

The Impact of Academic Stress on Cyberloafing Behavior in College Students

Pengaruh Stres Akademik Terhadap Perilaku Cyberloafing pada Mahasiswa

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Abstract


The rapid advances in information technology have made the internet a primary tool in academia, which has also led to the emergence of cyberloafing as a way for students to escape academic pressure. This study aims to examine the influence of academic stress on cyberloafing behavior among college students at University X. The study used a non-experimental quantitative method with an associative-predictive approach, involving 200 respondents selected via accidental sampling. The instruments used were the modified Student Cyberloafing Scale and the Educational Stress Scale for Adolescents (ESSA). The results indicate a positive and significant effect of academic stress on cyberloafing behavior, with a significance level of $p < 0.001$ and a regression coefficient of 0.811. Analysis of the coefficient of determination shows that academic stress accounts for 36.5% of the variance in cyberloafing behavior, while the remainder is influenced by other factors outside the scope of this study. These findings emphasize the importance of interactive learning methods and counseling services to develop better coping strategies to reduce non-academic internet use during learning activities.

Keywords: Academic stress; cyberloafing; college student

Abstrak

Pesatnya kemajuan teknologi informasi menjadikan internet sarana utama dalam bidang akademik. Namun, kondisi ini juga memicu munculnya fenomena cyberloafing sebagai bentuk pengalihan mahasiswa dari tekanan akademik. Penelitian ini bertujuan untuk mengetahui pengaruh stres akademik terhadap perilaku cyberloafing pada mahasiswa Universitas X. Metode yang digunakan adalah kuantitatif non-eksperimen dengan pendekatan asosiatif prediktif, melibatkan 200 responden yang diperoleh melalui teknik accidental sampling. Instrumen yang digunakan adalah Student Cyberloafing Scale dan Educational Stress Scale for Adolescents (ESSA) yang telah dimodifikasi. Hasil penelitian menunjukkan adanya pengaruh positif dan signifikan stres akademik terhadap perilaku cyberloafing dengan nilai signifikansi $p < 0,001$ dan koefisien regresi sebesar 0,811. Analisis koefisien determinasi menunjukkan stres akademik mampu menjelaskan 36,5% varian perilaku cyberloafing, sementara sisanya dipengaruhi oleh faktor lain di luar penelitian ini. Temuan ini menekankan pentingnya metode pembelajaran interaktif dan layanan konseling untuk mengembangkan strategi coping yang lebih baik guna mengurangi penggunaan internet non-akademik selama kegiatan belajar.

Kata kunci: Stres akademik; cyberloafing; mahasiswa

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Advances in communication and information technology have had a significant impact on human life, particularly in higher education. The internet has become a primary tool for academic activities, such as searching for reading materials, online learning, and submitting assignments through specific platforms (Anastasya, 2025). Based on survey data from *Asosiasi Penyelenggara Jasa Internet Indonesia* (APJII) in 2025, Indonesia currently has more than 229 million internet users. Indonesia ranks fourth in the world for internet usage, behind the United States (US), India, and China (Petrosyan, 2025). Approximately 15.43% of Indonesia's internet users are from East Java Province, with the largest age group being Generation Z (aged 13 to 28 years) (APJII, 2025).

Most internet users today are Generation Z, predominantly college students. In an educational context, internet use unrelated to learning activities is termed cyberloafing (Megawati et al., 2023). Cyberloafing, also known as cyberslacking, refers to college students' use of the internet for activities unrelated to lecture material or academic assignments (Ardelia, 2023). According to Akbulut (2016), as cited in Anastasya (2025), cyberloafing is the use of the internet for non-academic purposes during study activities, such as viewing social media, playing online games, or other enjoyable online activities.

Academic stress is defined as the pressure college students experience when facing demands to complete assignments, achieve high grades, manage study time, pursue achievements, and face exams, which impact their physical and psychological condition (Dinarti & Satwika, 2022). Furthermore, Han et al. (2024) define academic stress as the pressure from various academic demands, such as piling up assignments, intensive exams, and environmental and family expectations, which can impact an individual's psychological state. Kumparan.com reports that academic stress in college students can trigger suicide, as the fear of failure and negative stigma from society can drive individuals to take suicidal steps (Saputra, 2023).

Data indicates a significant level of academic stress among college students; Sari and Marsisno (2023) found that 70.3% of the 350 college student sample experienced moderate academic stress. Wahyuni et al. (2025) explain that when individuals face stress that threatens their psychological condition, they tend to seek an outlet or avoid the source of pressure through distraction activities. This strategy is known as Emotionally Focused Coping, which is how individuals manage their emotional reactions to stress. In the modern academic environment, supported by easy internet access, cyberloafing has become an instant and practical form of release to reduce emotional tension caused by academic demands.

The phenomenon of cyberloafing as a mechanism for escaping academic pressure is increasingly common among college students. High academic pressure encourages individuals to seek ways to avoid study demands, thus establishing the link between academic stress and cyberloafing behavior. Several previous studies have shown a positive and significant relationship between academic stress and cyberloafing behavior in college students (Anastasya, 2025; Fajri & Wangi, 2024). Reinforced by these empirical findings, this study is also motivated by the researchers' observations and brief interviews within the subject environment, which uncovered the phenomenon of college students using the internet for non-academic activities during lecture hours or while working on assignments as a form of stress release due to the large workload. This phenomenon underscores the importance of understanding the influence of academic stress on cyberloafing behavior in college students.

Based on this background analysis, observed phenomenon, and previous empirical findings, academic stress is a genuine condition experienced by college students and has the potential to trigger

diversionary behavior such as cyberloafing. However, the specific influence of academic stress as the primary driver of cyberloafing still needs further investigation within the context of different populations. Therefore, this study was conducted to examine the impact of academic stress on cyberloafing behavior in college students.

Method

The research used a quantitative non-experimental method with an associative-predictive approach. Statistical analysis was used to measure the predictive contribution between the variables (Sihotang, 2023). Therefore, this study focused on statistically analyzing the magnitude of academic stress's contribution or predictive power on cyberloafing behavior, without manipulating the variables.

Population and Sample

The population of this study consisted of all 1,871 active college students in one faculty at University X. The accidental sampling technique was used for data collection. According to Sugiyono (2013), accidental sampling is a technique for determining the sample based on chance, where any person who happens to meet the researcher and is deemed suitable is included as a respondent. The sample size was determined using G-Power software, which indicated a minimum requirement of 199 respondents. Therefore, the respondents obtained were 200 college students with the following frequency distribution.

Table 1. Age Frequency

Age	Amount	Percentage (%)
22	44	22.0%
21	71	35.5%
20	28	14.0%
19	41	20.5%
18	16	8.0%
Total	200	100%

Table 1 shows that the respondents' ages ranged from 18 to 22 years, with the highest frequency being 21-year-olds (71 respondents or 35.5%). This was followed by 44 respondents aged 22 (22%), 28 respondents aged 20 (14%), 41 respondents aged 19 (20.5%), and the lowest frequency was 18-year-olds with 16 respondents (8%).

Table 2. Gender Frequency

Gender	Amount	Percentage (%)
Female	140	70.0%
Male	60	30.0%
Total	200	100%

The majority of respondents were female, totaling 140 (70%), while male respondents totaled 60 (30%).

Data Collection

Data were collected using a questionnaire for cyberloafing behavior and academic stress variables distributed via Google Forms (G-Form). Cyberloafing behavior was measured using the Student Cyberloafing Scale from Megawati et al. (2023), which is an Indonesian adaptation of the Scale of Cyberloafing in Educational Settings (SCES) developed by Saritepeci and Sert (2021). This adapted instrument has 17 statement items and uses a five option likert scale, 1 = *Tidak Pernah*, 2 = *Jarang*, 3 = *Kadang-kadang*, 4 = *Sering*, and 5 = *Selalu*. Thus, a higher total score indicates higher cyberloafing behavior. The Student Cyberloafing Scale showed good reliability with a Cronbach's Alpha value of 0.959 (> 0.7).

Academic stress was measured using the Educational Stress Scale for Adolescents (ESSA), which was originally developed by Sun et al. (2011) and adapted into Indonesian by Dewi et al. (2023). The modified ESSA has 9 statement items with the likert scale divided into five options: 1 = *Sangat Tidak Setuju*, 2 = *Tidak Setuju*, 3 = *Netral*, 4 = *Setuju*, and 5 = *Sangat Setuju*. Therefore, the higher the total score, the higher the level of academic stress. The ESSA also demonstrated good reliability with a Cronbach's Alpha value of 0.906 (> 0.7).

Data Analysis

The obtained data were processed using Jamovi software version 2.7. Data processing was performed by testing assumptions using the Shapiro-Wilk normality test. A heteroscedasticity test was also performed, as seen through the scatterplot distribution. Hypothesis testing was then performed using a simple linear regression test, including the coefficient of determination (R^2) test to measure the regression model's ability to explain variation in the dependent variable.

Result

The study results, processed using Jamovi version 2.7 software, include the following descriptive analysis.

Table 3. Statistical Data Description

	Academic Stress	Cyberloafing
N	200	200
Mean	27.9	56.6
Min.	12	34
Max.	45	81
Std. Dev	6.29	8.44

Based on data from 200 respondents, the academic stress variable showed a mean score of 27.9 (SD = 6.29) with a range of 12–45, while the cyberloafing variable had a mean score of 56.6 (SD = 8.44) with a range of 34–81. These scores suggest that the majority of college students fall into the medium level category for both variables.

To obtain a clearer picture of the level of academic stress and cyberloafing behavior in college students, score categorization was carried out based on normal distribution, using the mean and standard deviation of each variable as a reference. The categorization was divided into low, medium, and high.

Table 4. Categorization of Academic Stress Scores

Formula	Category	Amount
$X < 21.61$	Low	32
$21.61 \leq X < 34.19$	Medium	132
$X \geq 34.19$	High	36
Total		200

Table 5. Categorization of Cyberloafing Behavior Scores

Formula	Category	Amount
$Y < 48.16$	Low	36
$48.16 \leq Y < 65.04$	Medium	132
$Y \geq 65.04$	High	32
Total		200

Subsequently, a normality test was carried out using the Shapiro-Wilk method, with the criterion that data is considered normally distributed if the significance value (p) is > 0.05 .

Table 6. Results of the Shapiro-Wilk Normality Test

	Academic Stress	Cyberloafing
Shapiro-Wilk W	0.992	0.996
Shapiro-Wilk p	0.340	0.878

Table 6 shows that the significance value (Shapiro-Wilk p) is 0.340 for academic stress and 0.878 for cyberloafing. Since both p values are > 0.05 , it is concluded that the data for both variables in this study are normally distributed. Next, the data distribution was examined using the scatterplot graph in the following image.

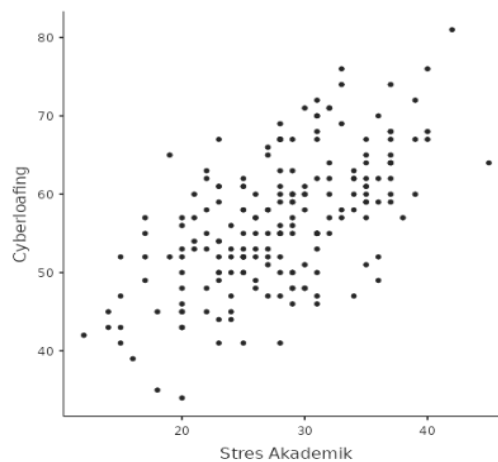


Figure 1. Scatterplot Graph Distribution

Figure 1 shows that the data points are randomly and evenly distributed without forming a clear pattern. This patternless distribution indicates that the regression model meets the homoscedasticity assumption, meaning the variance of the data distribution is constant across the entire range of academic stress values. A formal heteroskedasticity test was also conducted using the Breusch-Pagan test.

Table 7. Assumption of Heterokedasticity Test

	Statistic	p
Breusch-Pagan	0.124	0.724

Based on Table 7, the results yielded a test statistic of 0.124 with a p-value of 0.724 ($p > 0.05$). This indicates that the variance of the residuals is constant (homoscedasticity is met), confirming that the regression model is free from heteroskedasticity issues. After confirming that all data are normally distributed, a hypothesis test was conducted using a simple linear regression test, as shown in the following table.

Table 8. Coefficient Model – Cyberloafing

Predictor	Estimate (β)	SE	t	p
Intercept	33.998	2.1735	15.6	<0.001
Academic Stress	0.811	0.0760	10.7	<0.001

Table 8 shows a significance value of <0.001, which is far below 0.05. This indicates that academic stress is significantly related to cyberloafing behavior. The estimated value, or positive regression coefficient (β), of academic stress is 0.811, indicating a unidirectional relationship. Therefore, every one-unit increase in the academic stress score is followed by a 0.811 increase in the cyberloafing behavior score. In addition, the constant value (Intercept) of 33.998 indicates the baseline level of cyberloafing behavior when academic stress is zero (0). To determine the extent to which this model explains the variance in the dependent variable (cyberloafing behavior), a coefficient of determination test (R^2) was conducted, summarized in the following table.

Table 9. Model Fit Measures

Model	R	R^2
Academic Stress on Cyberloafing Behavior	0.604	0.365

Table 9 shows that the correlation coefficient (R) is 0.604, indicating a strong relationship between academic stress and cyberloafing behavior. Furthermore, the coefficient of determination (R^2) is 0.365, indicating that academic stress accounts for 36.5% of the variance explained in cyberloafing behavior among college students. The remaining 63.5% is explained by other variables not included in this model. Overall, the results support the hypothesis that academic stress is a significant predictor of cyberloafing behavior among college students.

Discussion

The results of this study indicate that academic stress has a positive and significant effect on cyberloafing behavior among students. Specifically, the alternative hypothesis (H_1) is accepted, supported by a high significance level ($p < 0.001$) and the regression model explaining 36.5% of the total variance in cyberloafing behavior ($R^2 = 0.365$).

This finding is supported by the theoretical context of stress coping behavior. According to the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), stress arises when academic demands are perceived as exceeding an individual's psychological capacity. However, the cyberloafing behavior that arises from this pressure cannot be completely generalized as a functional emotional coping strategy. This behavior is more accurately interpreted as a form of maladaptive avoidance. When college students experience excessive cognitive load due to stress, they are susceptible to instantly escaping to non-academic activities online to temporarily relieve emotional tension.

The results also indicate that academic stress contributes to college students seeking escape by surfing the internet during their learning activities. This is reinforced by the findings of Rohmah et al. (2025), who also reported that academic stress was a significant predictor of cyberloafing behavior ($R^2 = 0.062$, or 6.2%). Although the explained variance in that study was relatively small, the consistent influence demonstrates that the phenomenon of using the internet for non-academic purposes still occurs among college students during study activities.

Furthermore, Fajri and Wangi (2024) found that academic stress also had a positive effect on cyberloafing behavior ($R^2 = 11.4\%$). This significance was influenced by the context of the post-pandemic hybrid learning environment, where college students often experienced boredom during lectures. Despite the smaller effect size compared to the current study, this finding nevertheless indicates that academic stress significantly influences cyberloafing.

Similarly, Anastasya (2025) also found a coefficient of determination of 37.9% between academic stress and cyberloafing. These findings suggest that college students tend to engage in cyberloafing when under significant academic pressure as a way to manage their emotions. This supports the argument that cyberloafing is a behavior consistent with an avoidance-based coping strategy for college students facing stressful academic environments.

Majid et al. (2024) also provided similar empirical evidence regarding the positive and significant influence of academic stress on cyberloafing behavior ($R^2 = 0.884$). The study emphasized that college students' perceptions of academic conditions, such as fear of failure and poor relationships with lecturers, were motivating factors for them to turn to unproductive internet activities during class hours. These findings confirm that academic stress factors in the educational environment influence college students' decisions to engage in cyberloafing.

In addition, Sari (2024) also confirmed that academic stress positively influences cyberloafing behavior, with a correlation of 0.491. The study explains that poorly managed academic demands can cause stress, which triggers cyberloafing behavior. This confirms that when college students feel mentally burdened, they lose focus on learning and prefer the instant gratification offered by the internet.

When viewed through the cyberloafing dimensions identified by Megawati et al. (2023), activities like checking social media notifications for social purposes are common among today's college students. This is often done out of a need for social support or simply to seek a distraction from anxiety about academic grades or other high-stress aspects of academic life. With easy internet access, it is easier for college students to escape the stressful realities of academic life into a more entertaining digital environment.

Overall, academic stress serves as a genuine psychological trigger for cyberloafing behavior among college students. This finding is consistent with various previous studies which also show that cyberloafing can serve as a distraction or temporary emotional release due to excessive study load. Furthermore, the current sample provided empirical and objective statistical evidence regarding the influence of academic stress on cyberloafing. However, this study has limitations in generalization because it only focuses on college students at University X, and cyberloafing behavior is also heavily influenced by other external variables outside the scope of this study.

Conclusion

Based on the study conducted on the influence of academic stress on cyberloafing behavior among students at University X, a positive and significant relationship was found ($p < 0.001$). Academic stress accounts for an R-squared (R^2) value of 0.365, representing 36.5% of the variance explained in cyberloafing behavior, while the remaining 63.5% is variance accounted for by other factors not examined in this study. Therefore, the alternative hypothesis (H_1), which states that academic stress has a statistically significant effect on cyberloafing behavior among students, is accepted, and the null hypothesis (H_0) is rejected.

Furthermore, descriptive analysis showed that academic stress was predominantly in the moderate to high categories, while cyberloafing behavior was mostly in the low to moderate categories. The relatively high proportion of academic stress warrants greater attention, as increasing academic stress levels correlate with a rising tendency to engage in cyberloafing behavior.

Recommendation

Based on these findings, it is recommended that future researchers expand the scope of their studies by using a more diverse population, applying different research methods, and exploring other independent variables such as self-control, self-efficacy, boredom, and learning motivation to achieve a more comprehensive representation.

For students, it is expected that they develop greater self-awareness, recognize, and practice effective stress management strategies to reduce their perceived academic burden. With proper emotional management, students are encouraged to consciously reduce cyberloafing during lectures and focus more on academic responsibilities for optimal learning outcomes.

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