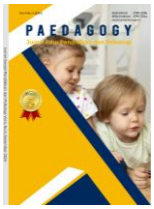

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THE ROLE OF CONCENTRATION IN PREDICTING PROCRASTINATION IN QUR'ANIC MEMORIZATION AMONG UNIVERSITY STUDENTS: A CORRELATIONAL STUDY

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ABSTRACT

Procrastination remains a persistent challenge in higher education, particularly among students managing demanding learning commitments. Within religious memorization contexts such as Qur'anic study, sustained concentration is essential for effective encoding, retention, and timely completion of memorization targets. However, limited empirical research has examined how attentional capacity relates to procrastination behavior in faith-based academic environments. This study investigates whether concentration ability predicts procrastination in Qur'anic memorization among university students engaged in structured religious learning programs. It specifically examines the direction and strength of the relationship between these two variables. A quantitative correlational design was employed. Participants consisted of 18 university students enrolled in Qur'anic memorization programs. Data were collected using two Likert-type scales: a concentration scale adapted from Castle and Buckler's theoretical framework and a procrastination scale based on Ferrari's model. After item validation and reliability testing (Cronbach's alpha = 0.859 for concentration; 0.877 for procrastination), data were analyzed using Spearman's rho due to non-linearity assumptions. Descriptive, normality, and linearity tests preceded hypothesis testing. The findings revealed a significant negative correlation between concentration and procrastination ($r = -0.636$, $p = 0.005$). Higher concentration was associated with lower levels of procrastination in Qur'anic memorization tasks. These results underscore concentration as a critical cognitive factor in reducing avoidance behaviors within structured religious learning contexts. The study highlights the importance of strengthening attentional regulation strategies to support students managing dual academic and memorization demands. Although limited by sample size, the findings contribute to educational psychology by extending procrastination research into faith-based learning environments and suggest practical implications for instructional design and mentoring practices aimed at enhancing student self-discipline and academic persistence.

Keywords**:** *Concentration, Educational psychology, Procrastination, Qur'anic memorization, University students.*

ABSTRAK

Prokrastinasi merupakan tantangan yang sering ditemui pada mahasiswa dalam konteks pembelajaran. Dalam lingkungan hafalan Al-Qur'an, konsentrasi menjadi faktor kognitif penting karena penghafalan memerlukan fokus yang berkelanjutan dan ketahanan mental. Meskipun penelitian mengenai prokrastinasi akademik telah banyak dilakukan, kajian yang meneliti peran konsentrasi dalam hafalan Al-Qur'an masih terbatas. Penelitian ini bertujuan untuk menguji apakah konsentrasi dapat memprediksi prokrastinasi pada mahasiswa yang mengikuti program hafalan Al-Qur'an. Menggunakan pendekatan kuantitatif dengan desain korelasional, penelitian ini melibatkan 18 mahasiswa aktif dalam program hafalan Al-Qur'an.

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Instrumen yang digunakan adalah skala konsentrasi dan prokrastinasi yang dikembangkan berdasarkan teori Castle dan Buckler serta model Ferrari. Hasil analisis dengan uji Spearman rho menunjukkan korelasi negatif signifikan antara konsentrasi dan prokrastinasi (r = -0,636; p = 0,005), yang berarti semakin tinggi konsentrasi mahasiswa, semakin rendah kecenderungan prokrastinasi. Temuan ini menegaskan pentingnya konsentrasi dalam mengurangi prokrastinasi dalam pembelajaran berbasis hafalan. Penelitian ini memperluas kajian prokrastinasi ke dalam konteks pendidikan berbasis religius, memberikan kontribusi pada pengembangan strategi pembinaan yang berfokus pada penguatan kapasitas atensi mahasiswa..
Keywords: Konsentrasi, Psikologi Pendidikan, Prokrastinasi, Hafalan Al-Qur'an, Mahasiswa.

INTRODUCTION

Procrastination has been widely recognized as a persistent behavioral tendency among university students across academic contexts. Research indicates that academic procrastination is closely associated with self-regulatory difficulties and attentional control limitations . Bakker & Mostert (2024) In higher education settings, students frequently encounter competing academic and personal demands that may intensify avoidance behaviors when tasks require sustained cognitive effor. Memorization-based learning, particularly when involving complex linguistic structures, demands high levels of focused attention and mental endurance. Qur'anic memorization represents a structured form of repetitive cognitive engagement that requires continuous concentration, disciplined scheduling, and emotional regulation. Within this context, failure to maintain attention may lead to task delay and inconsistent memorization performance. Although procrastination has been extensively studied in general academic tasks, its manifestation in religious memorization settings remains underexplored. Understanding how concentration functions within this specific learning environment is therefore critical for expanding educational psychology beyond conventional classroom contexts.

Concentration refers to the ability to selectively focus attention while suppressing irrelevant stimuli, a capacity that is fundamental to effective learning (Hysa & Agani, 2025). Empirical evidence demonstrates that attentional stability significantly predicts academic performance and task completion rates (Gallen et al., 2023). When attentional control weakens, individuals often experience cognitive fatigue and emotional discomfort, which may trigger avoidance strategies such as procrastination (Wiwatowska et al., 2025). In memorization-intensive activities, sustained focus becomes even more essential because retention relies on repeated encoding and retrieval processes. Religious learning environments introduce additional dimensions, including moral commitment and spiritual motivation, which may interact with cognitive processes in unique ways. University students engaged in Qur'anic memorization frequently balance formal academic coursework with memorization targets, creating potential cognitive overload. Such dual demands may increase susceptibility to procrastination when concentration declines. Investigating this relationship is therefore urgent to inform pedagogical strategies that strengthen attentional capacity and reduce avoidance behaviors in faith-based higher education settings.

Theoretical perspectives on procrastination emphasize its connection to cognitive and emotional regulation processes. Sirios (2023) conceptualize procrastination as a maladaptive delay behavior driven by avoidance tendencies and task-related discomfort. Natzer Turgeman dab Pollak (2023) temporal motivation theory explains procrastination as a function of expectancy, value, and delay sensitivity, highlighting the cognitive mechanisms underlying postponement decisions. Further argues that procrastination often serves as a short-term mood

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regulation strategy rather than a simple time-management failure. Within attentional theory, selective focus and sustained attention are core executive processes that support goal-directed behavior (Catanzaro, 2025). When these processes weaken, individuals become more vulnerable to distractions and competing stimuli. Empirical studies show that attentional deficits correlate with increased procrastination among university populations (Shirdel et al., 2024). However, most existing research has concentrated on conventional academic assignments such as essays or examinations. There remains limited empirical exploration of procrastination in structured religious memorization contexts, where motivational and cognitive elements intersect.

Recent educational psychology research increasingly highlights the importance of domain-specific contexts in understanding student behavior. Studies in faith-based education suggest that spiritual commitment can influence learning persistence, yet cognitive variables remain decisive predictors of performance outcomes (Stevens, 2024). In memorization-centered disciplines, attentional endurance directly affects encoding strength and recall accuracy. Contemporary discussions in higher education also emphasize the need to examine learning behaviors beyond secular academic frameworks. Despite growing literature on academic procrastination, few studies have isolated concentration as a primary predictive factor in religious memorization tasks. Existing research often incorporates broader constructs such as self-efficacy or social support, leaving attentional mechanisms insufficiently examined. Furthermore, empirical data from small, structured memorization communities remain scarce in international publications. By focusing specifically on concentration and procrastination within Qur'anic memorization among university students, this study introduces contextual specificity while maintaining theoretical alignment with established procrastination frameworks. This contextual extension represents an innovative contribution by situating attentional dynamics within a faith-based higher education environment.

Although extensive literature documents the relationship between cognitive regulation and academic procrastination, most studies emphasize generalized classroom tasks rather than structured memorization in religious settings. Research on Qur'anic memorization has largely focused on motivation, social support, or spiritual development rather than cognitive attentional mechanisms. Additionally, many studies adopt broad self-regulation models without isolating concentration as a measurable predictor variable. This creates a conceptual gap in understanding how attentional capacity alone may influence delay behavior in memorization-intensive learning. The absence of focused empirical evidence limits theoretical expansion into faith-based academic environments. Furthermore, existing research rarely integrates correlational statistical evidence from structured religious learning programs involving university students. Addressing this gap strengthens cross-contextual applicability of educational psychology theories. By empirically examining concentration as a predictive factor of procrastination in Qur'anic memorization, this study contributes a novel domain-specific perspective to the procrastination literature.

This study aims to examine whether concentration significantly predicts procrastination in Qur'anic memorization among university students. The research employs a quantitative correlational design to test the direction and strength of the relationship between these variables. It specifically investigates whether higher levels of concentration are associated with lower levels of procrastination in memorization tasks. The study seeks to provide empirical evidence within a structured religious learning context. By doing so, it expands the application of educational psychology theories beyond conventional academic settings. The findings are

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expected to clarify the functional role of attentional capacity in reducing delay behaviors. This research also intends to inform mentoring and instructional strategies in memorization-based programs. The central hypothesis proposes a significant negative correlation between concentration and procrastination in Qur'anic memorization among university students.

METHODS

This study employed a quantitative correlational research design to examine the predictive relationship between concentration and procrastination in Qur'anic memorization among university students (Lubis et al., 2025). A correlational approach was selected because the study aimed to determine the direction and strength of association between two measurable variables without manipulating experimental conditions. Quantitative methodology is appropriate when variables can be operationalized numerically and analyzed statistically to test hypotheses, as described (Lim, 2025). The design followed a non-experimental framework in which naturally occurring differences in concentration levels were examined in relation to procrastination tendencies. This approach is consistent with behavioral research examining psychological predictors in educational contexts, as discussed (Lim, 2025). The study did not attempt to establish causal inference but instead focused on statistical association. Hypothesis testing was conducted to determine whether concentration significantly predicted procrastination in memorization tasks. The overall design aligns with educational psychology research investigating cognitive factors influencing student behavior in structured learning environments.

The population consisted of 46 university students enrolled in Qur'anic memorization programs in Bandar Lampung. From this population, 18 students participated as research respondents based on accidental sampling procedures. Accidental sampling allows inclusion of participants who are accessible and meet predefined criteria at the time of data collection, as defined (Sugiono, 2022). All participants were active university students simultaneously engaged in structured Qur'anic memorization activities. The participants were required to regularly submit memorization targets within their respective learning programs. Their involvement reflects a dual commitment to academic coursework and religious memorization responsibilities. This specific participant profile provides contextual relevance for examining attentional demands in memorization-based learning. Although the sample size is limited, it represents a focused learning community that enables in-depth examination of behavioral tendencies within faith-based educational settings.

Two Likert-type scales were used to measure the study variables. Concentration was measured using a scale developed based on the theoretical framework of selective focus and attentional maintenance proposed (Pahor et al., 2022). The initial concentration instrument consisted of 20 items, and after validity testing, 12 items were retained. Procrastination was measured using a scale adapted from (Soares et al., 2022), covering delay initiation, task avoidance, time inconsistency, and preference for more pleasurable activities. The procrastination instrument initially included 14 items, with 10 items retained after item validation. Responses were scored using a five-point Likert format ranging from strongly disagree to strongly agree. Validity was examined using Pearson product–moment correlation, and items with corrected item-total correlation values above 0.30 were retained following methodological guidelines. Reliability analysis using Cronbach's alpha yielded coefficients of 0.859 for concentration and 0.877 for procrastination, exceeding the acceptable threshold of 0.60 suggested (Basirimoghadam et al., 2023).

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The reliability coefficients indicate strong internal consistency for both instruments. Cronbach's alpha values above 0.80 demonstrate high measurement stability in behavioral research contexts, as explained (Basirimoghadam et al., 2023). The removal of invalid items improved the internal coherence of each scale. Both instruments therefore met psychometric standards for further statistical analysis. The structured measurement approach enhances the credibility of findings in international educational psychology research. By grounding the instruments in established theoretical frameworks, the study maintains alignment with prior empirical literature. The measurement strategy ensures construct validity without introducing additional unmeasured variables. This strengthens the methodological rigor of the correlational design.

Data were analyzed using IBM SPSS version 25. Descriptive statistics were first computed to summarize central tendency and dispersion of both variables. Normality testing was conducted using the Shapiro–Wilk test because the sample size was fewer than 50 participants, as recommended by (de Souza et al., 2023). Results indicated normal distribution for both variables. Linearity testing was then conducted to determine the appropriateness of parametric correlation. Because deviation from linearity was significant, a non-parametric approach was selected. Spearman's rho correlation analysis was therefore applied to test the research hypothesis. Statistical significance was determined at the 0.05 level, consistent with conventional behavioral research standards. The analytical procedure ensures statistical appropriateness while maintaining consistency with the study's correlational objectives.

RESULTS AND DISCUSSION

Results

Descriptive statistics were first conducted to examine the distribution of concentration and procrastination scores among participants. The mean concentration score indicated moderate to high attentional stability among most respondents. In contrast, procrastination scores showed moderate variability, reflecting differences in delay tendencies during memorization tasks. Normality testing using Shapiro–Wilk revealed that both variables were normally distributed, yet linearity testing indicated significant deviation from linearity. Because the assumption of linearity was not satisfied, a non-parametric correlation test was selected. Spearman's rho correlation analysis was conducted to determine the relationship between concentration and procrastination. The analysis revealed a statistically significant negative correlation between the two variables. This indicates that higher concentration levels were associated with lower procrastination tendencies in Qur'anic memorization tasks.

Table 1. Spearman Correlation between Concentration and Procrastination

Variables	Spearman's rho	Sig. (2-tailed)
Concentration – Procrastination	–0.636	0.005

The correlation coefficient of –0.636 indicates a strong negative association according to conventional behavioral research interpretation thresholds suggested by (Fu et al., 2025). The p-value of 0.005 is below the 0.05 significance level, indicating statistical significance. The negative direction confirms that increases in concentration correspond with decreases in procrastination behavior. These findings support the study hypothesis proposing an inverse relationship between the two variables. The strength of association suggests concentration plays a substantial role in behavioral regulation during memorization. Although correlational analysis does not establish causality, the magnitude of the relationship indicates meaningful practical relevance. The findings align with attentional theory emphasizing sustained focus in task

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completion. The statistical outcome therefore provides empirical evidence supporting the predictive role of concentration in memorization-based learning contexts.

Prior to hypothesis testing, descriptive categorization was conducted to examine the distribution pattern of concentration and procrastination levels among participants. The analysis showed that most respondents demonstrated moderate to high concentration scores, indicating relatively stable attentional engagement during memorization sessions. Conversely, procrastination scores varied across participants, with several students exhibiting moderate delay tendencies in completing memorization targets. This variation suggests heterogeneity in behavioral regulation despite shared learning environments. The standard deviation values indicated observable dispersion within both variables, confirming meaningful variability necessary for correlational testing. The presence of variability supports the appropriateness of examining the relationship between the two constructs. Without sufficient score dispersion, correlation coefficients would not accurately reflect association strength. These descriptive findings provide foundational context for interpreting the subsequent inferential analysis.

Table 2. Reliability Coefficients of Research Instruments

Variable	Number of Valid Items	Cronbach's Alpha
Concentration	12	0.859
Procrastination	10	0.877

The diagram visually represents the inverse relationship observed in statistical testing. As concentration scores increase along the horizontal dimension, procrastination levels decline along the vertical dimension. This pattern reflects a downward trend consistent with the negative correlation coefficient. The visualization supports interpretative clarity for international readership. It illustrates that attentional stability may function as a behavioral protective factor. The diagram does not imply causality but represents statistical association. Such graphical representation strengthens empirical transparency. The figure complements the statistical table by presenting the conceptual relationship in simplified form.

Discussion

The findings demonstrate that concentration is significantly associated with procrastination in Qur'anic memorization among university students. This supports theoretical perspectives suggesting that attentional control plays a critical role in goal-directed behavior, as described by (Lim, 2025). When students maintain sustained focus, cognitive interference is reduced, thereby limiting avoidance tendencies. Fu et al (2025), argue that procrastination often emerges from discomfort with demanding tasks, and diminished concentration may intensify such discomfort. The strong negative correlation observed in this study aligns with temporal motivation theory, which emphasizes cognitive appraisal in delay decisions. Grattery (2023), further explains that procrastination functions as mood regulation, and attentional instability may trigger emotional disengagement. In memorization-intensive tasks, repetitive encoding requires stable cognitive engagement. Therefore, concentration appears to function as a stabilizing mechanism against delay behavior.

The contextual setting of Qur'anic memorization provides a unique domain for extending procrastination research. Most empirical studies focus on essay writing, examination preparation, or project deadlines (Otermans et al., 2025). Memorization tasks differ because

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they require repetitive retrieval and continuous mental rehearsal. Such tasks demand sustained attentional endurance rather than episodic effort. When attentional focus declines, memorization efficiency decreases, increasing the likelihood of postponement. The findings suggest that concentration may serve as a domain-specific protective factor. This extends existing procrastination models into faith-based educational contexts. The study therefore contributes contextual expansion to educational psychology literature.

The magnitude of the correlation coefficient indicates practical relevance beyond statistical significance. According to (Trabelsi et al., 2024), a coefficient above 0.50 reflects strong association in behavioral research. The strength observed here suggests that attentional stability accounts for meaningful variation in procrastination tendencies. Although other factors such as self-efficacy and motivation are recognized predictors (Gangwani et al., 2022), this study isolates concentration as a specific cognitive variable. This specificity enhances theoretical clarity by narrowing the explanatory focus. It also suggests that attentional training strategies may reduce delay behavior. Structured memorization environments may therefore benefit from integrating focus-enhancement practices. The findings reinforce the importance of cognitive discipline in faith-based learning programs.

The results also resonate with research emphasizing executive function in academic persistence. Sustained attention is central to maintaining task engagement over time. When attentional regulation weakens, task aversion may intensify. In memorization contexts, repetitive exposure without adequate focus may produce fatigue. This fatigue can lead students to delay memorization sessions. By contrast, higher concentration enables efficient encoding and faster target achievement. These cognitive efficiencies may reduce psychological resistance to task initiation. Thus, attentional stability indirectly supports behavioral consistency.

From a broader educational perspective, this study highlights the need to contextualize procrastination theory. Procrastination is not merely a time-management issue but reflects underlying cognitive processes. Religious memorization introduces moral commitment and structured discipline, yet cognitive limitations remain influential. The findings demonstrate that attentional capacity continues to shape behavioral outcomes even in spiritually motivated contexts. This suggests that motivational commitment alone may not prevent procrastination. Cognitive readiness must accompany motivational intention. The study therefore bridges cognitive and contextual dimensions of learning behavior.

The findings carry implications for faith-based higher education programs. Educational practitioners should integrate attentional regulation strategies into memorization curricula. Structured focus training sessions may strengthen cognitive endurance during repetitive encoding tasks. Mentors can provide guidance on minimizing distractions and scheduling memorization periods strategically. Institutions may also design learning environments that reduce external stimuli. The results support development of cognitive-based intervention models. Incorporating concentration enhancement may improve both memorization quality and task completion consistency. This aligns with educational psychology's emphasis on cognitive skill development. The study therefore informs pedagogical innovation within religious higher education settings.

This study is limited by its small sample size of eighteen participants. The use of accidental sampling restricts generalizability to broader populations. The correlational design prevents causal inference. Self-report instruments may introduce response bias. The study also examines only one cognitive variable. Other psychological factors were not included in the

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model. Cultural specificity may limit international transferability. Future studies should address these methodological constraints.

Future research should incorporate larger and more diverse samples. Longitudinal designs could examine changes over time. Experimental studies may test concentration training interventions. Additional variables such as self-efficacy and emotional regulation may be integrated. Structural equation modeling could explore complex pathways. Cross-cultural comparison would strengthen generalizability. Mixed-method approaches may provide deeper insight. Expanding research in faith-based educational psychology remains a promising direction.

CONCLUSION

This study demonstrates that concentration is significantly and negatively associated with procrastination in Qur'anic memorization among university students. The strong inverse correlation indicates that students who maintain higher levels of sustained attention tend to exhibit lower tendencies to delay memorization tasks. Although the design does not establish causal inference, the magnitude of the association highlights concentration as a meaningful cognitive factor in memorization-based learning contexts. The findings extend existing procrastination research into structured religious educational environments, an area that remains underrepresented in international educational psychology literature. By isolating concentration as a specific predictive variable, the study contributes contextual specificity to broader theoretical discussions on delay behavior. The results suggest that attentional stability may function as a protective cognitive mechanism against task avoidance in repetitive learning activities. From a pedagogical perspective, strengthening concentration capacity could support improved consistency and persistence in faith-based higher education programs. Despite limitations related to sample size and correlational scope, the study provides empirically grounded insight that encourages further exploration of cognitive determinants of procrastination within memorization-intensive academic settings.

REFERENCES

Bakker, A. B., & Mostert, K. (2024). Study Demands–Resources Theory: Understanding Student Well-Being in Higher Education. *Educational Psychology Review*, *36*(3), 92. https://doi.org/10.1007/s10648-024-09940-8

Basirimoghadam, M., Rafii, F., & Ebadi, A. (2023). Development and psychometric evaluation of nurses' health-related procrastination scale. *Heliyon*, *9*(7). https://www.cell.com/heliyon/fulltext/S2405-8440(23)05353-7

Catanzaro, L. N. (2025). *Effects of a Mindfulness-Based Intervention on Different Facets of Mental Wellbeing, Attentional Networks and Cognition among Young Adults*. https://iris.unipv.it/handle/11571/1518160

de Souza, R. R., Toebe, M., Mello, A. C., & Bittencourt, K. C. (2023). Sample size and Shapiro-Wilk test: An analysis for soybean grain yield. *European Journal of Agronomy*, *142*, 126666.

Fu, H., Tang, S., & Zhao, X. (2025). Limitations of Correlation Coefficients in Research on Functional Connectomes and Psychological Processes. *Human Brain Mapping*, *46*(10), e70287. https://doi.org/10.1002/hbm.70287

https://doi.org/10.51878/paedagogy.v6i3.9602

Gallen, C. L., Schaerlaeken, S., Younger, J. W., Anguera, J. A., & Gazzaley, A. (2023). Contribution of sustained attention abilities to real-world academic skills in children. *Scientific Reports*, *13*(1), 2673. https://www.nature.com/articles/s41598-023-29427-w

Gangwani, R., Cain, A., Collins, A., & Cassidy, J. M. (2022). Leveraging factors of self-efficacy and motivation to optimize stroke recovery. *Frontiers in Neurology*, *13*, 823202.https://www.frontiersin.org/journals/neurology/articles/10.3389/fneur.2022.823202/full

Grattery, A. (2023). The Effect of Attention Disengagement on Anxiety and Emotion Maintenance: A Theoretical Perspective. *International Journal of Psychology and Psychological Therapy*, *23*(2), 117–147. https://dialnet.unirioja.es/servlet/articulo?codigo=8978905

Hysa, F., & Agani, M. (2025). Students' perception, concentration, and attention in learning and teachers' challenging approaches for effective and efficient learning: The social context, the influence of social networks, and technology have changed the learning environment and the need for new educational policies. *Edelweiss Applied Science and Technology*, *9*(4), 766–778. https://www.researchgate.net/profile/Ferit-Hysa-2/publication/390621294_Students'_perception_concentration_and_attention_in_learning_and_teachers'_challenging_approaches_for_effective_and_efficient_learning_The_social_context_the_influence_of_social_networks_and_technolog/links/67f64df649e91c0feaea2bc1/Students-perception-concentration-and-attention-in-learning-and-teachers-challenging-approaches-for-effective-and-efficient-learning-The-social-context-the-influence-of-social-networks-and-technol.pdf

Lim, W. M. (2025). What Is Quantitative Research? An Overview and Guidelines. *Australasian Marketing Journal*, *33*(3), 325–348. https://doi.org/10.1177/14413582241264622

Lubis, H., Baihaqi, A., Lubis, P. N., & Rarasati, S. (2025). The Effect of Endurance and Time Management on Procrastination in Memorizing The Qur'an of Students at Luqmanul Hakim IT Junior High School. *Journal of Higher Education and Academic Advancement*, *2*(9), 432–442. https://www.neliti.com/publications/628739/the-effect-of-endurance-and-time-management-on-procrastination-in-memorizing-the

Netzer Turgeman, R., & Pollak, Y. (2023). Using the temporal motivation theory to explain the relation between ADHD and procrastination. *Australian Psychologist*, *58*(6), 448–456. https://doi.org/10.1080/00050067.2023.2218540

Otermans, P., Livingstone, C., Nasar, L., Tree, D., & Baines, S. (2025). Navigating assessment challenges: Students' reflection on preparation for exams, essays, presentations, and reports. *Open Scholarship of Teaching and Learning*, *4*(1). https://osotl.org/osotl/article/view/127

Pahor, A., Mester, R. E., Carrillo, A. A., Ghil, E., Reimer, J. F., Jaeggi, S. M., & Seitz, A. R. (2022). UCancellation: A new mobile measure of selective attention and concentration. *Behavior Research Methods*, *54*(5), 2602–2617. https://doi.org/10.3758/s13428-021-01765-5

Shirdel, S., Shadbafi, M., Shirdel, S., & Zarean, M. (2024). Structural relationships of the Adult Attention-Deficit/Hyperactivity symptoms, Sluggish Cognitive Tempo, and driving behavior: Mediating role of procrastination. *Current Psychology*, *43*(19), 17879–17888. https://doi.org/10.1007/s12144-023-05215-7

https://doi.org/10.51878/paedagogy.v6i3.9602

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://www.mdpi.com/1660-4601/20/6/5031

Soares, A. K. S., Coelho, G., Freires, L. A., & Fonseca, P. da. (2022). Psychometric properties of the academic procrastination scale (APS) in Brazil. *Journal of Psychoeducational Assessment*, *40*(5), 634–648. https://www.researchgate.net/profile/Gabriel-Lins-De-Holanda-

Stevens, M. (2024). *Campus Ministry and Spiritual Self-Efficacy: A Phenomenological Study of Academic Achievement among Black Male Students at an Historically Black College and University*. https://digitalcommons.xula.edu/etd/172/

Sugiono, M. C. (2022). Model vehicle routing problem untuk penentuan rute distribusi unit sepeda motor dengan metode saving matrix. *Journal Industrial Servicess*, *7*(2), 230–233. https://jurnal.untirta.ac.id/index.php/jiss/article/view/14018

Trabelsi, K., Saif, Z., Driller, M. W., Vitiello, M. V., & Jahrami, H. (2024). Evaluating the reliability of the athlete sleep behavior questionnaire (ASBQ): A meta-analysis of Cronbach's alpha and intraclass correlation coefficient. *BMC Sports Science, Medicine and Rehabilitation*, *16*(1), 1. https://doi.org/10.1186/s13102-023-00787-0

Wiwatowska, E., Prost, M., Coll-Martin, T., & Lupiáñez, J. (2025). Is poor control over thoughts and emotions related to a higher tendency to delay tasks? The link between procrastination, emotional dysregulation and attentional control. *British Journal of Psychology*, *116*(4), 807–830. https://doi.org/10.1111/bjop.12793

https://doi.org/10.51878/paedagogy.v6i3.9602