



Effect of Cyberloafing and Internet Addiction on Academic Procrastination Among University Students: A Predictive Study

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ABSTRACT

Neglecting academic work is a common problem among students. This problem becomes more intense when students have access to the internet provided by universities for instructional purposes. They engage in non-academic online activities instead of doing academic work. This research study aimed to examine the effect of cyberloafing and internet addiction on academic procrastination at the university level. The objectives of the study were to determine the effect of cyberloafing on academic procrastination and to examine the role of internet addiction in academic procrastination among university students. The study was quantitative in nature. It was a descriptive cross-sectional study. 830 students from the Faculty of Arts and Social Sciences were selected conveniently to collect data on all three variables. Research instruments were adopted for all three variables. Data were entered in SPSS software for analysis. Regression analysis was run to find out the effect of cyberloafing and internet addiction. The results revealed that both research hypotheses were failed to accept. Cyberloafing and internet addiction both are predictors of academic procrastination among university students.

Keywords: Cyberloafing, Internet Addiction, Academic Procrastination, Faculty of Arts and Social Sciences, Online Activities.

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Introduction

Sometimes students intentionally postpone their academic responsibilities until the last moment, even though they know they have to work on them and complete the task. Such delaying behaviour is known as academic procrastination. Procrastinators usually wait till last date. Previous researchers revealed that there are three categories of delayers. The procrastinators who find it

difficult to initiate and give lame excuses are in the first category. The perfectionists form the second category. The third category comprises students who prefer to engage in pleasure-giving activities rather than work (Svartdal et al., 2020).

Different problems lead students towards academic delays during the learning process and prevent them from completing assignments and academic tasks on time (Abdollahi et al., 2020;



Madjid et al., 2021). The researchers revealed that there are many reasons behind these delays. Many factors cause delays in completing academic work. An uninteresting learning process, boring teaching style, non-interesting project, and too-far deadlines lead students to academic procrastination (Gadosey et al., 2021).

Involvement in non-instructional activities outside of learning during free time may cause academic procrastination (Ergün & Altun, 2012). Academic procrastinators try to find ways to get rid of the pressure and stress of academic work or fear of failure (Ferrari et al., 1995). Access to the internet and digital devices allows students to find entertainment on the internet, such as online gaming, surfing the internet, and using WhatsApp (Margaretha et al., 2022). Too much use of the internet could deteriorate relationships with others, interest in routine activities, and Cause failure in academic and professional tasks (Tezer, 2020).

Cyberloafing is known as the use of institutional internet for non-academic purposes during study hours (Lim, 2002). It is also an act of using the internet during study time or doing class assignments. (Vitak et al., 2011). In the academic environment, students' access to social media, viewing messages and videos, or playing games (Twum et al., 2021). Previous research indicated that there is a link between cyberloafing and academic procrastination. The majority link cyberloafing with low academic performance and decreased classroom participation (He, 2026)

A study by Tezer (2020) with a sample of high school students found that academic procrastination behaviours increase in this pandemic period because students always stay connected to the internet, and this behaviour is related to their grade point averages (GPAs) and problematic internet usage levels. According to Caprio (2025) academic procrastination is viewed as a significant problem that requires extensive research to address.

As youth enter the university, they often find academic work to be stressful and challenging. To escape academic stress, students spend more time on the internet, which leads to (Liu et al., 2022). Students' use of the internet becomes uncontrollable due to excessive use. Problematic internet and compulsive internet use are the other

terms used for internet addiction in the literature. Online teaching and learning activities during the pandemic have become a reason for internet addiction compared to the past. It revealed that there is a relationship between procrastination behaviors and internet addiction among university students, as universities are depending more on online sources of teaching (Doktorová, 2023; Karakaya, 2023). Neglecting academic work and responsibilities, aggressive behaviour, and excessive time spent on screen are signs of internet addiction. These symptoms can be seen even when addicts are offline (Young, 2009).

Sahin (2020) conducted a study on 539 students. The findings revealed that there was a growing effect of cyberloafing on academic procrastination. A study conducted by Margaretha et al., (2020) found that cyberloafing significantly affects academic procrastination. Cyberloafing affects academic procrastination, which was the result of a study conducted by Bombaies et al. (2023). Güleç & Yıldız (2024) revealed a positive correlation between cyberloafing and academic procrastination. Guo et al. (2025) found a curvilinear relation between cyberloafing and academic procrastination.

Academic procrastination is associated with internet addiction (Chong, Abdul Nifa, & Wei, 2021; Hidalgo-Fuentes, 2022; Abdullah, 2026). Liu, Sun, Chen, and Fan (2022) found that internet addiction is a positive predictor of academic procrastination. The same results are given by (Magray & Chakraborty, 2024; Khan et al., 2025; Nugraha & Rahayu, 2025; Huanambal-Pérez et al., 2026).

The literature revealed that cyberloafing and internet addiction are constructs that contribute a lot to the academic procrastination of students. Although previous studies showed a significant contribution of non-academic use of the internet and problematic use of the internet to delays regarding academic responsibilities and activities, limited research studies found that both cyberloafing and internet addiction are predictors of academic procrastination. Specifically, in Pakistan, at the higher education level, it becomes more important to find out the reasons for academic procrastination related to the internet. With the increasing access to the internet and

digital devices, new opportunities have opened up for students to delay or neglect academic responsibilities. Therefore, the current study is justifiable for investigating cyberloafing and internet addiction as predictors of academic procrastination among higher education students. By examining their individual and combined predictive effects, the study may provide a more comprehensive understanding of how problematic digital behaviours contribute to academic delay and generate empirical evidence for developing appropriate preventive and intervention strategies to promote students' self-regulation and academic engagement.

Theoretical Background

This study is based on Bandura's theory of self-regulation. Self-regulation theory is based on the psychological concept of self-regulation. Self-regulation can be simply defined as control over oneself. It is related to the ability of a person to do what is perceived as right instead of following

every momentary wish and drive (Trautwein et al., 2026). Cyberloafing and internet addiction actually challenge the self-regulation ability of students by diverting their attention, time, and behavioural resources from academic goals and responsibilities toward immediate relaxation and gratification. Students who find it difficult to manage internet use are more likely to neglect or delay academic work.

Research Hypotheses

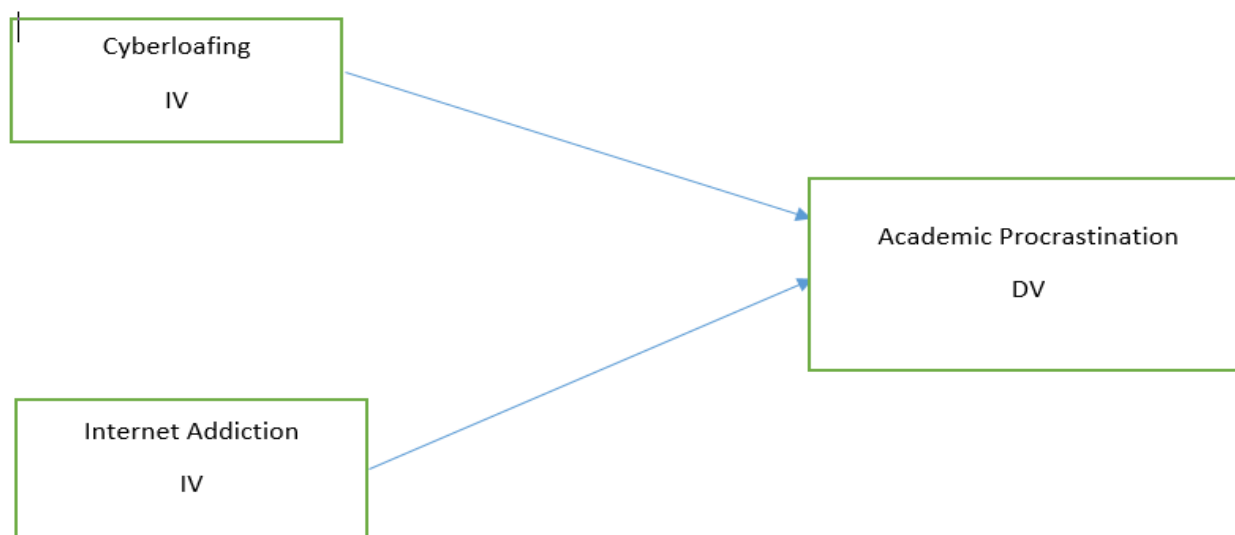
In the present study, the researcher examined the effect of cyberloafing and internet addiction on academic procrastination of university students. To examine the effect, the following hypotheses were tested:

H0: There is no effect of cyberloafing on academic procrastination of university students.

H0: There is no effect of internet addiction on academic procrastination of university students.

Conceptual Framework

The study was based on the following conceptual framework:



Research Methodology

This study was quantitative descriptive research. Data were collected to find out the level and dependence of academic procrastination on cyberloafing and internet addiction among students at the higher level.

Sample and Sampling Technique

The population of the research was students

enrolled in the Faculty of Arts and Social Sciences. There were 1,672 students enrolled in 11 departments in the Faculty of Arts and Social Sciences at Government College University Faisalabad. There were 11 departments in the Faculty of Arts and Social Sciences at Government College University, Faisalabad. Five departments were selected randomly to collect data. 830 students were selected conveniently to

collect data. The distribution of the sample is given below;

Table 1: *Sample Distribution Regarding Department, Gender and Semester*

	Frequency	Percent
Department		
Applied Linguistics	173	20.2
Applied Psychology	168	19.6
History	150	17.5
Education	170	19.8
Pakistan Studies	169	19.7
Gender		
Male	412	48.1
Female	418	48.8
Semester		
1st	114	13.7
3rd	144	17.3
5th	315	38.0
7 th	257	31.3
Total	830	100

Table 1 indicates the sample of this study regarding department, gender, and semester. From applied linguistics =173, applied psychology =168, history= 150, education =170, Pakistan studies=169 students applied. As far as gender was concerned, there were 412 males and 418 females from semester 1st =114, 3rd= 144, 5th= 315, 7th=257. The total number of respondents for all categories was 830.

Research Instrument

The following three tools were adopted and used to collect data.

The cyberloafing scale was adopted from a previously validated instrument developed and validated by Saritepeci and Uğurcan Sert (2021). This scale consisted of 16 items divided into three factors. Social purposes of cyberloafing consisted of nine items, Academic purpose of cyberloafing four items, and gaming purpose of cyberloafing three items. Participants were asked to rate between “Never= 1, rarely=2, sometimes = 3, often = 4, and always = 5”.

The Internet addiction questionnaire was adopted

from a previously validated instrument by Chen et al. (2003). It consisted of twenty-six items. Students have to select between “Does not match my experience at all = 1, probably does not match my experience= 2, probably matches my experience = 3, definitely matches my experience = 4”.

The Academic Procrastination Scale, developed by McCloskey & Scielzo (2015), was used to collect data on academic procrastination. It consisted of ten aspects with three questions on each aspect. Q1 is: To what degree do you procrastinate on this task? Have five options: “never procrastinate, almost never, sometimes, nearly always, and always procrastinate. Q2. To what degree is procrastination on this task a problem for you? With options: “Not a problem at all, almost never, sometimes, nearly always, always a problem”. Q3. To what extent do you want to decrease your tendency to procrastinate on this task? With options: “Do you want to decrease? Somewhat, definitely want to decrease”.

Reliability

Internal consistency was ensured by conducting a

reliability test using Cronbach's alpha coefficient in SPSS.

Table 2: Reliability Statistics

Scale	Cronbach's Alpha	No. of Items
Social purpose of cyberloafing	0.95	9
Academic purpose of cyberloafing	0.91	4
Gaming purpose of cyberloafing	0.89	3
Overall cyberloafing scale	0.96	16
Internet addiction	0.98	26
Academic procrastination	0.98	30

Table 2 indicates that Cronbach's alpha coefficient was 0.96 for 16 items. It is divided into three factors, i.e., social purpose of cyberloafing with a 0.95 Cronbach's alpha coefficient, Academic purpose of cyberloafing with a 0.91, and Gaming purpose of cyberloafing with a 0.89 Cronbach's alpha coefficient. Cronbach's alpha coefficient of the internet scale is 0.98, and

Academic procrastination's Cronbach's alpha coefficient was 0.98. All values indicated high reliability in the scale.

Data Analysis and Results

Data were analysed using descriptive and inferential statistics in SPSS.

Table 3: Descriptive Analysis of Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Cyberloafing	830	1.00	5.00	2.99	1.13
Internet Addiction	830	1.00	4.00	2.49	0.88
Academic procrastination	830	1.00	5.00	2.99	1.14

Table 3 shows that there are 830 respondents. $M=2.99$, $SD=1.13$ for Cyberloafing. $M=2.49$,

$SD=0.88$ for Internet addiction, and $M=2.99$, $SD=1.14$ for academic procrastination.

Table 4: Effect of Cyberloafing on Academic Procrastination

Predictor	B	Std. Error	Beta	t	Sig.
Constant	1.10	.08		12.69	.000
Cyberloafing	.63	.02	.63	23.32	.000

Note. $R = .63$, $R^2 = .396$, adjusted $R^2 = .39$, $F(1, 829) = 544.17$, $p < .001$, $N = 830$. The dependent variable was academic procrastination. CL = cyberloafing.

A simple linear regression analysis was conducted to determine whether cyberloafing predicts academic procrastination at the university level. The regression model was statistically significant, with $F(1, 829) = 544.17$, $P < .001$, indicating that cyberloafing is a positive predictor of academic procrastination. The values of $R = .63$ and $R^2 = .39$ indicate that cyberloafing explained 39 % of the variance in academic procrastination. The value of

adjusted R^2 was also .39, indicating that the model provided a stable estimate of explained variance.

As shown in the table, cyberloafing was a significant predictor of academic procrastination ($B = .63$, $SE = .02$, $\beta = .63$, $t(829) = 23.33$, $p < .001$). This shows that a one-unit increase in cyberloafing was associated with an estimated 0.63-unit increase in academic procrastination. The positive standardized coefficient ($\beta = .63$)

further indicates a relatively strong positive predictive relationship between cyberloafing and

academic procrastination.

Table 5:

Predictor	B	Std. Error	Beta	t	Sig.
Constant	1.11	.09		11.68	.000
Internet addiction	.75	.03	.58	20.87	.000

Note. $R = .587$, $R^2 = .344$, adjusted $R^2 = .344$, $F(1, 829) = 435.542$, $p < .001$, $N = 831$.

A Simple linear regression analysis was conducted to determine whether internet addiction predicts academic procrastination at the university level. The regression model was statistically significant, with $F(1, 829) = 435.54$, $P < .001$, indicating that internet addiction is a positive predictor of academic procrastination. The values of $R = .58$ and $R^2 = .34$ indicated that internet addiction explained 34% of the variance in academic procrastination. The value of adjusted R^2 was also .34, indicating that the model provided a stable estimate of explained variance.

As shown in the table, internet addiction was a significant predictor of academic procrastination ($B = .75$, $SE = .03$, $\beta = .587$, $t(829) = 20.87$, $p < .001$). This shows that a one-unit increase in internet addiction was associated with an estimated 0.63-unit increase in academic procrastination. The positive standardized coefficient ($\beta = .75$) further indicates a relatively strong positive predictive relationship between internet addiction and academic procrastination.

Findings

The findings of simple linear regression analysis revealed that cyberloafing and internet addiction were significant predictors of academic procrastination at the university level.

Conclusions and Discussion

The present study found that cyberloafing significantly predicted academic procrastination, indicating that students who frequently engage in non-academic internet activities during academic time are more likely to delay or postpone their academic responsibilities. This finding is consistent with Çınar and Mutlu (2021) and Çakmak and Gökçeşlan (2025), who also reported a significant relationship between cyberloafing and academic procrastination. One possible explanation is that cyberloafing provides

students with immediate pleasure and distraction from academic tasks that may require sustained attention and effort. Activities such as social networking, watching videos, online chatting, gaming, and browsing entertainment content can divert students' attention from academic responsibilities and reduce the time available for completing assignments. From the perspective of self-regulation theory, students who have difficulty controlling their online behaviour may also experience difficulty regulating their academic behaviour. Thus, cyberloafing may become a form of task avoidance in which students temporarily escape demanding academic activities but subsequently experience increased academic delay and pressure.

The study also revealed that internet use/addiction significantly predicted academic procrastination. This finding is supported by Khan, Bala, Khan, and Ramakrishna (2025) and Fazal, Nazir, Khan, and Khan (2025), who reported associations between problematic internet use and students' academic functioning. Excessive internet use may interfere with academic performance by consuming students' time, reducing concentration, and making it difficult to maintain attention on academic tasks. Students who find it difficult to control their internet use may repeatedly postpone academic activities in favor of immediately rewarding online experiences. In this way, problematic internet use can contribute to a cycle of avoidance in which students intend to complete academic tasks but continue engaging in online activities, eventually delaying their responsibilities.

The findings further suggest that digital behavior should be considered when examining the causes of academic procrastination among higher education students. Although the internet is an essential educational resource, uncontrolled use can become a source of distraction and task

avoidance. The findings are therefore important for educational institutions because interventions aimed at reducing academic procrastination should not focus only on time management and study skills but should also address students' digital self-regulation. Strategies such as setting specific study periods, limiting non-academic internet use, controlling digital notifications, establishing distraction-free study environments, and developing awareness of problematic online habits may help students manage their academic responsibilities more effectively. Overall, the consistency of the present findings with previous studies strengthens the conclusion that cyberloafing and problematic internet use are important predictors of academic procrastination, particularly in the increasingly digital higher education environment.

Conflict of Interest

The authors showed no conflict of interest.

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Recommendations

It is recommended that students be guided and trained regarding mobile and internet usage for academic work, without surfing the internet. Self-regulation should be the central point of training or intervention for improvement. Students should be provided with goal setting, self-monitoring, time management, self-reinforcement, and impulse control.

Recommendations for Future Research

For future research, it is recommended that other variables like self-control, anxiety, academic stress, and FOMO should be investigated as mediators or moderators between cyberloafing/internet addiction and academic procrastination.

References

- Abdullah, H. S. L., Amalia, R., Indreswari, H., Hambali, I. M., Aditya, R. S., & Rusnila, R. (2026). Smartphone Use, Social Media, and Academic Procrastination in Secondary Education: A Multi Method Approach Investigation with Implications for School-Based Interventions. *Buletin Konseling Inovatif*, 6(2), 83-97.
- Abdollahi, A., Maleki Farah, N., Panahipour, S., & Allen, K. A. (2020). Academic hardiness as a moderator between evaluative concerns, perfectionism, and academic procrastination in students. *The Journal of Genetic Psychology*, 181(5), 365–374. <https://doi.org/10.1080/00221325.2020.1783194>
- Bala, A., Khan, M. A., & Ramakrishna, P. (2025). Artificial Intelligence in Higher Education: Impact and Future. *International Journal of Contemporary Research in Multidisciplinary*, 4(3).
- Bombaes, A., Cosico, M. T. D., Pimentel, F. A., Cabig, M. A., Leron, A., Hoñez, S., Cada, L. R., & Laguna, M. J. (2023). College students' cognitive absorption, cyberloafing, psychological capital, and academic procrastination: An empirical perspective from Capiz Province. *Psychology and Education: A Multidisciplinary Journal*, 13(3).
- Çakmak, N., & Gökçearslan, Ş. (2025). Academic motivation, cyberloafing, and multiscreen addiction in university students. *International Journal of Turkish Education Sciences*, 13(2), 822-854.
- Carpio, C. L. M., Ablan, A. M., Rivera, R. R. R., & Villarica, M. V. (2025). Investigating the Triggers and Outcomes of Academic Procrastination in an Online Learning Environment amid the COVID-19 Pandemic. *Journal of Institutional Research South East Asia*, 23(2), 182.
- Chong, K. L., Nifa, F. A. A., & Peh, W. C. (2021). Factor contributing to Internet addiction and its influence on academic procrastination behavior among UUM students. *Journal of Governance and Development (JGD)*, 17(2), 61-75.
- Çiftçi, S., & Çengel Schoville, M. (2026). Cyberloafing in education: A systematic review. *İnsan ve Sosyal Bilimler Dergisi*, 9(1), 22–45. <https://doi.org/10.53048/johass.1918919>
- Ergün, E., & Altun, A. (2012). The student's perspective of cyberloafing and its causes. *Educational Technology Theory and Practice*, 2(1), 36-53.
- Farooq, A., Shah, T., & Amin, F. (2024). Academic Procrastination and Academic Performance among Conventional and Online Learners: Understanding Role of Learners' Characteristics. *Journal of Educators Online*, 21(3), 1.
- Fazal, S., Nazir, F., Khan, M. I., & Khan, S. I. (2025). Gender equity in higher education in Pakistan: Bridging dreams and realities. *Australian Feminist Studies*, 40(123), 41-59.
- Gadosey, C. K., Schnettler, T., Scheunemann, A., Fries, S., & Grunschel, C. (2021). The intraindividual co-occurrence of anxiety and hope in procrastination episodes during exam preparations: An experience sampling study. *Learning and Individual Differences*, 88, 102013.
- Güleç, S., & Yıldız, H. (2024). The mediating role of cyberloafing in the relationship between willpower and academic procrastination among high school students. *International Journal of Turkish Education Sciences*, 12(3).
- Guo, Y., Song, Y., & Guo, J. (2025). The curvilinear relationship between cyberloafing and academic performance among college students: An empirical evidence from China. *Education and Information Technologies*, 30, 18327–18346. <https://doi.org/10.1007/s10639-025-13499-4>
- Hidalgo-Fuentes, S. (2022). Uso problemático de Internet y procrastinación en estudiantes: Un meta-análisis [Problematic Internet use and procrastination in students: A meta-analysis]. *European Journal of Education and Psychology*, 15(1), 1–18. <https://doi.org/10.32457/ejep.v15i1.1815>

- He, D., Shi, H., Hu, Y., Tang, M., & Huang, W. (2026). Future time perspective and cyberloafing in Chinese adolescents: the multiple mediating role of self-control and excessive smartphone use. *BMC psychology*, 14(1), 436.
- Huanambal-Pérez, M. E., Calixtro-Ruiz, E. J., Cunza-Aranzábal, D. F., & Abanto-Ramírez, C. D. (2026). Relationship between Procrastination and Perceived Academic Achievement: The Mediating Role of Internet Addiction. *Education Sciences*, 16(1), 106.
- Khan, A., Aziz, A., Khan, N. A., Fatima, N., & Ashraf, N. (2025). Internet Addiction, Academic Procrastination and Self-Esteem among University Students. *Journal of Social Horizons*, 2(2), 10-18.
- Lim, V. K. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of organizational behavior, The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(5), 675-694.
- Liu, S., Zou, S., Zhang, D., Wang, X., & Wu, X. (2022). Problematic Internet use and academic engagement during the COVID-19 lockdown: The indirect effects of depression, anxiety, and insomnia in early, middle, and late adolescence. *Journal of Affective Disorders*, 309, 9-18.
- Magray, A. A., & Chakraborty, R. (2024). Internet Addiction and Academic Procrastination among College Students: A Comprehensive Study. *Journal of Research & Innovations in Education*, 10(2), 102-109.
- Madjid, A., Sutoyo, D. A., & Shodiq, S. F. (2021). Academic procrastination among students: The influence of social support and resilience mediated by religious character. *Jurnal Cakrawala Pendidikan*, 40(1), 56–69. <https://doi.org/10.21831/cp.v40i1.34641>
- Margaretha, M., Saragih, S., Mariana, A., & Simatupang, K. M. (2022). Academic procrastination and cyberloafing behavior: A case study of students in Indonesia. *Cypriot Journal of Educational Sciences*, 17(3), 752–764. <https://doi.org/10.18844/cjes.v17i3.6904>
- McCloskey, J., & Scielzo, S. A. (2015). Finally, The development and validation of the academic procrastination scale. Manuscript submitted for publication.
- Manger, N., & Rai, S. (2025). Beating the Deadline: Exploring the Impact of Academic Procrastination on Academic Achievement among College Students in Sikkim. *ShodhPatra: International Journal of Science and Humanities*, 2(8), 13-22.
- Nugraha, H. S., & Rahayu, M. N. M. (2025). Internet Addiction and Academic Procrastination: Exploring the Relationship among Students of SMAN 1 Gabus. *Jurnal Psikologi Wijaya Putra*, 6(2).
- Şahin, Y. L. (2020). A review on Facebook social network users' behaviors of academic procrastination and cyberloafing in educational settings. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 21(1).
- Saleem, K., & Rauf, N. K. (2024). Impacts of Problematic Internet use Among Adolescents of Pakistan: A Qualitative Inquiry. *Pakistan Armed Forces Medical Journal*, 74(4), 1114.
- Saritepeci, M., & Sert, U. (2021). Cyberloafing level of university students: A scale development study. *Research on Education and Psychology*, 5(1), 41-52.
- Svartdal, F., Dahl, T. I., Gamst-Klaussen, T., Koppenborg, M., & Klingsieck, K. B. (2020). How study environments foster academic procrastination: Overview and recommendations. *Frontiers in Psychology*, 11, 540910. <https://doi.org/10.3389/fpsyg.2020.540910>
- Tezer, M. (2020). Academic procrastination behaviours and problematic internet usage of high school students during the COVID-19 pandemic period. *International Journal of Special Education and Information Technologies*, 6(1), 01-17.

- Trautwein, U., Eberhart, J., Dignath, C., Bonner, C. V., & Roberts, B. W. (2026). Self-regulation competence as a superpower: An integrated framework for K-12. *Educational Psychology Review*, 38, 95. <https://doi.org/10.1007/s10648-026-10190-z>
- Twum, R., Yarkwah, C., & Nkrumah, I. K. (2021). Utilisation of the Internet for cyberloafing activities among university students. *Journal of Digital Educational Technology*, 1(1), Article ep2101. <https://doi.org/10.21601/jdet/10912>
- Vitak, J., Crouse, J., & LaRose, R. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 27(5), 1751–1759. <https://doi.org/10.1016/j.chb.2011.03.002>
- Young, K. (2009). Internet addiction: diagnosis and treatment considerations. *Journal of Contemporary Psychotherapy*, 39(4), 241-246.