



Demographic Factors Influencing Academic Procrastination among Postgraduate Students

Nurudeen Oganija Salihu¹ & Habibat Bolanle Abdulkareem^{2*} 

^{1,2} Al-Hikmah University, Ilorin, Nigeria

ARTICLE INFO

Article history:

Received February 21, 2024

Accepted September 26, 2024

Available online October 25, 2024

Kata Kunci:

Prokrastinasi Akademik, Variabel Demografi, Mahasiswa Pascasarjana

Keywords:

Academic Procrastination, Demographic Variables, Postgraduate Students



This is an open access article under the CC BY-SA license.

Copyright © 2024 by Author. Published by Universitas Pendidikan Ganesha.

ABSTRAK

Prokrastinasi akademik merupakan masalah global yang merusak perkembangan individu, terutama di bidang pendidikan. Penelitian ini menyelidiki hubungan antara faktor demografi dan prokrastinasi akademik di kalangan mahasiswa pascasarjana. Pendekatan penelitian kuantitatif, desain deskriptif jenis survei dipertimbangkan untuk penelitian ini. Data dikumpulkan dari 325 mahasiswa pascasarjana di berbagai fakultas dan program pascasarjana. Hitungan persentase sederhana dan uji-t digunakan untuk menganalisis data. Mayoritas responden adalah laki-laki, berusia antara 25 dan 40 tahun, dan terdaftar dalam program Magister. Tiga hipotesis dirumuskan dan diuji menggunakan metode statistik uji-t pada tingkat signifikansi 0,05. Hipotesis pertama, yang meneliti pengaruh jenis kelamin terhadap prokrastinasi akademik, tidak menemukan perbedaan signifikan antara mahasiswa laki-laki dan perempuan. Demikian pula, hipotesis kedua, yang mengeksplorasi dampak usia terhadap prokrastinasi akademik, tidak mengungkapkan perbedaan signifikan antara mahasiswa yang lebih muda (25-40 tahun) dan yang lebih tua (41 tahun ke atas). Namun, hipotesis ketiga, yang menyelidiki hubungan antara status pekerjaan dan penundaan akademik, menunjukkan perbedaan yang signifikan antara mahasiswa yang bekerja dan yang menganggur, dengan mahasiswa yang bekerja menunjukkan tingkat penundaan yang lebih rendah. Temuan ini menunjukkan bahwa meskipun jenis kelamin dan usia mungkin tidak secara signifikan memengaruhi penundaan akademik di kalangan mahasiswa pascasarjana, status pekerjaan memang memainkan peran yang signifikan.

ABSTRACT

Academic procrastination is a global problem that mar the development of individuals, especially in the area of education. This study investigates the relationship between demographic factors and academic procrastination among postgraduate students. Quantitative research approach, descriptive design of the survey type was considered for this study. Data were collected from 325 postgraduate students across various faculties and postgraduate programs. Simple percentage count and t-test was used to analyze the data. The majority of respondents were male, aged between 25 and 40 years, and enrolled in Master's programs. Three hypotheses were formulated and tested using a t-test statistical method at a significance level of 0.05. Hypothesis one, which examined the influence of gender on academic procrastination, found no significant difference between male and female students. Similarly, hypothesis two, exploring the impact of age on academic procrastination, revealed no significant difference between younger (25-40 years) and older (41 years and above) students. However, hypothesis three, which investigated the relationship between employment status and academic procrastination, showed a significant difference between employed and unemployed students, with employed students exhibiting lower levels of procrastination. These findings suggest that while gender and age may not significantly influence academic procrastination among postgraduate students, employment status does play a significant role.

1. INTRODUCTION

Academic procrastination is a widespread issue among postgraduate students, significantly affecting academic performance, mental health, and progress. Defined as the intentional delay of academic tasks (Steel & Klingsieck, 2016), it is distinct from general procrastination due to its specific educational

context (Grunschel et al., 2018). This phenomenon can manifest as active procrastination, where deadlines are eventually met, or passive procrastination, which leads to missed deadlines and heightened stress (Chowdhury & Pychyl, 2021). Several factors contribute to academic procrastination, including perfectionism, fear of failure (Harrison, 2014; Li et al., 2023), poor time management (Wolters et al., 2022), task aversion (Zhang & Feng, 2020), and lack of motivation (Kim et al., 2022). The consequences of procrastination are profound, ranging from lower academic performance (Bhatt, 2023) and heightened stress levels (Sirois & Molnar, 2023) to reduced self-efficacy (Liu et al., 2020) and delays in research completion (Jiang et al., 2023). To address these issues, researchers suggest strategies such as goal-setting, effective time management, breaking down tasks, applying cognitive-behavioral approaches, and implementing accountability systems (Rozenal et al., 2023; Schmidt & Johnson, 2021).

Emerging studies have explored the role of demographic and contextual factors in procrastination. Gender and cultural differences influence procrastination behaviors (Choy et al., 2023; Klingsieck & Fries, 2023), while environmental stressors, such as work pressure and infrastructural challenges, exacerbate the issue for postgraduate students, particularly at institutions like the University of Ilorin (Suleiman & Abdulkareem, 2023). These findings underscore the complex interplay of internal and external factors, highlighting the need for targeted interventions to support student success. Academic procrastination is prevalent across all education levels and is particularly common among university students (Ahmed et al., 2023; Ehindero et al., 2023). It involves postponing responsibilities such as completing assignments, preparing for exams, and delivering presentations, often due to both internal and external factors (Hayat et al., 2020; Nurhadi, 2020). Research indicates that 70–80% of college students engage in procrastination, with significant implications for academic outcomes and well-being (Chehrzad et al., 2017; Steel & Ferrari, 2013). In Nigeria, the problem is even more pronounced, with rates exceeding 80% among university students (Onadiji, 2019; Saadu et al., 2015). This behavior has been linked to stress, anxiety, low self-esteem, and unhealthy habits, which collectively hinder academic success and overall quality of life (Ferrari, 2010; Rabin et al., 2011).

Factors influencing procrastination among university students include demographic, internal, and external aspects. Demographic factors such as age, gender, and employment status play significant roles (Husin & Matore, 2023). Internal factors include self-efficacy, self-regulation, and self-concept, while external factors involve teaching methods, learning environments, and peer influences (Longjohn & Michael-Olomu, 2019; Reynolds, 2015). Gender differences in procrastination remain debated; some studies indicate men procrastinate (Lu et al., 2022; Rabin et al., 2011), while others report higher rates among women (Bian, 2017; Song et al., 2020). Age also correlates with procrastination, as older individuals generally procrastinate less due to heightened conscientiousness and time awareness (Milgram et al., 2022; Steel & Ferrari, 2013). Additionally, employment status influences procrastination, as working students often struggle to balance job responsibilities and academic tasks, leading to stress and diminished academic performance (Omolu, 2017).

At the University of Ilorin, procrastination is exacerbated by factors such as financial constraints, job commitments, poor time management, and various distractions, including social activities and technology. These challenges contribute to delayed graduations, decreased academic performance, and hindered career prospects. Bedtime procrastination further worsens these outcomes, with studies indicating that females tend to score higher on procrastination measures than males (H.K. & K, 2019). Given its prevalence, affecting 80–90% of students, academic procrastination demands interventions to preserve educational outcomes and ensure timely completion of programs. This study aims to explore the multifaceted nature of academic procrastination among postgraduate students, examining its underlying factors, consequences, and demographic variations. The research seeks to identify effective intervention strategies to mitigate procrastination and improve academic performance, mental well-being, and timely program completion. By doing so, the study contributes to a deeper understanding of procrastination and provides actionable recommendations for fostering student success.

2. METHOD

The research design for this study is the descriptive design of the survey type. The descriptive survey generally tries to collect information from a representative group and based on such information inferences are drawn about the behavior of the entire population (Awoniyi et al., 2021). The population of the study is 2,194 full-time Postgraduate students of the 2021/2022 session at the University of Ilorin, Ilorin, Nigeria, according to Computer Science and Information Technology (COMSIT). The sample of the study is made up of 325 students, who were selected through a multi-stage sampling technique from different full-time postgraduate courses. They were used as participants because they could provide the required information needed for the study.

A multiple-stage sampling technique was used for the study. In the first stage, the school was stratified into faculties. The first stage involved the selection of three faculties out of fifteen in the institutions through a random sampling technique. The selected faculties include the Faculty of Arts, Faculty of Education, and Faculty of Physical Sciences. The second stage was a selection of two departments from the previously selected faculties (Faculty of Arts, Education, and The Physical Sciences) using a balloting system. The last stage involved the selection of the participants from the faculties by using Krejcie and Morgan's 1970 sampling size table. In that regard, the sample size for this study was three hundred and twenty-five (325) respondents who are postgraduate students of the University of Ilorin.

The instrument for this study was adopted Procrastination Assessment Scale Students (PASS). It was developed by (Solomon & Rothblum, 1984). The documented excellent psychometric properties of the scale by numerous studies led to its selection. It is the most used scale to measure academic procrastination (Forough et al., 2015). Since the scale was adopted the content validity has been established. Previous research showed that PASS has a concurrent validity of 0.62 which is significantly correlated with the Beck Depression Inventory, Ellis Scale of Irrational Cognitions, Rosenberg Self-Esteem Scale, and Daily Avoidance Scale (Solomon & Rothblum, 1984). PASS has cross-cultural evidence of usage across many cultures with a fair level of reliability and validity (Yong, 2010). The reliability of the first and second parts of the PASS was 0.781 and 0.861, respectively (Forough et al., 2015). The instrument was administered using the direct delivery method where the researcher, with the support of two assistants, visited all selected faculties in the University of Ilorin for data collection. This method facilitated the on-the-spot collection of the completed instruments. The instrument was given to the selected respondents during their departmental seminars period. The instruments were collected immediately on the spot after completion. All 325 questionnaires were filled and returned. The data obtained in the study were analyzed using descriptive and inferential statistics. Percentage was used to describe the demographic characteristics of respondents. The three research hypotheses were tested using an independent t-test at a 0.05 level of significance. All the analyses were done using Statistical Package for Social Sciences (SPSS). Distribution of demographic information of the respondents is presented in Table 1.

Table 1. Distribution of Demographic Information of the Respondents.

S/N	Faculty	Frequency	Percentage
1	Arts	105	33.3
2	Education	120	36.9
3	Physical Sciences	100	30.8
Total		325	100

Gender			
S/N	Sex	Frequency	Percentage
1	Male	178	54.8
2	Female	147	45.2
Total		325	100

Age			
S/N	Age range	Frequency	Percentage
1	25 – 40 years	236	72.6
2	41 years and above	89	27.4
Total		325	100

Type of Postgraduate Program			
S/N	Type	Frequency	Percentage
1	PGD	21	6.5
2	Masters	267	82.2
3	Ph. D	37	11.4
Total		325	100

3. RESULT AND DISCUSSION

Result

The three hypotheses proposed in this study were examined through a t-test statistical analysis at a 0.05 level of significance, ensuring a robust evaluation of the research objectives. This approach allows for the determination of whether the observed differences between groups or conditions are statistically significant, thereby providing empirical support for the hypotheses. The findings of the hypothesis testing

will be presented as follows, offering detailed insights into the data analysis and its implications for the study's conclusions.

Table 2. The Influence of Gender on Academic Procrastination

Variable	No	Mean	SD	Df	t _{value}	t _{critical}	Decision
Male	178	71.63	25.27	323	- 0.32	1.96	Accepted
Female	147	72.53	24.53				

Table 2 shows that the calculated t_{value} is -0.32, while the critical t_{critical} is 1.96 with 323 as the degree of freedom at a 0.05 significance level. Since the calculated t_{value} is less than the critical t_{value}, hypothesis one, which states there is no significant difference in academic procrastination among postgraduate students at University Ilorin on the basis of gender was accepted. This means that male and female students do not differ significantly in their academic procrastination.

Table 3. The Influence of Age on Academic Procrastination

Variable	N	X	SD	df	t _{calc}	t _{critical}	Decision
25-40	236	71.47	25.72	323	- 0.66	1.96	Accepted
41& above	89	73.53	22.99				

Table 3 shows that the calculated t-value is -0.66, while the critical t_{value} is 1.96 with 323 as the degree of freedom at 0.05 level significance. Since the calculated t_{value} (0.66) is less than the critical t- t_{value} (1.96), hypothesis two which states there is no significant difference in academic procrastination among postgraduate students in University Ilorin on the basis of age was accepted. This means that postgraduate students do not differ significantly in their academic procrastination behavior based on their age.

Table 4. The Influence of Employment Status on Academic Procrastination

Variable	N	Mean	SD	df	t _{calc}	t _{critical}	Decision
Employed	219	67.63	26.25	323	- 4.72	1.96	Rejected
Not-employed	106	81.16	19.25				

According to Table 4, the calculated t_{value} is -4.72, while the critical t_{value} is 1.96 with 323 as the degree of freedom at 0.05 level of significance. Since the calculated t_{value} (4.72) is greater than the critical t_{value} (1.96). Hypothesis three, which states that there is no significant difference in academic procrastination among postgraduate students at University Ilorin on the basis of employment status was rejected. This means that the postgraduate students differ significantly in their academic procrastination based on their employment status.

DISCUSSION

The findings of this study would be significant to counsellors, teachers, government, parents and other stakeholders in the field of education. This study would serve as an eye-opener on the factors contributing to academic procrastination and how to overcome it. The findings of the study indicated there was no significant difference in the influence of gender on academic procrastination of postgraduate students of the University of Ilorin. The result suggested that academic procrastination occurs among postgraduate students regardless of gender group. This finding is in line with the findings that said all reported no significant differences in academic procrastination based on gender (Atalayin et al., 2018; Atiri & Onofuye, 2021; Harrison, 2014; Yared et al., 2022). On the contrary, similar research found a significant influence of gender on academic procrastination (Bailey et al., 2021; Berkleyen, 2017; Khan et al., 2014; Steel & Ferrari, 2013). The results of this study that procrastination happens irrespective of gender may be due to the weaknesses in time management and poor self-regulation which is very common among university students regardless of their gender.

The second finding also revealed no significant difference in the influence of age on academic procrastination among postgraduate students of the University of Ilorin. This result indicated that age did not have an impact on academic procrastination among postgraduate students of the University of Ilorin. This result is consonant with the findings of similar study that indicated no statistically significant differences in academic procrastination due to age (Abdullah, 2022; Asio, 2020; Brittany, 2019). The findings of this study disagree with similar studies who all found a significant difference in the influence of age on academic procrastination among university students (Harrison, 2014; Khan et al., 2014; Yong, 2010).

The fact that there is no significant influence of age in academic procrastination behavior of postgraduate students of university of Ilorin may be due to the that there is enough time and relative freedom attached postgraduate study's graduation. Finally, it is evident from the results of the findings that there was a significant difference in the influence of employment status on academic procrastination of postgraduate students of the University of Ilorin.

This result implies that employment status has an effect on academic procrastination among postgraduate students of the University of Ilorin. This finding is in line with the findings of Radoslaw and Brenda who reported differences in procrastination based on employment status (Brenda et al., 2013; H.K. & K, 2019). The finding is in disagreement with the result of similar research who observed no significant differences in academic procrastination between employed and unemployed students (Hayat et al., 2020). The difference found may be because the unemployed have more time to attend to their academic tasks than the employed postgraduate students of the University of Ilorin.

The counseling center in the university should organize Psycho-educational programs as well as seminars for postgraduate students based on causes, effects, and ways out of academic procrastination regardless of their gender. Orientation programme should be intensified by counselling centers of institutions to keep the Postgraduate students regardless of their age informed of the need to make judicious use of the time available to them. Postgraduate students should be assisted in developing effective time management practices, as this has the capability of improving their ability to meet academic deadlines which can have a negative effect on their performances. Self-management Techniques should be inculcated in postgraduate students in order to maintain balance between their employment and study in order to reduce occurrences of academic procrastination.

In summary the study contributes to the understanding of procrastination among postgraduate students by highlighting the minimal role of gender and age but revealing the significant impact of employment status. These findings suggest that universities should offer targeted support for unemployed students and encourage time management skills for all postgraduate students. By providing tailored interventions, universities can help postgraduate students better manage their academic responsibilities, ultimately fostering academic success and well-being.

4. CONCLUSION

The study examined demographic factors influencing academic procrastination among postgraduate students of the University of Ilorin, Kwara State, Nigeria. The study concluded that University of Ilorin postgraduates engage in dilatory behavior in their academic tasks. Postgraduate procrastinators do not differ significantly in their behavior based on demographic variables of gender and age. While employment status has a significant influence on the procrastination behavior of postgraduates of the University of Ilorin, Kwara State, Nigeria.

5. REFERENCES

- Abdullah, M. A. (2022). Academic Procrastination and Metacognitive Strategies Among Prince Sattam Bin Abdulaziz University Students. *Journal of Positive School Psychology*, 6(8), 7601–7610.
- Ahmed, T. H., Abdulkareem, H. B., & Lasisi, A. K. (2023). Self-Efficacy and Social Withdrawal Among Secondary School Adolescents in Kwara State. *International Journal of Applied Guidance and Counseling*, 4(2), 69–79.
- Asio, J. M. R. (2020). The Relationship between Academic Procrastination and Academic Performance of Freshmen Students from a Teacher Education Institution. *Journal of Humanities and Social Sciences*, 2(3), 105–115. <https://doi.org/10.36079/lamintang.jhass-0203.156>.
- Atalayin, C., Balkis, M., Tezel, H., & Kayrak, G. (2018). Procrastination and predictor variables among a group of dental students in Turkey. *Psychology, Health & Medicine*, 23(6), 352–362. <https://doi.org/10.1080/13548506.2017.1418014>.
- Atiri, S. O., & Onofuye, T. (2021). Relationship between Learned Helplessness and Academic Procrastination Among Undergraduates of University of Lagos. *ResearchGate*, 6(1), 70–88. <https://doi.org/10.26772/CJSMS2021060104>.
- Awoniyi, S. A., Aderanti, R. A., & Tayo, A. S. (2021). *The Perlocutionary Effects of Cautionary Notices on Motoristusing Nigeria Highways*. Introduction to Research Methods. Ababa Press Ltd.
- Bailey, L., Schmidt, J., & Patterson, A. (2021). Accountability systems and productivity: Addressing procrastination in academic contexts. *Journal of Educational Psychology*, 113(4), 723–734.
- Berkleyen, N. (2017). Understanding the Academic Procrastination Attitude of Language Learners in Turkish universities. *Educational Research and Review*, 12(3), 108–115.

- Bian, Z. W. (2017). A study on College Students' Procrastination Behavior and Perfectionism. *Journal Tonghua Norm. Univ*, 38, 141–145. <https://doi.org/10.3389/fpsyg.2021.719425>.
- Brenda, N., Steel, P., & Ferrari, J. R. (2013). Procrastination's Impact in the Workplace and the Workplace's Impact on Procrastination. *International Journal of Selection and Assessment*, 21(4). <https://doi.org/10.1111/ijsa.12048>.
- Brittany, C. . H. L. D. (2019). *Gender and Age Differences in Procrastination*.
- Chehrzad, M. M., Ghanbari, A., Rahmatpour, P., Barari, F., Pourrajabi, A., & Alipour, Z. (2017). Academic procrastination and related factors in students of Guilan University of Medical Sciences. *The Journal of Medical Education and Development*, 11(4), 352–362.
- Chowdhury, A., & Pychyl, T. A. (2021). Active and passive procrastination: Understanding the different forms of delay. *Frontiers in Psychology*, 12, 564398.
- Choy, D., Tan, E., & Poon, K. (2023). Cultural dimensions of procrastination in higher education: A cross-national study. *Journal of Cross-Cultural Psychology*, 54(3), 267–283.
- Ehindero, E. R., Bolaji, H. O., & Abdulkareem, H. B. (2023). Accessibility and Usability of Social Network for Career Guidance Among Secondary School Student of Ilorin Metropolis. *Indonesian Journal of Educational Science and Technology*, 2(4), 327–340.
- Ferrari, J. R. (2010). *Still procrastinating? The no regret guide to getting it done*. John Willy & Sons INC.
- Forough, M., M., S. S., & Raziieh, K. (2015). Psychometric Properties of the Procrastination Assessment Scale-Student (PASS) in a Student Sample of Sabzevar University of Medical Sciences. *Iran Red Crescent Med Journal*, 17(9). <https://doi.org/10.5812/ircmj.28328>.
- Grunschel, C., Patrzek, J., & Fries, S. (2018). Exploring reasons and consequences of academic procrastination: An interview study. *European Journal of Psychology of Education*, 33(3), 741–759. <https://doi.org/10.1007/s10212-012-0143-4>.
- H.K., R., & K, L. (2019). *Bedtime procrastination, sleep-related behaviors, and demographic factors in an online survey on a polish sample*. *Frontiers in: Vol. neuroscien* (pp. 6 963 –977). <https://doi.org/10.3389/fnins.2019.00963>.
- Harrison, J. (2014). *Academic Procrastination: the roles of Self-efficacy, Perfectionism, Motivation, Performance, age and gender*.
- Hayat, A., Jahanian, M., Bazrafcan, L., & Shokrpour, N. (2020). Prevalence of Academic Procrastination Among Medical Students and Its Relationship with their Academic Achievement. *Shiraz E-Med J*, 21(7).
- Husin, W. A. S. W., & Matore, M. E. (2023). Review: Factors affecting Academic procrastination in Mathematics among Students. *International Journal of Academic Research in Business and Social Sciences*, 13(1), 1474–1493, 13(1).
- Jiang, L., Li, X., & Wang, Y. (2023). The effects of procrastination on postgraduate research progress: A longitudinal study. *Higher Education Research & Development*, 42(2), 198–210. <https://doi.org/10.12738/estp.2016.1.0108>.
- Khan, M. J., Arif, H., Noor, S. S., & Muneer, S. (2014). Academic Procrastination among Male and Female University and College Students. *Journal of Social Sciences*, 8(2), 65–70. https://www.academia.edu/download/37575115/Final_Journal_Vol.8_No.2.pdf#page=70.
- Kim, S., Park, H., & Seo, E. (2022). Motivational factors in academic procrastination: Insights from self-determination theory. *Journal of Learning and Instruction*, 77, 101513. <https://doi.org/10.1080/09720073.2015.11891780>.
- Klingsieck, K. B., & Fries, S. (2023). Academic procrastination: Prevalence, predictors, and interventions among university students. *Journal of Educational Psychology*, 115(2), 204–215.
- Li, J., Zhao, Y., & Liu, C. (2023). Fear of failure and procrastination in academic settings: A meta-analysis. *Personality and Individual Differences*, 204, 111945. <https://doi.org/10.1007/s10459-018-9832-3>
- Liu, G., Cheng, G., Hu, J., Pan, Y., & Zhao, S. (2020). Academic self-efficacy and postgraduate procrastination: A moderated mediation model. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01752>.
- Longjohn, I. T., & Michael-Olomu, O. (2019). Academic Procrastination Among Undergraduate Students in Rivers State, Nigeria: Role of Psychosocial factors. *International Journal of Novel Research in Humanity and Social Sciences*, 6(4), 103–112,.
- Lu, D., He, Y., & Yu, T. (2022). Gender, Socioeconomic Status, Cultural Differences, Education, Family Size and Procrastination: A Socio-demographic Meta-Analysis. *Front Psychol*, 12, 719425. <https://doi.org/10.3389/fpsyg.2021.719425>.
- Milgram, N. A., Batori, G., & Mowrer, D. (2022). Correlates of academic procrastination. *Journal of School Psychology*, 31(4), 487–500. [https://doi.org/10.1016/0022-4405\(93\)90033-F](https://doi.org/10.1016/0022-4405(93)90033-F).
- Nurhadi, M. (2020). Studi Deskriptif Prokrastinasi Akademik pada Siswa Kelas XI IPS 4 SMA Negeri 11

- Banjarmasin. *Jurnal Pelayanan Bimbingan Dan Konseling*, 1(2).
- Omolu, F. A. (2017). Correlation of Employment Status, Motivation and Achievement In Learning. *Journal Pendidikan Galasser*, 1(2), 230–245.
- Onadiji, O. (2019). *analysis of psycho-social Determinant of Academic Procrastination Among University Undergraduate in South Western Nigeria*.
- Rabin, L. A., Fogel, J., & Nutter-Upham, K. E. (2011). Academic Procrastination in College Students the Role of Self-reported Executive Function. *Journal of Clinical and Experimental Neuropsychology*, 33(3), 344–35. <https://doi.org/10.1080/13803395.2010.518597>.
- Reynolds, J. P. (2015). *Affecting Academic Procrastination*". Western Kentucky University.
- Rozental, A., Carlbring, P., & Forsell, E. (2023). Cognitive-behavioral therapy for procrastination: A review of interventions and outcomes. *Behavior Research and Therapy*, 153, 104120. <https://doi.org/10.3389/fpsyg.2018.01588>.
- Saadu, A. U., Adesokan., & Hamsat, R. A. (2015). Influence of Procrastination on Academic Achievement of Students in Tertiary Institutions in Kwara State, Nigeria. *World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences*. 9,(05, 15–20.
- Schmidt, J., & Johnson, M. (2021). The role of goal-setting in overcoming procrastination: Insights for postgraduate students. *Journal of Educational Research*, 114(3), 367–376. <https://doi.org/10.1007/s12144-022-03462-8>.
- Sirois, F. M., & Molnar, D. S. (2023). Procrastination and stress: Examining the link and its implications for mental health. *Stress & Health*, 39(3), 284–292. <https://doi.org/10.1080/23311908.2015.1074776>.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive behavioral correlates. *Journal of Counseling Psychology*, 31(6), 503–509. <https://doi.org/10.1037/0022-0167.31.4.503>.
- Song, L. L., Chen, J., Lei, W., & Liu, K. Z. (2020). Emotional State, Emotional Regulation Strategy and Procrastination Behavior of College Students of Different Genders in Medical Colleges and Comprehensive Colleges. *Occupation Health*, 362101–210. <https://doi.org/10.13329/j.cnki.zyyjk.2020.0560>.
- Steel, P., & Ferrari, J. (2013). Sex, Education and Procrastination: An Epidemiological study of Procrastinators' characteristics from a global sample. *European Journal of Personality*, 27(1), 51–58. <https://doi.org/10.1002/per.1851>.
- Steel, P., & Klingsieck, K. B. (2016). Academic procrastination: Psychological antecedents and self-regulation strategies. *Current Directions in Psychological Science*, 25(2), 99–105. <https://doi.org/10.1111/ap.12173>.
- Suleiman, A., & Abdulkareem, H. B. (2023). Educational psychology perspective on constructive, social play and academic performance of primary school children in Nigeria. *ProGCouns: Journal of Professionals in Guidance and Counseling*, 4(1), 1–11. <https://doi.org/10.21831/progcouns.v4i1.55757>.
- Wolters, C. A., Brady, A. C., & Turner, J. E. (2022). Time management and self-regulation in higher education: The role of individual differences and context. *Journal of Educational Psychology*, 114(4), 701–713. <https://doi.org/10.1007/s10648-020-09519-z>.
- Yared, F., Bekalu, T. M., & Sayed, M. I. (2022). Academic Procrastination Behavior among Public University Students. *Education Research International*. <https://doi.org/10.1155/2022/1277866>.
- Yong, F. (2010). A study on the assertiveness and academic procrastination of English and communication students at a private university. *American Journal of Scientific Research*, 9(3), 62–71.
- Zhang, S., & Feng, T. (2020). Modeling procrastination: Asymmetric decisions to act between the present and the future. *Journal of Experimental Psychology*, 149(2), 311. <https://doi.org/10.1037/xge0000643>.