



Correlation study between self-regulated learning and academic procrastination on students

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Article Info	Abstract
Keywords: Self regulated learning, academic procrastination.	Students frequently feel that the amount of school assignments they are assigned is excessive, which leads to a tendency of procrastination on completing them. It is predicted that students' capacity for self-regulated learning will contribute to a decrease in the probability of academic procrastination. The aim of this research is to investigate the extent to which academic procrastination among students is correlated with self-regulated learning. The research employed a correlational method and utilized cluster random sampling from 8 classes, involving 165 students as the sample. According to the findings of this research, self-regulated learning predicts a decrease in procrastination. The findings suggest to strengthen self-regulated learning in guidance and counseling program to reduce students' academic procrastination.

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Introduction

Procrastination becomes a deviant behavior explored in psychology. It is characterized by a lack of discipline in time management, in which an individual tends to delay starting or completing tasks altogether. Procrastination frequently results in fewer productive activities being done, which impairs performance in completing scheduled tasks. In the educational context, students are required to improve their professional skills to compete in the era of globalization characterized by a pressure and competition. However, many students struggle with time management issues or a propensity to put off academic work, which can occasionally result in their not finishing projects on time. In psychology, this behavior is known as procrastination, which reflects a lack of discipline in managing time (Putro & Sugiharto, 2016). Procrastination is the tendency to delay starting or completing a task altogether, often due to engaging in less productive activities, which can hinder students' performance in handling multiple tasks.

Theoretically, procrastination is categorized into two types: academic procrastination and non-academic procrastination. Academic procrastination is the act of delaying formal educational tasks, such writing papers or doing lab reports. On the other hand, non-academic procrastination occurs when students delay informal or everyday tasks, such as household chores, social obligations, or office work (Sirois & Pychyl, 2016). In addition, the factors influencing academic procrastination are classified into two categories: internal and external factors. Internal factors

involve students' physical and psychological conditions. For example, the exhaustion can make procrastination more likely (Knaus, 2002).

According to (Knaus, 2002), procrastination is a particular type of delay that commonly takes place in an academic setting, such as finishing homework, writing papers, assignments, or preparing for other school-related duties. Despite the various reasons behind it, procrastination results in a lack of motivation to complete tasks on time. If procrastination persists, it may lead to a number of detrimental effects. Based on (Budiman et al, 2020), procrastination has several drawbacks, including unfinished tasks or tasks completed with unsatisfactory results due to the students' rush to meet deadlines. This may cause anxiety and stress, which makes it challenging to focus completely. Additionally, procrastination often results in more wasted time compared to individuals who complete the same tasks promptly. For students, procrastination can harm academic performance, leading to poor study habits, low motivation to learn, and diminished self-confidence.

Prolonged procrastination will affect internal and external side of students. Internal impacts include regret and guilt, particularly when an individual feels fear or uncertainty about their ability to complete tasks. This mindset drives the individual to delay work. External impacts include warnings or reprimands from teachers due to late submissions. If this tendency to procrastinate occurs during high school, it is likely to worsen in subsequent educational phases (Wolters et al, 2017). According to Mutiara (2025), procrastination is characterized by a delay in starting or finishing projects, tardiness in completing assignments, a discrepancy between intended performance and actual performance, and indulging in other leisure activities. Academic procrastination has two primary consequences: internal and external. Internal consequences include feelings of panic, guilt, and incompetence; while external consequences involve the risk of receiving poor grades due to procrastination.

Students frequently exhibit the tendency to devote more time to recreational activities than to academic pursuits. They often stay up late, visit malls or plazas, watch television for hours, become addicted to online games, social media, online novels, and comics, leading them to frequently postpone their work. As a result, their time is wasted, tasks are neglected, and the quality of task completion is subpar, which can potentially lead to failure or obstacles in achieving success. This phenomenon reflects a low ability of students to manage their own learning, or self-regulated learning, resulting in learning difficulties. When students cannot effectively manage their study time, they struggle to complete academic tasks, a behavior known as academic procrastination.

Academic procrastination is the intentional and persistent postponement of crucial duties by indulging in pointless pursuits. Students require self-regulated learning since self-regulation problems are frequently linked to learning challenges. The technique of self-regulated learning aids students in controlling their feelings, ideas, and actions in order to accomplish learning objectives. In addition, Zimmerman et al. (2015) stated that students who have strong self-regulated learning skills typically display the traits of setting goals to improve their knowledge and motivation, controlling their emotions to stay focused on their studies, regularly assessing their progress, evaluating their learning results, and making the necessary adjustments to improve their performance. Therefore, self-regulated learning abilities are essential for students because it fosters the growth of accountability and behaviors that facilitate the accomplishment of learning objectives.

Self-regulated learning is an independent process in which students use cognition, behavior, and affect to achieve learning objectives. Every student possesses self-regulated learning abilities, but these vary in degree. This degree might be affected by the academic procrastination. Students who practice self-regulated learning can effectively organize their study time and finish their assignments appropriately. According to (Santrock, 2014), self-regulated learning refers to the ability to generate and monitor one's own thoughts, feelings, and behaviors to achieve goals. These

goals might be socio-emotional (like managing anger or learning how to socialize with peers) or intellectual (such becoming a better writer, reading comprehension, or math expert). In addition, (Steel, 2007) also stated that even though most people are aware of the detrimental effects of academic procrastination, they continue to engage in it because it has become a habitual behavior. Academic procrastination is affected by two main factors: internal and external. Internal factors include aspects such as self-confidence, self-control, self-efficacy, motivation, self-regulation, self-awareness, and self-criticism. External factors involve parenting styles and the individual's surrounding environment.

A previous study conducted by Assafi'i et al. (2023) aimed to explore the relationship between self-regulated learning and academic procrastination among 11th-grade students at SMAN 11 Luwu Utara. The study involved 50 11th-grade students from the science and social studies programs. The method used was quantitative with correlational analysis. The data were collected through an authentic and reliable questionnaire. The analysis utilized descriptive and inferential analyses. The findings revealed a substantial negative linear association between self-regulated learning (X) and academic procrastination (Y). It means that students who exhibit greater levels of self-regulated learning also tend to exhibit lower levels of academic procrastination. The study concluded that interventions aimed at enhancing self-regulated learning and reducing academic procrastination could be a focus of future research.

The study conducted by Saraswati (2017) aims to investigate the relationship and respective contributions to the dependent variable between procrastination, academic achievement, and self-regulated learning (SRL). The research employed a quantitative approach with a stratified random sampling technique. The sample consisted of 222 participants, including 66 males and 156 females. Data were analyzed using regression statistical techniques. The findings of this study showed that procrastinating in the classroom has a detrimental effect on academic performance and the procrastination causes worse academic performance. However, SRL strategies were not directly related to academic achievement but were associated with academic procrastination. The study also discovered a link between gender and academic success as well as its contribution.

Furthermore, a study by Kholidah (2020) aimed to identify a significant negative correlation between self-regulated learning and academic procrastination using a quantitative method. The sample included 104 university students. The research instruments comprised a self-regulated learning scale and an academic procrastination scale. The product-moment approach was used to analyze the data at a significance level of 5%. The findings revealed a strong inverse relationship between academic procrastination and self-regulated learning. It means that academic procrastination is correlated with higher levels of self-regulated learning and lower levels of self-regulated learning, respectively. Other than that, according to the analytical results of research by Kartikasari et al. (2022), students generally exhibited a high degree of self-regulated learning, as seen by the high ratings given to each indicator. All signs pointed to high levels of academic procrastinating behavior among students, which was also highly regarded. This shows that students' academic procrastinating behavior was high despite their strong self-regulated learning displays.

Furthermore, the study by Rifa'i & Syahrina (2019) aimed to investigate the relationship between self-regulated learning, self-compassion, and academic procrastination among 11th-grade students at MAN 2 Solok. The independent variables in this study were self-regulated learning and self-compassion, while the dependent variable was academic procrastination. The study population consisted of 89 students from MAN 2 Solok, and the sampling technique used was saturated sampling. Saturated sampling was employed in the study, which involved 89 students from MAN 2 Solok as the study population. The validity and reliability tests showed good validity coefficients for the self-regulated learning and self-compassion scales, and good reliability coefficients for all scales. According to data analysis between academic procrastination and self-regulated learning,

academic procrastination and self-compassion, and academic procrastination and self-regulated learning, the significant connections were detected. These results suggest a significant relationship between self-regulated learning, self-compassion, and academic procrastination among 11th-grade students at MAN 2 Solok.

Based on preliminary interviews and observations conducted with several subject teachers and information from the counseling teacher, Salimah, S.Pd, at 10:20 WITA on Saturday, September 19, 2020, regarding students in SMAN 1 Woha in Kabupaten Bima, it was found that: (1) Students frequently submitted assignments late; (2) Students frequently failed to submit and ignored assigned tasks; (3) Students frequently made excuses when asked about assignments they should have submitted; (4) Students frequently avoided or ignored assignments; (5) Students frequently disregarded difficult tasks; and (6) Students were frequently distracted by other activities rather than completing academic tasks. These behaviors indicate the presence of procrastination.

Thus, the purpose of this study is to investigate the connection between academic procrastination and self-regulated learning in SMA Negeri 1 Woha Bima pupils. Academic procrastination and self-regulated learning are two practices that can significantly affect students' academic success. This study can improve students' learning techniques to prevent and lessen academic procrastination by demonstrating the association between these two factors. The results may be utilized by guidance and counseling instructors or school counselors to examine and implement self-regulated learning strategies as a tactic to stop and lessen students' academic procrastination.

Method

The sample selected for this study consisted of 165 12th-grade students, comprising four social science classes (92 students), three natural science classes (65 students), and one language class (8 students). The sampling was conducted using the cluster random sampling technique. Data on self-regulated learning were collected using an SRL scale developed by the researcher. The twenty-five items on this scale were divided into five indicators, such as: Learning motivation (5 items); Learning goal orientation (5 items); Self-efficacy (5 items), Self-regulation on learning (5 items); and Learning strategy (5 items). Using item-total correlation approaches, the construct validity test findings showed that all 25 items were valid, with item-total correlations ranging from 0.16 to 0.46. The reliability coefficient (also known as Cronbach's alpha) for the scale was 0.76.

On the other hand, data on the academic procrastination variable were collected using a researcher-developed academic procrastination scale. This scale had thirty items that covered six indicators, such as: Delaying the initiation and completion of tasks (5 items); Difficulty in starting tasks (5 items); Postponing tasks until the last minute (5 items); Time gaps between planned and actual performance (5 items); Engaging in more enjoyable activities rather than completing tasks (5 items); and Difficulty in time management (5 items). Item-total correlation methods were used in the construct validity test for this scale, and the results showed that all 30 items were valid, with item-total correlations ranging from 0.19 to 0.54. The reliability coefficient (also known as Cronbach's alpha) for the scale was 0.73.

Result and Discussion

Based on the data analysis conducted on 165 students at SMA Negeri 1 Woha in Kabupaten Bima, the results are presented in the table below, showing the mean, standard deviation, and category for each indicator and variable. Each indicator's mean and standard deviation were calculated using a frequency descriptive statistical analysis in SPSS 2.5. Procrastination is classified as a high behavior, with a mean score of 93.25 (SD = 4.91), whereas self-regulated learning is classified as a moderate behavior, with a mean score of 86.98 (SD = 3.73). Specifically, the indicator of learning goal orientation has a mean of 13.55 (SD = 1.03) and is classified as low; learning

motivation has a mean of 13.77 (SD = 1.21) and is categorized as low; self-efficacy has a mean of 13.95 (SD = 1.16) and is classified as low; self-regulation in learning has a mean of 13.50 (SD = 1.19) and is classified as low; and learning planning has a mean of 13.29 (SD = 1.03) and is classified as low.

Table 1. The distribution data of analysis result on indicators and variables

Vaibles	Mean	SD	Category
Procrastination	93,25	4,91	High
SRL	86,98	3,73	High
Learning goal orientation	13,55	1,03	Low
Learning motivation	13,77	1,21	Low
Self-efficacy	13,95	1,16	Low
Self-regulation on learning	13,50	1,19	Low
Learning strategy	13,19	1,03	Low

As seen in Table 2, the multiple regression analysis findings suggest a substantial correlation ($R = 0.72$, $p < 0.01$) between academic procrastination and self-regulated learning. In addition, self-regulated learning accounts for 54% of the variance in academic procrastination ($R^2 = 0.54$). However, not all indicators can be reliably used as predictors for reducing academic procrastination, although all indicators have a significant negative impact on reducing procrastination. The indicator with the most impact is learning goal orientation (58.4%), followed by learning motivation (52.3%), self-efficacy (44.1%), self-regulation on learning (42.3%), and learning planning (35.6%).

Table 2. The distribution data of analysis result on multiple regression

Predictors	β	t	p
Learning goal orientation	-1,56	-5,54	>0,05
Learning motivation	-1,56	-5,31	>0,05
Self-efficacy	-1,42	-5,28	>0,05
Self-regulation on learning	-1,31	-5,13	>0,05
Learning startegy	-1,17	-4,93	>0,05
R		0,72	
R^2		0,54	
F		14,31	
P		<0,01	

The results demonstrate that academic procrastination can be considerably reduced by the increases in self-regulated learning, with learning goal orientation being the most important predictor. In addition, the SRL indicators have a significant and varied impact on the reduction of academic procrastination. According to the multiple regression formula analysis of the research data, the academic procrastination and self-regulated learning have a substantial relationship each other. In general, it is demonstrated that the capacity to self-regulate during learning is essential for lowering academic procrastination. However, not all aspects of self-regulated learning can be reliably used as predictors for reducing academic procrastination, even though all aspects have a significant negative influence.

More specifically, the most significant component in lowering academic procrastination appears to be learning goal orientation; that is the students' capacity to establish specific and focused learning goals. Another important factor is learning motivation; students who have a strong desire to study also tend to be fewer academically procrastinators (Abidin et al, 2023).

Procrastination is also decreased when students have self-efficacy, or confidence in their own capacity to finish assignments. Students with strong confidence in their abilities are less likely to delay completing assignments. Self-regulation on learning, which includes the ability of students to manage and control their learning processes, also shows a significant impact in curbing academic procrastination (Lourenço & Paiva, 2024). Students who are able to effectively manage their time and learning strategies tend to be more disciplined in completing academic tasks. Finally, learning planning, which involves the students' ability to plan their study activities effectively, also plays a role in reducing the tendency toward academic procrastination. Students who are proficient in creating and adhering to organized study schedules consistently submit their assignments on time.

This study aligns with the findings of previous research by Kartikasari et al. (2022), which indicated that the average level of self-regulated learning among students is high, with an average achievement level. This implies that students who have a high level of self-regulation on their learning frequently have better efficient management towards their time and academic assignments. In addition, academic procrastination is decreased by factors including cognitive processing, adapting to the learning environment, and utilization of supportive resources. However, it is important to note that students still face challenges in managing procrastination, particularly in starting and completing tasks on time.

Conclusion

Based on the findings regarding the relationship between academic procrastination and self-regulated learning, this research concludes that self-regulated learning significantly reduces academic procrastination behavior among students at SMAN 1 Woha in Kabupaten Bima. In general, academic procrastination has been shown to be significantly reduced by the capacity for self-regulation in the learning process. However, not all aspects of self-regulation in learning can be relied upon as predictors for reducing academic procrastination, even though all aspects have a significant negative impact.

The results of this study can be used by the guidance and counseling teachers or school counselors to provide counseling services concerning the connection between academic procrastination and self-regulated learning. In order to further improve these research results, future researchers are urged to utilize these findings as a reference for performing more research and to broaden their knowledge, particularly with regard to the relationship between academic procrastination and self-regulated learning.

References

- Abidin, D., Sembiring, D. A. K., Setiawan, A., & Vanchapo, A. R. (2023). The analysis of relationship between students academic procrastination behavior and students learning motivation. *Mudir: Jurnal Manajemen Pendidikan*, 5(1), 200–204.
- Assafi'i, D., Anuar, A. Bin, Galugu, N. S., & Kadir, A. (2023). Hubungan Antara Self-Regulated Learning Dengan Prokrastinasi Akademik Siswa. *Jurnal Bimbingan Dan Konseling Ar-Rahman*, 9(1), 123–131. <https://doi.org/10.31602/jbkr.v9i1.11618>
- Budiman, R., Purwanto, E., & Murtadho, A. (2020). Cognitive Behavioral Therapy to improve self-efficacy and reduce academic procrastination. *Jurnal Bimbingan Konseling*, 9(3), 145–151. <https://doi.org/10.15294/jubk.v9i3.41246>
- Kartikasari, W. A., Marjohan, M., & Hariko, R. (2022). Hubungan self regulated learning dan dukungan orangtua terhadap perilaku prokrastinasi akademik. *JRTI (Jurnal Riset Tindakan Indonesia)*, 7(3), 388–394. <https://doi.org/10.29210/30031579000>
- Kholidah, L. N. (2020). Pengaruh Layanan Konseling Kelompok Menggunakan Teknik Asertive Training Untuk Mengurangi Prokrastinasi Akademik Peserta Didik Smp Negeri 19 Bandar Lampung Tahun Ajaran 2019/2020 M. (N.D.).

- Knaus, W. (2002). *The procrastination workbook: Your personalized program for breaking free from the patterns that hold you back*. New Harbinger Publications.
- Lourenço, A. A., & Paiva, M. O. A. (2024). Self-regulation in academic success: Exploring the impact of volitional control strategies, time management planning, and procrastination. *International Journal of Changes in Education*, 1(3), 113–122. <https://doi.org/10.47852/bonviewIJCE42022392>
- Mutiara, N. (2025). The Effectiveness of Self Management Techniques to Reduce Academic Procrastination Behavior of Grade VIII Students at SMP Negeri 1 Tinambung. *Busyro: Jurnal Dakwah Dan Komunikasi Islam*, 7(1), 139–149. <https://doi.org/10.55352/kpi.v7i1.2083>
- Putro, H. E., & Sugiharto, D. Y. P. (2016). Model Konseling Kelompok Teknik Self Regulated Learning Untuk Mengurangi Prokrastinasi Akademik Siswa. *Jurnal Bimbingan Konseling*, 5(1), 15–22. <https://doi.org/10.15294/JUBK.V5I1.18506>
- Rifa'i, H. R., & Syahrina, I. A. (2019). Hubungan antara Self Regulated Learning dan Self Compassion dengan Prokrastinasi Akademik pada Siswa. *Psyche 165 Journal*, 134–143. <https://doi.org/10.35134/jpsy165.v12i2.9>
- Santrock, J. (2014). *Ebook: Child Development: An Introduction*. McGraw Hill.
- Saraswati, P. (2017). Strategi Self regulated learning dan prokrastinasi akademik terhadap prestasi akademik. *Intuisi: Jurnal Psikologi Ilmiah*, 9(3), 210–223. <http://journal.unnes.ac.id/nju/index.php/INTUISI>
- Sirois, F. M., & Pychyl, T. A. (2016). *Procrastination, health, and well-being*. Academic Press. <https://doi.org/10.1016/c2014-0-03741-0>
- Steel, D. (2007). *Across the boundaries: Extrapolation in biology and social science*. Oxford University Press.
- Wolters, C. A., Won, S., & Hussain, M. (2017). Examining the relations of time management and procrastination within a model of self-regulated learning. *Metacognition and Learning*, 12(3), 381–399. <https://doi.org/10.1007/s11409-017-9174-1>
- Zimmerman, B. J., Schunk, D. H., & DiBenedetto, M. K. (2015). *A personal agency view of self-regulated learning: The role of goal setting*. <https://doi.org/10.4324/9780203839010.ch1>