

Self-Control and Academic Performance in Community College Students

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Introduction

Self-control is an important psychological skill that can help explain why some students succeed academically under stressful or demanding conditions, while some others might struggle.

One of the main explanations for this relationship lies in the Baumeister et al. (2007) Strength Model of Self-Control, which suggests that self-control acts like a muscle that can become depleted with use, but can be strengthened with repeated practice over time.

Previous research has consistently shown that self-control predicts academic achievement in various educational settings. Research conducted in universities across the world demonstrated that students with higher levels of self-control tend to perform better academically (Boyrac et al., 2019; Job et al., 2015; Rajabbeigi et al., 2023; Robson et al., 2020).

Little research has focused specifically on community college students, since many previous studies centered on younger students or undergraduate students at four-year institutions. Previous research also focuses on Western cultures, meaning there is a lack of minority representation across the literature. The current study will address this research question based on this hypothesis:

Research Question: What is the association between self-control and academic performance?

Hypothesis: As self-control increases, academic performance is expected to increase.

Methods

This cross-sectional study employed an online questionnaire through Google Forms to examine the relationship between students' self-control and their perceived academic performance distributed through email. Participants consisted of 193 students at Lehigh Carbon Community College enrolled in at least one psychology course and received extra credit for their participation.

Self-Control Measures:

- Tangney et al. (2004) – Brief Self-Control Scale.
 - 13-item self-report questionnaire on a 5-point Likert scale - 1 (Not at all like me) to 5 (Very much like me).

Academic Performance Measures:

- Current Estimated Letter Grade Percent.
 - 1-item self-report question on a 10-item scale - F (lowest option) to A (highest option).
- Self-Reported Estimated Total GPA.
 - 1-item self-report question on approximate cumulative GPA - 0.0 to a 4.0 scale.

Data were analyzed using SPSS v. 27. To evaluate the data, descriptive statistics, including means and standard deviations, were calculated and Pearson correlation analyses were conducted. The alpha level was set at $\alpha = 0.05$.

Table 1
Demographic

| Demographic | Baseline Characteristics | Counts | % of Total |
|---------------------------------------|----------------------------|--------|------------|
| Gender Identity | Male | 144 | 75 |
| | Female | 37 | 19 |
| Race/Ethnicity | Trans/Other | 12 | 6 |
| | White/Caucasian | 102 | 53 |
| | Hispanic/Latino American | 43 | 22 |
| | Black or African American | 13 | 7 |
| | Asian or Asian American | 6 | 3 |
| Minority/Multiracial/Options Selected | Missing Responses | 26 | 13 |
| | Other | 1 | 1 |
| | Missing Responses | 2 | 1 |
| Major | Psychology | 90 | 26 |
| | Non-Psychology | 138 | 71 |
| | Missing Responses | 5 | 3 |
| Semester Standing | First Semester | 34 | 12 |
| | Second Semester | 39 | 31 |
| | Third Semester | 17 | 9 |
| | Third and a Half Semesters | 1 | 1 |
| | Fourth or More Semesters | 90 | 46 |
| | Missing Responses | 10 | 5 |

Note. Total N = 193

Figure 1

Scatterplot of Self-Control and Academic Performance (Current Estimated Letter Grade Percent).

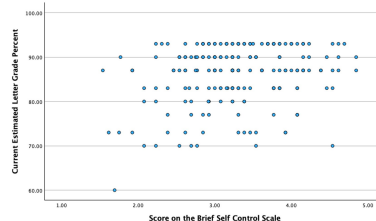


Figure 2

Scatterplot of Self-Control and Academic Performance (Estimated Total GPA).

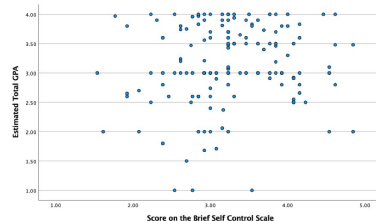


Table 2

Descriptive Statistics

| Variable | M | SD |
|--|-------|------|
| Self-Control Measure | | |
| Brief Self-Control Scale | 3.27 | 0.69 |
| Academic Performance Measures | | |
| Current Estimated Letter Grade Percent | 85.88 | 6.70 |
| Estimated Total GPA | 3.15 | 0.69 |

Results

Table 1 depicts the sample demographics of the study. The sample consisted of 193 Lehigh Carbon Community College students ranging in age from 18 to 54 years old ($M = 23.91$, $SD = 8.32$). Most participants identified as women, non-psychology majors, and White/Caucasian, although the sample included individuals from multiple racial and ethnic backgrounds.

Descriptive statistics in Table 2 indicated that participants reported moderate levels of self-control ($M = 3.27$, $SD = 0.69$), along with relative strong academic performance based on current estimated letter grade percent ($M = 85.88$, $SD = 6.70$) and estimated total GPA ($M = 3.15$, $SD = 0.69$).

Scatterplots were used to examine the relationship between self-control and academic performance. A Pearson correlation analysis in Figure 1 revealed a significant positive relationship between self-control and current estimated letter grade percent, $r = 0.241$, $p < 0.001$. This analysis suggests that students with high levels of self-control tend to report higher grades in their courses.

In contrast, Figure 2 found no significant relationship between self-control and the estimated total GPA, $r = 0.112$, $p = 0.175$. This means self-control did not significantly affect overall GPA even though students with stronger self-control appear to be doing better in their courses.

Discussion

Overall, the results partially supported the hypothesis as self-control and current estimated letter grade percentages were statistically significant, but estimated total GPA was not. These findings align with previous research, suggesting that self-control can positively predict academic success, especially in situations requiring persistence, focus, and self-regulation.

These partial findings can be explained through the Strength Model of Self-Control. As students regularly use self-control to attend lectures, complete assignments, and study for exams, they may gradually build stronger self-control skills that contribute to improved academic performance at this moment in time.

Several limitations were present in this study as self-reporting measures were used, GPA responses were missing, GPA responses are not entirely representative of a student's ability, and convenience sampling occurred from psychology courses. Future research should include multiple measures to establish a better picture of student's academic abilities. Researchers should also use probabilistic sampling methods to get a more accurate reflection of students attending Lehigh Carbon Community College and reduce potential selection bias.

This study highlights the importance of self-control in helping community college students succeed academically, as well as in life settings, like career pathways, physical and mental well-being. Developing this skill of self-control can benefit students both inside and outside the classroom.

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References

