance of the Students

Academic Performance	Grading Scale	Frequency	%
Outstanding	90 - 100	16	13.68
Very Satisfactory	85 - 89	72	61.54
Satisfactory	80 - 84	29	24.79
Fairly Satisfactory	75 - 79	0	0.00
Did Not Meet Expectations	Below 75	0	0.00
Total		**117**	**100.00**

Table 7 shows the distribution of academic performance in mathematics among 117 students, based on the standard Philippine grading scale. The data reveal that a majority of students performed at the "Very Satisfactory" level, with 72 students (61.54%) scoring between 85 and 89. An additional 29 students (24.79%) fell under the "Satisfactory" range (80–84), and 16 students (13.68%) achieved "Outstanding" performance (90–100). The mean score is 86.17 and the median is 87.00, both falling within the "Very Satisfactory" range, with a standard deviation of 3.08, indicating a moderately low variability in scores. These results suggest a relatively homogeneous group in terms of academic performance, with most students clustered in the mid-to-high performance range. Such performance levels may be partly attributed to their high levels of motivation and moderate test anxiety. According to Huang (2021), academic performance is strongly predicted by self-efficacy, while Pekrun et al. (2023) emphasize that achievement emotions, such as anxiety or confidence, can mediate learning outcomes in math. Talsma et al. (2021) further support this connection, noting that motivation and belief in one's capabilities influence both engagement and test performance. The findings from Table 9 indicate that most students are achieving at a competent or above-average level in mathematics, which reflects positively on the

current instructional practices at Gaas National High School. However, the relatively small proportion of "Outstanding" performers and absence of low achievers suggest that while minimum learning competencies are being met, there is room to stretch and challenge high-potential learners.

Table 8. Significance of the relationship between the level of motivation, test anxiety, and academic performance

Paired Variables	r	Direction/Magnitude	p-value	Significance
Motivation and Test Anxiety	-0.26620	Negative/Very Low	0.003	Significant
Motivation and Academic Performance	0.05509	Positive/Very Low	0.555	Not Significant
Test Anxiety and Academic Performance	0.03669	Positive/Very Low	0.695	Not Significant

Table 8 presents the Pearson correlation coefficients (r) examining the relationships among students' motivation, test anxiety, and mathematics academic performance. The only statistically significant relationship is between motivation and test anxiety with a correlation of r = -0.26620, p = 0.003, indicating a significant but very low negative relationship. This suggests that as students' motivation increases, their test anxiety tends to decrease, even if only slightly. This result aligns with research by Pekrun et al. (2023), which found that higher intrinsic motivation and self-efficacy are associated with reduced academic anxiety, particularly in mathematics. Similarly, Talsma et al. (2021) emphasize the protective role of motivation in buffering students against emotional distress during assessments.

In contrast, the relationship between motivation and academic performance (r = 0.05509, p = 0.555) and between test anxiety and academic performance (r = 0.03669, p = 0.695) were both not statistically significant and exhibited very low positive correlations. These findings suggest that neither motivation nor anxiety alone has a direct, strong influence on students' actual math performance. While this may seem counterintuitive, it reflects a growing body of research that points to indirect pathways through which motivation and anxiety influence performance often mediated by factors such as self-regulation, task complexity, teacher support, or emotional regulation strategies (Muis et al., 2020; Schunk & DiBenedetto, 2020). It also underscores the complexity of academic performance, which is shaped by a combination of cognitive, emotional, instructional, and environmental variables. The significant negative correlation between motivation and test anxiety reinforces the importance of developing students' internal motivation, particularly intrinsic value, self-efficacy, and attainment goals. Helping students see math as meaningful and manageable, schools can reduce emotional distress and create a more supportive learning environment. Although motivation did not show a direct significant link to performance, its influence on anxiety suggests that boosting motivation may have indirect academic benefits.

Discussion

The findings of the study reveal that students generally demonstrate a high level of motivation across all dimensions, including intrinsic value, self-regulation, self-efficacy, utility value, and attainment value, while experiencing a moderate level of test anxiety . Students showed strong interest and enjoyment in mathematics, particularly in finding the subject meaningful and

engaging, although they were less inclined to embrace challenging tasks. Similarly, while students exhibited good self-regulatory behaviors and confidence in their abilities, there were indications that effort and persistence could still be improved. The high ratings in utility and attainment values further suggest that students recognize the importance and relevance of mathematics in their future goals. Despite these positive motivational factors, the presence of moderate test anxiety indicates that students still experience worry and pressure during assessments, which may affect their performance and confidence. These results highlight the dual nature of student experiences, where motivation is strong but emotional factors like anxiety remain a concern.

Furthermore, the results show that most students achieved a very satisfactory level of academic performance, with minimal variation in scores, suggesting a generally consistent level of achievement among learners. However, correlation analysis revealed that only the relationship between motivation and test anxiety was statistically significant, showing a very low negative relationship, meaning that higher motivation slightly reduces anxiety. In contrast, motivation and test anxiety did not show a significant relationship with academic performance. This implies that while students are motivated and moderately anxious, these factors alone do not directly determine their math performance. Instead, academic achievement may be influenced by other variables such as instructional quality, learning strategies, and environmental support. These findings emphasize the need for holistic interventions that not only strengthen motivation but also address emotional and contextual factors to further enhance students' mathematics performance.

Conclusion

Based on the results of the study, students showed high motivation in mathematics and moderate levels of test anxiety, with most performing at a very satisfactory academic level. While more motivated students tended to feel less anxious, motivation and anxiety did not significantly predict actual math performance. This suggests that academic outcomes are influenced by additional factors beyond emotions and attitudes, such as teaching quality, learning strategies, and classroom support, which should be considered in designing effective educational interventions.

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