



# Coping Strategies and Academic Frustration Tolerance in AP Students



## Introduction

Academic stress as it relates to its impact on academic performance, academic motivation, and mental health, is widely researched. High school students in advanced courses such as Advanced Placement (AP) and International Baccalaureate (IB) programs tend to report higher stress levels than those in regular curriculum courses (Shaunessy & Suldo, 2009). The student's main academic stress sources are their workload and competing demands (Suldo et al., 2014). However, there is scarce, although growing research, that explores how students in advanced courses address academic stress since they experience unique educational experiences (Shaunessy & Suldo, 2009).

An interrelated, but distinctive concept of academic stress is frustration tolerance, or "the capacity to pursue goals despite experiencing frustration" and the ability to "withstand frustration" despite the amount experienced (Meindl et al., 2019). Frustration tolerance is found to be correlated with better academic performance (Meindl et al., 2019; Shi, et al. 2021). The strategies to combat academic stress and frustration are known as coping strategies. Lazarus (1993) described coping as a "cognitive and behavioral" effort to handle "external/internal demands" that exceed a person's resources.

Exploring AP students' coping strategies and frustration tolerance is significant since it can lead to a better understanding of factors that can affect their well-being, academic success, and academic performance.

## Methodology

The method utilized in this study was statistical analysis—specifically correlational analysis. Correlational analysis is a statistical method used by researchers to determine the linear relationship and strength between two variables. My study differs slightly since I will find Pearson's Correlation Coefficient—a number between -1 and 1 that informs the direction and strength of the relationship between two variables—instead of creating a regression model.

First the Demographic survey was administered. Participants were mostly upperclassmen (78%) and Asian/Pacific Islander (85%).

Next the CADS questionnaire was administered. The questionnaire was developed by Suldo (2018), to identify the coping strategies employed by participants in this study. Before taking the CADS questionnaire, the participants were asked to think about school-related challenges or stress they faced this year and answer the questions based on how often they did each one in response.

Finally, the Mirror Tracing Frustration Task (MTFT) was administered. This study incorporated the use of online tools to replicate the study by Meindl et al. (2019), which utilized an interface version of the MTFT, as much as possible. Participants had five minutes to trace the star or play Tetris. This study's set-up, inspired by Meindl et al., (2019) utilized several online games as distractors. Participants were asked to log in with their data collected from TimeYourWeb Time Tracker, which is an extension that times the time spent on a web page, after completing the MTFTActivity

## Findings

The overall mean scores of the CADS questionnaire.

Student	Time and Task Management	Cognitive Reappraisal	Seek Academic Support	Turn to Family	Talk with Classmates and Friends	Skip School	Social Diversions	Athletic Diversions	Technology Diversions	Substance Use	Reduce Effort on Schoolwork	Attempt to Handle Problems Alone	Deterioration	Sleep	Religion	Relaxation	Take Short Cuts at School	Total
1	3.50	3.50	2.33	2.67	3.75	1.00	2.67	2.67	3.67	1.00	1.50	3.75	3.00	3.33	1.67	2.00	2.00	2.59
2	3.67	2.50	2.67	1.67	2.50	1.33	2.33	3.00	3.67	1.00	2.00	4.25	3.67	4.67	3.00	4.50	2.33	2.87
3	2.67	3.25	1.67	1.33	4.75	1.00	3.33	2.33	4.33	1.00	2.50	3.25	3.67	5.00	2.33	3.50	3.67	3.03
4	4.17	4.25	2.00	4.33	4.00	1.00	3.33	4.67	3.33	1.00	2.00	3.00	4.33	2.67	3.67	3.00	2.33	3.12
5	2.83	2.75	2.33	1.33	2.50	1.33	3.00	1.33	3.00	1.00	2.25	4.00	2.67	5.00	1.00	3.00	2.00	2.43
6	3.67	3.00	3.33	3.00	3.75	1.00	3.67	3.00	4.67	1.00	2.25	3.25	2.83	3.67	2.00	2.50	2.33	2.88
7	2.33	4.50	1.33	1.33	3.00	3.00	4.33	3.00	3.00	3.00	3.00	2.67	2.00	2.33	1.00	2.67	2.68	2.58
8	3.83	3.00	2.00	1.33	3.00	1.67	2.33	1.67	2.67	1.00	2.25	3.50	3.83	2.67	2.33	2.00	1.00	2.96
9	3.33	3.25	3.00	3.67	2.00	1.67	3.00	2.33	3.33	1.00	1.75	3.50	3.25	3.67	3.67	2.00	1.33	2.69
10	3.83	3.75	2.67	2.67	3.00	1.00	4.00	2.67	4.33	2.00	3.25	4.50	3.67	4.67	2.00	1.50	1.00	2.93
11	4.17	4.75	3.00	3.00	4.50	3.33	3.33	2.67	4.00	1.00	2.25	3.00	3.17	4.67	1.33	2.50	1.00	3.16
12	3.67	3.50	2.67	2.00	3.25	1.00	3.33	2.67	2.67	1.67	2.00	4.25	3.67	3.67	3.33	2.50	2.00	2.81
13	2.83	4.25	2.67	2.00	4.00	1.00	2.67	4.33	3.67	1.00	2.75	3.50	2.33	2.25	5.00	4.00	2.00	2.96
14	3.50	3.75	1.67	1.67	2.75	1.33	4.33	3.67	4.00	1.00	3.75	4.50	3.33	3.33	1.00	1.50	1.33	2.85
15	2.67	3.75	2.67	2.00	3.50	1.67	3.00	3.00	5.00	1.00	1.50	4.25	2.17	1.67	1.67	1.00	1.67	2.42
16	2.33	3.75	1.00	1.67	3.75	1.00	2.67	3.00	4.67	1.00	2.00	4.50	3.67	4.67	1.00	2.00	1.33	2.62
17	3.50	4.00	2.33	3.00	2.50	1.33	2.67	2.33	3.67	1.00	1.50	3.00	3.50	3.00	4.00	3.00	1.33	2.69
18	3.17	3.75	3.00	3.33	2.75	3.00	4.00	4.33	3.33	2.00	2.75	4.00	3.17	3.00	2.67	3.50	3.33	3.24
19	1.83	3.25	2.67	3.67	3.50	1.67	4.00	4.33	3.33	1.00	3.25	4.00	3.67	5.00	1.00	2.50	1.00	3.04
20	3.50	4.25	2.67	2.33	3.00	3.67	3.00	2.67	3.67	1.00	2.50	4.25	3.50	3.33	3.67	4.00	2.67	3.16
21	3.50	3.75	2.67	1.67	4.25	1.00	3.67	2.00	3.33	1.00	2.25	2.50	3.83	3.67	2.00	2.50	2.00	2.88
22	3.67	4.50	2.33	4.00	3.25	2.33	3.33	3.67	3.00	1.00	1.50	3.25	3.00	4.67	1.67	4.00	2.67	3.03
23	3.50	4.25	3.00	3.33	3.50	1.67	3.67	2.33	3.33	1.33	3.00	3.75	3.33	3.00	4.67	1.67	3.50	3.13
24	4.00	3.75	3.00	2.33	3.75	1.00	2.67	2.67	3.67	1.00	1.25	4.00	3.00	1.33	4.33	3.50	2.67	2.70
25	2.83	2.75	2.67	4.33	3.75	3.67	3.00	2.67	4.00	2.33	3.00	3.75	3.67	3.33	4.00	2.00	2.00	3.16
Totals	3.90	3.67	2.45	2.55	3.25	1.71	3.25	2.87	3.68	1.21	2.32	3.70	3.30	3.52	2.57	2.70	2.28	3.00
Average from Suldo study (2014)	3.18	3.44	2.50	2.66	2.97	1.69	3.07	3.05	2.95	1.17	2.06	3.24	2.73	2.71	2.09	2.72	2.00	2.60
Discrepancy	0.72	0.23	-0.05	-0.11	0.28	0.02	0.18	-0.18	0.73	0.04	0.26	0.46	0.57	0.81	0.48	-0.02	0.28	0.40

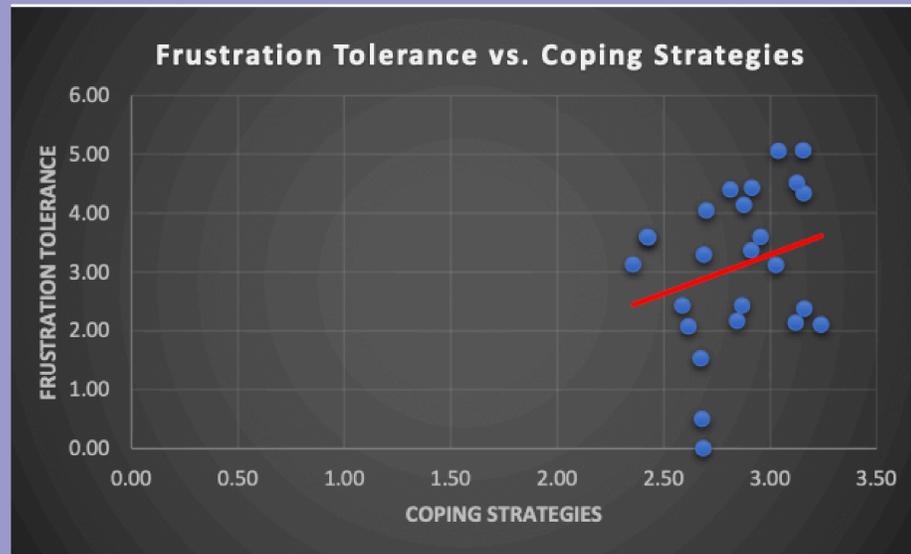
Coping strategies>

Discrepancy scores>

This study's findings aligned with Suldo's 2014 study on AP and IB students based on the discrepancy scores—the mean scores of this study and Suldo's study— don't exceed more than 1

- Highest mean score:
  - Cognitive Reappraisal (aims to modify emotional responses to changes )
  - Technology Diversions
  - Attempt to Handle Problems Alone

- Lowest mean score:
  - Skip School
  - Substance Use
  - Take Short Cuts at School



Pearson's correlation coefficient was approximately  $r = .255$  indicating coping strategies and academic frustration tolerance are weak and positively correlated. This was obtained from the line from the graph below.

## Discussion

According to the results from the data analysis, coping strategies, and frustration tolerance although not strongly, are related. This aligns with Suldo's (2018) conclusion that AP students employed coping strategies to combat the heavy workload and stress that comes from the curriculum. Interestingly, Suldo (2018) found that AP students employed increasingly negative coping strategies throughout their high school career (Suldo et al., 2018). However, this research study doesn't fully support this conclusion since what was found was on average, upperclassmen AP students in this study employed mixed coping strategies. The frustration tolerance from the AP students was relatively high since most students completed the MTFT with minimal to no use of distractors, concluding students taking AP classes have a high academic frustration tolerance. This somewhat affirms Meindl's research findings that students with high frustration tolerance tend to be more successful academically (Meindl, et al. 2019), although students taking AP classes don't necessarily indicate they are more successful than their peers in regular classes.

In conclusion to this study, upperclassmen AP students employed mixed coping strategies instead of increasingly negative coping strategies as Suldo (2018) found. Instead, it indicates frustration tolerance results in AP students utilizing more mixed coping strategies.

## Conclusion

Several limitations could have restricted the scope of the results. The demographics were limited to primarily upperclassmen and Asian/Pacific Islanders. This results in the conclusion of this study possibly not reflecting an accurate Pearson's correlation coefficient since the participant pool doesn't consider different types of students. Additionally, another limitation of this study was the choice of a correlational analysis method. Correlational analysis helps determine the relationship between coping strategies and academic frustration tolerance which answers my research question. However, if it was used along with a qualitative research method through interviews and observation of students' behaviors, then further conclusions about the extent of the relationship between coping strategies and academic frustration tolerance can be concluded.

Because the correlational analysis of the variables is a weak positive correlation, it can be concluded that it is important for students and teachers to understand the possible implications such as determining how successful students may be in AP courses. Although that can't be determined from this study alone since the correlation doesn't mean causation, a more refined research process indicating the extent of the correlation of the variables can determine the likeliness of academic success.