Digital Fatigue And Psychological Well-Being Among Generation Z Students

Asultoni Imam Hidayat[1*], Farhan[2]

[1] *University Pamulang, Pamulang, Banten, Indonesia*
[2] *University Pamulang, Pamulang, Banten, Indonesia*
Corresponding author's e- mail: umamhdyy@gmail.com

ABSTRACT

The swift progression of digital advancements has profoundly reshaped how Generation Z students live, as they depend considerably on digital tools for both their schoolwork and connecting with others. Yet, using these tools too much often causes digital weariness, a state marked by feeling physically and mentally drained from looking at screens for too long. This research investigates how digital weariness affects the mental health and overall psychological state of Generation Z students by deeply examining personal stories. We talked to five students who use digital devices for a minimum of six hours each day and carefully studied the information gathered using the Creswell and Poth method. The discoveries indicate that digital weariness causes issues like sore eyes, trouble focusing, feeling uninterested in things online, and problems sleeping, all of which make stress and worry worse and decrease the desire to learn. On an emotional level, it lessens joy and hurts relationships with friends and family. These outcomes emphasize how crucial it is to use digital tools in a healthy way and handle time wisely to protect students' mental health.

Keywords: Digital Fatigue, Mental Health, Psychological Well-Being, Generation Z, Qualitative Research

Introduction

The rapid expansion of digital technology has significantly transformed the daily lives of Generation Z students, who rely intensively on digital devices for academic activities, communication, entertainment, and social interaction. This constant digital engagement provides various conveniences, yet it also introduces new psychological challenges, one of which is digital fatigue—an emerging condition characterized by mental, emotional, and physical exhaustion caused by excessive screen exposure and continuous online participation. The shift toward online learning during and after the COVID-19 pandemic has intensified students' dependence on digital platforms (Watermeyer, Crick, Knight, & Goodall, 2021), resulting in prolonged screen time that often reaches more than eight hours per day and contributes to concentration difficulties, decreased motivation, sleep disturbances, and reduced emotional balance (Thomée, 2018). Digital fatigue has become increasingly evident among Indonesian students, supported by findings from (Kominfo, 2023) that indicate a significant rise in internet usage accompanied by a decline in focus and sleep quality, aligning with global research that links extensive digital use to anxiety, burnout, and reduced learning efficiency (Cao, Fang, & Hou, 2020). These issues underscore the urgency of understanding digital fatigue, especially among Generation Z students who are deeply

Proceeding of the 3rd International Conference of International Conference on Business and Economics
Faculty of Economy and Business, Universitas Pattimura,
December 11, 2025

immersed in digital ecosystems where academic, social, and personal activities overlap without clear boundaries. In addition, the growing reliance on digital platforms has created a learning environment that demands constant adaptability, rapid information processing, and continuous online availability, which further burdens students' cognitive and emotional capacities. The blurring of space between academic responsibilities and personal life also contributes to feelings of overwhelm, as students often find it difficult to disconnect from digital demands, leading to an ongoing cycle of stress that gradually affects their mental stability. Similar patterns have also been observed in the Indonesian context, where intensive digital media use during online learning has been associated with increased psychological strain and emotional exhaustion among university students (Sari, D. P. & Widodo, A., 2021). At the same time, societal expectations for students to remain digitally active and productive strengthen the pressure to perform, creating additional emotional strain that is rarely addressed in academic discussions. These conditions highlight the need for deeper exploration into how digital habits shape students' psychological states, especially as they navigate academic workloads, personal obligations, and social expectations within the same digital environment. Understanding these dynamics is crucial because unmanaged digital fatigue has the potential to disrupt long-term academic development, reduce learning effectiveness, and diminish overall well-being. Given these concerns, this study aims to explore how digital fatigue affects the mental health and psychological well-being of Generation Z students while also examining how they perceive, experience, and cope with this condition, providing insights that can help educators and policymakers develop strategies to support students' mental resilience in an increasingly digital and demanding learning environment.

Theoretical Framework

This study is grounded in several key theoretical perspectives that explain the relationship between intensive digital device use, digital fatigue, and the mental health and psychological well-being of Generation Z students. Cognitive Load Theory serves as the primary framework, emphasizing that human cognitive capacity is limited. Prolonged exposure to multiple digital stimuli—such as continuous online learning, frequent notifications, and rapid task switching—can overload cognitive resources, leading to mental exhaustion, reduced concentration, and decreased learning motivation (Feldon, 2020).

This condition is closely related to the concept of Digital Well-being, which highlights the importance of maintaining balanced and healthy interactions with digital environments. Excessive and unregulated digital engagement has been shown to contribute to emotional strain, stress, sleep disturbances, and reduced psychological resilience (Leung, 2022). Previous studies indicate that low levels of digital well-being are associated with increased anxiety and depressive symptoms among young people, particularly those with high screen dependency (Marengo, Sindermann, & Montag, 2021).

In addition, prior research consistently demonstrates that extended screen time negatively affects psychological well-being, contributing to irritability, impaired sleep quality, academic burnout, and emotional instability among Generation Z students who rely heavily on digital technology for both academic and social activities (Odgers, 2020). These findings suggest that digital fatigue emerges as a cumulative outcome of sustained cognitive overload and diminished digital well-being.

To further explain individual differences in experiencing digital fatigue, this study incorporates Self-Regulation Theory. This perspective highlights how individuals attempt to manage digital-related stress through coping strategies such as taking screen breaks, limiting notifications, engaging in physical activities, or practicing digital detox behaviors. These self-regulation strategies function as adaptive mechanisms that can mitigate the negative psychological effects of prolonged digital exposure and support emotional balance.

Overall, this theoretical framework illustrates how intensive digital device use increases cognitive load and reduces digital well-being, which subsequently leads to digital fatigue and affects students' mental health and psychological well-being. At the same time, self-regulation strategies influence how effectively individuals cope with digital fatigue within highly digitalized learning environments.

Research Methods

This study employs a qualitative descriptive design to explore how Generation Z students experience digital fatigue and how this condition influences their mental health and psychological well-being. The participants consisted of undergraduate students aged 18 to 23 from a private university in Indonesia who used digital devices for at least six hours per day for academic and social purposes. Data were collected through semi-structured in-depth interviews that allowed participants to share personal experiences regarding digital habits, emotional responses, and strategies used to manage fatigue. Each interview lasted approximately 30 to 45 minutes and was conducted with participant consent, complemented by observations of digital behavior and documentation such as screen-time records to strengthen the contextual understanding of their experiences. The data analysis followed the (Creswell & Poth, 2018) model, which includes data reduction, data display, and conclusion drawing. Data reduction was carried out by selecting and focusing on information relevant to digital fatigue, while data display involved organizing emerging codes into themes and subthemes that represented recurring patterns. The final stage involved verifying and interpreting the findings to construct meaningful relationships between digital fatigue, mental health, and students' coping mechanisms. To ensure the credibility and reliability of the findings, this study utilized data source triangulation and participant validation, allowing respondents to review and confirm the accuracy of the interpreted results.

Proceeding of the 3rd International Conference of International Conference on Business and Economics
Faculty of Economy and Business, Universitas Pattimura,
December 11, 2025

Table 1.

Presents the demographic characteristics of the participants involved in this study

Code	Gender	Age	Study Program	Daily Screen Time
P1	Female	20	Psychology	>8 hours
P2	Male	21	Communication Studies	6-8 hours
P3	Female	19	Management	>8 hours
P4	Female	22	Education	6-8 hours
P5	Male	23	Information Systems	>8 hours

Results And Discussion

The findings of this study indicate that Generation Z students experience digital fatigue as a consequence of prolonged and intensive interaction with digital devices for academic and social purposes. All participants reported using laptops and smartphones for more than six hours per day. This pattern aligns with previous research showing that excessive screen exposure contributes to cognitive overload and diminished digital well-being (Rosen, Lim, & Smith, 2014). Consistent with Cognitive Load Theory, continuous switching between online lectures, academic assignments, and digital communication platforms places significant pressure on students' cognitive resources, resulting in mental exhaustion and reduced learning motivation. As one participant stated, "After attending online classes all day, I feel mentally drained and find it hard to concentrate on assignments." (P2)

Physically, participants commonly reported symptoms such as eye strain, headaches, and disrupted sleep patterns, particularly after extended periods of screen-based academic activities. These physical manifestations reflect the somatic effects of digital fatigue caused by prolonged exposure to screen light and limited rest intervals. One participant explained, "My eyes often hurt, and even when I stop using my phone at night, I still struggle to fall asleep." (P4). These findings support earlier studies linking excessive digital use with sleep disturbances and physical discomfort among students (Thomée, 2018).

Emotionally, students described experiencing mood fluctuations, including boredom, irritability, and increased tension, especially during periods of academic deadlines. Digital fatigue reduced their enthusiasm for online activities and weakened their emotional balance. As expressed by one participant, "I get easily irritated and prefer to avoid conversations, even with my family." (P1). This emotional instability echoes previous research that associates intensive digital engagement with anxiety, academic burnout, and lowered self-esteem, particularly in digitally saturated learning environments (Cao, Fang, & Hou, 2020).

From a psychological perspective, participants reported decreased focus, reduced engagement, and persistent feelings of being overwhelmed by constant digital

demands. The blurring of boundaries between academic responsibilities, leisure time, and rest contributed to continuous mental connectivity, making it difficult for students to disengage from digital tasks. One participant noted, "Even during breaks, I keep thinking about assignments or messages I haven't replied to." (P3). These findings align with studies suggesting that digital fatigue weakens psychological well-being by reducing motivation and satisfaction with academic activities (Marengo, Sindermann, & Montag, 2021).

The findings also reveal variations in how students cope with digital fatigue. Many participants attempted to manage exhaustion by taking short breaks, limiting notifications, engaging in light physical activities, or participating in offline social interactions. However, these coping strategies were not consistently applied due to academic demands that required prolonged digital engagement (Sonnentag, 2021). In line with Self-Regulation Theory, participants who practiced structured coping behaviors appeared to recover more effectively and maintain better emotional balance (Feldon, 2020). One participant shared, "Taking short walks or putting my phone away for a while helps, but I can't always do it because of deadlines." (P5)

Environmental factors further influenced students' experiences with digital fatigue. Peer support played a positive role, as friends reminded one another to rest, disconnect from screens, and engage in offline activities. Conversely, institutional support was perceived as limited. Participants expressed the need for clearer academic boundaries, balanced workloads, and programs addressing digital well-being and mental health. These findings suggest that while individual coping strategies are important, institutional interventions are equally essential in mitigating the negative effects of digital fatigue.

Overall, the results demonstrate that digital fatigue significantly affects the mental health and psychological well-being of Generation Z students through cognitive overload, physical discomfort, and emotional disruption. Although some students employed adaptive coping strategies, the dominance of digitally mediated academic systems continues to place substantial pressure on their mental resilience. These findings underscore the importance of collaborative efforts between students and educational institutions to promote healthier digital practices and support psychological well-being in increasingly digitalized learning environments.

Table 2.
Themes and Descriptions of Digital Fatigue Experienced by Generation Z Students

Theme	Description	Indicators Reported by Participants
Physical Fatigue	Physical exhaustion that emerges as a result of prolonged screen exposure.	Symptoms include eye strain, headaches, neck/shoulder tension, and reduced stamina after

Proceeding of the 3rd International Conference of International Conference on Business and Economics
Faculty of Economy and Business, Universitas Pattimura,
December 11, 2025

Theme	Description	Indicators Reported by Participants
		extended use of digital devices.
Cognitive Overload	Increased mental load caused by digital academic demands and continuous online multitasking.	Indicators include difficulty focusing, easy distraction, reduced memory retention, and slower information processing.
Emotional Exhaustion	Emotional fatigue that develops due to intensive daily engagement with digital media.	Manifested through stress, boredom, pressure, loss of motivation, and heightened feelings of burnout.
Sosial Disconnection	A sense of being socially detached despite frequent online activities.	Shown through feelings of loneliness, shallow social interactions, and a lack of emotional connection.
Behavioral Changes	Behavioral adjustments resulting from intensive and prolonged technology use.	Includes disrupted sleep patterns, avoidance of face-to-face interactions, decreased productivity, and increased screen time as a coping mechanism.

Conclusion, Implications, Suggestions, And Limitations

This study concludes that digital fatigue is a significant psychological issue affecting Generation Z students who spend extensive time engaging with digital devices for academic, social, and entertainment purposes. The findings show that excessive screen exposure contributes to physical complaints such as eye strain, headaches, and sleep disturbances, alongside cognitive impacts including reduced focus, concentration problems, and boredom with repetitive online activities. These conditions further intensify emotional stress, anxiety, and feelings of insecurity—particularly triggered by social comparison on digital platforms—while weakening students' real-world social interactions. The study highlights that although some students engage in self-regulation strategies, such as taking digital breaks or limiting screen time, individual efforts alone are insufficient without broader environmental support.

The implications of the research emphasize the need for educational institutions to recognize digital fatigue as a pressing mental health concern in modern academic settings, particularly as prolonged video-based learning and continuous online

interaction have been shown to intensify mental exhaustion and psychological strain (Wiederhold, 2020). Schools and universities should integrate digital well-being education, promote healthy technology habits, and design learning systems that balance digital demands with students' psychological endurance. On a societal level, the findings underline the importance of encouraging youth to develop sustainable relationships with technology to prevent long-term mental health deterioration.

Despite its contributions, this study has limitations. The sample size is relatively small and focused on students from a single private university, which may limit the generalizability of the findings. The qualitative approach also relies on self-reported experiences that may be influenced by memory or perception bias. Future research could involve larger and more diverse populations, apply mixed methods to strengthen validity, and explore the long-term consequences of digital fatigue across different educational contexts. Suggestions include developing campus-based digital well-being programs, providing mental health services that address technology-related stress, and creating policies that ensure healthier digital engagement for students.

Bibliography

Cao, W., Fang, Z., & Hou, G. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research, 287*, 112934.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). SAGE Publications.

Feldon, D. F. (2020). Cognitive load theory: A comprehensive review. *Educational Psychology Review*.

Kominfo. (2023). *Laporan Statistik Internet Indonesia 2023.* Kementerian Komunikasi dan Informatika Republik Indonesia.

Leung, L. &. (2022). Digital overload, social media fatigue, and psychological well-being among young adults. *Computers in Human Behavior, 130*, 107181.

Marengo, D., Sindermann, C., & Montag, C. (2021). Digital well-being and mental health: A systematic review. *Computers in Human Behavior*.

Odgers, C. L. (2020). Screen Time, Social Media Use, and Adolescent Development. *Annual Review of Developmental Psychology, 2*(1), 1-20.

Rosen, L. D., Lim, A. F., & Smith, L. M. (2014). The distracted student: Does multitasking impair learning? *Computers in Human Behavior, 32*, 156-163.

Sari, D. P., & Widodo, A. (2021). Digital media use and its impact on students' mental health during online learning in Indonesia. *Jurnal Psikologi Pendidikan dan Perkembangan, 10*(2), 85-97.

Sonnentag, S. V. (2021). Advances in recovery research: What we know and what we need to know. *Journal of Occupational Health Psychology, 26*(2), 91-105.

Proceeding of the 3rd International Conference of International Conference on Business and Economics
Faculty of Economy and Business, Universitas Pattimura,
December 11, 2025

Thomée, S. (2018). Mobile phone use and mental health. A review of the research that takes a psychological perspective. *Current Opinion in Psychology*, 101-106.

Watermeyer, R., Crick, T., Knight, C., & Goodall, J. (2021). COVID-19 and digital disruption in UK universities. *Teaching in Higher Education*(4), 623-641.

Wiederhold, B. K. (2020). Connecting through technology during the coronavirus disease 2019 pandemic: Avoiding "Zoom fatigue". *Cyberpsychology, Behavior, and Social Networking, 23*(7), 437-438.