



Participatory Educational Research (PER)
Vol.13(2), pp. 209-225, March 2026
Available online at <http://www.perjournal.com>
ISSN: 2148-6123
<http://dx.doi.org/10.17275/per.26.26.13.2>

Id: 1781449

The Effects of Digital Detox on Digital Phobias, Motivation, Self-Efficacy, and Academic Performance

Özkan ÖZBAY

Distance Education Application and Research Center, Artvin Coruh University, Artvin, Türkiye

ORCID: 0000-0001-7754-2594

Selma DURMUŞ SARIKAHYA

Department of Public Health Nursing, Faculty of Health Sciences, Artvin Coruh University, Artvin, Türkiye

ORCID: 0000-0002-0318-3098

Sevil ÇINAR ÖZBAY*

Faculty of Health Sciences, Artvin Coruh University, Artvin, Türkiye

ORCID: 0000-0002-9281-1614

Article history

Received:
10.09.2025

Received in revised form:
18.11.2025

Accepted:
13.01.2026

Key words:

Digital detox; Nomophobia;
Netlessphobia; Academic
motivation; Academic self-
efficacy; Academic
performance

With the integration of digital technologies into daily life, university students' digital media usage habits have begun to significantly impact their academic achievement, psychological well-being, and self-regulation skills. This study aims to examine the effects of digital detox practices among university students on their levels of digital phobia, academic motivation, self-efficacy perceptions, and academic performance. A descriptive and correlational research design was adopted. The sample consisted of 451 undergraduate students studying in the Faculties of Education, Health Sciences, and Engineering at a public university in Turkey during the spring semester of the 2024–2025 academic year. Data were collected using the Personal Information Form, the Fırat Nomophobia Scale, the Fırat Netlessphobia Scale, the Academic Motivation Scale, the Academic Self-Efficacy Scale, and students' self-reported academic performance scores. Descriptive statistics, correlation analysis, t-tests, and binary logistic regression analyses were conducted. The study found that students who practiced digital detox had significantly higher levels of academic performance, motivation, and self-efficacy, and significantly lower levels of nomophobia and netlessphobia. According to the regression analysis, academic motivation and self-efficacy significantly predicted digital detox behavior, whereas digital phobia levels did not have a significant predictive effect. These findings suggest that academically competent students are more likely to engage in digital detox practices to sustain their academic success. Accordingly, it is recommended that university curricula integrate content aimed at raising awareness of digital detox and implement educational programs that promote such practices, as a supportive intervention to enhance students' academic and psychological well-being.

* Correspondency: cinarsevil87@gmail.com

Introduction

Today, smartphones have become an integral part of individuals' daily lives. These devices, which meet a variety of needs by enabling instant communication, access to information, and offering various functional features, provide significant conveniences in personal life (Vanden Abeele et al., 2018). However, the widespread and continuous use of such technologies has also raised growing concerns about their potential negative impacts on areas such as health, productivity, social relationships, and life satisfaction (Vanden Abeele et al., 2024; Özbay et al., 2025a). This situation often leads individuals to seek conscious disconnection from the digital world.

In this context, several digital applications have been developed to help individuals limit their digital media consumption through tools such as timers, access blockers, and usage tracking systems (Grüning et al., 2023; Keller et al., 2021). Nevertheless, merely monitoring or restricting screen time is often insufficient to significantly reduce digital media usage (Zimmermann, 2021). At this point, approaches that aim for a more fundamental reconsideration of technology use habits come to the forefront. In this regard, it is important to distinguish digital detox from simple restriction or usage monitoring. Unlike timer-based or application-based controls, digital detox refers to a voluntary, intentional, and time-limited withdrawal from digital devices, positioned within the broader context of digital well-being and behavioral change. Thus, digital detox is conceptualized not merely as limiting screen time but as a self-regulation strategy aimed at promoting psychological balance and healthier digital habits (Akdeniz Kudubeş et al., 2025; Radtke et al., 2022). In addition, recent literature increasingly conceptualizes digital well-being as a multidimensional and positive construct that encompasses satisfaction with digital life, balanced and purposeful technology use, and safe and responsible digital behaviors. Positioning digital detox within this framework allows it to be understood not only as a strategy for reducing digital-related problems such as phobias or addictive tendencies, but also as an approach that actively promotes individuals' overall digital well-being (Burr et al., 2020; Vanden Abeele, 2021). Digital detox is generally defined as a strategy whereby individuals consciously refrain from using digital devices for a certain period, with the aim of supporting their psychological and physical well-being (Akdeniz Kudubeş et al., 2025; Radtke et al., 2022; Syvertsen & Enli, 2019).

The literature presents different perspectives on the definition of digital detox. For instance, Syvertsen and Enli (2019) describe digital detox as a periodic disconnection from digital platforms, while Nassen et al. (2023) conceptualize it not as a complete disengagement from technology but rather as a conscious effort to restructure one's digital habits. On the other hand, the findings regarding the effects of digital detox practices are inconsistent in the literature. Hanley et al. (2019) suggest that such practices may increase negative emotional responses in some individuals, whereas Lambert et al. (2022) report that digital detox can lead to reductions in depression and anxiety levels. These conflicting findings highlight the need for more comprehensive investigations into the effects of digital detox on issues arising from technology use.

In this regard, it is important to examine the impact of digital detox particularly on young adults, who are heavily exposed to digital technologies. Among this age group, one frequently observed digital-related problem is nomophobia (no mobile phobia), which refers to the intense anxiety and discomfort experienced when individuals are separated from their mobile phones (Kanbay, Akçam, et al., 2022; Yildirim & Correia, 2015). Similarly, netlessphobia describes the heightened anxiety that emerges when internet access is lost (Güney, 2017; Kanbay, Firat, et al., 2022). Research conducted with university students indicates that these digital phobias



are becoming increasingly widespread and may pose significant risks to psychological well-being (Özbay et al., 2025b). In the present study, digital phobias are conceptualized as specific anxiety reactions triggered by disconnection or being offline, whereas digital addiction is understood as a broader pattern of compulsive use and loss of control that extends beyond such situational anxiety. Within this framework, digital detox is regarded as a potential strategy for managing digital phobias such as nomophobia and netlessphobia. Voluntarily and intentionally staying offline may help individuals confront these anxieties and gradually develop psychological tolerance. Supporting this notion, Cheever et al. (2014) found that although short-term digital deprivation initially increased anxiety, this effect subsided over time, and participants began to adopt more balanced technology use patterns.

Digital detox is considered to be associated not only with digital phobias but also with variables related to academic life. In this context, psychological factors that influence the learning process particularly academic motivation and academic self-efficacy come to the forefront. Academic motivation refers to a student's intrinsic willingness to engage in the learning process (Deci & Ryan, 2000), while academic self-efficacy reflects an individual's belief in their ability to successfully complete academic tasks (Bandura, 1997). In the literature, excessive digital media use has been shown to negatively impact both academic motivation and self-efficacy perceptions. For example, Berte et al. (2021) reported that problematic smartphone use reduces students' academic motivation and self-efficacy levels. Similarly, a study conducted in China found that mobile phone addiction adversely affected academic self-efficacy and engagement in learning (Meng et al., 2025). These findings suggest that digital distractions may undermine students' academic interest and confidence. In this framework, it is proposed that digital detox may help reduce cognitive overload and allow students to engage more effectively in learning processes, thereby enhancing their academic motivation and self-efficacy (Brockmeier et al., 2025; Hatlevik & Bjarnø, 2021). Indeed, various studies have indicated that students who voluntarily restrict their social media usage show improvements in time management and classroom engagement (Brockmeier et al., 2025; Schmitt et al., 2021). However, the number of studies in this area remains limited, and the mechanisms through which digital detox affects these variables are still not fully understood.

The impact of digital media use on students' academic performance is a prominent area of research in the literature. In particular, excessive use of smartphones and the internet may lead to distractions and time management issues that negatively affect academic achievement (Lepp et al., 2015; Özbay et al., 2025b; Samaha & Hawi, 2016). Indeed, a meta-analysis by Amez and Baert (2020) found a generally negative relationship between students' frequency of smartphone use and their academic performance.

In this context, digital detox practices, which aim to limit digital media usage, draw attention for their potential to enhance academic performance. However, the findings in the literature regarding the effects of digital detox are not always consistent. While some studies show that digital detox can significantly improve academic performance, others report that the effect is limited or statistically insignificant (Akdeniz Kudubeş et al., 2025; Hietajärvi et al., 2022; Setia et al., 2025). These inconsistencies appear to be influenced by individual differences such as students' initial digital media usage habits, psychological resilience, and levels of technology dependence.

In conclusion, although digital detox has gained increasing scholarly attention, the body of literature examining its effects on university students remains limited and characterized by heterogeneous findings. The university period represents a developmental stage during which

individuals are most intensively immersed in digital technologies and during which academic trajectories are shaped in critical ways. Accordingly, there is a compelling need to investigate the influence of digital detox on students' digital phobias (e.g., nomophobia, netlessphobia) as well as key academic indicators such as motivation, self-efficacy, and performance through a multidimensional and conceptually coherent framework. From a practical standpoint, digital detox may be operationalized through various behavioral forms, including short-term abstinence from all digital devices, planned intervals of disconnection, or the adoption of personalized and sustained digital-use regulations within daily routines.

The present study seeks to systematically examine the effects of digital detox practices on these variables and thereby address a notable gap in the extant literature. The findings are anticipated to offer empirically grounded insights that may inform the development of evidence-based interventions and institutional support mechanisms aimed at mitigating digital dependency among university students. Such initiatives hold the potential to reduce the adverse consequences of excessive digital engagement, thereby promoting students' psychological well-being and enhancing their academic functioning. The research questions guiding this study are presented below.

- (1) Do university students who engage in digital detox differ significantly from those who do not in terms of digital phobia levels (nomophobia and netlessphobia)?
- (2) Do university students who engage in digital detox differ significantly from those who do not in terms of academic performance, academic self-efficacy, and academic motivation levels?
- (3) Can university students' engagement in digital detox be significantly predicted by demographic characteristics, digital phobia levels, academic performance, academic self-efficacy, and academic motivation variables?

Methods

Research design

This research was conducted using a cross-sectional design that incorporates descriptive and correlational approaches (Figure 1). In correlational research, the primary aim is to determine the direction and magnitude of the relationships between two or more variables (Karasar, 2013).

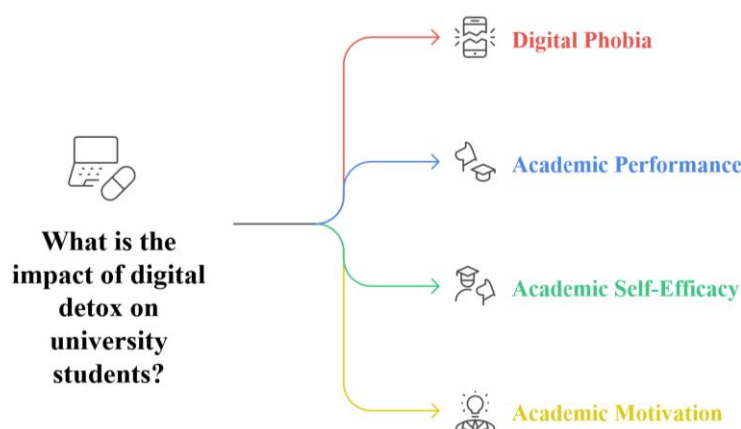


Figure 1. Conceptual framework of the study

Participants

The population of this study consisted of 1,942 undergraduate students enrolled in the Faculties of Education, Health Sciences, and Engineering at Artvin Coruh University. The required sample size was calculated using the standard formula for known populations, and power analysis indicated that a minimum of 321 participants would be sufficient to detect significant differences with a 95% confidence interval and a 5% margin of error. During the data collection period, approximately 520 students responded to the study invitation, and after excluding incomplete or invalid forms, 451 students were included in the final analysis. This corresponds to an estimated participation rate of about 23% of the target population. Participants were recruited through convenience sampling and comprised undergraduate students enrolled in the relevant faculties during the spring semester of the 2024–2025 academic year who voluntarily agreed to participate in the study.

Instruments

Personal information form

The personal information form was developed by the researchers and includes questions about participants' gender, age, year of study, smartphone and internet usage, and overall grade point average. (Akdeniz Kudubeş et al., 2025; Radtke et al., 2022; Syvertsen & Enli, 2019).

Use of digital detox applications

Participants were asked whether they used any digital detox–related applications (e.g., iOS Screen Time, Android Digital Well-being, Forest, Moment, OffTime). Because some of these tools may be used only for passive monitoring rather than intentional detox behavior, the coding procedure was clarified. Participants who reported using these applications with the explicit purpose of limiting, regulating, or reducing their digital device use were coded as “1” (user), whereas those who did not use such applications or used them solely for passive tracking were coded as “0” (non-user). The form also included items assessing the duration, purpose, and patterns of detox practices, and its content validity was confirmed by three experts in Computer Education and Instructional Technology.

Firat netlessphobia scale

Developed by Kanbay et al. (2022), the Firat Netlessphobia Scale is a unidimensional scale consisting of 12 items designed to assess levels of netlessphobia. The scale explains 60.7% of the total variance related to netlessphobia. The Cronbach's alpha internal consistency coefficient was reported as .93, indicating high reliability. There are no reverse-scored items in the scale, and total scores range from 12 to 60; higher scores indicate higher levels of netlessphobia. In this study, the Cronbach's alpha was found to be .92.

Firat nomophobia scale

The Firat Nomophobia Scale, developed by Kanbay et al. (2022), consists of 8 items and is designed to assess individuals' levels of nomophobia. The scale explains 55.9% of the total variance related to nomophobia, demonstrating adequate construct validity. The Cronbach's alpha internal consistency coefficient was reported as .89, indicating high reliability. The scale uses a 5-point Likert scale ranging from “Not at all appropriate” (1) to “Completely appropriate” (5), with no reverse-coded items. Total scores range from 8 to 40,

with higher scores indicating greater levels of nomophobia. In this study, the Cronbach's alpha coefficient was .95.

Academic self-efficacy scale

Originally developed by Jerusalem and Schwarzer (1981), and adapted to Turkish by Yılmaz et al. (2007). the Academic Self-Efficacy Scale consists of a single dimension with 7 items. It uses a 4-point Likert scale ranging from "completely fits me" to "does not fit me at all." Factor loadings of the items range from .50 to .83. The original Cronbach's alpha was reported as .79. In the present study, the Cronbach's alpha coefficient was calculated as .73.

Academic motivation scale

Based on self-determination theory, the Academic Motivation Scale was developed by Vallerand et al. (1992) to measure students' levels of academic motivation. The scale consists of 28 items rated on a 7-point Likert scale. It includes seven subscales: three for intrinsic motivation, three for extrinsic motivation, and one for amotivation. Participants respond to each item on a scale from 1 ("Does not correspond at all") to 7 ("Corresponds exactly"). The original English version, designed for university students, was adapted into Turkish and psychometrically evaluated by Karagüven (2012). Cronbach's alpha coefficients for the subscales ranged from .67 to .87, and the coefficient for the total scale was reported as .87, indicating good reliability. In the present study, the Cronbach's alpha coefficient was .88.

Data collection process

This study was conducted between February and April 2025, during the spring semester of the 2024–2025 academic year, with undergraduate students enrolled in the Faculties of Education, Health Sciences, and Engineering at Artvin Coruh University. Multiple communication channels were used to recruit participants, including institutional email announcements, student communication platforms, and in-class briefings. Additionally, permission was obtained from instructors of relevant courses to collect data during compulsory class hours.

Before data collection, the purpose, scope, procedure, confidentiality principles, and voluntary nature of participation were clearly explained to the students. Survey forms were distributed in classroom settings to students who provided informed consent and agreed to participate voluntarily. Students were given one week to complete the survey, during which reminder messages were sent via email and student communication groups. It was explicitly emphasized that the responses would be used solely for scientific purposes and would be evaluated anonymously. Participation in the study was entirely voluntary.

Data analysis

Data were analyzed using IBM SPSS Statistics for Windows, Version 26. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize the data. Before conducting independent samples t-tests, the assumptions of normality and homogeneity of variance were examined. Normality was assessed using the Shapiro–Wilk test and inspection of skewness–kurtosis values, while homogeneity of variance was evaluated using Levene's test. Independent samples t-tests were then performed to determine whether students who engaged in digital detox differed significantly from those who did not in terms of digital phobia (nomophobia and netlessphobia), academic motivation, academic self-efficacy, and academic performance.



In accordance with the binary structure of the dependent variable (engagement in digital detox: 1 = user, 0 = non-user), binary logistic regression analysis was employed to identify predictors of digital detox behavior. Prior to estimation, multicollinearity diagnostics were conducted using tolerance values, Variance Inflation Factor (VIF), and condition indices. Variables with VIF values below 10, tolerance values above 0.20, and condition indices below 15 were retained in the model. Model fit and effect sizes were evaluated using standard logistic regression indicators, including the Hosmer–Lemeshow test, odds ratios (OR), and 95% confidence intervals. Statistical significance was set at $p < 0.05$ (Wasserstein & Lazar, 2016).

Ethical considerations

This study was approved by the Scientific Research and Publication Ethics Committee of Artvin Coruh University in accordance with ethical principles (Approval No: E-18457941-050.99-159804, Date: 12.12.2024). Written informed consent was obtained from students who voluntarily agreed to participate in the study. During the consent process, participants were provided with detailed information about the study's purpose, methodology, potential risks, and possible benefits. It was emphasized that participation was entirely voluntary. Participants were clearly informed that they could withdraw from the study at any time without providing any reason and without facing any negative consequences.

Results

A majority of the students were female, and most were in the early years of their undergraduate education. Digital engagement was considerably high: 80.3% of the students reported using their smartphones for more than 4 hours per day, and 68.1% used the internet for more than 4 hours daily. Social media emerged as the most common purpose of use for both smartphone (75.6%) and internet activities (72.5%) (Table 1).

Table 1. Students' demographic characteristics, information technology, and smartphone usage

Variables	n	%
Demographic variables		
Gender		
Female	281	62.3
Male	170	37.7
Age		
18-20	202	44.8
21-23	214	47.4
24 and above	35	7.8
Year of Study		
1st Year	88	19.5
2nd Year	189	41.9
3rd Year	108	23.9
4th Year	66	14.6
Family income level		
Low	40	8.9
Medium	394	87.4
High	17	3.8
Overall grade point average (GPA)		
1.40-2.00	40	8.9
2.01-3.00	282	62.5
3.01-4.00	129	28.6
Information technology and smartphone usage		
Smartphone usage experience (years)		
1–5 years	148	32.8
6–10 years	278	61.6

	11 years or more	25	5.6
Purpose of smartphone use			
	Communication	355	78.7
	Social media	341	75.6
	Education	287	63.6
	Entertainment	268	59.4
Purpose of internet use			
	Social media	327	72.5
	Entertainment	129	28.6
	Homework	49	10.9
	Distance education	24	5.3
Daily smartphone usage duration (hours/day)			
	1–3 hours	89	19.7
	More than 4 hours	362	80.3
Daily internet usage duration (hours/day)			
	1–3 hours	144	31.9
	More than 4 hours	307	68.1

Approximately 24.6% of the students reported that they had engaged in digital detox practices, and most of them (63.1%) stated that they had been doing so for about one year. Students also reported various digital behavior–regulation strategies, such as planning their social media usage (26.8%) and restricting device use to specific hours (31.5%). Additionally, 59.6% of the participants indicated that reducing digital device use lowered their stress levels, while 65.6% stated that being away from digital devices reduced their distractibility. Moreover, 68.1% of the students were found to use the internet for more than four hours per day, and 48.3% reported feeling more peaceful when away from digital devices.

The primary reasons for engaging in digital detox included reducing excessive technology use (35.3%), improving attention and focus (32.2%), and enhancing academic performance (31.5%) (Table 2).

Table 2. Digital detox practices

Variables	n	%	
Engagement in digital detox			
	Yes	111	24.6
	No	340	75.4
Duration of digital detox practices (years)			
	1 year	70	63.1
	2 years	19	17.1
	3 years	12	10.8
	4 years or more	10	9.0
Use of digital time-tracking applications			
	Yes	183	40.6
	No	268	59.4
Planning social media usage time			
	Yes	121	26.8
	No	330	73.2
Limiting digital device use to specific hours			
	Yes	142	31.5
	No	309	68.5
Restricting social media use to a daily duration			
	Yes	116	25.7
	No	335	74.3
Feeling more peaceful when away from digital devices			
	Yes	218	48.3
	No	233	51.7
Believing that reducing digital device use decreases stress			

	Yes	269	59.6
	No	182	40.4
Feeling less distracted when away from digital devices			
	Yes	296	65.6
	No	155	34.4
Reasons for deciding to engage in digital detox			
	To reduce excessive technology use	159	35.3
	To improve attention and focus	145	32.2
	To enhance academic performance	142	31.5
	To achieve psychological relief	115	25.5
	To strengthen social relationships	101	22.4

The independent samples t-test results presented in Table 3 showed statistically significant differences between students who engaged in digital detox practices and those who did not. Academic performance was higher in the digital detox group (M = 2.93, SD = 0.56) compared to the non-detox group (M = 2.63, SD = 0.44) (t = 5.674; p < .001).

Table 3. Comparison of students who engage in digital detox and those who do not by variables

Variable	Non-detox group (Mean ± SD)	Detox group (Mean ± SD)	t	p
Academic Performance	2.63 ± 0.44	2.93 ± 0.56	5.674	0.000
Nomophobia	24.33 ± 7.54	21.36 ± 7.32	-3.631	0.000
Netlessphobia	32.40 ± 9.67	28.85 ± 9.79	-3.346	0.001
Academic self-efficacy	18.51 ± 3.88	19.50 ± 3.07	2.441	0.015
Academic motivation	120.36 ± 23.03	128.14 ± 25.03	3.021	0.003

Additionally, academic motivation (t = 3.021; p = .003) and academic self-efficacy (t = 2.441; p = .015) scores were statistically higher among students who reported practicing digital detox (Figure 2).

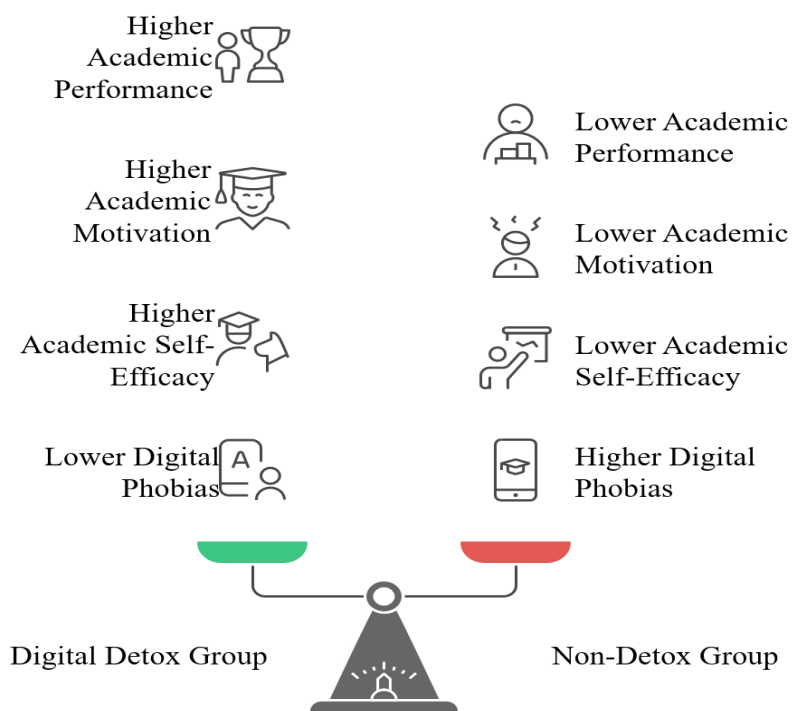


Figure 2. Digital detox enhances academic and psychological well-being

In contrast, nomophobia ($t = -3.631$; $p < .001$) and netlessphobia ($t = -3.346$; $p = .001$) scores were significantly lower among students who engaged in digital detox. These findings indicate that individuals practicing digital detox demonstrate higher levels of academic functionality and experience fewer symptoms of digital phobias. The results suggest that digital detox practices may be associated with positive outcomes at both academic and psychological levels.

A binary logistic regression analysis was conducted to examine the associations between digital detox engagement (1 = yes, 0 = no) and demographic, psychological, and academic variables. The overall model included nine predictors: gender, age, GPA, daily smartphone usage time, daily internet usage time, nomophobia, netlessphobia, academic self-efficacy, and academic motivation.

According to the analysis, nomophobia ($B = 0.055$, $SE = 0.027$, $Wald = 4.250$, $p = .039$, $OR = 1.057$) and academic motivation ($B = -0.014$, $SE = 0.005$, $Wald = 6.772$, $p = .009$, $OR = 0.986$) emerged as significant predictors of digital detox engagement. The results indicate that higher levels of nomophobia were associated with a slightly increased likelihood of reporting digital detox behavior, whereas higher academic motivation was associated with a decreased likelihood of digital detox engagement.

The remaining predictors, gender ($p = .118$), age ($p = .508$), GPA ($p = .835$), daily smartphone use ($p = .565$), daily internet use ($p = .103$), netlessphobia ($p = .914$), and academic self-efficacy ($p = .084$), were not statistically significant (Table 4).

Table 4. Results of binary logistic regression analysis examining the associations between digital detox engagement and demographic variables, academic performance, digital phobia, academic self-efficacy, and academic motivation.

Variable	B	SE	Wald	df	p	OR (Exp(B))
Constant	2.146	1.528	1.973	1	.160	8.5
Gender	0.425	0.272	2.439	1	.118	1.529
Age	-0.041	0.062	0.438	1	.508	0.960
Grade Point Average (GPA)	0.019	0.089	0.043	1	.835	1.019
Daily Smartphone Usage Time	0.040	0.070	0.331	1	.565	1.041
Daily Internet Usage Time	0.121	0.074	2.653	1	.103	1.129
Nomophobia	0.055	0.027	4.250	1	.039*	1.057
Netlessphobia	0.002	0.019	0.012	1	.914	1.002
Academic Self-Efficacy	-0.060	0.035	2.989	1	.084	0.941
Academic Motivation	-0.014	0.005	6.772	1	.009*	0.986

Note. Digital detox engagement was coded as 1 = yes and 0 = no. OR = Odds Ratio; Exp(B) = Exponentiated coefficient; B = Unstandardized regression coefficient; SE = Standard Error. $p < .05$ is considered statistically significant.

Discussion

This study examines the relationships between digital detox practices and university students' levels of digital phobia, academic motivation, academic self-efficacy, and academic performance. To our knowledge, the number of studies that simultaneously address digital detox alongside both psychological and academic variables remains limited. Therefore, this research aims to contribute to the existing literature by evaluating digital phobias and academic indicators within an integrated framework and by providing quantitative evidence on the associations among these variables.

The findings of the study revealed that students who engaged in digital detox practices had significantly lower levels of digital phobia, while their academic motivation and academic self-

efficacy perceptions were notably higher. Moreover, their academic performance was found to be significantly improved. These results suggest that digital detox may have positive effects not only on psychological well-being but also on cognitive and academic functioning. They underscore the importance of promoting self-regulatory strategies related to digital behaviors within the context of higher education.

The study also found that students who practiced digital detox scored significantly lower on nomophobia and netlessphobia. This finding suggests that digital detox practices may serve as an effective strategy for reducing anxiety related to being constantly connected. Indeed, existing literature frequently emphasizes that digital technologies place pressure on individuals to be “always accessible,” a condition that can lead to negative psychological consequences such as information overload, stress, and anxiety—particularly among young individuals. (Maier et al., 2024; Syvertsen & Enli, 2019). Marx et al. (2025) also state that prolonged use of social media leads to negative outcomes such as technology-induced stress (technostress), low self-esteem, and fear of missing out (FOMO), and that digital detox serves as a self-regulation strategy developed to cope with these effects.

In the experimental study conducted by Cheever et al. (2014), it was shown that short-term abstinence from phone use initially increased anxiety levels in individuals, but this effect diminished over time, indicating the development of a tolerance to digital separation. This finding suggests that although regular and planned digital detox practices may be challenging at first, they can contribute to reducing nomophobia and similar digital anxieties in the long term.

On the other hand, the literature presents conflicting findings regarding the emotional effects of digital detox. For instance, some studies have reported that digital detox may lead to short-term discomfort and increased stress, especially among heavy digital device users (Alanzi et al., 2024; Jauhar et al., 2025; Schmuck, 2020). Conversely, other research has found that digital detox practices can result in significant reductions in depression and anxiety levels (Hanley et al., 2019; Neelakandan, 2024; Ramadhan et al., 2024). A comprehensive systematic review by Radtke et al. (2022) also revealed that studies on this topic yield varying results positive, neutral, or negative regarding the impact of digital detox on well-being.

Despite all these complex findings, the general trend indicates that digital detox can help manage digital anxieties, particularly when implemented voluntarily and in a controlled manner. Schmitt et al. (2021) also highlight that digital detox has recently gained significant attention as a strategy for coping with stress induced by digital media. In the present study, the fact that students who practiced digital detox had lower levels of digital phobia compared to those who did not further supports the potential of these practices in reducing digital anxiety. In conclusion, digital detox strategies can be regarded as an important support mechanism to alleviate the pressure of constant connectivity and to enhance students’ tolerance for being offline.

The research findings revealed that students who engaged in digital detox practices demonstrated significant improvements in academic performance, academic motivation, and academic self-efficacy. This result aligns with existing literature suggesting that excessive use of digital technologies may negatively affect academic outcomes. In particular, various studies have emphasized that problematic smartphone and social media use impairs students’ ability to concentrate on coursework, reduces academic motivation, and negatively influences academic self-efficacy perceptions (Li et al., 2024; Rozgonjuk et al., 2018; Tamayo et al., 2024)

Similarly, in a meta-analysis conducted by Amez and Baert (2020), a significant negative relationship was found between the frequency of smartphone use and academic achievement. This finding supports the expectation that limiting digital media use may contribute positively to students' academic success. Brockmeier et al. (2025) noted that the frequent and brief interruptions caused by smartphones reduce study efficiency, and that heavy usage negatively affects sleep quality and increases stress. In this context, limiting digital device use or making it more intentional and planned may reduce students' distractibility, thereby enhancing their academic focus and productivity.

The literature also includes findings indicating that individuals who voluntarily limit their social media use experience improvements in time management skills and class participation levels (Lanaj et al., 2014; Syvertsen & Enli, 2019). Moreover, mobile applications that monitor and restrict digital usage have been found to reduce the harms associated with social media use among young individuals. These findings suggest that digital detox may offer indirect yet meaningful benefits in the context of academic life. In our study, students who practiced digital detox scored higher in academic self-efficacy, indicating that such self-regulation practices may strengthen students' academic self-perceptions and support their participation in learning processes with greater academic motivation.

The study also found that the overall grade point averages of students who engaged in digital detox were significantly higher than those who did not. This finding suggests that strategies aimed at limiting digital media use may be associated with academic performance. However, the literature presents inconsistent results regarding the effects of digital detox on academic achievement. In their systematic review, Radtke et al. (2022) reported that while some studies found positive effects of digital detox on academic success and productivity, others did not observe any significant changes. Indeed, long-term outcomes such as academic performance tend to be more sensitive to sustainable and holistic behavioral changes rather than short-term digital breaks.

Additionally, some research suggests that completely restricting digital media use is not always beneficial. For example, Brockmeier et al. (2025) argue that both digital addiction and total disconnection from digital media may have adverse consequences for academic functioning. In line with this, the study by Przybylski et al. (2020) revealed that moderate smartphone use approximately 1 to 2 hours per day can be sufficient and beneficial for psychological well-being and functioning, while usage exceeding 4 hours per day may lead to negative outcomes. On the other hand, complete abstinence from digital media is not considered a realistic or practical solution in contemporary educational and professional contexts.

Therefore, the goal of digital detox is not to completely remove individuals from digital technologies, but rather to foster balance, awareness, and self-regulation in digital behaviors. In this context, as Syvertsen and Enli (2019) emphasize, digital detox should be considered an intervention tool that enhances individuals' capacity to make conscious choices in the face of digital media and supports controlled and sustainable usage practices. When viewed through this lens, the findings of our study suggest that the impact of digital detox on academic performance should be interpreted alongside individuals' usage habits and the way detox practices are implemented (Akdeniz Kudubeş et al., 2025).

The binary logistic regression analysis conducted in this study provides important insights into the factors associated with university students' engagement in digital detox practices. The findings indicated that demographic variables, daily digital media use, academic performance,

and netlessphobia were not significantly related to the likelihood of engaging in digital detox. In contrast, nomophobia and academic motivation emerged as significant predictors. Higher nomophobia levels were associated with a slightly increased likelihood of engaging in digital detox, whereas higher academic motivation was associated with a decreased likelihood. These results suggest that digital detox should be understood not merely as a behavioral reduction of screen time but as part of a broader self-regulatory process involving digital awareness and intentional decision-making (Syvertsen & Enli, 2019). Prior research has also shown that digital detox interventions may strengthen individuals' digital self-efficacy over time (Brockmeier et al., 2025).

These findings highlight the potential value of structured university-based interventions such as digital awareness programs, self-regulation workshops, and periodic digital break initiatives to support students experiencing digital overload or problematic digital use (Akdeniz Kudubeş et al., 2025; Marx et al., 2024). Furthermore, minimalism-oriented interventions such as the MinimalistPhone application have been shown to reduce screen time, although they may offer limited short-term improvements in emotional well-being (Schraggeová & Bisaha, 2025). This distinction suggests that behavioral change may occur more rapidly, while psychological benefits may emerge more gradually.

Limitations

This study has several limitations. First, the data were collected only from undergraduate students at a single university, limiting the generalizability of the findings. Additionally, since digital detox behavior and other variables were based on participants' self-reports, there is a possibility of subjective response bias. The cross-sectional design of the study also limits the ability to infer causal relationships between variables. Furthermore, the type, duration, and intensity of digital detox practices were not measured in detail, preventing a full understanding of their impact levels. These limitations highlight the need for future studies to be conducted with larger samples and using experimental and longitudinal designs.

Conclusion and Recommendations

The findings of this study suggest that university students who engage in digital detox practices tend to report lower levels of digital phobia (nomophobia and netlessphobia), as well as higher levels of academic motivation, academic self-efficacy, and academic performance. These associations may reflect the ways in which students' technology-use habits are related to their psychological well-being and participation in learning processes.

Based on these findings, digital detox practices may be associated with reduced levels of digital phobia and higher academic motivation and academic self-efficacy perceptions among university students. Future research should examine these relationships using longitudinal or experimental designs to better understand potential long-term patterns, differences between self-directed and structured detox practices, and the role of individual characteristics. It may also be valuable to develop gradual and supportive digital detox strategies tailored for students reporting high levels of digital phobia. Furthermore, universities could consider promoting conscious technology use through guidance services and digital awareness initiatives aimed at supporting digital well-being. Such efforts may contribute to improving students' psychological well-being and, potentially, their academic functioning.

Declarations

Acknowledgments: The authors would like to thank all the students who voluntarily participated in this study and contributed to the data collection process.

Funding: This project was supported by the Scientific Research Projects Coordination Unit of Artvin Coruh University (Project No: 2024.M65.02.01).

Ethics Statements: This study was approved by the Scientific Research and Publication Ethics Committee of Artvin Coruh University in accordance with ethical principles (Approval No: E-18457941-050.99-159804, Date: 12.12.2024).

Conflict of Interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed Consent: All participants took part voluntarily and were informed about the objectives of the study before providing their consent.

Data availability: The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- Akdeniz Kudubeş, A., Özbay, Ö., Beşaltı, M. et al. (2025) Development and psychometric analysis of the digital detox scale. *Psychiatric Quarterly*. Advance online publication. <https://doi.org/10.1007/s1126-025-10220-z>
- Alanzi, T. M., Arif, W., Aqeeli, R., Alnafisi, A., Qumosani, T., Alreshidi, A., Alhawsawi, S., Alnakli, R., Alotaibi, A., & AlOthman, M. (2024). Examining the impact of digital detox interventions on anxiety and depression levels among young adults. *Cureus*, *16*(12): e75625. <https://doi.org/10.7759/cureus.75625>
- Amez, S., & Baert, S. (2020). Smartphone use and academic performance: A literature review. *International Journal of Educational Research*, *103*, 101618. <https://doi.org/10.1016/j.ijer.2020.101618>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Macmillan.
- Berte, D. Z., Mahamid, F. A., & Affounch, S. (2021). Internet addiction and perceived self-efficacy among university students. *International Journal of Mental Health and Addiction*, *19*(1), 162–176. <https://doi.org/10.1007/s11469-019-00160-8>
- Brockmeier, L. C., Keller, J., Dingler, T., Padaszynska, N., Luszczynska, A., & Radtke, T. (2025). Planning a digital detox: Findings from a randomized controlled trial to reduce smartphone usage time. *Computers in Human Behavior*, *168*, 108624. <https://doi.org/10.1016/j.chb.2025.108624>
- Burr, C., Taddeo, M., & Floridi, L. (2020). The ethics of digital well-being: A thematic review. *Science and Engineering Ethics*, *26*(4), 2313-2343. <https://doi.org/10.1007/s11948-020-00175-8>
- Cheever, N. A., Rosen, L. D., Carrier, L. M., & Chavez, A. (2014). Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate and high users. *Computers in Human Behavior*, *37*, 290–297. <https://doi.org/10.1016/j.chb.2014.05.002>
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01



- Grüning, D. J., Riedel, F., & Lorenz-Spreen, P. (2023). Directing smartphone use through the self-nudge app one sec. *Proceedings of the National Academy of Sciences*, 120(8), e2213114120. <https://doi.org/10.1073/pnas.2213114120>
- Güney, B. (2017). Digital culture transition in digital addiction: Netlessphobia. *e-Journal of New Media*, 1(2), 207-213. <https://doi.org/10.17932/IAU.EJNM.25480200.2017.1/2.207-213>
- Hanley, S. M., Watt, S. E., & Coventry, W. (2019). Taking a break: The effect of taking a vacation from Facebook and Instagram on subjective well-being. *Plos One*, 14(6), e0217743. <https://doi.org/10.1371/journal.pone.0217743>
- Hatlevik, O. E., & Bjarnø, V. (2021). Examining the relationship between resilience to digital distractions, ICT self-efficacy, motivation, approaches to studying, and time spent on individual studies. *Teaching and Teacher Education*, 102, 103326. <https://doi.org/10.1016/j.tate.2021.103326>
- Hietajärvi, L., Maksniemi, E., & Salmela-Aro, K. (2022). Digital engagement and academic functioning. *European Psychologist*, 27(2). <https://doi.org/10.1027/1016-9040/a000480>
- Jauhar, A. A., Ashraf, S., Mubashir, A., Sharif, M., Farooq, K., & Gardezi, A. A. (2025). Assessing the effect of digital detoxification on psychological burden among adults in Pakistan. *Bulletin of Business and Economics (BBE)*, 14(1), 24–29. <https://doi.org/10.61506/01.00574>
- Jerusalem, M., & Schwarzer, R. (1981). Fragebogen zur Erfassung von Selbstwirksamkeit. In R. Schwarzer (Ed.), *Skalen zur Befindlichkeit und Persönlichkeit* (Forschungsbericht Nr. 5). Freie Universität Berlin, Institut für Psychologie.
- Kanbay, Y., Akçam, A., Özbay, S. Ç., Özbay, Ö., & Firat, M. (2022). Developing Firat nomophobia scale and investigating its psychometric properties. *Perspectives in Psychiatric Care*, 58(4), 2534-2541. <https://doi.org/10.1111/ppc.13090>
- Kanbay, Y., Firat, M., Akçam, A., Çınar, S., & Özbay, Ö. (2022). Development of Firat netlessphobia scale and investigation of its psychometric properties. *Perspectives in Psychiatric Care*, 58(4), 1258–1266. <https://doi.org/10.1111/ppc.12924>
- Karagüven, M. H. Ü. (2012). The adaptation of the academic motivation scale into Turkish. *Educational Sciences: Theory & Practice*, 12(4), 2599–2620.
- Karasar, N. (2013). *Scientific research methodology*. Ankara: Nobel Publishing
- Keller, J., Roitzheim, C., Radtke, T., Schenkel, K., & Schwarzer, R. (2021). A mobile intervention for self-efficacious and goal-directed smartphone use in the general population: Randomized controlled trial. *JMIR MHealth and UHealth*, 9(11), e26397. <https://doi.org/10.2196/26397>
- Lambert, J., Barnstable, G., Minter, E., Cooper, J., & McEwan, D. (2022). Taking a one-week break from social media improves well-being, depression, and anxiety: a randomized controlled trial. *Cyberpsychology, Behavior, and Social Networking*, 25(5), 287–293. <https://doi.org/10.1089/cyber.2021.0324>
- Lanaj, K., Johnson, R. E., & Barnes, C. M. (2014). Beginning the workday yet already depleted? Consequences of late-night smartphone use and sleep. *Organizational Behavior and Human Decision Processes*, 124(1), 11–23. <https://doi.org/10.1016/j.obhdp.2014.01.001>
- Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use and academic performance in a sample of US college students. *Sage Open*, 5(1), 2158244015573169. <https://doi.org/10.1177/2158244015573169>
- Li, P., Chen, J., Duan, Z., Xu, W., & Feng, Y. (2024). Relationship between problematic smartphone use and graduate students' research self-efficacy: A moderated mediation model. *Behavioral Sciences*, 14(12), 1191. <https://doi.org/10.3390/bs14121191>

- Maier, C., Laumer, S., Sun, H., Thatcher, J. B., & Weitzel, T. (2024). Proposing shocks and dissatisfaction to explain quitting and switching a service: An image theory perspective. *Journal of the Association for Information Systems*, 25(2), 362–406. <https://doi.org/10.17705/1jais.00857>
- Marx, J., Mirbabaie, M., & Turel, O. (2024). Digital detox: A theoretical framework and future research directions for information systems. *Information & Management*, 104068. <https://doi.org/10.1016/j.im.2024.104068>
- Meng, S., Qi, K., Shen, P., Zhang, M., Zhang, Y., Onyebuchi, N., Zhan, G., Wei, F., Tong, W., & Han, Y. (2025). The effects of mobile phone addiction on learning engagement of Chinese college students-the mediating role of physical activity and academic self-efficacy. *BMC Public Health*, 25(1), 110. <https://doi.org/10.1186/s12889-024-21250-w>
- Nassen, L.-M., Vandebosch, H., Poels, K., & Karsay, K. (2023). Opt-out, abstain, unplug. A systematic review of the voluntary digital disconnection literature. *Telematics and Informatics*, 81, 101980. <https://doi.org/10.1016/j.tele.2023.101980>
- Neelakandan, S. (2024). Internet addiction, digital detox, and mental health: A review of the evidence with clinical examples. *SBV Journal of Basic, Clinical and Applied Health Science*, 7(3), 140–143. https://doi.org/10.4103/SBVJ.SBVJ_44_24
- Özbay, Ö., Çınar Özbay, S., Akdeniz Kudubeş, A., Durmuş Sarikahya, S., & Beşaltı, M. (2025a). Development and psychometric analysis of the digital obesity scale. *International Journal of Human-Computer Interaction*, 1-10. <https://doi.org/10.1080/10447318.2025.2504183>
- Özbay, Ö., Doğan, U., Adıgüzel, O., & Cınar Özbay, S. (2025b). Modeling factors associated with academic procrastination in university students. *Psychological Reports*, 00332941251335573. <https://doi.org/10.1177/00332941251335573>
- Przybylski, A. K., Orben, A., & Weinstein, N. (2020). How much is too much? Examining the relationship between digital screen engagement and psychosocial functioning in a confirmatory cohort study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 59(9), 1080–1088. <https://doi.org/10.1016/j.jaac.2019.06.017>
- Radtke, T., Apel, T., Schenkel, K., Keller, J., & von Lindern, E. (2022). Digital detox: An effective solution in the smartphone era? A systematic literature review. *Mobile Media & Communication*, 10(2), 190–215. <https://doi.org/10.1177/20501579211028647>
- Ramadhan, R. N., Rampengan, D. D., Yumnanisha, D. A., Setiono, S. B. V, Tjandra, K. C., Ariyanto, M. V, Idrisov, B., & Empitu, M. A. (2024). Impacts of digital social media detox for mental health: A systematic review and meta-analysis. *Narra J*, 4(2), e786. <https://doi.org/10.52225/narra.v4i2.786>
- Rozgonjuk, D., Kattago, M., & Täht, K. (2018). Social media use in lectures mediates the relationship between procrastination and problematic smartphone use. *Computers in Human Behavior*, 89, 191–198. <https://doi.org/10.1016/j.chb.2018.08.003>
- Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321–325. <https://doi.org/10.1016/j.chb.2015.12.045>
- Schmitt, J. B., Breuer, J., & Wulf, T. (2021). From cognitive overload to digital detox: Psychological implications of telework during the COVID-19 pandemic. *Computers in Human Behavior*, 124, 106899. <https://doi.org/10.1016/j.chb.2021.106899>
- Schmuck, D. (2020). Does digital detox work? Exploring the role of digital detox applications for problematic smartphone use and well-being of young adults using multigroup analysis. *Cyberpsychology, Behavior, and Social Networking*, 23(8), 526–532. <https://doi.org/10.1089/cyber.2019.0578>
- Schraggeová, M., & Bisaha, D. (2025). The effect of digital detox through digital minimalism using the MinimalistPhone app on the behavior of young users and their emotional

- experience. *Computers in Human Behavior Reports*, 18, 100699. <https://doi.org/10.1016/j.chbr.2025.100699>
- Setia, S., Gilbert, F., Tichy, M. L., Redpath, J., Shahzad, N., & Marraccini, M. E. (2025). Digital detox strategies and mental health: a comprehensive scoping review of why, where, and how. *Cureus*, 17(1): e78250. <https://doi.org/10.7759/cureus.78250>
- Syvertsen, T., & Enli, G. (2019). Digital detox: Media resistance and the promise of authenticity. *Convergence: The International Journal of Research into New Media Technologies*, 26(5-6), 1269–1283. <https://doi.org/10.1177/1354856519847325>
- Tamayo, J. P. M., Rocchi, M. A., St-Denis, B., Bonneville, L., & Beaudry, S. G. (2024). A motivational approach to understanding problematic smartphone use and negative outcomes in university students. *Addictive Behaviors*, 148, 107842. <https://doi.org/10.1016/j.addbeh.2023.107842>
- Wasserstein, R. L., & Lazar, N. A. (2016). The ASA statement on p-values: context, process, and purpose. *The American Statistician*, 70(2), 129-133. <https://doi.org/10.1080/00031305.2016.1154108>
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The academic motivation scale: a measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52(4), 1003–1017. <https://doi.org/10.1177/0013164492052004025>
- Vanden Abeele, M. M. (2021). Digital wellbeing as a dynamic construct. *Communication Theory*, 31(4), 932-955. <https://doi.org/10.1093/ct/qtaa024>
- Vanden Abeele, M., De Wolf, R., & Ling, R. (2018). Mobile media and social space: How anytime, anyplace connectivity structures everyday life. *Media and Communication*, 6(2), 5–14. <https://doi.org/10.17645/mac.v6i2.1399>
- Vanden Abeele, M. M. P., Vandebosch, H., Koster, E. H. W., De Leyn, T., Van Gaeveren, K., de Segovia Vicente, D., Van Bruyssel, S., van Timmeren, T., De Marez, L., & Poels, K. (2024). Why, how, when, and for whom does digital disconnection work? A process-based framework of digital disconnection. *Communication Theory*, 34(1), 3–17. <https://doi.org/10.1093/ct/qtad016>
- Von Elm, E., Altman, D. G., Egger, M., Pocock, S. J., Gøtzsche, P. C., Vandenbroucke, J. P., & Initiative, S. (2014). The strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting observational studies. *International Journal of Surgery*, 12(12), 1495–1499.
- Yildirim, C., & Correia, A.-P. (2015). Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. *Computers in Human Behavior*, 49, 130–137. <https://doi.org/10.1016/j.chb.2015.02.059>
- Yılmaz, M., Gürçay, D., & Ekici, G. (2007). The adaptation of the academic self-efficacy scale into Turkish. *Hacettepe University Journal of Education*, 33(33), 253–259.
- Zimmermann, L. (2021). “Your screen-time app is keeping track”: Consumers are happy to monitor but unlikely to reduce smartphone usage. *Journal of the Association for Consumer Research*, 6(3), 377–382. <https://doi.org/10.1086/714365>