

Academic Performance as a Predictor of Academic Anxiety: A Study of Higher Secondary School Students in Aizawl City

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Abstract

This study examined the academic performance as predictor of academic anxiety among higher secondary school students in Aizawl City, Mizoram. The research aimed to understand how academic achievement might predict the prevalence of academic anxiety. Data were collected from 180 students across six randomly selected schools, with anxiety levels measured using the Academic Anxiety Scale (AAS-SAMRUA) by Siddiqui, M.A., & Rehman, A.U (2017). The findings indicated that while most students experience moderate to high levels of academic anxiety, the overall academic performance was high, with 85% of students securing “Distinction” or “First Division.” Regression analysis revealed no significant predictive relationship between academic performance and academic anxiety, $F(1,178) = 0.106$, $p > 0.05$. The Beta coefficient ($\hat{\alpha} = 0.024$) with a minimal impact of academic performance on anxiety level ($R^2 = 0.001$, $p = 0.745$). These results challenged the assumption that lower academic performance directly correlates with higher academic anxiety, suggesting that other factors, such as socio-cultural influences and personal coping mechanisms, may play a more significant role. The study accentuated the need for a holistic approach in addressing academic anxiety, considering psychological and environmental factors in addition to academic achievement.

Keywords: Academic Performance, Academic Anxiety, Predictor, Aizawl

Introduction

Academic anxiety has emerged as a significant concern among secondary school students, affecting their mental well-being and academic performance. Anxiety, particularly academic

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anxiety, refers to the feelings of nervousness, fear, and tension students experience in relation to academic tasks, assessments, and expectations (Shakir, 2014). The prevalence of academic anxiety has been widely documented, with studies indicating that it significantly impacts students' academic achievement and overall mental health (Sridevi, 2013; Azeem, 2018). In Mizoram, academic anxiety among secondary school students is a growing concern, there are studies conducted in this context, yet limited research has been conducted to understand its underlying causes, especially in relation to students' academic performance.

Academic performance, often considered an indicator of students' intellectual capacity, has a complex relationship with academic anxiety. While high academic achievement may reduce anxiety due to positive reinforcement, low academic performance can increase stress and anxiety levels among students (Das et al., 2014). Therefore, understanding the interplay between these factors is critical for identifying effective strategies to support students facing academic challenges. Several studies have explored the relationship between academic anxiety and achievement, with mixed findings regarding the direction and strength of this relationship (Yousefi et al., 2010; Basco & Olea, 2013). However, research on this subject in the context of Mizoram, particularly in the city of Aizawl, remains scarce.

This study aims to fill this gap by investigating how academic performance may serve as a predictor of academic anxiety among secondary school students in Aizawl City. By focusing on both the prevalence of academic anxiety and the academic performance levels of students, this research seeks to provide valuable insights that can inform interventions and strategies to mitigate academic anxiety and promote better academic outcomes.

Rationale of the Study

Academic anxiety can have long-term negative effects on students, including poor academic performance, mental health issues, and a lack of motivation. In the context of Mizoram, where students face unique socio-cultural and educational challenges, understanding the relationship between academic performance and anxiety is crucial for developing targeted interventions. The findings from this study could contribute to the growing body of research on academic anxiety and its impact on secondary school students in the region.

Prior studies have highlighted the critical role of academic performance in shaping anxiety levels. For instance, a study by Azeem (2018) found that students with lower academic achievement experienced higher level of anxiety, which in turn affected their academic outcomes. Similarly, research by Shakir (2014) and Sridevi (2013) indicated that students who struggled academically were more likely to develop symptoms of anxiety, creating a cyclical pattern that negatively influenced both academic performance and emotional well-being. However, these findings were often generalized and do not account for the unique educational context of Mizoram, where factors such as language, socio-economic status, and access to resources may play a significant role.

Review of Related Literature

The reviewed literature explored academic anxiety and its impact on students' academic achievement across various settings. Several studies highlighted the negative relationship between academic anxiety and academic performance, with findings showing that high level of anxiety is generally associated with lower achievement. For example, Lallawmkima et al. (2021) found that male students in Kolasib district had higher level of academic anxiety than their female counterparts, while Das et al. (2014) revealed a significant negative correlation between anxiety and academic achievement, particularly in girls. Similarly, Shakir (2014) and Azeem (2018) found that higher academic anxiety correlated with lower academic performance.

Gender difference in academic anxiety was a recurring theme, with some studies indicating that girls experienced higher level of anxiety but performed better academically (Attri, 2013). In contrast, studies by Syokwaa et al. (2014) and Basco & Olea (2013) found that boys also experienced significant anxiety, which negatively affected their academic results.

Several studies also stressed the multifaceted nature of academic anxiety, with factors such as test anxiety, stress, and depression influencing academic outcomes. Sridevi (2013) and Sharma & Pandey (2017) found that anxiety and stress levels were inversely related to academic achievement, with students who experienced higher anxiety generally achieving lower grades.

Rehman (2016) discussed the impact of socio-cultural factors on anxiety, exploring the causes of academic anxiety in Indian students, including family pressure and institutional challenges. Some studies, such as those by Yousefi et al. (2010) and Shakir (2014), underlined the importance of gender as a determining factor in academic anxiety, with females often showing higher anxiety level but outperforming males in academic achievement.

These studies emphasized the importance of addressing academic anxiety in order to improve students' performance, suggesting that gender, socio-cultural factors, and personal characteristics all play significant roles in shaping students' anxiety level and academic outcomes.

Research Design

For the present study, the investigator utilized a descriptive survey methodology to explore the relationship between academic anxiety and academic achievement among higher secondary school students. This approach provided a comprehensive analysis of students' level of academic anxiety and their corresponding academic performance. It is well-documented in academic literature that academic anxiety negatively influences achievement, as highlighted in studies by Das et al. (2014) and Shakir (2014). The survey design enabled the collection of both quantitative and qualitative data to assess these variables.

Population

The study population comprised all students enrolled in Class XI across both the arts and science streams from government and private higher secondary schools within Aizawl city. This diverse population allowed for a broad exploration of how academic anxiety manifests in different academic disciplines.

Sample

By using stratified random sampling, a total of six higher secondary schools were randomly selected for the study—three government and three private schools. The sample consisted of 180 students, with 30 students randomly selected from each of the six schools. The distribution of sample schools and students are as follows:

Table 1
Distribution of sample schools and sample students

Management of School	No. of Schools	No. of Students
Government	3	90
Private	3	90
Total	6	180

Tool for Data Collection

The data were collected using the *Manual for Academic Anxiety Scale (AAS-SAMRUA)*, by Siddiqui, M.A., & Rehman, A.U (2017) published by the National Psychological Corporation, Agra. This standardized tool is widely used in educational psychology to measure academic anxiety levels.

- **Reliability:** The reliability of the scale was determined using the split-half method (odd-even). With a sample size of $N=600$, the reliability coefficient was found to be $r=+0.85$, which is highly significant at the 0.01 level.
- **Validity:** The validity of the scale was established through two methods: expert evaluation of item selection and final selection from a try-out draft of 54 items. This confirms that the scale possesses concurrent validity, ensuring its effectiveness for measuring academic anxiety.

Mode of Data Collection

Due to the restrictions imposed by the COVID-19 pandemic during 2021-2022, traditional in-person testing could not be conducted. Consequently, the researcher administered the survey in an online format using Google Forms. The research process began by obtaining permission from school administrations, with principals assigning teacher-in-charge roles. The researcher provided clear instructions on how students should complete the questionnaire, and the teacher-in-charge distributed the Google Form link to the students.

Statistical Data Analysis Techniques

Data analysis was performed using statistical methods such as frequency, percentage, and regression analysis. These techniques facilitated a detailed exploration of the relationship between academic anxiety and academic achievement, enabling the identification of significant patterns and correlations. The regression analysis, in particular, allowed the researcher to assess the predictive role of academic anxiety in students' academic performance.

Objectives

1. To assess the prevalence of academic anxiety among higher secondary school students in Aizawl City.
2. To examine the academic performance level of higher secondary school students in Aizawl City.
3. To analyse the predictive role of academic performance in determining the prevalence of academic anxiety among students.

Hypothesis

H_1 : Academic performance significantly predicts the prevalence of academic anxiety among secondary school students in Aizawl City.

Results

Objective 1: To assess the prevalence of academic anxiety among higher secondary school students in Aizawl City.

The prevalence of academic anxiety among higher secondary school students in Aizawl City was measured using the scoring system provided in the academic anxiety scale manual. The levels of academic anxiety are presented below:

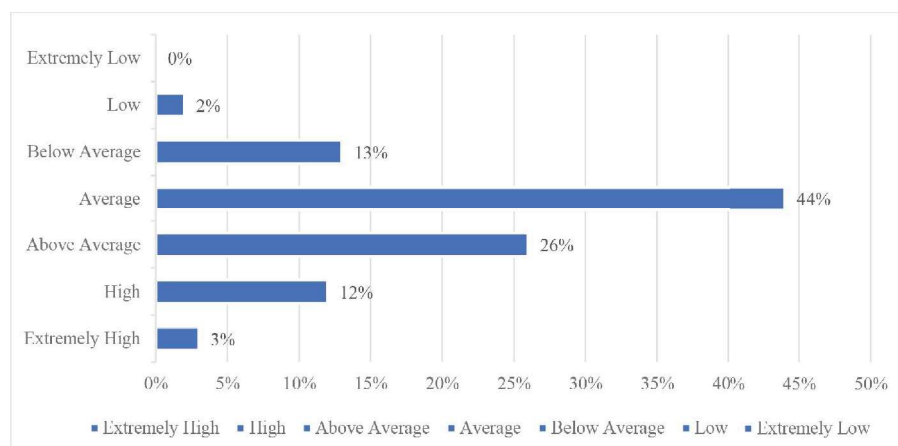
Table 2
Prevalence of Academic Anxiety

Sl. No.	Prevalence of Academic Anxiety	Range of Raw Score	No. of Students	Percentage (%)
1	Extremely High	102 and above	5	3%
2	High	93 to 101	22	12%
3	Above Average	83 to 92	47	26%
4	Average	69 to 82	77	44%
5	Below Average	59 to 68	24	13%
6	Low	49 to 58	4	2%
7	Extremely Low	48 and less	0	0%
Total			180	100%

The findings from Table 2 reveals that most students (44%) experience “Average” academic anxiety, making it the most common level. Additionally, 26% fall into the “Above Average” category, and 12% report “High” anxiety. Only 3% exhibit “Extremely High” anxiety, indicating it is less common. On the lower end, 13% have “Below Average” anxiety, 2% report “Low” anxiety, and none fall into the “Extremely Low” range. Figure 1 visually confirms these trends, with the majority of students falling into the “Average” and “Above Average” categories, highlighting the predominance of moderate to high academic anxiety.

Figure 1

Percentage Scores of Academic Anxiety Levels



Objective 2: To examine the academic performance levels of secondary school students in Aizawl City.

The academic performance levels of students were measured based on their marks from the final examination results of their previous class. The scores were categorized into different levels, and the number of students in each level was tabulated accordingly.

Table 3:

Academic Performance Levels

Sl. No.	Academic Performance Level	Score Range	No. of Students	Percentage (%)
1	Distinction	75 and above	72	40%
2	First Division	60-74	81	45%
3	Second Division	50-59	25	14%
4	Third Division	34-49	2	1%
5	Fail	33 and below	0	0%

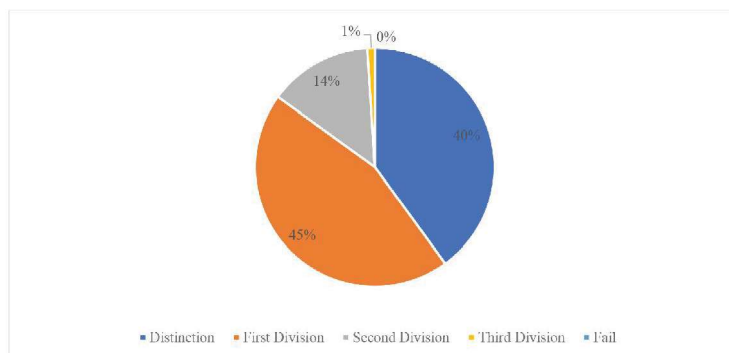
Table 3 reveals the distribution of academic performance levels among secondary school students in Aizawl City. The largest group (45%) falls within the “First Division” category,

with scores ranging from 60 to 74 marks. A close second, 40% of students, achieved “Distinction” with scores of 75 and above, indicating that a significant proportion of students perform at a high academic level. A smaller group of students (14%) achieved “Second Division” with scores between 50 and 59, reflecting a moderate level of academic performance. Only 2 students (1%) scored in the “Third Division” (34 to 49), indicating that a very small percentage of students perform below average. Notably, no students were categorized as “Fail,” highlighting the overall strong academic performance across the sample.

Figure 2 visually illustrates these findings, with the largest proportion of students (45%) falling into the “First Division” and 40% achieving “Distinction.” Together, these two categories account for 85% of the students, showcasing the high academic achievement of the group. The “Second Division” is represented by 14% of students, indicating a moderate performance level, while only 1% fall into the “Third Division.” The chart also confirms that no students failed, reinforcing the trend of strong academic performance in the sample.

Figure 2:

Percentage Scores of Academic Performance



Objective 3: To analyse the predictive role of academic performance in determining the prevalence of academic anxiety among students.

H₁: Academic performance significantly predicts the prevalence of academic anxiety among secondary school students in Aizawl City.

Table 4:

Regression Analysis of Academic Performance as a Predictor of Academic Anxiety

Regression Weights	Beta Coefficient	R ²	F	t-value	p-value	Hypothesis Supported
AP→AA	-0.024	0.001	0.106	-0.325	0.745	No

Note: $p < 0.05$, AP: Academic Performance, AA: Academic Anxiety

Table 4, presented the analysis tested whether academic performance (AP) significantly predicts academic anxiety (AA) among secondary school students. A linear regression analysis was conducted with AA as the dependent variable and AP as the predictor variable. The results revealed that academic performance did not significantly predict academic anxiety, as indicated by the regression model, $F(1, 178) = 0.106, p > 0.05$. The Beta coefficient ($\hat{\alpha} = -0.024$) and the minimal explained variance ($R^2 = 0.001$) suggest that academic performance has no meaningful impact on academic anxiety levels in this sample.

Furthermore, the t-value ($t = -0.325$) with a corresponding p -value of 0.745 (greater than the threshold of 0.05) confirms that the relationship is not statistically significant. These findings do not support Hypothesis H_1 , implying that academic performance does not play a significant role in shaping academic anxiety among secondary school students in Aizawl City.

Discussions

The present study explored the relationship between academic anxiety and academic achievement among higher secondary school students in Aizawl City. While previous research consistently showed a negative correlation between academic anxiety and academic achievement (Das et al., 2014; Shakir, 2014), this study aimed to evaluate whether academic performance could serve as a predictor of academic anxiety.

The findings revealed a notable prevalence of academic anxiety among the students, with a significant portion (44%) falling within the “Average” anxiety range. This is consistent with previous studies conducted in Mizoram, such as those by Dawngliani et al. (2021) which identified high levels of anxiety affecting students’ academic outcomes. The results also suggested that academic anxiety is more pronounced in some students, with 12% showing “High” anxiety and 3% experiencing “Extremely High” anxiety. While academic anxiety is prevalent, it is not uniformly extreme, indicating that anxiety levels vary among students.

In terms of academic achievement, the majority of students in the sample performed well, with 40% securing “Distinction” and 45% falling in the “First Division.” This aligned with the finding that most students in Aizawl City are performing at a high academic level, contrary to the lower performance level often linked with high academic anxiety. Notably, no students failed, which may suggest that, despite experiencing moderate to high levels of anxiety, students in Aizawl City manage to perform well academically. This might be indicative of the strong academic support systems in place in local schools.

Contrary to the hypothesis that academic performance significantly predicts academic anxiety, the regression analysis did not support this relationship. The Beta coefficient and R^2 value were both minimal, indicating that academic performance had little to no impact on academic anxiety levels. This suggests that, in the context of Aizawl City, other factors beyond academic performance—such as socio-cultural influences, personal coping mechanisms, and social support—might be more influential in shaping academic anxiety.

The lack of a significant relationship between academic achievement and anxiety challenges some of the previous studies that suggest a strong negative correlation between the two (Gupta & Mili, 2017; Rizwan & Nasir, 2010). It highlights the possibility that, while academic performance is an important factor in students' lives, it does not necessarily directly impact their anxiety level. It may also reflect the adaptive coping strategies that students in Aizawl City have developed, which could mitigate the stress caused by academic challenges.

Educational Implications

The findings of this study suggest that addressing academic anxiety may require interventions that go beyond academic performance. Since academic performance did not predict anxiety levels, it is essential for educators and school counsellors to explore other potential causes of anxiety, such as societal pressures, family expectations, and personal mental health. Future research could focus on these factors to identify more effective interventions. It may also be beneficial to consider the role of academic self-efficacy and stress management programs, which have been shown to help reduce academic anxiety and improve overall well-being (Yousefi et al., 2010).

Conclusion

While academic anxiety is prevalent among secondary school students in Aizawl City, its relationship with academic achievement is not as straightforward as anticipated. The findings suggest that reducing academic anxiety may require a more holistic approach, addressing psychological, environmental, and emotional factors rather than solely focusing on academic performance. This will be important for future interventions aimed at promoting both mental well-being and academic success among students in Aizawl City.

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