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The relationship between self-control and tax aversiveness and students' academic procrastination

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ABSTRACT

Academic procrastination is a common phenomenon that negatively impacts student achievement. This study examines the relationship between self-control and task aversiveness on students' academic procrastination at SMA Negeri 8 Padang City. Using a quantitative correlational approach, 285 students were selected through proportional stratified random sampling. Data were collected using validated questionnaires and analyzed via simple and multiple linear regression. Self-control demonstrated a significant negative relationship with academic procrastination ($R^2 = 0.211$, $\beta = -0.459$, $p < 0.001$), while task aversiveness showed a significant positive relationship ($R^2 = 0.892$, $\beta = 0.944$, $p < 0.001$). The combined model explained 89.8% of variance in academic procrastination ($R^2 = 0.898$, $F(2,282) = 1,243.67$, $p < 0.001$), suggesting these variables are strong simultaneous predictors. These findings highlight the importance of strengthening students' self-control and reducing task aversiveness as practical targets for school counseling interventions aimed at reducing academic procrastination.

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Introduction

Academic procrastination has become a significant concern in education, particularly at the high school level. Defined as the tendency to intentionally delay completing academic tasks despite awareness of negative consequences, this behavior negatively impacts student learning outcomes, increases stress and anxiety, and reduces academic motivation (Ferrari et al., 1998; Steel & Ferrari, 2013). Epidemiological data suggest that between 25% and 75% of students experience academic procrastination to varying degrees, making it a widespread behavioral pattern that demands systematic investigation (Ferrari et al., 1998). In Indonesia, research at SMA Negeri 8 Padang found that 43.70% of students displayed high procrastination levels (Utaminingsih & Setyabudi, 2012).

The following figure presents a bibliometric analysis of academic procrastination research from 2018 to 2023 using Publish or Perish, Mendeley, and VOSviewer, illustrating the growing scholarly attention this topic has received globally.

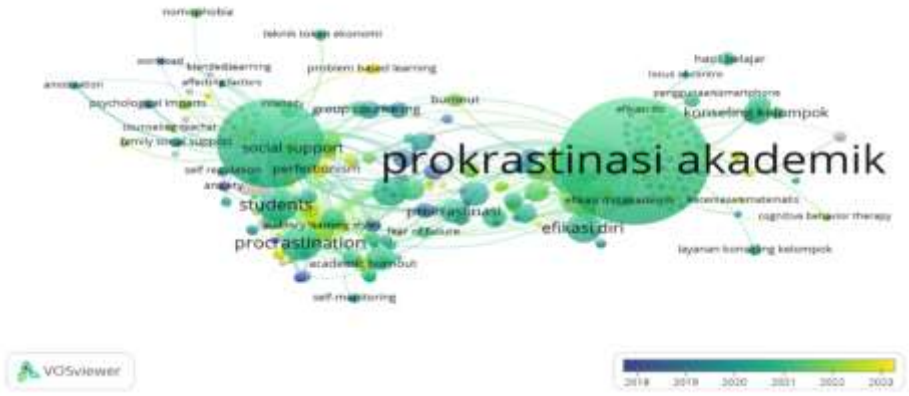

Figure 1. Academic Procrastination Research Bibliometric Data (2018–2023)

Research consistently identifies two key predictors of academic procrastination: internal factors such as self-control, and external factors such as task aversiveness (Widhiastuti & Kanaka, 2021; Zhao et al., 2021). Self-control the capacity to regulate impulses, emotions, and desires toward long-term goals has been established as a central self-regulatory mechanism in preventing procrastination (Steel, 2007; Schrader & Tangney, 2025). Students with higher self-control demonstrate better time management, stronger commitment to academic goals, and greater resilience against distractions (Khalid et al., 2024; Degol & Bachman, 2023). Conversely, students with low self-control are more vulnerable to task avoidance (Aulia, 2024; Wiwatowska et al., 2023).

Task aversiveness characterized by feelings of boredom, frustration, and resentment toward assigned tasks is another critical predictor. Blunt & Pychyl (2000) demonstrated that higher perceived task aversiveness is associated with greater procrastination. Steel (2007) further argued that task aversiveness is a stronger predictor of procrastination than time management deficits alone. When students perceive tasks as unpleasant, boring, or lacking personal relevance, they tend to seek more emotionally rewarding alternatives, thereby postponing academic responsibilities (Tice & Baumeister, 1997; David et al., 2024; van Hooft, 2024; Kirchner-Krath et al., 2024; Shin & Grant, 2019).

Despite extensive research on these variables individually, gaps remain in understanding their simultaneous predictive power within the Indonesian high school context. Prior studies (Galla & Duckworth, 2015; Klingsieck, 2013; Senécal, 2003) have examined these variables in Western contexts, while local empirical evidence remains limited. Furthermore, previous research has not adequately addressed the psychological mechanisms underlying the interaction between self-control and task aversiveness in shaping procrastination behavior. This study therefore aims to empirically examine the relationship between self-control, task aversiveness, and academic procrastination among high school students in Padang City, and to provide an evidence base for counseling interventions. The broader implications include contributions to educational psychology theory and the development of adaptive, context-sensitive guidance and counseling programs

Method

This study employed a quantitative approach with a correlational design to examine the relationships between self-control, task aversiveness, and academic procrastination. This design is appropriate when the aim is to identify the strength and direction of associations between numerically measurable variables across a population (Aulia & Yusuf, 2021). Both simple linear regression (to assess individual predictors) and multiple linear regression (to assess combined predictive power) were employed, as the study sought to determine the unique and joint contribution of the two independent variables to the criterion variable. The study population comprised 1,050 students enrolled in grades X, XI, and XII at SMA Negeri 8 Padang City. A proportional stratified random sampling technique was applied to ensure representativeness across grade levels, yielding a sample of 285 students sufficient for 95% confidence and adequate statistical power for regression analysis. Data were collected using three structured self-report questionnaires. The self-control scale was developed based on Averill's (1973) three-dimensional framework: behavioral control, cognitive control, and decisional control. The task aversiveness scale adopted Blunt & Pychyl's (2000) indicators of boredom, frustration, and resentment toward tasks. The academic procrastination scale was constructed based on Ferrari's (2000) behavioral indicators. All three instruments were administered on a Likert-type format.

Table 1. Self-Control Scale

Variables	Sub-Indicators	Indicators
Self-control	Behavioral control	Ability to control one's own situational responses
		Ability to control stimuli from external sources
		Ability to manage unwanted confronting stimuli
	Cognitive control	Ability to interpret unpleasant events with varied considerations
		Ability to appraise situations from both positive and negative perspectives
		Ability to reframe situations by attending to positive aspects subjectively
	Decisional control	Ability to choose courses of action appropriately
		Ability to select actions aligned with personal beliefs
		Freedom to choose among available actions

Table 2. Task Aversiveness Scale

Variables	Sub-Indicators	Indicators
Task aversiveness	Boredom	Subjective assessment of task monotony or lack of interest
	Frustration	Reluctance and resistance to engaging with assigned tasks
	Resentment	Negative affect toward involvement in task-based activities

Table 3. Academic Procrastination Scale

Variables	Sub-Indicators	Indicators
Academic procrastination	Delays in starting and completing tasks	Delaying the initiation of an assigned task
		Delaying completion once a task has been started
		Feeling unmotivated or reluctant to begin tasks
	Delay in task completion	Taking longer than necessary to complete tasks
		Lack of commitment to finishing academic assignments
		Engaging in off-task behavior without regard for time constraints
	Gap between planned and actual performance	Failing to meet self-set or external deadlines

Variables	Sub-Indicators	Indicators
		Ignoring predetermined plans for task completion
	Preference for alternative activities	Choosing more enjoyable activities over completing assignments
		Intentionally prioritizing non-academic activities over task completion

Prior to main data collection, all three instruments underwent a pilot validity and reliability test on a sample outside the primary population. Content validity was evaluated through expert review, and construct validity was assessed using item-total correlation analysis ($r > 0.30$ as acceptance threshold). Internal consistency reliability was assessed using Cronbach's alpha coefficient ($\alpha \geq 0.70$ as the minimum acceptable threshold). Items failing to meet the validity criterion were excluded from final administration.

Table 4. Validity Test Results

Variables	Items Piloted	Items Eliminated	Items Retained
Self-control	30	5	25
Task aversiveness	29	1	28
Academic procrastination	29	4	25

Table 5. Reliability Test Results

Variables	Cronbach's Alpha	Status
Self-control	0.866	Reliable
Task aversiveness	0.900	Reliable
Academic procrastination	0.888	Reliable

To control for potential threats to internal validity, external variables such as learning motivation and family support were noted as limitations of the correlational design rather than controlled experimentally. Data analysis included descriptive statistics (means, standard deviations, category classifications) and inferential analyses (simple and multiple linear regression using SPSS latest version). Prior to regression, three prerequisite tests were conducted:

Table 6. Normality Test Results (Kolmogorov-Smirnov)

No.	Variables	Asymp. Sig.	Sig. Level	Status
1	Self-control	0.085	0.05	Normal distribution
2	Task aversiveness	0.667	0.05	Normal distribution
3	Academic procrastination	0.755	0.05	Normal distribution

Table 7. Linearity Test Results

No.	Variable Pair	F	Significance	Status
1	Self-control (X1) – Procrastination (Y)	96.638	0.001	Linear
2	Task aversiveness (X2) – Procrastination (Y)	78.921	0.001	Linear

Table 8. Multicollinearity Test Results

No.	Variables	Tolerance	VIF	Status
1	Self-control	0.835	1.197	No multicollinearity
2	Task aversiveness	0.835	1.197	No multicollinearity

All three prerequisite assumptions were met, confirming the suitability of linear regression for the dataset. Regarding ethical considerations, participation was voluntary, data were collected anonymously, and findings are reported at the aggregate level only.

Results and Discussions

This section presents the descriptive and inferential analyses, followed by theoretical interpretation of the findings within the Indonesian educational context.

Descriptive Statistics

Table 9. Descriptive Statistics of Research Variables

Variables	Mean	SD	Category
Self-control	68.5	7.2	Moderate
Task aversiveness	78.2	6.5	High
Academic procrastination	74.3	8.1	High

Descriptive analysis indicated that students' self-control was at a moderate level (M = 68.5, SD = 7.2), task aversiveness was high (M = 78.2, SD = 6.5), and academic procrastination was also high (M = 74.3, SD = 8.1). The co-occurrence of high task aversiveness and high procrastination is consistent with predictions from temporal motivation theory (Steel, 2007), where perceived task unpleasantness reduces the subjective utility of engaging with academic tasks.

Regression Analysis

Table 10. Simple and Multiple Regression Analysis Results

Model	R	R^2	F	Sig.	Interpretation
Self-control → Procrastination	0.459	0.211	75.58	< 0.001	21.1% variance explained
Task aversiveness → Procrastination	0.944	0.892	26.33	< 0.001	89.2% variance explained
Self-control + Task aversiveness → Procrastination	0.948	0.898	1,243.67	< 0.001	89.8% variance explained

Self-control explained 21.1% of variance in academic procrastination ($R^2 = 0.211$, $F(1,283) = 75.58$, $p < 0.001$, $\beta = -0.459$), indicating a significant and negative relationship. Task aversiveness alone explained 89.2% of variance ($R^2 = 0.892$, $F(1,283) = 26.33$, $p < 0.001$, $\beta = 0.944$), demonstrating a highly significant positive relationship. In the simultaneous multiple regression model, both predictors together explained 89.8% of variance ($R^2 = 0.898$, $F(2,282) = 1,243.67$, $p < 0.001$). The R^2 value of 0.898 is unusually high for social science research and merits critical discussion. One plausible explanation is conceptual proximity between task aversiveness and academic procrastination: both involve negative affect toward academic tasks, and their shared variance may partly reflect construct overlap rather than purely causal influence. Additionally, as all data were collected via self-report in a single session, common method bias may have inflated the correlations. These limitations suggest that the R^2 value should be interpreted with caution and that future studies should employ multi-method designs (e.g., behavioral observation, peer ratings) or common method variance control procedures to cross-validate these findings.

The pattern of results is illustrated in Figure 2 below.

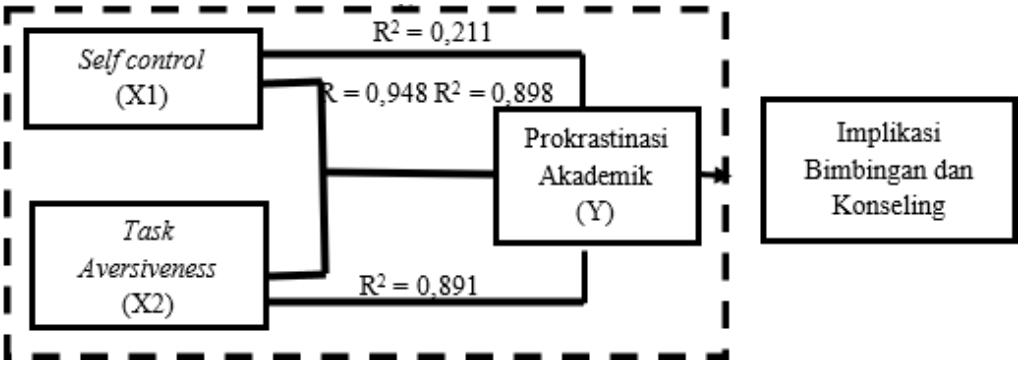

Figure 2. Conceptual Model of Variable Relationships

Theoretical Interpretation and Contextual Analysis

The negative relationship between self-control and academic procrastination replicates and extends findings by Steel (2007), Galla & Duckworth (2015), and Goroshit (2021). Students with higher self-control appear better equipped to override impulses toward task avoidance, maintain goal-directed behavior, and sustain academic effort over time. This is theoretically grounded in Averill's (1973) framework, where behavioral, cognitive, and decisional control collectively enable students to regulate academic engagement effectively. The strong positive relationship between task aversiveness and procrastination extends Blunt & Pychyl's (2000) multidimensional model by demonstrating its applicability in Indonesian secondary education. Students who perceive academic tasks as monotonous, frustrating, or unrewarding are more likely to displace effort to other, more pleasant activities. This is consistent with Steel's (2007) temporal motivation theory and corroborated by findings from Klingsieck (2013) and Senécal (2003). In the Indonesian educational context, where high-stakes examinations and teacher-centered pedagogies may exacerbate perceptions of task irrelevance (Olleras et al., 2022), task aversiveness represents a particularly salient intervention target.

Notably, no significant demographic differences in procrastination patterns were found across gender or grade level, suggesting that self-control and task aversiveness function as universal predictors within this population. This aligns with Goroshit's (2021) findings and supports the generalizability of these constructs. Several limitations should be acknowledged. First, the cross-sectional and correlational design precludes causal inferences about the directional relationships observed. Second, the use of self-report measures introduces susceptibility to common method bias and social desirability effects, potentially inflating the observed R^2 value. Third, important external variables such as academic motivation, family support, peer influence, and digital distractions were not controlled, limiting the model's explanatory completeness. Fourth, the sample was restricted to a single school, which constrains generalizability to other educational contexts in Indonesia.

Conclusions

This study demonstrated that self-control and task aversiveness are significant predictors of academic procrastination among high school students in Padang City. Self-control exhibited a significant negative relationship with procrastination ($\beta = -0.459$, $R^2 = 0.211$, $p < 0.001$), while task aversiveness exhibited a significant positive relationship ($\beta = 0.944$, $R^2 = 0.892$, $p < 0.001$). Together, these two variables explained

89.8% of variance in academic procrastination behavior ($R^2 = 0.898$, $p < 0.001$), underscoring their combined salience. These findings synthesize into a clear conceptual conclusion: academic procrastination in high school students arises from the interplay between insufficient internal self-regulatory resources and externally-driven negative task appraisals. Self-control deficits lower the threshold for distraction, while high task aversiveness amplifies the motivational pull away from academic work. Addressing either or both factors is therefore theoretically justified as an intervention target. For school counselors and teachers, these findings recommend the development of structured guidance programs that (1) explicitly train self-regulation skills through behavioral rehearsal, goal-setting, and delayed gratification exercises; (2) employ task enhancement strategies such as gamification (Kirchner-Krath et al., 2024), autonomy support, and meaningful task framing to reduce perceived aversiveness; and (3) integrate progress monitoring to sustain student engagement and accountability. For program developers and researchers, these results support multi-component counseling interventions targeting both cognitive-behavioral self-regulation and task perception reframing. Future research should address the limitations of this study by employing longitudinal designs to establish temporal precedence, using mixed-method approaches to reduce common method variance, and including diverse samples from multiple schools and regions. The potential moderating roles of variables such as academic self-efficacy, autonomous motivation, and digital distraction frequency also warrant investigation to further refine the predictive model.

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