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Cyber Loafing, Self-control, and Academic Burnout in GEN Z University Students

Abstract

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Abstract

The present study examined the correlation between cyber loafing, self-control, psychological detachment and academic burnout in Gen Z university students. Particularly, the study examined the mediating role of psychological detachment in the relationship between cyber loafing and academic burnout. The research was rooted in CHAT (cultural historical activity theory, Engeström, 2001) to investigate how students' interaction with digital technology determined by broader social, cultural, and educational context. A cross-sectional correlational design was used, with 252 Gen Z university students, consisting of 120 men and 132 women participants. Non-probability purposive sampling was employed and in person data collection was conducted, using Cyber Loafing Scale, Brief Self-Control Scale, Recovery Experience Questionnaire and Academic Burnout Scale. Results revealed that cyber loafing, psychological detachment and academic burnout are positively correlated whereas, self-control and academic burnout showed negative relationship in Gen Z university students. Furthermore, in Gen Z university students, academic burnout was positively predicted by cyber loafing and psychological detachment, while, negatively predicted by self-control. Lastly, the relationship between cyber loafing and academic burnout was significantly mediated by psychological detachment. The results will help researchers understand how digital distractions affect academic well-being, and provide recommendations on how to enhance self-control and psychological detachment to mitigate the detrimental consequences of cyber loafing.

Keywords: academic burnout, cyber loafing, Gen Z, psychological detachment, self-control, university students

Introduction

Smartphones have many advantages, such as making knowledge easily and

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reasonably accessible to students, but they can also result in unproductive behavior. However, it emphasizes that if information technologies are not used responsibly, it leads to a rise in texting during class and computer use for non-work-related content (Granberg & Witte, 2005). As a digital generation, Gen Z students depend extensively on online platforms for learning, communication, and entertainment, which makes them a particularly relevant group for examining how digital habits affect academic behavior and well-being (Prensky, 2001). Cyberloafing by students can have detrimental effects, including poor academic performance, smart phone addiction, and distraction (Margaretha et al., 2021). Doğru and Kabasakal (2023) investigated the correlation between academic burnout and cyberloafing during the COVID- 19 pandemic at educational institutions with university students. According to Maslach (2003) burnout is a syndrome of exhaustion that includes low personal accomplishment, depersonalization, and emotional depletion. According to Meier (1985), academic burnout is the depletion of students' enthusiasm brought on by ongoing academic strain and load, the progressive loss of interest in academics and extracurricular activities, disinterest and detachment from classmates, and a low level of excitement for homework. According to Schaufeli et al. (2002), a combination of cynicism, emotional exhaustion, and academic inefficiency brought on by a continuous inability to effectively manage learning stress is known as academic burnout. Although students are not officially employed or hold employment, their primary activities can be viewed as work from a psychological standpoint. As a result, individuals participate in organized, coercive activities (such as going to class and finishing homework) that are meant to help them achieve a particular objective (i.e., passing tests). Therefore, burnout is a work-related issue that can also affect students (Rahmati, 2015).

Psychological Detachment is studied as a mediator in this study. Psychological detachment reflects fundamental psychological processes by which cyber loafing may impact academic burnout. According to Sonnentag and Fritz (2007), psychological detachment is the capacity of an individual to psychologically disconnect from obligations linked to work or study during non-working periods, allowing exhausted cognitive and emotional resources to recover. The conservation of Resources (COR) theory (Hobfoll, 1989) holds that people constantly work to obtain, preserve, and replenish their own resources. Instead of establishing true mental detachment from academic obligations, students who indulge in excessive

cyber loafing may continue to be cognitively busy with online activities. As a result, insufficient psychological detachment restricts the recovery of resources, leading to extended mental exhaustion and heightened vulnerability to academic burnout.

Moreover, there is a study conducted in Pakistan in undergraduate university students, in order to find out the association between emotional intelligence and academic burnout. Emotional intelligence and academic burnout showed significant positive predictive relationship in undergraduate students (Saeed & Ahmad, 2017).

Kalaycı (2010) examined cyber loafing in Turkish educational institutions. He defined the term as students using the internet for wasting their time on non-course related activities. Cyber loafing, as defined by Lim (2002), who was the first researcher to recognize the quantifiability of cyber loafing, is the voluntary practice of employees using their internet access while at work to browse websites unrelated to work for personal use. Workplace internet misuse is known as cyberslacking or cyberloafing, and it can cause a large loss of productivity for the organization (Everton et al., 2005). Students using the internet for non-class related purposes during class is known as Cyber loafing (Kalaycı, 2010). The learning and work place environments are highly dissimilar, and there are notable differences between employees and students with regard to cyber loafing (Akbulut et al., 2017). In Pakistani higher education institutions, Hanif et al. (2022) conducted research in order to fill the knowledge gap about the inadequate explanation of cyberslacking behaviors among students in developing nations. The results revealed that although attitude and student escapism fuel cyberslacking intents, student consumerism, inattention, and indifference to course material, all contribute significantly in these students' cyberslacking attitudes.

Furthermore, self-control is the dilemma of making decisions between a large later reward and a smaller sooner reward (Rachlin, 2000). The capacity to regulate one's feelings and actions is known as self-control, which is a predictor of how well one will adjust to reality (Wang et al., 2020). Research revealed that those with strong self-control tended to be more productive and hardworking, take the initiative to solve problems as they arise, and had a positive mindset when faced with academic demands and hence, show less academic burnout (Chen, 2022). On the contrary, those who lack self-control find it difficult to regulate and control their behavior,

and they are more prone to feel depressed when faced with issues that are not instantly resolved (Liu et al., 2014). Troll et al. (2021) explores how students' academic performance is impacted by self-control and smartphone use, and revealed that students who exhibit greater self-control performed better academically.

Sonnentag et al. (2010) defined psychological detachment from work as both avoiding job-related activities and avoiding thinking about job related issues during off- job time. Universities and organizations are two different things with different standards, customs and expectations. High work expectations are common for both employees and university students, however because of the nature of academic life, university students may find it more difficult to mentally set aside their academic demands during their free time (Luta et al., 2021). Safstrom and Hartig (2013) examined the mediating versus moderating role of psychological detachment between job stressors and psychological strain. Results of the hierarchical regression analysis confirmed the mediating role of psychological detachment in the relationship between job demands and perceived stress. Furthermore, detachment was also found to be a mediator between job demand and satisfaction with life. The university settings, however, encourage integration between the academic and extracurricular spheres, which may support a life style that is less supportive of disengagement from academic obligations. There are many significant distinctions between the detachment of employees and university students, one of them is that universities are organized according to the academic calendar, in contrast to workplaces. According to research, students experience a surge in stress, fatigue, and burnout during exam season (Law, 2010).

In a nutshell, Gen Z university students may experience academic burnout due to cyber loafing during class because they are more prone to digital technology. Moreover, students having high self-control tend to score low on academic burnout. Lastly, psychological detachment is likely to influence the correlation between cyber loafing and academic burnout in Gen Z university students.

Theoretical Background

In this study, the theoretical foundation is provided by the Cultural-Historical Activity Theory (CHAT; Engeström, 2001), emphasizing how students' behaviors, are shaped by broader social, cultural, and

technological influences. A group of Russian psychologists, led by Vygotsky (1986, 1978), Luria (1976), and Leont'ev (1978), created Activation Theory (AT) in the 1920s as a counter to behaviorism and western psychology. Together they developed the theory, leading to progressive changes. Vygotsky (1978) introduced the concept of mediation, which posits that humans react to and act upon mediating objects in the environment, such as tools, signs, and instruments, leading to an outcome. Engeström (2001) introduced the second generation of CHAT theory, considering the inter-relationships between individuals and communities, history, context and situational interaction. He incorporated the first generation of CHAT into his ideas, stating that subject is a person or group working towards an object, with instruments, rules, community, and division of labor mediating or influencing the outcome. Furthermore, Engeström (2001) goes into additional depth about activity systems, incorporating networks of interconnected systems to address conflicts and tensions and promote group learning via transformation. The latter model, referred to as third generation CHAT, may be seen as growing into institutions and organizations, and applied to big systems (Nussbaumer, 2012).

According to CHAT, an individual's actions are not isolated but are determined by the tools, social norms, and historical context in which they operate. For Generation Z students, who have grown up in a highly digital environment, cyber loafing represents an activity shaped by their constant connectivity and academic pressures. CHAT allows us to view cyber loafing not just as a distraction but as a response to an educational system embedded within a digital culture, where tools like smartphones and social media become integral to students' study environments. Within this framework, self-control and psychological detachment are seen as mental tools or strategies that students use to manage their engagement with technology and academic responsibilities, potentially influencing the extent to which cyber loafing leads to burnout.

Rationale

In the current digital era, technology integration into learning environment has become a necessity as well as a challenge. Despite enhancing learning opportunities, digital tools also cause distractions, leading to cyber loafing. Previous researches revealed that cyber loafing negatively impacts on academic performance, concentration, and overall

learning of students (Wu et al., 2018). Prior researches have established relationships between cyber loafing, self-control, psychological detachment and academic burnout independently. However, there is a lack of studies examining these constructs together, particularly within the context of Gen Z university students, who are grown in a digital environment and may exhibit unique behavioral patterns. In previous studies, cyber loafing was extensively studied in workplace settings, but there are limited researches on cyber loafing in academic environment (Mihelič et al., 2023). The study also tends to explore the factors influencing students' intentions to cyberloaf, as the habit of cyber loafing is likely to continue in their workplaces, affecting labor force performance and productivity. Psychological detachment has been explored in the workplace as a coping mechanism to deal with stress (Sonnentag et al., 2010). However, its role in the relationship between cyber loafing and academic burnout remains under researched. Additionally, by serving cultural- historical activity theory (CHAT) as a theoretical framework, this study expands on cyber loafing research beyond the theory of planned behavior (TPB) and theory of reasoned action (TRA). Furthermore, there are very limited indigenous researches on these variables. This study contributes to existing literature in the field of education, digital technology, and psychology, while improving modern students' issues in an increasingly digital world. By filling these gaps, the research aims to inform strategies that educational institutions can implement to mitigate academic burnout and enhance student performance.

Objectives

- To find out the relationship between cyber loafing, self-control, psychological detachment and academic burnout in GEN Z university students.
- To find out the predicting role of cyber loafing, self-control, psychological detachment and academic burnout in GEN Z university students.
- To find out the mediating role of psychological detachment between cyber loafing and academic burnout in GEN Z university students.

Hypotheses

- There is likely to be a positive relationship between cyber loafing and academic burnout in GEN Z university students.

- There is likely to be negative relationship between self-control, psychological detachment and academic burnout in GEN Z university students.
- Self-control and psychological detachment are likely to be a negative predictor of academic burnout in GEN Z university students.
- Cyber loafing is likely to be a positive predictor of academic burnout in GEN Z university students.
- Psychological detachment is likely to mediate the relationship between cyber loafing and academic burnout in GEN Z university students.

Methods

Research Design

Cross-sectional correlational research was carried out to find the relationship between cyber loafing, self-control, psychological detachment and academic burnout in GEN Z university students.

Sample and Sampling Method

The sample size (N=252) was calculated with G-Power formula (Green, 1991). The data was collected through survey forms, including (n=120) boys and (n=132) girls, having the age range of 16-26 years (M= 20.89, SD= 1.82). Non-probability purposive sampling was used to ensure the selection of specific participants who met the research criteria. Participants who belonged to Generation Z cohort, born between 1997 to 2012 (12-27 years in 2025) were included. The included participants were currently enrolled in private or public university and those who had regular access to the internet and electronic devices were included in this research. Participants with any physical disability or any diagnosed psychological disorder, as well as those who did not have sufficient proficiency in the language of the study were not included. Moreover, to maintain the homogeneity of the sample and to avoid any confounding factors, married participants were not included.

Table 1

Descriptive Statistics of Demographic Variables (N=252)

Variables	*f(%)*	*M(SD)*
Gender		-
Men	120(47.6)	-
Women	132(52.4)	-
Age	-	20.89(1.82)
Attendance	-	-
Regular	235(93.3)	-
Short attendance	17(6.7)	-
Duration of daily internet use	-	-
Less than 5 hours	106(42.1)	-
5-10 hours	103(40.9)	-
More than 10 hours	43(17.1)	-
Employment status		-
Employed	28(11.1)	-
Unemployed	224(88.9)	-
University type		-
Private	125(49.6)	-
Pubic	127(50.4)	-
Academic Achievement	-	82.79(9.61)

Assessment Measures

Demographic Information Questionnaire

In order to gather the demographic information of the participants, specific questions were asked from each participant of the study. The required information about the participant was gender, age, attendance, duration of daily internet use, marital status, university type, employment status, academic GPA, marks obtained in last class and psychological disorders.

Cyberloafing Scale

Akbulut et al. (2016) cyber loafing scale was used to measure cyber loafing. This scale has a total of 30 items with 5 sub-dimensions. These sub-domains include: Sharing, e.g., I check my friends' posts; Shopping, e.g., I shop online; Real-time Updating, e.g., I retweet a tweet I like; Accessing Online Content, e.g., I download music; and Gaming/Gambling,

e.g., I visit betting sites. The scale is responded on a 5-point Likert (1= *never*, 2= *little*, 3= *somewhat*, 4= *to a large extent*, 5= *to a great extent*). The average of the indicators is used to obtain the factor scores: Sharing (nine items); Shopping (seven items); Real-time Updating (five items); Accessing Online Content (five items), and Gaming/Gambling (four items). Cornbach'a alpha for total cyber loafing was reported to be .95 and for individual factors as follows: Sharing = .93; Shopping = .87; Real-time Updating = .93; Accessing Online Content = .94, and Gaming/Gambling = .80.

Brief Self-Control Scale

Tangney et al. (2018) self-control scale was used to assess self-control among GEN Z university students. This scale comprises of 13 items. The scale is a 5-point likert scale, ranging from *Not at all like me* (1) to *Very much like me* (5). The scoring includes two steps; firstly, reverse scoring items (1,2,3,4,6,9,10,12, and 13) and then calculating sum of all the scale items. Reliability of brief self-control scale was reported to be .85.

Recovery Experience Questionnaire

Sonnentag and Fritz (2015) recovery experience questionnaire was used to assess psychological detachment in GEN Z university students. This scale has four subscales with four items each. The psychological detachment subscale was used in the present study, e.g., After leaving university, I am able to disconnect. This scale is a 5-point likert scale ranging from 1= *fully disagree* to 5= *fully agree*. The score is calculated by taking mean score for each subscale. Cornbach's alpha of psychological detachment was reported to be .87.

Academic Burnout Scale

Bresó et al. (2007) burnout scale was used to assess burnout. This scale comprises of 15 items, with three subscales (Emotional exhaustion, cynicism and academic efficacy). There are five items in emotional exhaustion subscale, e.g., I feel emotionally drained by my studies; four items in cynicism subscale, e.g. I doubt the significance of my studies; and six items in academic efficacy subscale, e.g. I beleive that I make an effective contribution to the class that I attend. The responses were taken on 0-6 point likert scale (0= *Never*, 1= *A couple of time per year*, 2= *Once a month*, 3= *Once a week*, 4= *Once a day*, 5= *A couple of times a day*, 6= *Always*). The scale is scored by calculating mean of each subscale. The

reliability for academic exhaustion was reported to be .79; .82 for cynicism, and .75 for academic efficacy.

Procedure

After following all ethical protocols, formal data collection was started. Gen Z students from public and private universities provided the data. Participants were approached in university cafeteria, library, waiting areas, and class rooms. Participants took approximately 15 minutes to fill the research form. Names and other personal information of participants were not asked to ensure confidentiality. Specific number was given to each form during data entry. Approximately 20-25 participants refused to participate in the research. After considering all ethical considerations in-person data collection was conducted. SPSS was used to enter and analyze all participants' demographic information and data.

Ethical Considerations

Following ethical considerations were ensured during the study

- The study was approved by institutional review board of UMT.
- Formal permissions were obtained from the authors of each scale via email.
- Every participant was properly informed about the study objectives and that their participation in the study was voluntarily and free from coercion.
- Before participation, a written consent form was given and signed to ensure their voluntary participation.
- Anonymity of participants was ensured by not taking any identifying details from the participants.
- There were no consequences if participants decided to withdraw at any time. There was no obligation for them to continue participation.
- Participants were selected based on the study's relevance and not on bias or discrimination.
- Results were reported honestly, without any falsification and exaggeration, and plagiarism was avoided.

Results

Table 2

Psychometric Properties of Scales and Subscales

Scales	*k*	*M*	*SD*	Range	α
1. Cyber loafing	30	82.01	17.49	30-150	.88
Sharing	9	26.9	6.70	9-45	.78
Shopping	7	18.96	5.90	7-35	.78
Real time updating	5	10.38	4.89	5-25	.84
Accessing online content	5	17.86	4.39	5-25	.76
Gaming/Gambling	4	7.83	3.58	4-20	.71
2. Self-control	13	38.70	6.65	13-65	.62
3. Psychological Detachment	4	11.55	3.61	4-20	.69
4. Academic Burnout	15	49.28	13.04	0-90	.71
Emotional Exhaustion	5	15.68	7.20	0-30	.75
Cynicism	4	10.72	5.69	0-24	.68
Academic Efficacy	6	22.87	7.19	0-36	.71

The results of the correlation analysis revealed in table 3 showed that cyber loafing (sharing, shopping, real time updating, accessing online content, gaming/gambling) is positively correlated with academic burnout (exhaustion, cynicism, academic efficacy) in Gen Z university students.

Furthermore, there is likely to be negative relationship between self-control, psychological detachment and academic burnout in GEN Z university students. The results showed that self-control is negatively correlated with academic burnout and its two dimensions; exhaustion and cynicism. Whereas, no significant relationship was found between self-control and academic efficacy. Moreover, psychological detachment revealed positive relationship with burnout and its two dimensions, exhaustion and cynicism, while showing negative relationship with academic efficacy.

Additionally, correlational analysis on two demographic variables, age and academic achievement revealed that age is positively correlated with cyber loafing and its two factors, shopping and real time updating, and academic achievement has positive relationship with academic efficacy.

Table 3

Correlation between Demographic Variables

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	-.08	.18**	.04	.24**	.23**	.02	.09	.02	.09	.11	.12	.10	-.01
2. Academic Achievement		-.02	-.01	.02	.02	-.01	-.12	.08	-.09	.04	-.09	-.07	.21**
3. Cyber loafing			.79**	.71**	.65**	.59**	.62**	-.11	.15*	.35**	.21**	.29**	.19**
4. Sharing				.37**	.39**	.42**	.32**	-.10	.15*	.32**	.20**	.23**	.19**
5. Shopping					.32**	.21**	.41**	-.06	.13*	.23**	.16*	.22**	.08
6. Real time updating						.19**	.33**	.06	.03	.16**	.04	.15*	.13*
7. Accessing online content							.26**	-.19**	.07	.29**	.16*	.19**	.21**
8. Gaming/Gambling								-.09	.10	.17**	.12	.23**	-.00
9. Self-control									-.39**	-.39**	-.46**	-.42**	.09
10. Psychological Detachment										.28**	.36**	.38**	-.16*
11. Academic burnout											.78**	.73**	.46**
12. Exhaustion												.62**	-.09
13. Cynicism													-.09
14. Academic efficacy													

Note. ***p<.000, **p<.01, *p<.05

In order to check whether cyber loafing, self-control, and psychological detachment are predictors of academic burnout in Gen Z university students, multiple hierarchical regression was performed, as shown in table 4. All assumptions were checked and satisfied before running the final analysis. In the first block, variable of age and academic achievement were added; the overall model revealed 1.4% variance on academic burnout F (2,249) = 1.79, p= .169. Findings showed that age and academic achievement are not significant predictors of academic burnout.

In the second block of regression analysis, the variable of cyber loafing was added, the overall model explained 12.9% variance on academic burnout F (3,248) = 12.24, p< .001. The results of the analysis revealed that cyber loafing is a positive predictor of academic burnout in Gen Z university students.

In the third block, variable of self-control was added, the overall model explained 25.7% variance on academic burnout F (4,247) = 21.38, p<.001. The results of the regression analysis revealed that self-control is a negative predictor of academic burnout in Gen Z university students.

Lastly, in fourth block, psychological detachment was added, the overall model explained 26.9% variance on academic burnout F (5,246) = 18.06, p< .001. The results of the regression analysis revealed that psychological detachment is a positive predictor of academic burnout in Gen Z university students.

Table 4

Multiple Hierarchical Regression for Predictors of Academic Burnout

Variable	*B*	95% *CI* for B		*SEB*	β	R^2	ΔR^2
		LL	*UL*				
Step 1							
Constant	27.03	2.88	51.17	12.26		.01	.01
Age	.81	-.08	1.69	.45	.11		
Academic Achievement	.06	-.10	.23	.09	.05		
Step 2							
Constant	15.10***	-8.01	38.21	11.73		.13	.11
Age	.35	-.49	1.21	.43	.05		
Academic Achievement	.07	-.09	.23	.08	.05		
Cyber Loafing	.26***	.17	.35	.04	.34		
Step 3							
Constant	39.47***	16.86	62.08	11.48		.26	.13
Age	.47	-.32	1.26	.40	.06		
Academic Achievement	.11	-.04	.26	.07	.08		
Cyber Loafing	.22***	.14	.31	.04	.30		
Self-Control	-.71***	-.92	-.49	.11	-.36		
Step 4							
Constant	32.44***	8.86	56.02	11.97		.27	.01
Age	.41	-.38	1.19	.40	.06		
Academic Achievement	.12	-.03	.26	.07	.09		
Cyber Loafing	.22***	.13	.30	.04	.29		
Self-Control	-.62***	-.85	-.39	.12	-.32		
Psychological Detachment	.42*	-.00	.85	.22	.12		

Note. ***p<.000, **p<.01, *p<.05

Table 5

Mediation Analysis between Cyber Loafing and Academic Burnout through Psychological Detachment

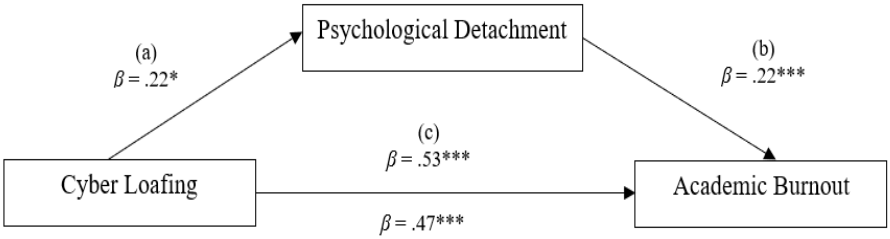
Antecedents		Psychological Detachment (M)				Academic Burnout (Y)		
		β	*SE*	*p*		*β*	*SE*	*p*
Constant		2.27***	.27	.00	*i*	1.33***	.27	.00
Cyber loafing (X)	*a*	.22*	.09	.02	*c'*	.47***	.09	.00
Psychological Detachment		-	-	-	*b*	.22***	.06	.00
		R^2=.021				R^2=.178		
		F=(1,250)=5.41, p=.02*				F(2,249)=26.95, p=0.00		

Furthermore, Hayes process mediation analysis was performed. The results are shown in table 3. The results indicated that psychological

detachment is a positive predictor of academic burnout. The direct effect of cyber loafing on academic burnout was found to be significant β =0.47, ***p<.000, 95% for CI [.30, .64]. Furthermore, the indirect effect of cyber loafing on academic burnout through psychological detachment was found to be significant β = 0.05, ***p<.000, 95% for CI [.00, 0.08]. Hence, psychological detachment significantly mediated the relationship between cyber loafing and academic burnout in Gen Z University students.

Figure 1

Psychological Detachment as a Mediator between Cyber Loafing and Academic Burnout



The results indicated that the indirect effect of cyber loafing on academic burnout through psychological detachment was significant, β=0.05, p<.000, 95% CI [0.00, 0.08]. Therefore, psychological detachment significantly mediated between cyber loafing and academic burnout in Gen Z university students.

Discussion

The present study assesses the relationship between cyber loafing, self-control, psychological detachment, and academic burnout in Gen Z university students. In this section, empirical support is provided in alignment with the findings and hypothesized relationships. Furthermore, limitations and future implications are also discussed.

It was hypothesized (1) that there is likely to be a positive relationship between cyber loafing and academic burnout in Gen Z university students. Results of the correlation analysis also revealed positive correlation between cyber loafing (sharing, shopping, accessing online content, real time updating, gaming/gambling) and academic burnout (exhaustion, cynicism, academic efficacy). In other words, when cyber loafing behavior in students increases, it will also increase the burnout level in students. The

findings are concurred with recent research by Nweke et al. (2024), which showed that higher levels of digital distraction behaviors, including cyberloafing, are linked to increased academic stress and exhaustion, which eventually contribute to students' academic burnout. The literature review didn't reveal any study assessing the direct influence of cyber loafing on academic burnout and it's all three dimensions; exhaustion, cynicism, and academic efficacy. However, there is a study conducted by Doğru and Kabasakal (2023) that examined the influence of academic burnout on cyber loafing in which cyber loafing acted as DV and Academic burnout as IV, exhibiting that there is a positive relationship between cyber loafing (shopping, real time updating and gaming/gambling) dimensions and academic burnout (exhaustion and desensitization), that demonstrate that present study findings are consistent with the literature.

Interestingly, positive relationship was found between cyber loafing and academic efficacy dimension of academic burnout, inconsistent with previous literature. Peng (2022) found that academic self-efficacy negatively correlated with cyber loafing. The present study results demonstrate that cyber loafing is not always detrimental to students' academic performance. For instance, Mercado et al. (2017) in their research revealed that more educated people engage more in cyber loafing. Other possible explanations of this might be that in the context of Gen Z, who are said to be digital native generation, cyber loafing could be a source to increase academic efficacy due to several reasons. Firstly, cyber loafing during class could provide them with information seeking platforms like Tik Tok, Reddit and YouTube that often provide micro learning opportunities to Gen Z university students, where students are engaging in insightful academic content during cyber loafing activity that ultimately increases students' academic efficacy. Secondly, Gen Z are accustomed in digital engagement and multi-tasking, unlike previous generations, they naturally incorporate their online activities in their learning process. Lastly, the positive relationship between sharing and academic efficacy may reveal that Gen Z seeks for social validation through online interaction that reinforce their beliefs in their ability, hence enhancing academic efficacy in Gen Z university students (Yadav & Rai, 2017).

Moreover, it was hypothesized (2) that there is likely to be negative relationship between self-control, psychological detachment and academic burnout. The results of the correlational analysis revealed a negative

relationship between self-control and total academic burnout and its two dimensions, exhaustion and cynicism. The findings are concurred with previous literature. Chen (2022) found direct negative correlation between self-control and academic burnout, suggesting that students having more self-control tend to score low on academic burnout. This could be explained by the fact that students who have greater self-control are more likely to demonstrate improved self-regulation, attentional control, and adaptive academic practices, which protect them from cognitive overload and fatigue (Saxena, 2024).

Moreover, psychological detachment revealed positive correlation with burnout and its two dimensions; exhaustion and cynicism, whereas, negative but not highly significant correlation with academic efficacy. This finding is contradicting with previous literature (Sonnentag & Fritz, 2015) that recommends that detachment decreases burnout. One possible explanation for this finding could be that psychological detachment in academic context is different than detachment at the workplace (Merino-Tejedor et al., 2017), indicating detachment from course work, causing poorer academic performance and increasing stress (Gillet et al., 2017). Whereas, negative relationship was revealed between the psychological detachment and academic efficacy dimension of academic burnout in Gen Z university students. Self- determination theory may help to explain this finding. Deci and Ryan (1985) stated that feelings of being competent are necessary for individuals to maintain motivation. If students detach from academic work too frequently it may cause them to feel less capable of managing academic challenges, consequently lowering their belief in their academic ability. Also, Gen Z students are highly involved in digital learning, if they detach themselves from academic responsibilities, they may forget their assignments and deadlines due to losing track of online learning resources that cause a decline in their academic efficacy.

Furthermore, there is a positive correlation between age and total cyber loafing and its two factors; shopping and real time updating. This is likely because older students have more years of exposure to digital technologies, which enable them to manage their time more efficiently without worrying about immediate academic consequences (Andreassen et al., 2012). Academic achievement and the academic efficacy aspect of academic burnout were found to be positively correlated in the study. This result is in line with recent research that indicates that students' past academic

achievement boosts their self-efficacy by reinforcing their confidence in their abilities. According to recent research, academic self-efficacy improves student engagement and learning outcomes and is positively correlated with academic accomplishment (Al-khresheh & Alkursheh, 2024; Al-Qadri et al., 2024; Meng & Zhang, 2023; Xu, 2024). It was hypothesized (3) that cyber loafing is likely to be a positive predictor of academic burnout. The results of the regression analysis also revealed cyber loafing as a positive predictor of academic burnout in Gen Z university students. An explanation for this finding could be that cyber loafing often leads to academic procrastination because most of the times students are taking it as an avoidance mechanism, that increases students' academic stress and burnout (Margaretha et al., 2022).

It was hypothesized (4) that self-control and psychological detachment is likely to be a negative predictor of academic burnout. Results of the hierarchal regression revealed cyber loafing as a negative predictor of burnout, consistent with literature. Students having high self-control tend to regulate their study habits effectively, preventing them from stress and last hour work load, reducing their burnout (Tangney et al., 2018) moreover, high self-control tends to minimize academic procrastination that leads to academic burnout (Steel, 2007). However, psychological detachment is found to be a positive predictor of academic burnout, this finding contradicts previous literature and the study hypothesis. A possible explanation for this finding could be according to job demands- resources model (Bakker & Demerouti, 2007), that individuals who exhibit low engagement toward their tasks are more likely to experience low motivation and efficacy, that contributes to burnout. In the context of students, if they disengaged from their academic responsibilities more often, they would lack motivation and feel ineffective which leads to academic burnout.

The present study hypothesized (5) that psychological detachment would mediate the relationship between cyber loafing and academic burnout. Results revealed psychological detachment as a significant mediator between cyber loafing and academic burnout. Although no previous research directly examined the mediating role of psychological detachment between cyber loafing and academic burnout. However, many researches revealed positive mediation effect of psychological detachment. A study by Wu et al. (2021) indicated the mediating effect of psychological detachment between social cyber loafing and academic performance. An

explanation for the present study finding might be that students who are frequently engaging in cyber loafing may adopt psychological detachment as a coping mechanism in order to deal with the academic stress. Conversely, this disengagement diminishes problem solving efforts and increases emotional exhaustion, which leads to burnout (Gillet et al., 2017). Furthermore, in context of Gen Z university students, they often cyber loaf to get an escape from their academic responsibilities. This detachment, however, increases avoidance behavior in them that negatively influences their academic performance.

Conclusion

The present study provides comprehensive understanding of the impact of cyber loafing, psychological detachment, self-control, and academic burnout in Gen Z university students. The results support CHAT theory. The findings suggest the need for interventions that encourage digital responsibility and academic engagement in order to reduce burnout levels in students. Addressing these problems can improve student wellbeing and academic performance.

Limitations and Recommendations

Despite the contribution of the study, this study has a few limitations.

- The present study examines study variables specifically in Gen Z university students that may make it difficult to generalize the results on other Gen Z students studying in schools and colleges or working professionals. Future research could examine Gen Z students of schools and colleges or of different cultural contexts.
- Moreover, the present study didn't differentiate between productive and unproductive cyber loafing activities. For future direction it would be suggested to explore a threshold at which cyber loafing remain productive vs. when it causes academic procrastination.
- Lastly, the results of the study are based on self-reported measures that may cause response biases such as social desirability bias. Future research could use tracking online activity or experimental method to get more reliable results.

Implications

- The study encourages the need for digital literacy programs that

facilitate responsible cyber loafing behaviors, ensuring constructive use of online resources rather than a mere form of procrastination.

- Designated digital detox periods and structured academic breaks should be given to students in order to prevent excessive psychological detachment from studies.
- Reducing cyber loafing in academic settings could improve workforce readiness, productivity, and job performance by promoting better work habits in professional environments.
- This study advances Cultural-Historical Activity Theory (CHAT), which could inspire future studies on how digital culture affects academic and workplace environments.
- The study adds to the small amount of indigenous research on these variables by concentrating on Gen Z students within a particular cultural or regional setting.
- The study encourages cross-disciplinary research from fields of psychology, education, and digital technology to develop comprehensive strategies.

Author Contribution

Tayyaba Nawaz: conceptualization, methodology, data curation, writing – original draft. **Amarah Qureshi:** supervision, methodology, validation, writing – original draft. **Hira Farhan**: formal analysis, writing – review & editing.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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References

Akbulut, Y., Dönmez, O., & Dursun, Ö. Ö. (2017). Cyberloafing and social desirability bias among students and employees. *Computers in Human Behavior, 72*, 87–95. https://doi.org/10.1016/j.chb.2017.02.043

Akbulut, Y., Dursun, Ö. Ö., Dönmez, O., & Şahin, Y. L. (2016). In search of a measure to investigate cyberloafing in educational settings. *Computers in Human Behavior*, *55*, 616–625. https://doi.org/10.1016/j.chb.2015.11.002

Al-Khresheh, M. H., & Alkursheh, T. O. (2024). An integrated model exploring the relationship between self-efficacy, technology integration via Blackboard, English proficiency, and Saudi EFL students' academic achievement. *Humanities and Social Sciences Communications*, *11*, Article 287. https://doi.org/10.1057/s41599-024-02783-2

Al-Qadri, A. H., Mouas, S., Saraa, N., & Boudouaia, A. (2024). Measuring academic self-efficacy and learning outcomes: The mediating role of university English students' academic commitment. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*, Article e35. https://doi.org/10.1186/s40862-024-00253-5

Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports*, *110*(2), 501–517. https://doi.org/10.2466/02.09.18.PR0.110.2.501-517

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309–328. https://doi.org/10.1108/02683940710733115

Bresó, E., Salanova, M., & Schaufeli, W. B. (2007). In search of the third dimension of burnout: Efficacy or inefficacy? *Applied Psychology*, *56*(3), 460–478. https://doi.org/10.1111/j.1464-0597.2007.00290.x

Chen, Z. (2022). The mediating and buffering effect of self-control on the relationship between peer support and academic burnout. *European Journal of Humanities and Social Sciences*, *6*, 71–80. https://doi.org/10.29013/EJHSS-22-6-71-80

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press. https://doi.org/10.1007/978-1-4899-2271-7

Doğru, M. C., & Kabasakal, Z. (2023). Investigating cyberloafing and academic burnout in university students during the COVID-19 pandemic. *South Asian Journal of Social Studies and Economics*, *17*(3), 1–11. https://doi.org/10.9734/sajsse/2023/v17i3636

Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, *14*(1), 133–156. https://doi.org/10.1080/13639080020028747

Everton, W. J., Mastrangelo, P. M., & Jolton, J. A. (2005). Personality correlates of employees' personal use of work computers. *CyberPsychology & Behavior*, *8*(2), 143–153. https://doi.org/10.1089/cpb.2005.8.143

Gillet, N., Morin, A. J. S., & Reeve, J. (2017). Stability, change, and implications of students' motivation profiles: A latent transition analysis. *Contemporary Educational Psychology*, *51*, 222–239. https://doi.org/10.1016/j.cedpsych.2017.08.006

Granberg, E., & Witte, J. (2005). Teaching with laptops for the first time: Lessons from a social science classroom. *New Directions for Teaching and Learning*, *2005*(101), 51–59. https://doi.org/10.1002/tl.20056

Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research*, *26*(3), 499–510. https://doi.org/10.1207/s15327906mbr2603_7

Hanif, M. S., Abdul Hamid, A. B., Khurshid, A., & Butt, M. F. T. (2022). What leads to cyberslacking intentions among students in Pakistan: An enhanced theory of planned behavior perspective. *The Electronic Journal of Information Systems in Developing Countries*, *88*(6), Article e12224. https://doi.org/10.1002/isd2.12224

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513

Kalaycı, E. (2010). *The investigation of relationship between cyberloafing and self-regulated learning strategies among undergraduate students* [Unpublished master's thesis]. Hacettepe University.

Law, D. W. (2007). Exhaustion in university students and the effect of coursework involvement. *Journal of American College Health*, *55*(4), 239–245. https://doi.org/10.3200/JACH.55.4.239-245

Leont'ev, A. N. (1978). *Activity, consciousness, and personality* (M. J. Hall, Trans.). Prentice-Hall.

Lim, V. K. G. (2002). The IT way of loafing on the job: Cyberloafing,

neutralizing and organizational justice. *Journal of Organizational Behavior*, *23*(5), 675–694. https://doi.org/10.1002/job.161

Liu, S., Wang, M., Liao, H., & Shi, J. (2014). Self-regulation during job search: The opposing effects of employment self-efficacy and job search behavior self-efficacy. *Journal of Applied Psychology*, *99*(6), 1159–1172. https://doi.org/10.1037/a0036692

Luria, A. R. (1976). *Cognitive development: Its cultural and social foundations* (M. Cole, Ed.; M. Lopez-Morillas & L. Solotaroff, Trans.). Harvard University Press.

Luta, D., Pogrebtsova, E., & Provencher, Y. (2021). The wellbeing implications of thinking about schoolwork during leisure time: A qualitative analysis of Canadian university students' psychological detachment experiences. *Journal of Further and Higher Education*, *45*(6), 771–787. https://doi.org/10.1080/0309877X.2020.1814060

Margaretha, M., Monalisa, Y., Mariana, A., Junita, I., & Iskandar, D. (2021). Cyberslacking behavior and its relationship with academic performance: A study of students in Indonesia. *European Journal of Educational Research*, *10*(4), 1881–1892. https://doi.org/10.12973/eu-jer.10.4.1881

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

Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, *12*(5), 189–192. https://doi.org/10.1111/1467-8721.01258

Meier, S. T., & Schmeck, R. R. (1985). The burned-out college student: A descriptive profile. *Journal of College Student Personnel*, *26*(1), 63–69. https://eric.ed.gov/?id=EJ316471

Meng, Q., & Zhang, Q. (2023). The influence of academic self-efficacy on university students' academic performance: The mediating effect of academic engagement. *Sustainability*, *15*(7), Article e5767. https://doi.org/10.3390/su15075767

Mercado, B. K., Giordano, C., & Dilchert, S. (2017). A meta-analytic

investigation of cyberloafing. *Career Development International*, *22*(5), 546–564. https://doi.org/10.1108/CDI-08-2017-0142

Merino-Tejedor, E., Hontangas, P. M., & Boada-Grau, J. (2017). The assessment of detachment among university students: Validation of the Recovery Experience Questionnaire in educational contexts. *Anales de Psicología/Annals of Psychology*, *33*(2), 342–350. https://doi.org/10.6018/analesps.33.2.249811

Mihelič, K. K., Lim, V. K. G., & Culiberg, B. (2023). Cyberloafing among Gen Z students: The role of norms, moral disengagement, multitasking self-efficacy, and psychological outcomes. *European Journal of Psychology of Education*, *38*(2), 567–585. https://doi.org/10.1007/s10212-022-00577-0

Nussbaumer, D. (2012). An overview of cultural historical activity theory (CHAT) use in classroom research 2000 to 2009. *Educational Review*, *64*(1), 37–55. https://doi.org/10.1080/00131911.2011.602003

Nweke, G. E., Jarrar, Y., & Horoub, I. (2024). Academic stress and cyberloafing among university students: The mediating role of fatigue and self-control. *Humanities and Social Sciences Communications*, *11*, Article e419. https://doi.org/10.1057/s41599-024-02930-9

Peng, J. H. (2022). The impact of college students' academic self-efficacy on cyberloafing: The role of moral disengagement and individual self-control. *Open Access Library Journal*, *9*, Article e8788. https://doi.org/10.4236/oalib.1108788

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, *9*(5), 1–6. https://doi.org/10.1108/10748120110424816

Rachlin, H. (2000). *The science of self-control*. Harvard University Press.

Rahmati, Z. (2015). The study of academic burnout in students with high and low level of self-efficacy. *Procedia - Social and Behavioral Sciences*, *171*, 49–55. https://doi.org/10.1016/j.sbspro.2015.01.086

Saeed, W., & Ahmad, R. (2017). Association of emotional intelligence and academic burnout among undergraduate students in Pakistan. *Pakistan Journal of Clinical Psychology*, *16*(1), 49–60.

Safstrom, M., & Hartig, T. (2013). Psychological detachment in the relationship between job stressors and strain. *Behavioral Sciences*, *3*(3),

418–433. https://doi.org/10.3390/bs3030418

Saxena, M. (2024). Burnout and attention failure in STEM: The role of self-control and the buffer of mindfulness. *International Journal of Environmental Research and Public Health*, *21*(8), Article e1000. https://doi.org/10.3390/ijerph21081000

Schaufeli, W. B., Martínez, I. M., Marques Pinto, A., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, *33*(5), 464–481. https://doi.org/10.1177/0022022102033005003

Sonnentag, S., Binnewies, C., & Mojza, E. J. (2010). Staying well and engaged when demands are high: The role of psychological detachment. *Journal of Applied Psychology*, *95*(5), 965–976. https://doi.org/10.1037/a0020032

Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, *12*(3), 204–221. https://doi.org/10.1037/1076-8998.12.3.204

Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor-detachment model as an integrative framework. *Journal of Organizational Behavior*, *36*(S1), S72–S103. https://doi.org/10.1002/job.1924

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, *133*(1), 65–94. https://doi.org/10.1037/0033-2909.133.1.65

Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In R. F. Baumeister (Ed.), *Self-regulation and self-control: Selected works of Roy F. Baumeister* (pp. 173–212). Routledge. https://doi.org/10.4324/9781315175775-5

Troll, E. S., Friese, M., & Loschelder, D. D. (2021). How students' self-control and smartphone use explain their academic performance. *Computers in Human Behavior*, *117*, Article e106624. https://doi.org/10.1016/j.chb.2020.106624

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language*. MIT Press.

Wang, C., Chen, G., Liu, Y., Niu, G., & Yin, H. (2020). The influence of social exclusion on deviant behavior online: The mediating role of self-control and the moderating role of moral homogeneity. *Psychological Development and Education*, *36*(2), 208–215.

Wu, J., Mei, W., & Ugrin, J. C. (2018). Student cyberloafing in and out of the classroom in China and the relationship with student performance. *Cyberpsychology, Behavior, and Social Networking*, *21*(3), 199–204. https://doi.org/10.1089/cyber.2017.0397

Wu, J., Mei, W., Ugrin, J., Liu, L., & Wang, F. (2021). Curvilinear performance effects of social cyberloafing out of class: The mediating role as a recovery experience. *Information Technology & People*, *34*(2), 581–598. https://doi.org/10.1108/ITP-03-2019-0105

Xu, B. (2024). Mediating role of academic self-efficacy and academic emotions in the relationship between teacher support and academic achievement. *Scientific Reports*, *14*, Article e24705. https://doi.org/10.1038/s41598-024-75768-5

Yadav, G. P., & Rai, J. (2017). The generation Z and their social media usage: A review and a research outline. *Global Journal of Enterprise Information System*, *9*(2), 110–116. https://doi.org/10.18311/gjeis/2017/15748