
The Effects of Time Management and Learning Motivation on Academic Procrastination among Office Management Students at SMKN 51 Jakarta

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Abstract

This study aimed to examine the effects of time management and learning motivation on academic procrastination among students enrolled in the Office Management and Business Services Program at SMKN 51 Jakarta. A quantitative approach employing an explanatory research design was adopted. The sample consisted of 141 students selected through proportional random sampling. Data were collected using a validated and reliable five-point Likert questionnaire and analyzed through multiple linear regression using IBM SPSS Statistics 27. The findings revealed that time management had a significant negative effect on academic procrastination ($\beta = -0.610$, $t = -14.524$, $p < .001$). Likewise, learning motivation also exerted a significant negative influence on academic procrastination ($\beta = -0.445$, $t = -11.250$, $p < .001$). Simultaneously, both variables significantly predicted academic procrastination ($F = 157.527$, $p < .001$) and explained 69.5% of its variance ($R^2 = .695$). These findings indicate that students with stronger time management skills and higher learning motivation tend to demonstrate lower levels of academic procrastination. The study concludes that strengthening students' time management competencies and learning motivation is essential for reducing procrastination behavior and improving academic performance in vocational education.

Keywords :Academic Procrastination, Learning Motivation, Time Management, Vocational High School Students, Multiple Linear Regression

INTRODUCTION

In contemporary education, successful learning is determined not only by students' cognitive abilities but also by their capacity to regulate their own learning behaviors, manage time effectively, and sustain learning motivation. Twenty-first-century education emphasizes independent learning, self-management, and responsibility, requiring students to actively plan, monitor, and evaluate their academic activities. These competencies are closely associated with the concept of Self-Regulated Learning (SRL), which explains that successful learners continuously regulate their cognition, motivation, and behavior to achieve academic goals (Zimmerman, 2002). Recent educational research further confirms that self-regulation, effective time management, and learning motivation significantly contribute to students' academic engagement and achievement while reducing maladaptive learning behaviors such as academic procrastination (Kaliisa et al., 2023; Turner & Hodis, 2023).

Despite these expectations, many students continue to postpone academic responsibilities and prioritize activities unrelated to learning. This behavior, commonly referred to as academic procrastination, involves voluntarily delaying intended academic tasks despite anticipating negative consequences. Academic procrastination has become one of the most prevalent self-regulation problems among students worldwide. Numerous studies have demonstrated that persistent procrastination negatively affects academic performance, learning quality, emotional well-being, and professional readiness because students often complete assignments under severe time pressure, experience higher stress levels, and fail to develop effective work habits (Turner & Hodis, 2023).

Recent evidence also indicates that poor time management is one of the strongest predictors of academic procrastination. A recent meta-analysis involving 67 empirical studies and more than 40,000 students reported a significant negative relationship between time-

management disposition and academic procrastination, indicating that students with stronger planning, monitoring, and scheduling skills are considerably less likely to procrastinate. Interestingly, the relationship was found to be strongest among junior secondary and vocational school students, suggesting that effective time management is particularly critical in vocational education settings.

Learning motivation also plays an essential role in reducing procrastination. Students with higher intrinsic and achievement motivation demonstrate greater persistence, stronger academic engagement, and better task completion compared to those with lower motivation. Conversely, students who lack motivation often postpone difficult or unpleasant academic tasks because they perceive them as emotionally aversive. Recent systematic reviews emphasize that interventions targeting motivation, emotional regulation, and self-regulation consistently reduce procrastination and improve students' academic performance (Turner & Hodis, 2023; Suárez-Perdomo & Ruiz-Alfonso, 2024).

Academic procrastination is also evident in vocational secondary schools, particularly among students enrolled in Office Management programs. Vocational education requires students to complete numerous practical assignments, administrative projects, internships, and competency-based assessments within strict deadlines. Consequently, students are expected to possess strong organizational skills, effective time management, and consistent learning motivation. However, these competencies are not always adequately developed, causing many students to delay assignments and struggle to balance academic responsibilities with extracurricular activities and personal commitments.

This study focuses on Office Management students at SMKN 51 Jakarta, one of the vocational schools specializing in Office Management and Business Services in Jakarta. Preliminary observations were conducted involving 33 students to identify the initial tendency of academic procrastination. The findings revealed that 63.7% of respondents admitted that they usually started completing assignments only when submission deadlines were very close, while nearly half of the respondents demonstrated moderate levels of dysfunctional academic delay. Furthermore, many students reported postponing difficult assignments because they perceived them as unpleasant or challenging. These findings indicate that academic procrastination has become a dominant behavioral pattern among the participants and deserves further investigation.

Recent international evidence consistently demonstrates that effective time management and strong learning motivation are significant protective factors against academic procrastination. A systematic review by Turner and Hodis (2023) found that interventions aimed at strengthening self-regulation, planning, and motivation significantly reduced students' procrastination behaviors. Similarly, Salguero-Pazos and Reyes-de-Cózar (2023) concluded that interventions targeting time management, self-regulation, and motivational processes effectively decreased academic procrastination across educational settings. Furthermore, a recent meta-analysis involving 67 empirical studies confirmed that students with better time management dispositions exhibited significantly lower levels of academic procrastination, with particularly strong effects among secondary and vocational students (Guo et al., 2026). These findings suggest that improving students' time management skills and sustaining their learning motivation are effective strategies for minimizing academic procrastination and enhancing academic performance.

Based on the theoretical framework, previous empirical findings, and the preliminary observations conducted at SMKN 51 Jakarta, this study seeks to examine the effects of time management and learning motivation on academic procrastination among Office Management students at SMKN 51 Jakarta. Specifically, the study aims to investigate whether these two variables significantly predict students' academic procrastination and to provide empirical evidence that may contribute to the development of educational interventions designed to strengthen students' self-regulated learning and academic responsibility in vocational secondary education.

RESEARCH METHODS

This study employed a quantitative explanatory research design to examine the effects of time management and learning motivation on academic procrastination among vocational high school students. A quantitative approach was chosen because it enables hypothesis testing and objective analysis of relationships among variables through statistical procedures (Creswell & Creswell, 2023).

The research was conducted during the second semester of the 2025/2026 academic year at SMKN 51 Jakarta, Indonesia. The population consisted of 216 students enrolled in the Office Management and Business Services Program. The sample size was determined using the Slovin formula with a 5% margin of error, and respondents were selected through proportionate random sampling.

Data were collected using a structured online questionnaire distributed via Google Forms. The instrument consisted of three constructs: time management, learning motivation, and academic procrastination, measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Instrument validity was examined using the Pearson Product-Moment correlation test, while reliability was assessed using Cronbach's Alpha, with a coefficient of 0.70 or higher indicating acceptable internal consistency (Hair et al., 2022).

Data were analyzed using IBM SPSS Statistics version 27. Descriptive statistics were first employed to summarize respondents' characteristics and research variables. Prior to hypothesis testing, assumption tests including normality, multicollinearity, and heteroscedasticity were performed. Multiple linear regression analysis was then conducted to investigate the effects of time management and learning motivation on academic procrastination. The significance of the regression coefficients was examined using t-tests and F-tests, while the explanatory power of the model was evaluated using the coefficient of determination (R^2). Statistical significance was established at $p < .05$.

RESULTS AND DISCUSSION

1. Respondent Characteristics

A total of 141 students from the Office Management and Business Services (MPLB) program at SMKN 51 Jakarta participated in this study. The respondents were equally distributed across three grade levels (Grade X, XI, and XII), with 47 students (33.3%) representing each grade.

Regarding gender distribution, female students constituted the majority of the sample, accounting for 135 respondents (95.7%), whereas only 6 respondents (4.3%) were male. This distribution reflects the demographic characteristics of the Office Management program, which is predominantly attended by female students.

2. Descriptive Statistics

Descriptive statistics were calculated to summarize the characteristics of the research variables, namely time management, learning motivation, and academic procrastination. The results are presented in Table 1.

Table 1. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	SD
Time Management	141	39	69	54.01	5.64
Learning Motivation	141	36	72	55.77	5.99
Academic Procrastination	141	41	65	54.53	5.03

The descriptive analysis indicates that the mean score for time management was 54.01 (SD = 5.64), with scores ranging from 39 to 69. This finding suggests moderate variation in students' ability to organize and allocate their study time effectively.

The learning motivation variable produced the highest mean score ($M = 55.77$, $SD = 5.99$), with observed scores ranging from 36 to 72. The relatively higher mean indicates that most respondents demonstrated a favorable level of learning motivation despite individual differences among students.

Meanwhile, academic procrastination obtained a mean score of 54.53 ($SD = 5.03$), with scores ranging between 41 and 65. Although the variation was relatively smaller than that of the other variables, the findings indicate that academic procrastination remains prevalent among the respondents. The relatively moderate dispersion suggests that procrastination behaviors are experienced by many students regardless of differences in their academic backgrounds.

Overall, the descriptive statistics demonstrate that the three variables exhibit sufficient variability for further inferential statistical analysis. The standard deviation values are considerably lower than their respective mean values, indicating that the data are relatively homogeneous and suitable for subsequent regression analysis.

Data Analysis Results

1. Validity Test

The validity test was conducted using the Pearson Product-Moment correlation to determine the validity of each questionnaire item. A total of 34 respondents participated in the pilot test, resulting in a critical r -table value of 0.329 at a significance level of 0.05. An item was considered valid if its correlation coefficient (r -count) exceeded the critical value.

The analysis revealed that all questionnaire items measuring Time Management (X_1), Learning Motivation (X_2), and Academic Procrastination (Y) obtained correlation coefficients greater than 0.329. Therefore, all measurement items met the validity criteria and were retained for further analysis.

2. Reliability Test

Instrument reliability was examined using Cronbach's Alpha. A coefficient greater than 0.60 indicates acceptable internal consistency.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Criterion	Interpretation
Academic Procrastination	0.979	>0.60	Reliable
Time Management	0.952	>0.60	Reliable
Learning Motivation	0.979	>0.60	Reliable

The results indicate that all research variables demonstrated excellent internal consistency, with Cronbach's Alpha values ranging from 0.952 to 0.979. These coefficients substantially exceeded the minimum acceptable threshold, indicating that the questionnaire consistently measured the intended constructs and was suitable for subsequent statistical analyses.

3. Classical Assumption Tests

a. Normality Test

The normality of the regression residuals was examined using the One-Sample Kolmogorov–Smirnov (K–S) test. A significance value greater than 0.05 indicates that the residuals are normally distributed.

Table 3. Kolmogorov–Smirnov Normality Test

Statistic	Value
N	141
Kolmogorov–Smirnov Statistic	0.047
Asymp. Sig. (2-tailed)	0.200

The Kolmogorov–Smirnov test produced an Asymp. Sig. value of 0.200, while the Monte Carlo significance value was 0.619. Both values exceeded the significance level of 0.05, indicating that the residuals were normally distributed. Consequently, the normality assumption required for multiple linear regression analysis was satisfied, suggesting that the regression model was appropriate for further hypothesis testing.

b. Multicollinearity Test

The multicollinearity test was performed to determine whether strong correlations existed among the independent variables. This assumption was evaluated using the Tolerance and Variance Inflation Factor (VIF) values. A model is considered free from multicollinearity when the tolerance value exceeds 0.10 and the VIF value is below 10.

Table 4. Multicollinearity Test Results

Variable	Tolerance	VIF
Time Management	0.995	1.006

The results show that both independent variables obtained identical Tolerance values of 0.995 and VIF values of 1.006. Since the tolerance values are substantially higher than 0.10 and the VIF values are considerably lower than 10, the regression model satisfies the multicollinearity assumption. These findings indicate that time management and learning motivation represent distinct constructs that independently contribute to explaining academic procrastination without causing redundancy or instability in the regression coefficients.

Heteroscedasticity Test

The heteroscedasticity assumption was examined using the Glejser test, which evaluates whether the residual variance remains constant across observations. A significance value greater than 0.05 indicates the absence of heteroscedasticity.

Table 5. Glejser Heteroscedasticity Test

Variable	t	Sig.
Time Management	-0.116	0.908
Learning Motivation	0.456	0.649

The Glejser test produced significance values of 0.908 for time management and 0.649 for learning motivation. Both values exceeded the threshold of 0.05, indicating that heteroscedasticity was not present in the regression model. Therefore, the residual variance can be considered homogeneous across observations, suggesting that the regression estimates are unbiased and statistically efficient for predicting academic procrastination among Office Management students at SMKN 51 Jakarta.

Multiple Linear Regression Analysis

Multiple linear regression analysis was performed to examine the effects of time management and learning motivation on academic procrastination. The regression coefficients are presented in Table 6.

Table 6. Multiple Linear Regression Results

Variable	B	SE	β	t	p
Constant	112.303	3.288	–	34.157	<0.001
Time Management	-0.610	0.042	-0.684	-14.524	<0.001
Learning Motivation	-0.445	0.040	-0.530	-11.250	<0.001

The regression coefficients indicate that both independent variables negatively predict academic procrastination. Specifically, every one-unit increase in time management is associated with a 0.610-point decrease in academic procrastination, holding other variables constant. Likewise, every one-unit increase in learning motivation corresponds to a 0.445-point decrease

in academic procrastination. These findings suggest that students with better time management skills and stronger learning motivation are less likely to engage in academic procrastination.

Hypothesis Testing

Partial t-Test

The partial t-test was conducted to examine the individual contribution of each independent variable to academic procrastination. The critical value was $t = 1.977$ ($\alpha = 0.05$, $df = 138$).

Table 7. Partial t-Test Results

Variable	β	t	p
Time Management	-0.684	-14.524	<0.001
Learning Motivation	-0.530	-11.250	<0.001

The results demonstrate that time management has a significant negative effect on academic procrastination ($\beta = -0.684$, $t = -14.524$, $p < 0.001$). Therefore, Hypothesis 1 was supported, indicating that students with better time management skills tend to exhibit lower levels of academic procrastination.

Similarly, learning motivation was found to have a significant negative effect on academic procrastination ($\beta = -0.530$, $t = -11.250$, $p < 0.001$). Thus, Hypothesis 2 was also supported, suggesting that higher levels of learning motivation are associated with reduced academic procrastination among Office Management students at SMKN 51 Jakarta.

Overall, the standardized coefficients indicate that time management ($\beta = -0.684$) has a stronger predictive effect on academic procrastination than learning motivation ($\beta = -0.530$), implying that effective time management is the most influential factor in reducing students' procrastination behavior.

Simultaneous F-Test

The simultaneous F-test was conducted to examine whether time management and learning motivation jointly influence academic procrastination. The results are presented in Table 8.

Table 8. ANOVA Results

Source	SS	df	MS	F	p
Regression	2461.094	2	1230.547	157.527	<0.001
Residual	1078.012	138	7.812		
Total	3539.106	140			

The ANOVA results indicate that the regression model is statistically significant ($F = 157.527$, $p < 0.001$). The calculated F-value substantially exceeded the critical value ($F = 3.06$), demonstrating that time management and learning motivation simultaneously exert a significant effect on academic procrastination. Therefore, the regression model is appropriate for explaining variations in students' academic procrastination.

Coefficient of Determination (R^2)

The coefficient of determination was calculated to evaluate the proportion of variance in academic procrastination explained by the independent variables.

Table 9. Model Summary

R	R^2	Adjusted R^2	Standard Error
0.834	0.695	0.691	2.795

The model produced an R^2 value of 0.695, indicating that 69.5% of the variance in academic procrastination can be explained jointly by time management and learning motivation. The remaining 30.5% is attributable to other variables not included in the present study.

Furthermore, the Adjusted R^2 of 0.691 suggests that the explanatory power of the model remains robust after adjusting for the number of predictors and sample size. The multiple correlation coefficient ($R = 0.834$) indicates a strong relationship between the independent variables and academic procrastination. These findings suggest that the combined influence of effective time management and strong learning motivation plays a substantial role in reducing academic procrastination among Office Management students at SMKN 51 Jakarta.

The Effect of Time Management on Academic Procrastination

The findings indicate that time management has a significant negative effect on academic procrastination among Office Management and Business Services (MPLB) students at SMKN 51 Jakarta. The regression analysis showed a negative coefficient ($\beta = -0.610$), with a t -value of -14.524 and a significance level of $p < .001$. These results suggest that students with stronger time management skills are less likely to engage in academic procrastination. Effective planning, prioritizing tasks, and scheduling study activities enable students to complete academic responsibilities on time and reduce unnecessary delays.

The present findings are consistent with previous studies reporting that effective time management significantly reduces academic procrastination. Fostervold et al. (2022) demonstrated that students with stronger time management skills exhibited lower levels of procrastination and better academic engagement. Similarly, Rahimi and Vallerand (2021) found that students with higher levels of autonomous motivation and self-regulation were less likely to postpone academic tasks. Furthermore, Hidayat and Hasim (2023) confirmed that time management and learning motivation are among the strongest predictors of academic procrastination in higher education. Collectively, these findings support the present study, indicating that improving students' ability to organize their time and maintain learning motivation contributes to reducing academic procrastination.

CONCLUSION

This study concludes that time management plays a crucial role in reducing academic procrastination among students. Effective planning, prioritization, and self-monitoring enable students to complete academic tasks in a timely manner, whereas poor time management increases the likelihood of delaying assignments and negatively affects academic performance. The findings also indicate that academic procrastination is a multidimensional issue influenced by both behavioral and psychological factors, highlighting the importance of strengthening students' self-regulation skills. Therefore, higher education institutions should implement strategies that promote effective time management, self-directed learning, and continuous academic support to minimize procrastination and enhance students' academic success.

Discussion

The findings demonstrate that time management has a significant negative effect on academic procrastination among Office Management and Business Services students at SMKN 51 Jakarta. Students with better abilities to organize, prioritize, and allocate their study time tended to report lower levels of academic procrastination. This finding is consistent with contemporary perspectives on Self-Regulated Learning (SRL), which describe self-regulation as a cyclical process involving goal setting, planning, monitoring, and behavioral control that enables learners to manage their learning effectively and achieve academic success. Recent systematic reviews further emphasize that planning and monitoring are among the most essential components of effective self-regulated learning, contributing positively to academic achievement and learning persistence (Faza, 2025).

The present findings are also supported by recent empirical evidence. A meta-analysis conducted by Guo et al. (2026) involving more than 40,000 students found a significant

negative association between time management disposition and academic procrastination. Students with stronger time-management skills demonstrated substantially lower levels of procrastination, suggesting that effective time management is one of the most important protective factors against academic delay behavior. Likewise, Asikainen et al. (2024) found that improvements in time and effort management significantly reduced procrastination among university students participating in an Acceptance and Commitment Therapy (ACT)-based intervention.

The results also indicate that learning motivation negatively predicts academic procrastination. Students with stronger motivation were less likely to postpone academic tasks because they possessed clearer learning goals and greater persistence in completing assignments. This finding is consistent with Self-Determination Theory, which explains that intrinsically motivated students demonstrate greater engagement, persistence, and academic responsibility than students with lower motivation (Ryan & Deci, 2020). Highly motivated learners perceive academic tasks as opportunities for competence development rather than as burdens to avoid.

Furthermore, the simultaneous regression analysis reveals that time management and learning motivation jointly explain 69.5% of the variance in academic procrastination, indicating that both variables constitute major determinants of procrastination behavior among vocational students. This result highlights that effective academic behavior depends not only on students' willingness to learn but also on their ability to translate that motivation into effective behavioral regulation. According to SRL theory, motivation functions during the forethought phase by establishing learning goals, whereas time management operates during the performance phase by organizing and controlling learning behaviors (Zimmerman, 2002). When these two self-regulatory components function effectively together, students become less vulnerable to procrastination.

Although the explanatory power of the model is relatively high, approximately 30.5% of the variance remains unexplained, suggesting that additional psychological and environmental factors contribute to academic procrastination. Previous studies have identified variables such as fear of failure, perfectionism, anxiety, self-efficacy, emotional regulation, parental support, and peer influence as important predictors of procrastination (Ferrari, 1995; Steel, 2007). More recent systematic evidence also concludes that academic procrastination is a multidimensional phenomenon influenced by cognitive, motivational, emotional, and behavioral factors, requiring comprehensive intervention strategies rather than focusing solely on time management or motivation.

Overall, these findings suggest that reducing academic procrastination among vocational high school students should involve integrated educational interventions aimed at strengthening both time management skills and learning motivation. Schools may develop structured time-management training, goal-setting programs, self-regulated learning workshops, and motivational counseling to help students develop effective learning habits. Such interventions are expected to improve academic performance while preparing vocational students for the discipline and responsibility required in professional workplaces.

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