



Academic Procrastination among College Students: Do Learning Awareness and Self-Management Play a Role?

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Abstract: Academic procrastination is a prevalent tendency among students. This study examines the impacts of learning awareness and self-management on academic procrastination. Employing a quantitative survey approach, the research involved 134 Kerinci State Islamic Institute students in Jambi Province, selected through convenience sampling. Descriptive analysis was conducted to assess the levels of each variable. Findings suggest a low level of academic procrastination, with learning awareness and self-management exhibiting moderate levels. Hypothesis testing demonstrates that learning awareness and self-management significantly influence academic procrastination individually and concurrently. Future research endeavors should construct a more intricate structural model by incorporating additional variables that directly or indirectly impact academic procrastination.

Abstrak: Prokrastinasi akademik merupakan salah satu kebiasaan yang umum di kalangan mahasiswa. Penelitian ini bertujuan untuk menganalisis pengaruh kesadaran dalam belajar dan manajemen diri terhadap prokrastinasi akademik. Penelitian ini menggunakan pendekatan kuantitatif dengan desain survei. Studi ini melibatkan 134 mahasiswa Institut Agama Islam Negeri Kerinci provinsi Jambi yang ditentukan dengan menggunakan teknik convenience sampling. Teknik analisis yang digunakan untuk mengungkap ketercapaian setiap variabel adalah analisis deskriptif. Hasil penelitian ini menunjukkan bahwa tingkat prokrastinasi akademik berada dikategori rendah, kesadaran dalam belajar dan manajemen diri berada pada kategori sedang. Pengujian hipotesis menunjukkan bahwa kesadaran dalam belajar dan manajemen diri mempengaruhi prokrastinasi akademik, baik secara parsial maupun simultan. Pada studi selanjutnya, perlu adanya rumusan model structural yang lebih kompleks dengan mempertimbangkan beberapa variabel lain yang memiliki pengaruh langsung maupun tidak langsung terhadap prokrastinasi akademik.

A. Introduction

As students, fulfilling academic obligations such as practicum, exams, assignments, and lectures is imperative (Onwuegbuzie & Jiao, 2000). However, many students postpone task completion, assuming they can address them later (Hikmah et al., 2023). This postponement, academic procrastination, embodies delaying tasks or activities (Sujadi & Ahmad, 2023). Wicaksono (2017) defines academic procrastination as the deliberate postponement of activities or tasks until the following day. Further elucidates that academic procrastination is prevalent in educational settings, where students intentionally delay completing assignments issued by instructors (Hidayati et al., 2019). Academic procrastination is the tendency to delay academic work or tasks that should be completed, often stemming from an inability or discomfort in addressing the task (Hen & Goroshit, 2020).

Academic procrastination is widespread in academic realms and is explored through diverse theoretical lenses that identify various causes and consequences (Ulya et al., 2020; Zacks & Hen, 2018). It signifies a failure to undertake necessary tasks despite awareness of the detrimental effects, such as laziness, feeling overwhelmed, poor time management, and decision-making challenges (Kartadinata & Tjundjing, 2008). Viewed through a situational lens, academic procrastination represents a deficiency in students' self-regulatory skills within learning contexts (Zacks & Hen, 2018). This behavior is linked to problematic emotion regulation practices associated with compromised mental well-being (Eisenbeck et al., 2019). Grounded theory on academic procrastination explores adaptive and maladaptive dimensions, guiding future empirical inquiries (Klassen et al., 2008). Procrastination can result in delayed work, prolonged stress, decreased academic performance, and dissatisfaction with learning outcomes (Niazov et al., 2022).

Procrastination hinders achieving optimal performance, prompting the development and evaluation of academic interventions to mitigate its prevalence in educational settings (Goroshit, 2018). At certain levels, academic procrastination can significantly impair students' academic performance (Wicaksono, 2017), leading to adverse outcomes like anxiety, stress, reduced self-motivation, fear of failure, diminished academic self-esteem, and compromised learning efficacy (Christanti & Anwar, 2019). Feelings of anxiety, frustration, and self-dissatisfaction frequently emerge due to procrastination, potentially exerting a detrimental influence on students' emotional well-being (Bu et al., 2021). Research conducted by Patrzek, Sattler, van Veen Grunschel, & Fries indicates that academic procrastination correlates with various forms of academic misconduct, including plagiarism, cheating in exams, using prohibited resources during exams, copying homework sections from others, and falsifying data (Patrzek et al., 2015). Academic procrastination has also been associated with adverse outcomes such as diminished affective well-being (Balkis & Duru, 2016; Krause & Freund, 2014), engagement in cheating behaviors (Patrzek et al., 2015), task accumulation, or the necessity to repeat learning tasks (Grunschel et al., 2013), lower academic performance (Kim & Seo, 2015), and an inclination to drop out of school (Scheunemann et al., 2021).

The issue of procrastination remains a topic of ongoing debate. While one group suggests that procrastination in learning can offer students opportunities to utilize their learning time effectively (Chu & Choi, 2015), another group argues that procrastination can lead to adverse effects (Ojo, 2019). Choi and Moran introduce the concept of active procrastination, characterized by four distinct traits. Specifically, individuals who actively procrastinate 1) favor time pressure and 2) intentionally delay tasks. Moreover, they 3) can meet deadlines and 4) are content with the outcomes (Chu & Choi, 2015). Academic procrastination is a multifaceted issue influenced by various factors. Despite abundant research and theory, a universal solution has yet to exist. Effective interventions typically require a detailed comprehension of the specific causes of procrastination and the application of tailored strategies to tackle the issue.

Procrastination has been explored from two perspectives: a) as an avoidance behavior manifesting as task postponement following a specific task; b) as a personality trait characterized by a persistent and pervasive pattern where procrastination and avoidance are typical responses across various situations (Schouwenburg, 2004). Deficiencies in self-regulation serve as critical predictors of procrastination. Procrastination manifests as a discrepancy between intentions and actions, leading individuals to postpone their initial plans (Talask & Carvalho, 2017). Strategies involving stimulus control, emotional regulation, cognitive restructuring, and behavioral activation are deemed crucial in addressing issues related to procrastination (Talask & Carvalho, 2017).

While academic procrastination should be avoided, numerous studies have highlighted its prevalence among university students. Nitami's study 2015 revealed that students' preference for completing assignments on campus often leads to delayed submissions, causing disruptions to their peers' work (Nitami et al., 2015). Academic challenges, including procrastination, arise when students encounter difficulties during their academic pursuits (Putri et al., 2022). Additionally, Erfan's research pointed out instances of academic procrastination, particularly in delaying thesis work, impacting students' educational progress (Ramadhani et al., 2018). Academic procrastination is frequently linked to time constraints and pressure, resulting in delays in coursework completion and potentially affecting academic advancement (Bendicho et al., 2017). Moreover, a study at an Indonesian university found that 55.1% of respondents experienced academic procrastination (Daryani et al., 2021). A study revealed 29.25% of university students exhibit academic procrastination (almost always or permanently). Furthermore, 47.9% of students reported that experiencing academic procrastination at a moderate level had led to numerous challenges for them (Hayat et al., 2020). The results indicated that nearly 80% of students exhibit procrastination to different extents, with half consistently procrastinating due to inadequate time management skills, insufficient planning for academic tasks, laziness, and stress (Fentaw et al., 2022).

As highlighted by various researchers (Amir, 2016; Margareta & Wahyudin, 2019; Zacks & Hen, 2018), awareness in learning refers to an individual's capacity to recognize their emotions and utilize them in decision-making processes (Suparno, 2017). This

awareness also encompasses understanding one's true abilities and their application in the learning process, influencing academic outcomes (Lomu & Widodo, 2018; Meditamar et al., 2022; Prakoso & Daiman, 2023). Awareness in learning encompasses the understanding individuals develop regarding their learning process. This involves grasping learning objectives, monitoring progress, identifying effective learning strategies, and acknowledging challenges and obstacles encountered during learning. Awareness of learning empowers individuals to self-regulate, allocate time efficiently, and enhance the overall quality of their learning experience (Perry et al., 2019). Individuals with a heightened awareness of learning tend to actively engage in their academic endeavors, leading to enhanced comprehension and improved results (Lomu & Widodo, 2018). Furthermore, Saraswati (2017) notes that individuals with lower academic procrastination typically exhibit higher levels of learning awareness, leading to life satisfaction and academic achievements. Enhanced learning awareness prompts students to acknowledge their responsibilities and actively engage with their academic duties (Jauhar et al., 2023). High levels of learning awareness can counteract procrastination tendencies (Hikmah et al., 2023). Nisa et al (2019) further suggest that factors like anxiety, fear, and self-confidence levels influence academic procrastination.

Another factor that affects academic procrastination is self-management (Ardini, 2017; Mulyadi et al., 2017; Nisa et al., 2019). Self-management involves organizing various aspects of life efficiently (Ardini, 2017) and refers to the capacity of individuals to regulate their thoughts, emotions, and actions to achieve specific goals, particularly in the context of learning (Amir, 2016). Self-management is the capacity of individuals to organize and oversee various aspects of their lives, encompassing emotions, goals, and actions, to attain heightened efficiency, productivity, and well-being. Self-management entails self-monitoring, efficient planning, prioritization, and the capability to surmount challenges and maximize personal potential (Erhard et al., 2022). This skill is crucial for students, as effective self-management enables efficient task completion and the attainment of satisfactory grades (Sujadi, 2021). Siregar et al (2022) found self-management significantly impacts academic procrastination, particularly when completing college assignments. Welindasari & Astuti (2022) also demonstrated that self-management techniques effectively reduce academic procrastination among students. The Impact of self-management on academic procrastination can be substantial. Proficient self-management skills, including goal setting, time management, prioritization, and task organization, can assist students in addressing procrastination by fostering discipline, focus, and timely completion of academic tasks. Enhancing self-management enables individuals to regulate their behavior better, diminish procrastination tendencies, and enhance overall academic performance (Hailikari et al., 2021).

Based on this literature, this study aims to analyze the Impact of learning awareness and self-management on academic procrastination. Although the literature has identified the relationship between academic procrastination and factors such as learning awareness and self-management, some gaps warrant further exploration. Understanding how learning

awareness and self-management levels collectively influence academic procrastination among tertiary students is essential. Prior studies have often examined these factors in isolation; doing research that simultaneously investigates their Impact is crucial for providing comprehensive insights. Moreover, while some studies have underscored the significance of learning awareness and self-management in mitigating academic procrastination, a more thorough analysis is necessary to elucidate the mechanisms through which these factors distinctly impact academic procrastination behavior. Through this nuanced approach, research can delve deeper into how the interplay between learning awareness and self-management shapes tendencies of academic procrastination among university students. The findings are expected to provide universities with a basis for designing prevention and intervention programs for students experiencing academic procrastination.

B. Method

This study employs a correlational method, which facilitates researchers' assessment of the degree of association between specific variables. Data collection took place over two weeks in March 2024. The study population comprised students from the Kerinci State Islamic Institute of Jambi province, spanning the class years 2019-2023. Through convenience sampling, 134 students participated by completing an online questionnaire. The characteristics of the respondents are detailed in Table 1.

Table 1. Characteristics of Respondents

Variables	Category	Frequency	Percentage
Sex	Male	63	47.01
	Female	71	52.98
Cohort/Semester	2023/II	12	8.95
	2022/IV	40	29.85
	2021/VI	63	47.01
	2020/VIII	15	11.19
	2019/X	4	2.98
Cumulative Grade Point Average (GPA)	<3.5	76	56.72
	>3.5	58	43.28

The sample comprised 63 male (47.01%) and 71 female (52.98%) students. The distribution across cohorts was as follows: 8.95% were in their second semester (2023/II), 29.85% in their fourth semester (2022/IV), 47.01% in their sixth semester (2021/VI), 11.19% in their eighth semester (2020/VIII), and 2.98% in their tenth semester (2019/X). Regarding academic performance, 56.72% of the students had a GPA below 3.5, while 43.28% had a GPA above 3.5.

Various research scales are utilized for data collection. The scale used to measure academic procrastination among students was adapted from the Academic Procrastination

Scale developed by Tuckman (1991). This scale consists of 16 items, with several statements modified to suit the context of students delaying assigned activities or tasks. The reliability of the 16-item scale was calculated to be 0.86. Choy, Goh, and Sedhu developed the Learning Awareness Scale to measure students' learning awareness. This scale consists of 20 statements covering four factors related to levels of learning awareness. The reliability for each factor was 0.78 for the persistence dimension, 0.75 for the building stability dimension, 0.60 for the approval dimension, and 0.77 for the love of learning dimension (Choy et al., 2016). The Self-Management Scale, developed by Xue and Sun, was used to measure student self-management. This scale consists of a two-factor model with 21 items. The Cronbach's alpha coefficients for the two subscales were 0.90 and 0.83, respectively (Xue & Sun, 2011).

Data analysis in this study utilized descriptive statistics, including mean, standard deviation, and percentage, to determine the respondents' achievement on each variable. Descriptive Statistics is a statistical technique employed to analyze and present data concisely and informatively. Its objective is to depict the collected data without drawing inferences or conclusions about the broader population. Hypothesis testing was conducted using simple and multiple regression techniques. To ensure the data met the requirements for parametric statistical testing, classical assumption tests were performed, including normality, linearity, multicollinearity, and heteroscedasticity assessments. These analyses were conducted using the SPSS version 25.00 software.

There are multiple stages in this study. The initial step in quantitative research is to identify and define the problem or research question to be addressed. This entails selecting a relevant and significant topic and establishing clear research objectives. Subsequently, after defining the research problem, the next stage is to conduct a literature review, entailing the exploration and analysis of prior research pertinent to the subject. Drawing from the literature review, the researcher then formulates a testable hypothesis. The subsequent phase involves selecting the research method and implementing the planning and organization of the research process. Following this, data collection is undertaken systematically and consistently to ensure the accuracy and validity of the acquired data. After data collection, the next step involves analyzing the data utilizing descriptive and inferential statistics. Once the data analysis is completed, the researcher interprets the results, elucidating the findings based on statistical analysis and ascertaining whether the results corroborate the initial hypothesis. Following data analysis, the researcher summarizes the study results and concludes whether the data supports the formulated hypothesis. Finally, the researcher compiles a report encompassing the methodology, results, and conclusion.

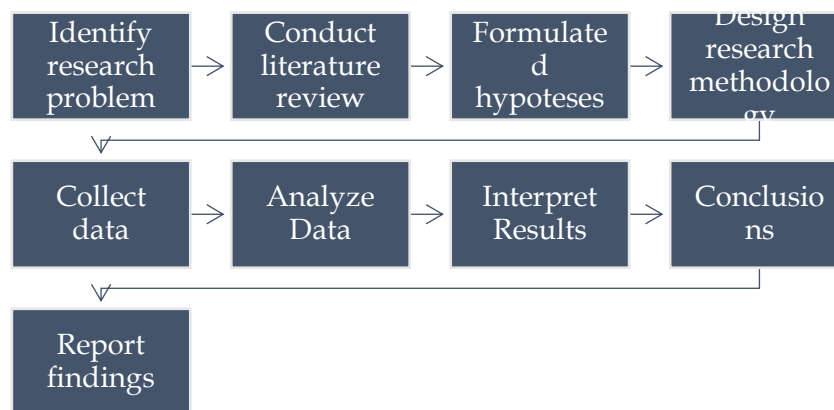


Figure 1. Research Flow

C. Result and Discussion

Result

Descriptive analysis is used to statistically summarize and describe data to facilitate understanding of the essential characteristics of the observed data. The aim is to present clear and concise information about the data's pattern, distribution, and nature. Table 2 illustrates the results of the descriptive analysis. For the variable of learning awareness, an average score of 58.07 and a standard deviation of 8.09 were obtained, categorizing it as moderate. Most respondents fell into the moderate category, followed by low, high, very low, and very high categories. Respondents were also categorized as moderate in the self-management variable, with an average score of 63.57. Most respondents were in the moderate category, though some exhibited low and even deficient levels of self-management. The academic procrastination variable was categorized as low overall. However, the frequency distribution showed that some students were still categorized as high in academic procrastination.

Table 2. Descriptive Analysis

Variables	Mean (SD)	Category				
		Very Low	Low	Moderate	High	Very High
Learning Awareness	58.07 (8.09)	2 (1.49)	22 (16.41)	99 (73.88)	11 (8.20)	0 (0.00)
Self-Management	63.57 (8.51)	1 (0.74)	17 (12.68)	98 (73.13)	18 (13.43)	0 (0.00)
Academic Procrastination	37.55 (10.22)	25 (18.65)	64 (47.76)	39 (29.10)	6 (4.47)	0 (0.00)

Before testing the hypothesis, the analysis requirements were assessed to ensure that the data were normally distributed and that there was no multicollinearity or

heteroscedasticity. Table 3 illustrates the results of these tests. For normality testing, the significance value for the learning awareness variable was 0.102, the self-management variable was 0.200, and the academic procrastination variable was 0.083, indicating that all data tested were usually distributed. The VIF value is 1.332, less than 10 for multicollinearity testing, and indicates no multicollinearity between variables. Furthermore, heteroscedasticity testing showed significance values of 0.994 for the learning awareness variable and 0.526 for the self-management variable, indicating no heteroscedasticity.

Table 3. Classical Assumption

Classical Assumption	Sig.	Decision
Normality testing	0.102>0.05	Normal
Multicollinearity	1.332*	No multicollinearity
Heteroscedasticity Testing for Learning Awareness	0.994**	No heteroscedasticity
Heteroscedasticity Testing for Self-Management	0.526**	No heteroscedasticity

Based on Table 3, all analysis requirements have been met. Furthermore, Table 4 presents the regression analysis of the Impact of awareness in learning on academic procrastination. The calculated t-value is -2.108, with a significance value of 0.024, indicating a significant effect of awareness in learning on academic procrastination.

Table 4. Simple Regression Testing of Awareness in Learning on Academic Procrastination

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	38.245	6.446		7.933	.000
Learning Awareness	-.212	.110	-.209	-2.108	.024

The second hypothesis tested in this study is whether self-management academic procrastination, which was also assessed using a simple regression test. Table 5 displays the obtained t-value of -2.525 with a significance value of 0.013. Thus, self-management has a significant effect on academic procrastination.

Table 5. Simple Regression Testing of Self-Management on Academic Procrastination

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	53.927	6.543		8.242	.000
Self-management	-.258	.102	-.215	-2.525	.013

The next step is to use multiple regression analysis to examine the simultaneous effect of awareness in learning and self-management on academic procrastination. Table 6 presents the results of this analysis.

Table 6. Results of Multiple Regression Analysis of Awareness in Learning and Self-Management on Academic Procrastination

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	822.182	2	411.091	4.092	.019 ^b
	Residual	13160.952	131	100.465		
	Total	13983.134	133			

Based on Table 6, the F value is 4.092, with a significance level of 0.019. Consequently, the hypothesis is accepted, indicating a significant regression coefficient. Based on the calculations in the table above, there is a simultaneous influence between awareness in learning and self-management on academic procrastination.

Discussion

Academic procrastination, a common issue characterized by task delays perceived as unpleasant, encompasses cognitive, affective, and behavioral aspects, both intentional and unintentional, despite awareness of potential adverse outcomes (Karatas, 2015). This habit can lead to a waste of time, diminished academic performance, and heightened stress levels (Beheshtifar et al., 2011), posing challenges in the academic realm that can detrimentally impact both academic achievements and physical well-being (Glick & Orsillo, 2015). Procrastination can impede the cultivation of crucial time management skills necessary for academic and professional achievements. Chronic task postponement can lead to the formation of detrimental habits that are challenging to modify, impacting an individual's capacity to effectively plan and oversee their time (Ocak & Boyraz, 2016). Academic procrastination not only affects academic and career outcomes but also exerts significant adverse effects on social relationships. Individuals who habitually procrastinate may avoid social interactions with friends or family due to embarrassment or anxiety related to unfinished tasks, thereby diminishing the social support they could receive (Irwansyah et al., 2022).

While most students exhibit low levels of academic procrastination, a minority struggle with higher levels. Academic procrastination, a common practice among students, delays project completion, activities, or assignments, correlating with lower academic grades, reduced well-being, and increased stress levels. Research by Ozer & Saçkes (2011) indicated that 38% of students frequently admitted to procrastination, with male students reporting higher rates than females. Similarly, Bytamar et al (2017) found that 63% of students procrastinated academically. Patrzek's study highlighted academic procrastination as a factor influencing significant academic violations (Patrzek et al., 2015). Other research findings indicate that students frequently procrastinate regarding tasks like exam

preparation and assignment completion. Procrastination is often driven by fear of failure, low motivation, inadequate time management, and social anxiety. When a task is perceived as dull and uninteresting, students lack the motivation to commence, often due to fears of failure, feelings of inadequacy, and peer pressure (Ahmed et al., 2023).

Hypothesis testing underscores the Impact of learning awareness on academic procrastination. Soumilena et al (2023) established a significant correlation between college students' learning awareness levels and academic procrastination. Inadequate learning awareness can lead to perceiving learning activities as burdensome, fostering procrastination (Svardal et al., 2022). The study by Habibi et al. showcased a significant inverse relationship between learning awareness and academic procrastination, demonstrating that higher self-regulation in learning corresponds to lower levels of procrastination in students (Habibi et al., 2022). Moreover, Kholifah et al (2020) found a substantial negative correlation between learning awareness and academic procrastination, indicating that higher awareness is associated with lower procrastination levels. Wong's research emphasized the positive Impact of high learning awareness and low procrastination tendencies on academic learning (Wong, 2012). Self-efficacy, self-control, social media usage intensity, and self-regulated learning have also been linked to academic procrastination among college students (Wulandari et al., 2020).

Learning awareness refers to an individual's capacity to comprehend and acknowledge their process proficiently (Boğar, 2018). Within academic procrastination, learning awareness plays a pivotal role in mitigating the inclination to defer academic responsibilities. Students characterized by a heightened learning awareness exhibit a more extraordinary cognizance regarding the significance of adeptly managing, establishing clear learning objectives, and routinely monitoring their educational pursuits (Karaali, 2015) – the learning awareness on academic procrastination through various mechanisms. Individuals possessing robust study awareness are primarily inclined towards more efficient task planning, judicious time allocation, and the circumvention of gratuitous procrastination. Furthermore, study awareness facilitates the identification and surmounting of psychological issues like the fear of failure, shame, and anxiety, which can precipitate procrastination.

Moreover, learning awareness fosters intrinsic motivation among students to complete academics (Kilis & Yildırım, 2018; Williamson, 2015). Students with heightened learning awareness will likely be driven to surmount and eschew deleterious procrastinatory tendencies by grasping the value of learning and advancement. Consequently, nurturing a learning awareness is a tenacious strategy for curtailing the prevalence of academic procrastination among university students (Zhou et al., 2022).

Further hypothesis testing results reveal a correlation between self-management and academic procrastination. Enhanced self-management skills correspond to a reduced likelihood of academic procrastination. Putri et al (2021) study demonstrated that group counseling incorporating cognitive restructuring and self-management techniques effectively decreased academic procrastination. Similarly, research by Suryani & Purbandari

(2020) concluded that self-management impacts academic procrastination levels in college students. [Ardini \(2017\)](#) study also identified a negative correlation between self-management and academic procrastination.

Additionally, Dinda et al. found that implementing self-management techniques could alter academic procrastination behaviors in college students ([Dinda et al., 2023](#)). Effective time management was highlighted as crucial in mitigating academic procrastination by aiding individuals in organizing activities efficiently ([Himmah & Shofiah, 2021](#)). The study underscores the significance of the relationship between self-regulation and academic procrastination, revealing that effective self-regulation can assist individuals in time management and enhancing productivity in academic and daily endeavors ([Febritama & Sanjaya, 2018](#)).

Self-management refers to individuals' capacity to regulate and control their daily behaviors and decisions to achieve predetermined goals ([Hawe et al., 2019](#)). Within academia, self-management plays a crucial role in diminishing academic procrastination levels ([Hailikari et al., 2021](#)). The Impact of self-management on academic procrastination can be elucidated through several pertinent and substantial facets. Primarily, effective self-management hinges on time management, wherein students proficient in time allocation can better structure their academic endeavors ([Ocak & Boyraz, 2016](#)). Students can alleviate anxiety by prioritizing tasks and managing efficiently, a common catalyst for academic procrastination.

Moreover, emotional regulation also contributes to overcoming academic procrastination ([Eckert et al., 2016](#)). Proficiency in handling stress, anxiety, and negative emotions enables students to confront academic hurdles with composure and focus ([Sirois, 2023](#); [Sujadi, 2022](#)). Cultivating emotional awareness and coping skills can mitigate tendencies to evade challenging tasks or defer complex academic duties ([Pychyl & Sirois, 2016](#)). In essence, self-management significantly influences the resolution of academic procrastination. By honing skills in time management, emotional intelligence, motivation, and self-assessment, students can procrastinate tendencies, enhance productivity in academic, and bolster their outcomes.

This study has some limitations. It solely explores the direct Impact of learning awareness and self-management on academic procrastination. Future research could develop a more intricate structural model incorporating several predicted variables with direct or intervening effects. The study sample included only 134 students, suggesting a need to broaden the respondent pool for comprehensive insights in future investigations. Furthermore, academic procrastination measurement relied solely on self-assessment, potentially introducing bias. Employing more comprehensive assessment methods for students experiencing academic procrastination would enhance the study's validity and reliability.

D. Conclusion

Academic procrastination among college students manifests as a tendency to delay academic tasks such as assignments, studies, and projects, potentially impeding academic performance and overall well-being. This behavior is prevalent among college students. Descriptive findings indicate that academic procrastination is predominantly low, with awareness of learning and self-management falling within the moderate range. The study identifies a partial influence of awareness in learning and self-management on academic procrastination. Moreover, multiple regression analysis underscores a significant impact of awareness in learning and self-management on student academic procrastination.

This research holds significant implications, particularly in addressing academic procrastination among students. While students transition into adulthood, parental involvement in their academic journey remains crucial. Building robust communication channels between parents and children is recommended. Educational institutions may consider incorporating targeted skills training to enhance mindfulness in learning and self-management within their curriculum or student support initiatives. By offering a systematic framework for skill development, students can acquire effective time management, priority setting, and heightened awareness of their learning journey. Institutions could also raise awareness about academic procrastination among students and provide tailored support, including counseling services, coaching programs, or other resources to help students address procrastination issues and enhance their academic achievements.

Recognizing the significant partial Impact of learning awareness and self-management on academic procrastination, researchers can develop intervention programs that enhance these skills to assist students in mitigating procrastination tendencies. Interventions aimed at enhancing learning awareness and self-management abilities may aid in decreasing the prevalence of academic procrastination among university students. These findings are a robust basis for future research endeavors to enhance comprehension of the interplay among mindfulness in learning, self-management, and academic procrastination. Subsequent studies could explore additional factors influencing academic procrastination and further elucidate how these variables interact.

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References

- Ahmed, I., Bernhardt, G. V., & Shivappa, P. (2023). Prevalence of Academic Procrastination and Its Negative Impact on Students. *Biomedical and Biotechnology Research Journal (BBRJ)*, 7(3), 363-370. https://doi.org/10.4103/bbrj.bbrj_64_23
- Amir, H. (2016). Korelasi Pengaruh Faktor Efikasi Diri dan Manajemen Diri terhadap Motivasi Berprestasi pada Mahasiswa Pendidikan Kimia Universitas Bengkulu. *Manajer Pendidikan*, 10(4), 336-342. <https://doi.org/10.33369/mapen.v10i4.1277>
- Ardini, D. (2017). Hubungan Manajemen Diri dan Orientasi Masa Depan dengan Prokrastinasi Akademik pada Mahasiswa Aktif Kuliah dan Organisasi. *Psikoborneo: Jurnal Ilmiah Psikologi*, 5(4), 510-520. <https://doi.org/10.30872/psikoborneo.v5i4.4469>
- Putri, A. A., Susilawati, N., Wisanggeni, R. A. S., & Makhmudah, U. (2022). Application of Group Counseling in Effort to Reduce Academic Procrastination for Senior High School/Vocational High School: A Systematic Literature Review (SLR). In *Social, Humanities, and Educational Studies (SHES): Conference Series*, 5(2), 439-450. <https://doi.org/10.20961/shes.v5i2.59377>
- Balkis, M., & Duru, E. (2016). Procrastination, Self-Regulation Failure, Academic Life Satisfaction, and Affective Well-Being: Underregulation or Misregulation Form. *European Journal of Psychology of Education*, 31(3), 439-459. <https://doi.org/10.1007/s10212-015-0266-5>
- Beheshtifar, M., Hoseinifar, H., & Moghadam, M. N. (2011). Effect Procrastination on Work-Related Stress. *European Journal of Economics, Finance and Administrative Sciences*, 38(38), 59-64.
- Bendicho, P. F., Mora, C. E., Añorbe-Díaz, B., & Rivero-Rodríguez, P. (2017). Effect On Academic Procrastination After Introducing Augmented Reality. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(2), 319-330. <https://doi.org/10.12973/eurasia.2017.00618a>
- Boğar, Y. (2018). Literature Review on Metacognition and Metacognitive Awareness. *Anadolu Öğretmen Dergisi*, 2(2), 136-168.
- Bu, X., Wu, L., & Wang, H. (2021). Impact of College Students' Academic Procrastination on Subjective Well-Being. *Social Behavior and Personality: An International Journal*, 49, 1-13. <https://doi.org/10.2224/sbp.9858>
- Bytamar, M. J., Zenoozian, S., Dadashi, M., Saed, O., Hemmat, A., & Mohammadi, G. (2017). Prevalence of Academic Procrastination and Its Association with Metacognitive Beliefs in Zanzan University of Medical Sciences, Iran. *Journal of Medical Education Development*, 10(27), 84-97. <https://doi.org/10.29252/edcj.10.27.84>
- Choy, S. C., Goh, P. S. C., & Sedhu, D. S. (2016). How and Why Students Learn: Development and Validation of the Learner Awareness Levels Questionnaire for Higher Education

- Students. *International Journal of Teaching and Learning in Higher Education*, 28(1), 94–101.
- Christanti, Y. D., & Anwar, R. N. (2019). Relationship of Academic Procrastination with Intelligence of Milenial Spiritual Generation. *Jurnal Pedagogik*, 06(01), 31–65.
- Chu, A. H. C., & Choi, J. N. (2015). Rethinking Procrastination: Positive Effects of “Active” Procrastination Behavior on Attitudes and Performance. *The Journal of Social Psychology*, 145(3), 245–264. <https://doi.org/10.3200/SOCP.145.3.245-264>
- Daryani, P. D., Nugrahayu, E. Y., & Sulistiawati, S. (2021). The Prevalence of Academic Procrastination Among Students at Medicine Faculty Mulawarman University. *Jurnal Ilmu Kesehatan*, 9(2), 118–126. <https://doi.org/10.30650/jik.v9i2.3109>
- Dinda, I., Wibowo, P., & Winingsih, E. (2023). Implementation of Self-Monitoring Strategy Of Self-Management Technique to Reduce Academic Procrastination. *The 1ST International Conference on Guidance and Counseling*, 1(1), 150–157.
- Eckert, M., Ebert, D. D., Lehr, D., Sieland, B., & Berking, M. (2016). Overcome Procrastination: Enhancing Emotion Regulation Skills Reduce Procrastination. *Learning and Individual Differences*, 52, 10–18. <https://doi.org/https://doi.org/10.1016/j.lindif.2016.10.001>
- Eisenbeck, N., Carreno, D. F., & Uclés-Juárez, R. (2019). From Psychological Distress to Academic Procrastination: Exploring the Role of Psychological Inflexibility. *Journal of Contextual Behavioral Science*, 13, 103–108. <https://doi.org/10.1016/j.jcbs.2019.07.007>
- Putri, M. E., Eddy Wibowo, M., & Sugiyo, S. (2021). The Effectiveness of Group Counseling With Cognitive Restructuring and Self-Management Techniques to Reduce Academic Procrastination. *Jurnal Bimbingan Konseling*, 10(1), 29–35. <https://doi.org/10.15294/jubk.v9i1.45284>
- Ramadhani, E., Putri, R. D., & Istiqoma, V. A. (2018). Effectiveness of Information Services to Reduce Student Academic Procrastination in Working Thesis (Experiment Study On Student Of Guidance And Counseling universitas PGRI Palembang). *Jurnal Dosen Universitas PGRI Palembang*.
- Erhard, P., Wong, T., Barnett, M., Falcomata, T. S., & Lang, R. (2022). Self-Management Skills and Applied Behavior Analysis. In *Handbook Of Autism And Pervasive Developmental Disorder: Assessment, Diagnosis, and Treatment*, 957-973. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-88538-0_41
- Febritama, S., & Sanjaya, E. L. (2018). Hubungan Antara Regulasi Diri dengan Perilaku Prokastinasi Akademik pada Mahasiswa. *Jurnal Ecopsy*, 5(2), 94. <https://doi.org/10.20527/ecopsy.v5i2.5178>
- Fentaw, Y., Moges, B. T., & Ismail, S. M. (2022). Academic Procrastination Behavior among Public University Students. *Education Research International*, 2022, 1–8. <https://doi.org/10.1155/2022/1277866>

- Glick, D. M., & Orsillo, S. M. (2015). An Investigation of the Efficacy of Acceptance-Based Behavioral Therapy for Academic Procrastination. *Journal of Experimental Psychology: General*, 144(2), 400–409. <https://doi.org/10.1037/xge0000050>
- Goroshit, M. (2018). Academic Procrastination and Academic Performance: An Initial Basis for Intervention. *Journal of Prevention & Intervention in the Community*, 46(2), 131–142. <https://doi.org/10.1080/10852352.2016.1198157>
- Grunschel, C., Patrzek, J., & Fries, S. (2013). Exploring Reasons and Consequences of Academic Procrastination: An Interview Study. *European Journal of Psychology of Education*, 28(3), 841–861. <https://doi.org/10.1007/s10212-012-0143-4>
- Habibi, N., Hariastuti, R., & Rusijono, R. (2022). High School Students' Self-Regulated Learning and Academic Procrastination Level in Blended Learning Model: A Correlation Analysis. In *Proceedings of the Eighth Southeast Asia Design Research (SEA-DR) & the Second Science, Technology, Education, Arts, Culture, and Humanity (STEACH) International Conference (SEADR-STEACH 2021)*, 627, 311–316. <https://doi.org/10.2991/assehr.k.211229.048>
- Hailikari, T., Katajavuori, N., & Asikainen, H. (2021). Understanding Procrastination: A case of a Study Skills Course. *Social Psychology of Education*, 24(2), 589–606. <https://doi.org/10.1007/s11218-021-09621-2>
- Hawe, E., Lightfoot, U., & Dixon, H. (2019). First-Year Students Working with Exemplars: Promoting Self-Efficacy, Self-Monitoring and Self-Regulation. *Journal of Further and Higher Education*, 43(1), 30–44. <https://doi.org/10.1080/0309877X.2017.1349894>
- Hayat, A. A., Jahanian, M., Bazrafcan, L., & Shokrpour, N. (2020). Prevalence of Academic Procrastination Among Medical Students and its Relationship with Their Academic Achievement. *Shiraz E Medical Journal*, 21(7), 1–7. <https://doi.org/10.5812/semj.96049>
- Hen, M., & Goroshit, M. (2020). The Effects Of Decisional And Academic Procrastination On Students' Feelings Toward Academic Procrastination. *Current Psychology*, 39(2), 556–563. <https://doi.org/10.1007/s12144-017-9777-3>
- Hidayati, N., Universitas, F. P., & Pauruan, Y. (2019). Flow Akademik dan Prokrastinasi Akademik Lailatuzzahro Al-Akhda Aulia 2). *Jurnal Psikologi*, 6(2), 128–144.
- Hikmah, A. N., Matulesy, A., & Suhadianto, S. (2023). Mindfulness dengan Prokrastinasi Akademik Siswa Madrasah Tsanawiyah. *SUKMA : Jurnal Penelitian Psikologi*, 3(2), 157–166. <https://doi.org/10.30996/sukma.v3i2.7736>
- Himmah, A. F., & Shofiah, N. (2021). Pengaruh Self Efficacy dan Manajemen Waktu terhadap Stres Akademik Pada Siswa. *Journal of Indonesian Psychological Science (Jips)*, 1(01). <https://doi.org/10.18860/jips.v1i01.14920>
- Irwansyah, M. R., Meitriana, M. A., & Istiqomah, N. (2022). Exploring Student Academic Procrastination Based on Time Management, Social Support and Self-Efficacy. In

Proceedings of the 4th International Conference on Innovative Research Across Disciplines (ICIRAD 2021), 613(ICIRAD), 126–131. <https://doi.org/10.2991/assehr.k.211222.019>

- Jauhar, S., Kadir, A. A., & Adha, A. R. N. (2023). Hubungan antara Kesadaran Diri dan Kedisiplinan Belajar: Studi Korelasi pada Siswa Kelas V SD. *JPPSD: Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 2(3), 246. <https://doi.org/10.26858/pjppsd.v2i3.35140>
- Karaali, G. (2015). Metacognition in the Classroom: Motivation and Self-Awareness of Mathematics Learners. *PRIMUS*, 25(5), 439–452. <https://doi.org/10.1080/10511970.2015.1027837>
- Karatas, H. (2015). Correlation Among Academic Procrastination, Personality Traits, and Academic Achievement. *Anthropologist*, 20(1–2), 243–255.
- Kartadinata, I., & Tjundjing, S. (2008). Prokrastinasi Akademik dan Manajemen Waktu. *Indonesian Psychological Journal*, 23(2), 109–119.
- Kholifah, N., Yohana, C., & Fidyallah, N. F. (2020). the Effect of Learning Motivation and Self-Efficacy on Academic Procrastination of Class XI at Smkn 14 Jakarta. *Junal Pendidikan Ekonomi, Perkantoran, dan Akuntansi*, 7(4), 120–128.
- Kilis, S., & Yıldırım, Z. (2018). Investigation of a Community of Inquiry Framework in Regard to Self-Regulation, Metacognition, and Motivation. *Computers & Education*, 126, 53–64. <https://doi.org/https://doi.org/10.1016/j.compedu.2018.06.032>
- Kim, K. R., & Seo, E. H. (2015). The Relationship Between Procrastination and Academic Performance: A Meta-Analysis. *Personality and Individual Differences*, 82, 26–33. <https://doi.org/https://doi.org/10.1016/j.paid.2015.02.038>
- Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic Procrastination Of Undergraduates: Low Self-Efficacy to Self-Regulate Predicts Higher Levels of Procrastination. *Contemporary Educational Psychology*, 33(4), 915–931. <https://doi.org/10.1016/j.cedpsych.2007.07.001>
- Krause, K., & Freund, A. M. (2014). Delay or Procrastination – A Comparison of Self-Report and Behavioral Measures of Procrastination and Their Impact on Affective Well-Being. *Personality and Individual Differences*, 63, 75–80. <https://doi.org/https://doi.org/10.1016/j.paid.2014.01.050>
- Lomu, L., & Widodo, S. A. (2018). Pengaruh Motivasi Belajar dan Disiplin Belajar terhadap Prestasi Belajar Matematika Siswa. In *Prosiding Seminar Nasional Pendidikan Matematika Etnomatnesia*, 0(0), 745–751.
- Margareta, R. S., & Wahyudin, A. (2019). Pengaruh Motivasi Belajar, Perfeksionisme dan Keaktifan Berorganisasi terhadap Prokrastinasi Akademik dengan Regulasi Diri Sebagai Variabel Moderating. *Economic Education Analysis Journal*, 8(1), 18–23.

- Meditamar, M., Sujadi, E., Putra, E., & Wisnarni, W. (2022). Kesiapan Mahasiswa Pendidikan Guru untuk Menyelenggarakan Proses Pembelajaran Online. *SAP (Susunan Artikel Pendidikan)*, 7. <https://doi.org/10.30998/sap.v7i1.11907>
- Muliyadi, M., Yasdar, M., & Sulaiman, F. (2017). Penerapan Teknik Manajemen Diri Dapat Mengurangi Kebiasaan Prokrastinasi Akademik Mahasiswa STKIP Muhammadiyah Enrekang. *Edumaspul: Jurnal Pendidikan*, 1(2), 92–103. <https://doi.org/10.33487/edumaspul.v1i2.43>
- Niazov, Z., Hen, M., & Ferrari, J. R. (2022). Online and Academic Procrastination in Students With Learning Disabilities: The Impact of Academic Stress and Self-Efficacy. *Psychological Reports*, 125(2), 890–912. <https://doi.org/10.1177/0033294120988113>
- Nisa, N. K., Mukhlis, H., Wahyudi, D. A., & Putri, R. H. (2019). Manajemen Waktu dengan Prokrastinasi Akademik Pada Mahasiswa Keperawatan. *Journal of Psychological Perspective*, 1(1), 29–34. <https://doi.org/10.47679/jopp.1172019>
- Nitami, M., Daharnis, D., & Yusri, Y. (2015). Hubungan Motivasi Belajar dengan Prokrastinasi Akademik Siswa. *Konselor*, 4(1), 1–1. <https://doi.org/10.24036/02015416449-0-00>
- Ocak, G., & Boyraz, S. (2016). Examination of the Relation between Academic Procrastination and Time Management Skills of Undergraduate Students in Terms of Some Variables. *Journal of Education and Training Studies*, 4(5), 76–84. <https://doi.org/10.11114/jets.v4i5.1313>
- Ojo, A. A. (2019). The Impact of Procrastination on Students Academic Performance in Secondary Schools. *International Journal of Sociology and Anthropology Research*, 5(1), 17–22.
- Onwuegbuzie, A. J., & Jiao, Q. G. (2000). I'll Go to the Library Later: The Relationship Between Academic Procrastination and Library Anxiety. *College and Research Libraries*, 61(1), 45–54. <https://doi.org/10.5860/crl.61.1.45>
- Ozer, B. U., & Saçkes, M. (2011). Effects of Academic Procrastination On College Students' Life Satisfaction. *Procedia - Social and Behavioral Sciences*, 12, 512–519. <https://doi.org/10.1016/j.sbspro.2011.02.063>
- Patrzek, J., Sattler, S., van Veen, F., Grunschel, C., & Fries, S. (2015). Investigating the Effect of Academic Procrastination on the Frequency and Variety of Academic Misconduct: A Panel Study. *Studies in Higher Education*, 40(6), 1014–1029. <https://doi.org/10.1080/03075079.2013.854765>
- Perry, J., Lundie, D., & Golder, G. (2019). Metacognition in Schools: What does the Literature Suggest about the Effectiveness of Teaching Metacognition in Schools? *Educational Review*, 71(4), 483–500. <https://doi.org/10.1080/00131911.2018.1441127>
- Pychyl, T. A., & Sirois, F. M. (2016). Chapter 8 - Procrastination, Emotion Regulation, and Well-Being. In F. M. Sirois & T. A. B. T.-P. *Psychyl Health, and Well-Being (Eds.)*,

- Procrastination, Health, and Well-Being*, 163-188. Academic Press.
<https://doi.org/10.1016/B978-0-12-802862-9.00008-6>
- Prakoso, F. B., & Daliman, S. U. (2023). *Hubungan Kesadaran Diri Dan Dukungan Orang Tua Dengan Prokrastinasi Akademik Mahasiswa Tingkat Akhir*. Undergraduated Thesis. Universitas Muhammadiyah Surakarta.
- Suryani, R., & Purbandari, Y. (2020). Penerapan Pembelajaran Daring, Manajemen Waktu, dan Orientasi Masa Depan terhadap Prokrastinasi Akademik Mahasiswa Perguruan Tinggi Swasta Di Banjarnegara. *Fokus Ekonomi*, 4, 207-221.
- Soumilena, J. R. L., Widyorini, E., & Eryani, P. (2023). Relationship Between Self-Regulated Learning and Task Aversiveness with Academic Procrastination in High School Students in the Affirmation Program for Secondary Education. *Counsnesia Indonesian Journal of Guidance and Counseling*, 4(2), 85-95.
<https://doi.org/10.36728/cijgc.v4i2.2576>
- Saraswati, P. (2017). Strategi Self Regulated Learning dan Prokrastinasi Akademik terhadap Prestasi Akademik. *Intuisi : Jurnal Psikologi Ilmiah*, 9(3), 210-223.
- Scheunemann, A., Schnettler, T., Bobe, J., Fries, S., & Grunschel, C. (2022). A Longitudinal Analysis of the Reciprocal Relationship Between Academic Procrastination, Study Satisfaction, and Dropout Intentions in Higher Education. *European Journal of Psychology of Education*, 37(4), 1141-1164. <https://doi.org/10.1007/s10212-021-00571-z>
- Schouwenburg, H. (2004). *Academic Procrastination: Theoretical Notions, Measurement, and Research*. Counseling the Procrastinator in Academic Settings.
<https://doi.org/10.1037/10808-001>
- Siregar, M., Fitria, S., & Damayanti, E. (2022). Pengaruh Self-Management terhadap Prokrastinasi Akademik pada Mahasiswa Tingkat Akhir. *Jurnal Pendidikan Dan Konseling (JPDK)*, 4(1), 403-409. <https://doi.org/10.31004/jpdk.v4i1.3728>
- Sirois, F. M. (2023). Procrastination and Stress: A Conceptual Review of Why Context Matters. *International Journal of Environmental Research and Public Health*, 20(6), 5031.
<https://doi.org/10.3390/ijerph20065031>
- Sujadi, E. (2021). Stres Akademik dan Motivasi Belajar Mahasiswa Mengikuti Pembelajaran Daring selama Pandemi COVID-19. *Educational Guidance and Counseling Development Journal*, 4(1), 29-41.
- Sujadi, E. (2022). Academic Stress in the Final-Year Students : Do Religiosity and Regional Coping Matter? *Bisma The Journal of Counseling*, 6(3), 304-315.
<https://doi.org/10.23887/bisma.v6i3.52735>
- Sujadi, E., & Ahmad, B. (2023). Academic Procrastination in College Students: Do Academic Burnout and Smartphone Addiction Matter? *Psychocentrum Review*, 5(3), 161-174.
<https://doi.org/10.26539/pcr.531511>

- Suparno, S. F. (2017). Hubungan Dukungan Sosial dan Kesadaran Diri dengan Motivasi Sembuh Pecandu Napza. *Psikoborneo: Jurnal Ilmiah Psikologi*, 5(2), 173–179. <https://doi.org/10.30872/psikoborneo.v5i2.4358>
- Svartdal, F., Sæle, R. G., Dahl, T. I., Nemtcan, E., & Gamst-Klaussen, T. (2022). Study Habits and Procrastination: The Role of Academic Self-Efficacy. *Scandinavian Journal of Educational Research*, 66(7), 1141–1160. <https://doi.org/10.1080/00313831.2021.1959393>
- Talask, G., & Carvalho, M. R. De. (2017). Cognitive Behavioral Based Treatment for Procrastination. *Psychol Behav Sci Int J*, 8(1), 8–10. <https://doi.org/10.19080/PBSIJ.2017.08.555727>
- Tuckman, B. W. (1991). The Development and Concurrent Validity of the Procrastination Scale. *Educational and Psychological Measurement*, 51(2), 473–480. <https://doi.org/10.1177/0013164491512022>
- Ulya, R., Indra, S., & Sujadi, E. (2020). The Effect of Coping Strategy on Academic Procrastination in Completing Student Assignments. *Indonesian Journal of Counseling and Development*, 02(01), 19–24.
- Welindasari, W., & Astuti, B. (2022). The Effect of Self-Management Techniques on Reducing Academic Procrastination Behavior in Facing The Era of Society 5.0. *Proceedings of the 5th International Conference on Learning Innovation and Quality Education*. <https://doi.org/10.1145/3516875.3516916>
- Wicaksono, L. (2017). Prokrastinasi Akademik Mahasiswa. *Jurnal Pembelajaran Prospektif*, 2(2), 67–73.
- Williamson, G. (2015). Self-Regulated Learning: An Overview of Metacognition, Motivation and Behaviour. *Journal of Initial Teacher Inquiry*, 1, 25–27.
- Wong, B. S. C. (2012). *Metacognitive Awareness, Procrastination and Academic Performance of University Students in Hong Kong*. Undergraduate Thesis. University of Leicester.
- Wulandari, M., Umaroh, S., & Mariskha, S. E. (2020). Pengaruh Efikasi Diri dan Kontrol Diri terhadap Prokrastinasi Akademik pada Mahasiswa Universitas 17 Agustus 1945 Samarinda. *Motiva Jurnal Psikologi*, 3(1), 35. <https://doi.org/10.31293/mv.v3i1.4808>
- Xue, G., & Sun, X. (2011). Construction and Validation of Self-Management Scale for Undergraduate Students. *Creative Education*, 02(02), 142–147. <https://doi.org/10.4236/ce.2011.22020>
- Zacks, S., & Hen, M. (2018). Academic Interventions for Academic Procrastination: A Review of the Literature. *Journal of Prevention & Intervention in the Community*, 46(2), 117–130. <https://doi.org/10.1080/10852352.2016.1198154>
- Zhou, M., Lam, K. K. L., & Zhang, Y. (2022). Metacognition and Academic Procrastination: A Meta-Analytical Examination. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 40(2), 334–368. <https://doi.org/10.1007/s10942-021-00415-1>