

# Academic Procrastination Among Senior High School Students: Nexus of Academic Anxiety And Self-Efficacy As Predictors

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## Abstract

Academic procrastination remains a pervasive global concern. Academic procrastination was examined as predicted by academic anxiety and self-efficacy as predictors. Using predictive research design, involving 265 senior high school students selected through simple random sampling, and applying multiple linear regression analysis, the data surveyed showed that the criterion was significantly predicted; although self-efficacy emerged as an insignificant contributor. This result partially affirms the Cognitive-Affective Personality System, explaining that behavior results from the interaction of cognitive and affective units activated in specific situations. Future research may explore the remaining unexplained 77.1% variance through qualitative or mixed method approaches to identify additional variables. School heads and teachers may implement strategies to reduce student anxiety and strengthen academic self-efficacy.

*Keywords:* Type your keywords here, separated by semicolons ; Academic procrastination; senior high school students, academic anxiety; self-efficacy

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## 1. Introduction

Academic procrastination among senior high school students has become a persistent concern in the global educational landscape. It is commonly described as the voluntary delay of academic tasks despite awareness of deadlines and academic responsibilities. This pattern has been widely documented as a recurring academic behavior among senior high school learners (Svartdal et al., 2023; Zhao et al., 2024).

In China, research has documented that secondary school students frequently delay academic tasks, reflecting the persistence of procrastination in structured academic environments (Liu & Hu, 2024). Similarly, studies conducted in Turkey have identified academic procrastination as a prevalent behavior among high school learners across different grade levels (Demir & Kutlu, 2023). In the United States, findings also show that procrastination is commonly observed among adolescents in secondary education, indicating that this behavior is consistently present across diverse educational contexts (Grunschel et al., 2023).

In the Philippine context, academic procrastination among senior high school students has also been recognized as a significant issue. Filipino senior high school students frequently exhibit tendencies to delay academic tasks despite being enrolled in structured academic programs. This pattern has been observed across various strands and school settings, indicating that procrastination is a common academic behavior among students in the country (Reyes & Dizon, 2023; Santos & Villanueva, 2024).

The presence of academic procrastination among senior high school students has important consequences for their academic functioning. Studies have shown that procrastination is associated with lower academic performance, reduced academic engagement, and difficulties in completing academic tasks on time. It has

also been linked to decreased productivity and challenges in meeting academic standards, which may hinder students' overall academic success (Kim & Seo, 2023; Rahimi & Hall, 2024). These consequences highlight the significance of addressing academic procrastination as a critical issue in senior high school education. Hence, this study was conducted.

### *1.1. Statement of the Problem*

This study aimed to determine the significance of forecasting perceived Academic Procrastination using Academic Anxiety and Self-Efficacy as predictors. Specifically, it seeks to determine the results of the following objectives:

1. To determine the levels of academic anxiety in terms of physiological aspect, cognitive aspect, social aspect, and psychological aspect; self-efficacy in terms of perceived control, competence, persistence, and self-regulated learning; and the academic procrastination in terms of time management, task aversiveness, sincerity, and personal initiative.
2. To determine the significance of the correlation between academic anxiety and self-efficacy, and the academic procrastination.
3. To determine the significance of the model for academic procrastination using academic anxiety and self-efficacy as predictors.

### *1.2. Hypothesis*

This study is tested at a 0.05 level of significance:

[[Ho]]\_1 The correlation between academic anxiety, self-efficacy, and academic procrastination is not significant.

[[Ho]]\_2 The model for academic procrastination using academic anxiety and self- efficacy as predictors is not significant. Table 1. An example of a table

### *1.3. Theoretical and Conceptual Framework*

This study was grounded in the Cognitive Affective Personality System (CAPS) proposed by Mischel and Shoda (1995), which explains that behavior results from the interaction of cognitive and affective units activated in specific situations.

In this study, the academic anxiety variable, indicated by physiological, cognitive, social, and psychological aspects (Alec et al., 2023), represents the affective unit highlighted in the theory. The self-efficacy variable, indicated by perceived academic efficacy, perceived social efficacy, and self-regulatory efficacy (Dullas, 2018), stands for a cognitive competence stated in the theory. Finally, the academic procrastination variable, indicated by time management, task aversiveness, sincerity, and personal initiative (Bashir and Gupta, 2019), is associated with the behavioral result asserted in the theory. Hence, this study is fully anchored on the theory.

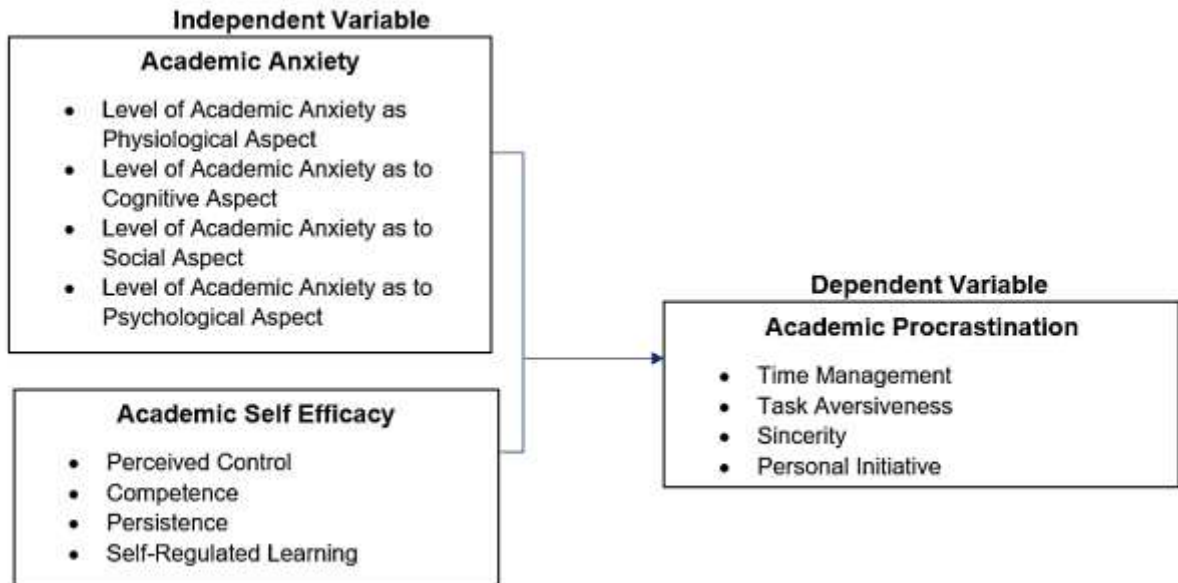


Figure 1: Conceptual Framework of the Study

## 2. Method

### 2.1. Research Design

This study employed a predictive research design. According to McCombes (2023), this design focuses on forecasting future outcomes or behaviors by examining relationships among variables using multiple linear regression a statistical method used to examine the relationship between one continuous dependent variable and two or more independent variables. It estimates how each predictor variable contributes to the outcome variable while controlling for the effects of the other predictors (Bevans, 2023). In this study, a predictive research design was employed to determine how academic anxiety and self-efficacy predict students' academic procrastination.

### 2.2. Locale of the Study

The study was conducted in Baganga National High School and Crispin E. Rojas National High School, located in the province of Baganga, Davao Oriental. These schools are the oldest schools in secondary education. The chosen schools cater to students from various socio-economic backgrounds, with academic track offerings that include Humanities and Social Sciences (HUMSS), Science, Technology, Engineering, and Mathematics (STEM), and Technical-Vocational-Livelihood (TVL). In addition, given its large population, the researcher selected a diverse, representative sample of respondents to examine how cognitive and affective factors, such as academic anxiety and self-efficacy, can shape academic procrastination. These characteristics made the institutions an ideal setting for the study.

### 2.3. Sample and Sampling Technique

The respondents of this study are comprised of 265 senior high school students in one school division. Senior high school students are a strong choice for research because they are in a critical developmental stage where academic, emotional, and behavioral patterns are actively forming. At this level, students are experiencing increased academic demands, preparation for higher education or employment, and greater independence in learning, which makes them highly relevant for studying issues like academic anxiety, self-efficacy, and procrastination. Students who had dropped out and were not enrolled in the 2025-2026 academic year were automatically excluded from the respondent group. Also, gender representation was not considered a requirement of this study.

Furthermore, the research employed a simple random sampling technique to select respondents from 2 public national high schools. This approach was selected for its practicality and efficiency, ensuring that the sample was evenly distributed across the population while maintaining randomness in the selection process (Lakhre & Mishra, 2024). With that, the respondents comprised senior high school students selected evenly across all schools and strands. Finally, by encoding the total recorded population of 845 students in Raosoft with a 95% confidence level, a 5% margin of error, and a 50% response distribution, the sample size was determined to be at least 265, which aligned with the desirable sample size suggested by Julious (2023).

### 2.4. Data Gathering Technique

This study utilized a survey technique. It is a method of collecting standardized information from a sample of individuals through questionnaires or interviews. Surveys are commonly employed when researchers aim to describe trends, attitudes, or behaviors across large populations cost-effectively and efficiently (Goodfellow, 2023). This offers advantages such as reaching large and diverse populations, producing quantifiable data for pattern analysis, enabling generalization, allowing faster data collection, and supporting replicability through standardized procedures (Oranga & Matere, 2025)

There were three adapted and modified survey questionnaires used. The first instrument, the academic anxiety scale, was adapted from the study of Alec et al. (2023). It consists of 36 items designed to assess the academic anxiety of the students. A four-point Likert scale was used to determine the degree of respondents' academic anxiety. The adapted instruments were pilot-tested for reliability, achieving a Cronbach's alpha of 0.734.

The second instrument measured self-efficacy and was adapted from by Dullas (2018). It is composed of 62 items intended to capture students' self-efficacy in various dimensions, such as perceived control, their competence, persistence, and self-regulation inside and outside the school. A four-point Likert scale was used to determine the degree of respondents' self-efficacy. The adapted instruments were pilot-tested for reliability yielding a Cronbach's alpha of 0.710.

The third instrument, which measured academic procrastination, was adapted from Bashir and Gupta (2019), named the Academic Procrastination Scale (APS-GSBL). The instrument was also used by Chetri (2025). With 30 items, the purpose was to accurately measure the multidimensional nature of academic procrastination among students. A four-point Likert scale was used to determine the degree of respondents' academic procrastination. The adapted instruments were pilot-tested for reliability, achieving a Cronbach's alpha of 0.753.

### 3. Results

#### 3.1. Table 1. Descriptive Analysis.

| Variables                                               | n          | SD           | Mean        | Descriptive Level |
|---------------------------------------------------------|------------|--------------|-------------|-------------------|
| <b><i>Student Academic Anxiety (IV<sub>1</sub>)</i></b> | <b>265</b> | <b>0.389</b> | <b>2.82</b> | <b>High</b>       |
| Physiological Aspect                                    |            | 0.475        | 2.71        | High              |
| Cognitive Aspect                                        |            | 0.448        | 2.96        | High              |
| Social Aspect                                           |            | 0.564        | 2.63        | High              |
| Psychological Aspect                                    |            | 0.520        | 2.97        | High              |
| <b><i>Student Self-Efficacy (IV<sub>2</sub>)</i></b>    | <b>265</b> | <b>0.852</b> | <b>2.18</b> | <b>Low</b>        |
| Perceived control                                       |            | 0.820        | 2.21        | Low               |
| Competence                                              |            | 0.773        | 2.33        | Low               |
| Persistence                                             |            | 0.939        | 2.26        | Low               |
| Self-Regulated Learning                                 |            | 0.874        | 1.92        | Low               |
| <b><i>Student Academic Procrastination (DV)</i></b>     | <b>265</b> | <b>1.024</b> | <b>3.25</b> | <b>High</b>       |
| Time Management                                         |            | 0.949        | 3.42        | Very High         |
| Task Aversiveness                                       |            | 1.065        | 3.17        | High              |
| Sincerity                                               |            | 1.030        | 3.23        | High              |
| Personal Initiative                                     |            | 1.050        | 3.19        | High              |

Specifically, the academic anxiety variable obtained a mean of 2.82, described as High. This indicates that the respondents experience mild academic anxiety. All indicators were described as High, with the psychological aspect obtaining the highest mean of 2.97 and the social aspect obtaining the lowest mean of 2.63. The standard deviation of 0.389 indicates highly consistent responses.

Furthermore, the self-efficacy variable obtained a mean of 2.18, described as Low. This shows that the respondents have weak academic self-efficacy. All dimensions, namely perceived control, competence, persistence, and self-regulated learning, were likewise described as Low, with competence having the highest mean of 2.33 and self-regulated learning having the lowest mean of 1.92. The standard deviation of 0.852 indicates moderately consistent responses.

Finally, the academic procrastination variable obtained a mean of 3.25, described as High. This specifies that the respondents exhibit strong academic procrastination. Among the indicators, time management obtained the highest mean of 3.42, described as Very High, while task aversiveness, sincerity, and personal initiative were all described as High, with means of 3.17, 3.23, and 3.19, respectively. The standard deviation of 1.024 indicates moderately consistent responses.

Overall, the respondents demonstrated mild academic anxiety, weak self-efficacy, and strong academic procrastination, with anxiety most evident in its psychological aspect and procrastination particularly pronounced in time management. Taken together, the findings reveal a student profile characterized by manageable levels of anxiety, limited confidence in academic capabilities, and a strong tendency to delay academic tasks.

#### 3.2. Table 2. Correlation Analysis.

##### *Students' Academic Procrastination (DV)*

| Variables                                        | n   | r      | p-value | Decision on Ho<br>@ 0.05 level of<br>significance | Interpretation                                            |
|--------------------------------------------------|-----|--------|---------|---------------------------------------------------|-----------------------------------------------------------|
| <i>Student Academic Anxiety (IV<sub>1</sub>)</i> | 265 | 0.465  | 0.000   | Reject Ho                                         | Significant,<br>Positive<br>Moderately Low<br>Correlation |
| <i>Student Self-Efficacy (IV<sub>2</sub>)</i>    | 265 | -0.152 | 0.013   | Reject Ho                                         | Significant,<br>Negative Low<br>Correlation               |

The table shows that the correlation between academic anxiety and academic procrastination variables obtained a p-value of 0.000, which is lower than the 0.05 level of significance. Hence, the null hypothesis was rejected, indicating that the correlation is statistically significant. The r-value 0.465 reflects a moderately positive correlation between academic anxiety and academic procrastination. This finding implies that when student academic anxiety increases, their academic procrastination increases. Meanwhile, self-efficacy yielded a p-value of 0.013, which is also lower than the 0.05 level of significance. Thus, the null hypothesis was rejected, meaning that the correlation is statistically significant. The r-value of -0.152 reflects a negative low correlation between self-efficacy and academic procrastination. This means that as student self-efficacy increases, the level of academic procrastination decreases.

The findings reveal that academic anxiety and self-efficacy variables are significant predictors of academic procrastination. Academic anxiety contributes positively to procrastination, while self-efficacy serves as a protective factor that reduces procrastination tendencies. Taken together, the results emphasize the importance of managing student anxiety levels and strengthening their self-efficacy to help minimize academic procrastination.

### 3.3. Table 3. Regression Table (n=265).

| <i>Student Academic Procrastination (DV)</i>             |                    |               |                  |       |         |                   |                    |
|----------------------------------------------------------|--------------------|---------------|------------------|-------|---------|-------------------|--------------------|
|                                                          | Unstand<br>ardized |               | Standardi<br>zed |       | p value | Decision<br>on Ho | Interpretatio<br>n |
|                                                          | Coefficie<br>nts   | Std.<br>Error | Beta             | t     |         |                   |                    |
| <b>Constant</b>                                          | 1.802              | 0.283         |                  | 6.361 | 0.000   |                   |                    |
| <i>Student<br/>Academic<br/>Anxiety (IV<sub>1</sub>)</i> | 0.585              | 0.070         | 0.462            | 8.366 | 0.000   | Reject Ho         | Significant        |

**Student Self-Efficacy (IV<sub>2</sub>)**

|        |       |        |        |       |                        |                    |
|--------|-------|--------|--------|-------|------------------------|--------------------|
| -0.092 | 0.078 | -0.065 | -1.181 | 0.239 | Failed to<br>Reject Ho | Not<br>Significant |
|--------|-------|--------|--------|-------|------------------------|--------------------|

$R = 0.479$ ;  $R^2 = 0.229$ ;  $Adjusted\ R^2 = 0.223$ ;  $F\text{-value} = 38.930$ ;  $p\text{-value} = 0.000$

$AP = 0.585AA - 0.092SE + 1.802$

Specifically, the table shows that the predictive model for academic procrastination, with self-efficacy and academic anxiety variables support as predictors, is expressed as  $AP = 0.585AA - 0.092SE + 1.802$ . With the corresponding p-value of 0.000, which is less than the 0.05 significance level. Hence the regression model is statistically significant.

Furthermore, the table reports an  $R^2$  value of 0.229 and an adjusted  $R^2$  of 0.223, which indicate that the model explains 22.9% of the variance in student academic procrastination. This suggests that the model's predictive power is weak but meaningful. The result suggests that for every unit increase of the variables in the model, there is a corresponding 0.223 unit increase in the strength of the model to predict academic procrastination variable.

### 3.4. Summary of Findings

Based on the statistical results, it was specifically found that:

1. Academic anxiety moderately and significantly correlates with academic procrastination, while self-efficacy shows a low but significant negative correlation with the latter.
2. The model forecasting academic procrastination is statistically significant; with academic anxiety, not self-efficacy, as the only significant predictor.

## 4. Discussions

### *The Correlation of Academic Anxiety and Academic Procrastination*

The finding of this study is that academic anxiety moderately and significantly correlates with academic procrastination. This finding supports the study of Gadosey et al. (2024), explaining that learning-related anxiety has a reciprocal and significant relationship with academic procrastination among students, showing that higher levels of anxiety contribute to greater procrastination behaviors. Similarly, the current finding also affirms Ragusa et al. (2023), who revealed that procrastination positively predicted academic stress and anxiety among secondary school students, indicating that anxiety-related academic experiences are strongly associated with procrastination tendencies.

On the contrary, the current finding opposes Muhammadamin and Abdalwahid (2023), who examined the relationship between academic stress and procrastination among university students. It revealed that there was no significant relationship between overall academic stress and procrastination among students. The inconsistency between the findings is explained by the locale of the study; the prior study was conducted in China, and this study was carried out in Baganga, Davao Oriental, making it localized in the Philippine context.

### ***The Correlation of Self-Efficacy and Academic Procrastination***

The present study found that self-efficacy has a low but significant negative correlation with academic procrastination, indicating that students with higher levels of self-efficacy tend to engage less in procrastination behaviors. This finding upholds the study of Putra and Soetjiningsih (2023), reporting a significant negative relationship between self-efficacy and academic procrastination among university students, suggesting that learners with stronger beliefs in their academic capabilities are less likely to delay academic tasks. Similarly to the present study, Carranza Esteban et al. (2024) who found that academic self-efficacy negatively predicts academic procrastination, further emphasizing its role as a protective factor against procrastination tendencies. Although the relationship is relatively weak, these findings consistently highlight that self-efficacy remains an important psychological factor in reducing academic procrastination across different academic contexts.

However, the current finding contrasts with the study of Zhang et al. (2024), claiming that self-efficacy did not have a significant direct effect on academic procrastination. This inconsistency between the current study and the prior can be defined by the type of respondents the prior study's respondents were college students, while the current study's respondents are senior high school students with different strands, thus providing broader insights into variation in academic experiences.

#### ***Statistically Significant Model Forecasting Academic Procrastination: Academic Anxiety as the Sole Significant Predictor with Self-Efficacy Included in the Model***

The finding of the present study revealed that the model forecasting academic procrastination, with academic anxiety as the only significant predictor and self-efficacy included in the model, is statistically significant. This result supports recent empirical evidence of Carranza Esteban et al. (2024), explaining that academic self-efficacy and emotional variables, including anxiety-related factors such as emotional exhaustion, significantly predict academic procrastination. At the same time, this current study affirms the finding of Rezaei-Gazki et al. (2024), asserting that both academic anxiety and self-efficacy-related constructs significantly contribute to the prediction of academic procrastination, emphasizing that a combination of psychological variables provides a more comprehensive explanation of procrastination tendencies.

However, the present finding opposes Fan et al. (2026), who revealed that trait anxiety influences academic procrastination indirectly through academic self-efficacy, rather than both variables acting as simultaneous predictors. The respondents of the prior study were Chinese college students, while the current study are Filipino senior high school students, a less frequently examined and more vulnerable population than college students.

#### ***4.1. Conclusion***

Based on the findings of the study, it is concluded that forecasting perceived Academic Procrastination using Academic Anxiety and Self-Efficacy as predictors is significant. However, self-efficacy turned out to be an insignificant contributor. The result of the study partially affirms the Cognitive-Affective Personality System, which explains that behavior results from the interaction of cognitive and affective units activated in specific situations.

#### ***4.2. Recommendations***

Based on the conclusions drawn from the study, it is recommended that future researchers may investigate the 77.1% unexplained variance in the model outcome. Furthermore, qualitative or mixed-method approaches may be conducted to generate themes and subthemes that may be considered as potential variables and

corresponding indicators. In addition, School heads and teachers may design strategies that reduce student anxiety while strengthening academic self-efficacy. Such integrated support mechanisms may help mitigate maladaptive academic procrastination behaviors.

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