

«مقاله پژوهشی»

مطالعه پدیدارشناسانه عوامل زمینه‌ساز حواس‌پرتی دیجیتال دانش‌آموزان در آموزش مجازی مبتنی بر تجربه زیسته معلمان

حمید احمدی هدایت*^۱، مرتضی گلشنی گهرز^۲، زهرا ثمری ابراهیم‌زاده^۳، کمال نصرتی هشی^۴

چکیده

پیشینه و اهداف توجه به حواس‌پرتی دیجیتال در دانش‌آموزان بسیار حائز اهمیت بوده و مدیریت آن می‌تواند موجب افزایش تمرکز و یادگیری عمیق‌تر گردد. هدف پژوهش حاضر، مطالعه پدیدارشناسانه عوامل زمینه‌ساز حواس‌پرتی دیجیتال دانش‌آموزان در آموزش مجازی مبتنی بر تجربه زیسته معلمان می‌باشد. روش‌ها: روش پژوهش کیفی و از نوع پدیدارشناسی است. جامعه آماری مصاحبه‌شوندگان پژوهش، شامل معلمان متوسطه شهر کرج در سال تحصیلی ۱۴۰۳-۱۴۰۴ بوده‌اند. برای انتخاب شرکت‌کنندگان، از شیوه نمونه‌گیری هدفمند و تا حد اشباع استفاده شد، که در این پژوهش ۲۱ نفر معلم بوده‌اند. داده‌ها با استفاده از مصاحبه عمیق و نیمه‌ساختاریافته و نیز به شیوه گفت‌وگوی دوطرفه، جمع‌آوری گردید. برای تعیین روایی و پایایی مصاحبه‌ها نیز تکنیک تثلیث یا مثلث‌سازی، تکنیک کنترل اعضاء، تکنیک کسب اطلاعات دقیق موازی و خودبازبینی محققان صورت گرفت. یافته‌ها: در مصاحبه با معلمان، اکثریت آن‌ها به وجود عوامل زمینه‌ساز حواس‌پرتی دیجیتال نظیر عوامل محیطی و روانی، کارهای غیرضرور دیجیتالی، عوامل آموزشی و تدریس، ارتباطات آنلاین مداوم و ناتوانی خودتنظیمی هیجانی تاکید داشتند و راهکارهایی اعم از راهکارهای خانوادگی، بکارگیری فعالیت‌های ذهنی و طبیعی، راهکارهای عاطفی، تنظیم محیطی مطلوب برای آموزش و مطالعه را برای آن ارائه دادند. نتیجه‌گیری: در نتیجه باید گفت که با کنترل و مدیریت عوامل زمینه‌ساز حواس‌پرتی دیجیتال دانش‌آموزان می‌توان به افزایش کیفیت یادگیری دانش‌آموزان کمک نمود.

واژه‌های کلیدی

تجربه زیسته، حواس‌پرتی دیجیتال، عوامل زمینه‌ساز، راهکارها، معلمان.

۱. عضو هیات علمی دانشگاه فرهنگیان.

۲. دانشجوی کارشناسی ارشد روانشناسی تربیتی، دانشگاه فرهنگیان علامه امینی، تبریز، ایران.

۳. دانشجوی دکتری فیزیولوژی ورزشی، دانشگاه شهرکرد، ایران.

۴. عضو هیات علمی دانشگاه فرهنگیان.

نویسنده مسئول:

حمید احمدی هدایت

رایانامه: h.hedayat@cfu.ac.ir

تاریخ دریافت: ۱۴۰۴/۰۲/۰۱

تاریخ پذیرش: ۱۴۰۴/۰۳/۲۷

استناد به این مقاله:

احمدی هدایت، حمید؛ گلشنی گهرز، مرتضی؛ ثمری ابراهیم‌زاده، زهرا و نصرتی هشی، کمال (۱۴۰۴). مطالعه پدیدارشناسانه عوامل زمینه‌ساز حواس‌پرتی دیجیتال دانش‌آموزان در آموزش مجازی مبتنی بر تجربه زیسته معلمان. دوفصلنامه ایرانی آموزش از دور، ۱۶(۱)، ۱۲۹-۱۴۰. (DOI: 10.30473/idej.2025.74365.1235)



ORIGINAL ARTICLE

A Phenomenological Study of the Contributing Factors to Students' Digital Distraction in Virtual Learning: Based on Teachers' Lived Experiences¹

Hamid Ahmadi Hedayat^{1*} , Morteza Golshani Gehrazr² , Zahra Samari Ebrahimzadeh³,
Kamal Nosrati Heshi⁴

1. Assistant Professor, Department of Educational Sciences, Farhangian University, Tehran, Iran.

2. Master's student in Educational Psychology, Allameh Amini University of Education, Tabriz, Iran.

3. PhD in Sports Physiology, Shahrekord University, Lecturer at Farhangian University, Iran.

4. Assistant Professor, Department of Educational Sciences, Farhangian University, Tehran, Iran.

Correspondence
Hamid Ahmadi Hedayat
Email: h.hedayat@cfu.ac.ir

Received: 21 Apr 2025
Accepted: 17 Jun 2025

How to cite

Ahmadi Hedayat, H., Golshani Gehrazr, M., Samari Ebrahimzadeh, Z. & Nosrati Heshi, K. (2025). A Phenomenological Study of the Contributing Factors to Students' Digital Distraction in Virtual Learning: Based on Teachers' Lived Experiences. *Iranian Distance Education Journal*, 7(2), 129-140.
(DOI: [10.30473/idej.2025.74365.1235](https://doi.org/10.30473/idej.2025.74365.1235))

ABSTRACT

Background and Aims: Addressing digital distraction among students is of significant importance, as managing it can lead to enhanced focus and deeper learning. The purpose of this study is to conduct a phenomenological investigation into the factors that contribute to students' digital distraction in virtual learning, based on the lived experiences of teachers. **Methods:** This study employed a qualitative, phenomenological research design. The study population consisted of secondary school teachers in Karaj during the 2024-2025 academic year. Participants were selected using purposive sampling until data saturation was achieved, resulting in a sample of 21 teachers. Data were collected through in-depth, semi-structured interviews. To ensure the trustworthiness of the findings, techniques such as triangulation, member checking, peer debriefing, and researcher reflexivity were utilized. **Findings:** The interviews revealed that a majority of teachers emphasized the existence of several contributing factors to digital distraction, including cognitive disruption, digital addiction, poor self-regulation, psychological distress, and pedagogical challenges. They also proposed several strategies to address this issue, such as family-based interventions, the implementation of cognitive and nature-based activities, emotional support strategies, and the establishment of an optimal environment for learning and study. **Conclusion:** The findings suggest that by controlling and managing the factors that contribute to students' digital distraction, it is possible to significantly enhance the quality of their learning outcomes.

KEYWORDS

Lived Experience, Digital Distraction, Contributing Factors, Strategies.

1. This article is derived from a research project titled "Development and Validation of a Model for Managing Digital Distraction in Students' Virtual Education," conducted with financial support from the Alborz Province General Department of Education.



Introduction

The late 20th and early 21st centuries have been characterized by remarkable changes and widespread transformations. Among these, information and communication technology (ICT) and the internet have emerged as the primary catalysts for change. They have not only spurred numerous advancements but have also significantly improved the speed and quality of service delivery across various aspects of human life (Pandya & Gor, 2011). These transformations, which began with the advent of the computer in the 1950s, have progressively influenced the field of education. Today, the integration of information technology in education is considered a key indicator of progress (Talebipour Sanich, 2021, p. 2). Consequently, educational institutions have embraced instructional technology, a phenomenon that has moved learning beyond its traditional framework (Verkuyl & Hughes, 2019). One of the most prominent applications of technology in this field is virtual learning, which gained significant prominence following the COVID-19 pandemic (Parry, 2020; Chan et al., 2019; Adhikari et al., 2020). In its aftermath, a debate emerged, with some advocating for this new mode of instruction while others continued to favor traditional in-person education (Lockee, 2021). Virtual learning is a method for designing, delivering, and evaluating instruction that leverages virtual tools, thereby eliminating dependencies on time and location (Moore & Kearsley, 2011). However, alongside its advantages, the virtual space can also introduce undesirable consequences, chief among them being digital distraction.

One of the critical yet often overlooked issues in virtual education is the management of student distraction in digital learning environments. While internet technology can enhance educational

effectiveness, its unstructured use can transform it into a significant source of digital distraction (Cheong et al., 2016). Although technology offers a more sustainable and accessible model for education, it can also make students more susceptible to distraction (Pérez-Juárez et al., 2023). This has been identified as one of the foremost challenges in the field of educational technology (Göl et al., 2023, p. 2). The introduction of various educational technologies—such as mobile phones and the internet—into classrooms, and instructors' emphasis on their use, provides a flexible and active method for accessing content at any time and place, facilitating meaningful learning, enabling continuous assessment, and fostering peer interaction. However, improper use can lead to wasted time and a decline in the quality of education (Moradi & Didehban, 2018). Distraction can be defined as a shift in an individual's attention from one object to another (Hanin, 2021). Accordingly, digital distraction encompasses any internal or external stimuli capable of disrupting a person's focus while using educational technologies (Gazzaley & Rosen, 2016). This phenomenon can be influenced by various factors, including anxiety, depression, motivational issues, emotional numbness, and procrastination (Wang et al., 2022). It is clear that distraction is a prominent issue within international education systems, impacting learners across the board. Therefore, managing and controlling digital distraction is essential for optimal learning, and an examination of the current situation is warranted.

There is a strong emphasis on this issue within the existing literature. For example, a study by Mohammadi et al. (2020), which explored the experiences of parents and elementary school students with the challenges of virtual education, identified distraction as a significant social drawback inherent in online

learning. Similarly, Ghoraiishi Khorasgani (2022), in a study on the lived experiences of university students with mobile learning during the COVID-19 crisis, found that psychological challenges such as stress, anxiety, depression, and a lack of focus and distraction were prevalent. More recently, Valipour Batvandi et al. (2024) asserted that the unstructured use of social media, online games, and continuous exposure to non-educational content leads to reduced concentration, mental distraction, and weakened learning, highlighting the significance of digital distraction in an era dominated by digital technology.

The prevalence of distraction in virtual learning is significant, and its consequences can be severe. Research indicates that digital distraction during blended learning negatively affects students' mental health, with counseling often failing to provide significant improvement (Kumar et al., 2024). Furthermore, digital distraction, particularly from smartphones and social media, has been shown to adversely impact academic performance (Dontre, 2020) and can lead to engagement in irrelevant online activities during lectures (Colliot, 2022). It also negatively affects the student-instructor relationship (Flanigan et al., 2022) and contributes to decreased academic performance, increased anxiety, stress, and health problems such as sleep disorders (Mondal, 2024). Ultimately, students' use of technology during academic activities can result in reduced concentration, lower productivity, and a weakened student-instructor connection (Pérez-Juárez et al., 2022). These findings underscore the critical need to manage digital distraction effectively.

Halubanza et al. (2023), in a study titled "Distracted Minds and Declining Grades: Unveiling the Detrimental Effects of Digital Distraction on Student Academic Performance,"

found that students who perceived a significant negative impact of digital distractions on their academic performance were more motivated to manage them. These findings highlight the need for educational institutions to address this issue and provide students with effective management strategies. In a similar vein, Khasawneh and Khasawneh (2023) explored the impact of mindfulness-based interventions and concluded that they are a valuable tool for addressing the negative consequences of technological distractions in educational settings, emphasizing the need to integrate such practices into current pedagogy. Flanigan and Babchuk (2022) examined instructor perceptions, revealing that student digital distraction influences instructional decision-making and threatens the quality of the student-instructor relationship. Liao and Wu(2022) used multimodal learning analytics to show that students who reported higher levels of digital distraction achieved lower final course grades. Conversely, Nakayama et al. (2022) found that for remote-working IT professionals, non-digital distractions at home had a greater negative impact on productivity than digital ones. In an earlier study, Mehralizadeh et al. (2013) categorized student distractions as either internal or external and concluded that focus could be effectively enhanced by modifying student behaviors (e.g., ensuring adequate rest, increasing motivation) and improving environmental factors.

In the 21st century, information and communication technology has permeated nearly every aspect of human life, particularly education. Given the current landscape, integrating technology into educational practices is essential, which in turn necessitates the development of frameworks for its optimal use. While virtual platforms offer significant benefits, they also present challenges, most notably digital distraction. As the literature

confirms, digital distraction has adverse effects on learning, academic achievement, and student well-being, making it a critical area for investigation. Therefore, this study aims to explore the lived experiences of teachers regarding students' digital distraction. To achieve this objective, the following research questions were formulated:

1. From the lived experiences of teachers, what are the contributing factors to students' digital distraction in virtual learning environments?
2. From the lived experiences of teachers, what are the necessary strategies to overcome the factors that contribute to students' digital distraction in virtual learning environments?

Research Method

This study employs a qualitative research design, specifically a phenomenological approach. Phenomenology is the study of the lived world or lived experience as it is consciously experienced by an individual, rather than as a separate, objective reality. Within phenomenological research, two primary methods are distinguished: descriptive phenomenology (Husserl) and interpretive phenomenology (Heidegger). Although both approaches investigate lived experiences, descriptive phenomenology focuses on describing the phenomenon without interpretation, providing a detailed and precise account through the categorization and classification of experiences. In contrast, in Heidegger's interpretive phenomenology, description is not the primary goal; instead, the researcher actively interprets the meanings of individuals' lived experiences (Moustakas, 1994). Accordingly, the present study was conducted using Husserl's descriptive phenomenological method.

The potential participants for this study included all teachers employed in the city of Karaj during the 2024-2025 academic year.

Participants were selected using purposive criterion sampling until theoretical saturation was achieved. In phenomenological research, the required sample size typically ranges from a minimum of 6 to a maximum of 50 participants (Parvari, 2019, p. 98). In this study, no new information emerged after 21 teacher interviews, at which point saturation was reached, and further interviews were discontinued. The inclusion criteria for the sample were: (1) a willingness to participate in the research, and (2) a minimum of two years of teaching experience.

Interviews were conducted with teachers both in-person and remotely using open-ended questions delivered via platforms such as SHAD, Rubika, and Eita. Following the interviews, the responses, provided as either text or audio recordings, were transcribed verbatim and compiled into a single dataset. Ethical considerations were strictly observed throughout the research process. Participants were provided with a thorough explanation of the study's importance and objectives, assured that participation was voluntary, and informed that no personal identifying information would be collected. Confidentiality was maintained by ensuring that opinions would not be disclosed to others, and participants were assured that audio files would be deleted after transcription. The data were used solely for the purpose of improving the quality of education.

For data analysis, the in-depth, semi-structured interviews were analyzed using the open coding method attributed to Strauss and Corbin (2008). This analytical approach involved several stages. In the open coding stage, the researcher meticulously read the transcribed interviews and broke them down into smaller components. These components were then continuously compared, conceptualized, and categorized. During axial coding, the categories identified in the previous stage were

organized and systematically interrelated to form a more coherent structure, clarifying the relationships between broader categories. Finally, in the selective coding phase, a core narrative summarizing the research findings was developed for each interview question. All three coding stages—open, axial, and selective—were applied to the data from both teacher and specialist groups. Furthermore, to ensure the accuracy of the researchers' interpretations of each participant's statements, follow-up contact was made when necessary. The interpretations were then verified with the participant, and any required modifications were made.

Regarding the validity of the interview questions, the design followed established phenomenological research principles (Parvari, 2019, p. 95; Moustakas, 1994; Creswell, 2007, p.

83), which prioritize understanding how individuals have experienced the phenomenon under study. The primary questions focused on what individuals had experienced regarding the topic. The researcher also had the flexibility to ask more specific, follow-up questions to explore particular aspects of their experiences in greater depth. The interview protocol was developed after a thorough review of the existing literature on the research topic, followed by consultation with professors in psychology and educational sciences. To ensure neutrality, credibility, dependability, and transferability of the interview questions and participant responses, several techniques were employed, including triangulation, member checking, peer debriefing, and researcher reflexivity (Abbaszadeh, 2012, pp. 19-34).

Findings

1. According to the lived experiences of teachers, what are the contributing factors to

students' digital distraction in virtual learning?

Table 1. Contributing Factors to Digital Distraction in Virtual Learning from the Teachers' Perspective

Selective Coding	Axial Coding	Open Coding
Contributing factors to students' digital distraction in virtual learning	Cognitive Disruption	Checking the phone's calendar and losing focus during study; using photo-editing applications; playing mobile games; browsing news and notifications; watching short videos on social media; watching non-essential videos; the impact of advertisements on student focus; inability to concentrate without a phone; procrastinating on important tasks due to phone-related distractions; lack of effective learning techniques; monotonous educational content; lack of variety in teaching methods; absence of a structured plan for online learning; inability to prioritize tasks; poor cognitive control; lack of education on the proper use of digital media; absence of clear rules for using digital platforms; poor time management skills; and multitasking between a phone and a computer.
	Digital Addiction	Fear of missing out (FOMO) on phone updates; frequently checking phone updates; addiction to checking the phone; feeling lost or lonely without a phone; the tendency to photograph every event; obsession with documenting life on social media; engaging in unnecessary virtual activities; intense interest in the digital space; using the phone as a coping mechanism for problems; strong emotional dependence on digital environments; excessive use of phones and digital media; excessive online communication with friends; inability to control gaming habits; alluring digital advertisements and stimuli; and fear of being excluded from online groups.

	Poor Self-Management	Inadequate planning for digital activities; lack of clear goals; inability to manage time effectively; unclear priorities; lack of a daily schedule; absence of short-term goals; inability to distinguish between work and leisure; lack of family rules; absence of appropriate role models for digital media use; poor management at the family level; inability to control thoughts about the future; lack of awareness of the consequences of excessive digital media use; lack of a sense of responsibility; and lack of life skills.
	Psychological Distress	Anxiety from excessive social media use; anxiety from receiving too many notifications; fear of social comparison on social media; increased social stress; fear of failure; inability to manage emotions in response to online feedback; seeking validation from others online; a constant need for feedback from others; low self-confidence and self-esteem; unrealistic self-expectations; inability to manage real-life challenges; inability to cope with problems; lack of problem-solving skills; inability to manage one's talents and abilities; and weak cognitive skills.
	Pedagogical Challenges	Use of traditional and monotonous teaching methods; lack of interaction between teacher and student; failure to use engaging teaching methods; absence of active and collaborative learning; over-reliance on lecture-based instruction; lack of suitable educational games; content creation that disregards motivational needs; excessive digital homework; no limits on digital use; repetitive assignments; lack of motivation to participate in online classes; inadequate monitoring tools in virtual classrooms; internet and platform issues; lack of an engaging learning environment; absence of effective feedback after assessments; and lack of psychological support systems in education.

Teachers were asked about strategies to overcome the factors contributing to students' digital distraction. Their responses were categorized into themes such as environmental and psychological factors, unnecessary digital tasks, teaching and instructional factors, constant online communication, and the inability to self-regulate emotions.

Below are some examples of the interviewees' responses:

Participant 5 stated:

"These days, a lot of students have an emotional dependency on the online world. When they're away from it, it's like something is missing. Their minds are constantly wondering what's happening on Instagram or in their group chats—whether someone has messaged them or not. This attachment makes it hard for them to be mentally present in class, even if the digital world is appealing to them."

Participant 11 shared this perspective:

"One of the factors that distracts students is constantly checking notifications and browsing the news. Even if they seem to be listening in class, their minds are elsewhere. A new update or a small notification is enough to completely break their focus. This situation gets worse when the class isn't particularly engaging for them."

Participant 7 explained:

"Sometimes, we as teachers need to re-evaluate our own methods. If we keep using old, repetitive approaches, students get bored quickly and look for an escape. And that escape is usually their phone or the internet. So, if the classroom isn't dynamic or stimulating, we can't expect their attention to stay with us—even if they are sitting right there."

Participant 15 offered this view:

"When students are just passive listeners and not actively involved in the learning process, they disconnect quickly. Without interaction and participation, they lose their motivation. And in

that state, even a small distraction like a message or a game is enough to pull them away completely."

2. According to teachers and students, what are the strategies to overcome the contributing factors to digital distraction in virtual learning?

Table 2. Strategies to Overcome Contributing Factors to Digital Distraction from the Teachers' Perspective

Selective Coding	Axial Coding	Open Coding
Strategies to overcome the contributing factors to digital distraction in virtual learning	Establishing an Optimal Environment for Learning and Study	Using educational posters in the classroom about the harms of excessive media use; adjusting classroom lighting; creating spaces for group study; establishing soundproof rooms in schools; creating an engaging and attractive atmosphere for learning; using silent clocks to remind students of the time; using calming colors in the classroom; designating phone-free learning rooms in schools; implementing interactive methods to reduce phone use; using a question-and-answer method to increase student participation; utilizing offline resources instead of online ones in class; setting limits on the use of digital media in the classroom; encouraging handwritten notes instead of using phones; developing programs to balance technology use with real-world activities; providing non-digital opportunities like workshops and art programs; implementing creative teaching methods to capture student attention; and promoting the use of non-digital resources like school libraries.
	Emotional Strategies	Fostering a strong interactive bond between teachers and students; increasing empathy and cooperation among students; encouraging students to express their feelings about learning; providing positive feedback to increase students' interest and enthusiasm; offering emotional support to students with anxiety; creating a friendly classroom atmosphere; holding classes that include emotional discussions; helping students set their own goals; teaching emotional regulation techniques for stress and anxiety; encouraging students to journal about their daily emotions; helping students recognize their own emotions; creating a calm environment for students; encouraging breathing and relaxation exercises; organizing programs to strengthen emotional connections; promoting participation in arts and group activities; conducting life skills workshops; teaching emotional strategies to control digital distraction; holding self-awareness sessions to enhance emotional intelligence; using game-based methods to create positive excitement; and using humor to create a friendly environment.
	Implementing Cognitive and Nature-Based Activities	Encouraging the use of physical books instead of digital versions; promoting board games and puzzles over digital games; encouraging engagement with natural scenery instead of virtual entertainment; encouraging students to participate in scientific, cultural, and creative activities; watching educational documentaries instead of social media clips; reading scientific articles instead of non-essential news; identifying enjoyable non-digital activities; reading fiction and non-fiction books; implementing mindfulness techniques; avoiding phone use during study, learning, and walks in nature; and encouraging creative and intellectual games over virtual ones.
	Family-Based Strategies	Setting clear rules for phone use at home; designating specific times for phone-free family gatherings; removing TVs and phones from children's bedrooms; creating a "no phone during meals" challenge; setting time limits for children's digital games; encouraging physical activities like cycling; restricting children's access to social media; offering rewards for reduced technology use; using parental control systems for internet access; participating in outdoor family activities; educating children on the harms of excessive phone use; replacing e-books with physical books; organizing fun, phone-free projects; engaging in family challenges to reduce technology use; and using board games and puzzles instead of digital games.

Teachers were also asked to provide strategies for overcoming the factors that lead to digital distraction among students. Their responses were categorized into themes such as family-based solutions, the use of cognitive and nature-based activities, emotional strategies, and creating an optimal environment for learning and study.

Below are some examples of the interviewees' responses:

Participant 3 stated:

"We need to design the classroom in a way that students actually want to be there. If the atmosphere isn't dry or monotonous, and there's variety in the teaching methods, students will naturally pay more attention and won't be so easily drawn to their phones or social media."

Participant 13 shared this perspective:

"When there's a friendly and respectful connection between the teacher and students, they are more likely to participate in class. If they feel seen and valued, they will pay more attention and stay focused."

Participant 8 explained:

"Instead of having them spend so much time on their phones, we can introduce fun and exciting brain games. These games are both entertaining and help improve concentration—whether in the classroom or at home."

Participant 17 offered this view:

"If families create a regular schedule for phone use at home, it can make a big difference. For instance, setting specific times for using the phone and specific times for putting it away. This teaches students that digital use should have boundaries."

Discussion and Conclusion

Digital distraction is a critical issue that has emerged with the integration of technology into education. This phenomenon, characterized by

disruptions from digital notifications and similar stimuli, fundamentally diminishes the quality of digital learning. Therefore, it is essential to investigate this topic thoroughly. This section aims to discuss the findings related to the contributing factors of digital distraction and the strategies proposed to overcome it.

In response to the first research question, the teachers indicated that the escalating use of smartphones and digital media among adolescents has given rise to numerous harms across cognitive, psychological, pedagogical, and behavioral domains that cannot be easily overlooked. Analysis of the data reveals that these harms can be explained through five fundamental concepts, each reflecting a layer of technology's negative impact on students' personal and academic lives. First, cognitive disruption emerged as a primary consequence, encompassing reduced concentration, difficulty prioritizing tasks, an inability to focus without digital devices, and impaired effective learning. The frequent and simultaneous use of digital tools, the constant influx of information from various sources, and exposure to monotonous content have severely affected adolescents' cognitive abilities. These disruptions not only hinder the learning process but also lead to a decline in academic performance and chronic mental fatigue. Second, digital addiction, manifesting as a behavioral and emotional dependency on mobile phones, social media, and online games, acts as a reinforcing factor for many other disorders. Adolescents are constantly checking their phones, seeking social validation online, and are mentally preoccupied with consuming non-essential content. This dependency is accompanied by a fear of missing out (FOMO), feelings of loneliness without a phone, and an inability to resist online stimuli.

Poor self-management was identified as the third key concept, characterized by an inability to create daily plans, a lack of short-term goals, a failure to distinguish between work and leisure, and an absence of both familial and individual discipline. This condition undermines students' productivity and behavioral coherence, leaving them feeling disoriented in their personal and academic lives. The fourth concept is psychological distress, which materializes as increased anxiety, diminished self-esteem, fear of comparison on social media, an inability to manage emotions, and a dependency on online feedback. Adolescents who derive their sense of identity from online validation are more susceptible to social anxiety, fear of failure, and a distorted self-concept. This state distances them from real-life challenges and reduces their resilience. Finally, pedagogical challenges represent the structural and external dimension of these harms, pointing to the shortcomings of the educational system in adapting to the digital environment. The absence of engaging and participatory methods, an over-reliance on lecture-based instruction, a lack of effective feedback, and infrastructural issues have made the learning environment unmotivating and tiresome for students. Consequently, students experience disengagement, reduced participation, and a decline in learning. The collective analysis indicates that the uncontrolled and aimless use of digital technologies not only disrupts the processes of learning and concentration but also profoundly damages the psychological, social, and academic structures of adolescents. To counter this, educational, familial, and cultural planning must be realigned with the needs of the current generation and the realities of the digital world. Without preventative interventions and the reimagining of support systems, the risk of the digital space becoming a pervasive source of

cognitive, psychological, and social instability for the next generation is exceptionally serious.

In response to the second research question regarding strategies to combat students' digital distraction, teachers proposed a set of practical, experience-based measures. These solutions can be classified into several main axes, including creating an optimal educational environment, implementing innovative teaching, strengthening classroom communication, promoting mental health, fostering a balanced lifestyle, and defining the positive role of the family. The teachers emphasized the importance of regulating the classroom environment, designing calm and engaging spaces, and limiting mobile phone use. Furthermore, innovation in teaching—through interactive methods, artistic workshops, and non-digital activities—plays a crucial role in reducing dependency on the virtual space. Building a positive and humane relationship between teacher and student is also a key factor in mitigating feelings of apathy and refocusing students' attention on the learning process. Moreover, attending to students' mental health and teaching them stress management and concentration skills provides a foundation for greater stability in their educational journey. These strategies, however, can only succeed if families act as effective partners with the school, transforming the home environment into a secure foundation for their children's mental, emotional, and behavioral growth. The teachers' feedback indicates that combating digital distraction cannot be achieved through a one-dimensional approach. Rather, a multifaceted strategy is required, incorporating physical classroom modifications, modern educational techniques, enhanced human connection, mental health promotion, a balanced lifestyle, and active family involvement. This comprehensive approach will not only help reduce dependency

on mobile phones but will also foster personal growth, greater concentration, deeper learning, and sustainable academic satisfaction among students.

Based on the findings, the following recommendations are proposed to address and mitigate digital distraction among students:

1. It is recommended that parents establish clear rules within the family for the appropriate use of digital media and technological devices.

2. It is recommended that suitable and dedicated study environments be prepared both at home and in school.

3. It is suggested that future researchers investigate the direct impact of restricting mobile phone use on academic achievement.

4. It is recommended that researchers further explore the multifaceted role of the family in mitigating digital distraction.

References

- Abbaszadeh, M. and Abbaszadeh, M. (2012). Validity and reliability in qualitative researches. *Journal of Applied Sociology*, 23(1), 19-34. (In Persian)
- Adhikari SP, Meng S, Wu Y-J, Mao Y-P, Ye R-X, Wang Q-Z, et al. (2020). Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. *Infectious Diseases of Poverty*; 9(1):1-12. doi:10.1186/s40249-020-00646-x
- Chen, L., Nath, R., & Tang, Z. (2020). Understanding the determinants of digital distraction: An automatic thinking behavior perspective. *Computers in Human Behavior*, 104, Article 106195. <https://doi.org/10.1016/j.chb.2019.106195>
- Cheong, P. H., Shuter, R., & Suwinyattichai, P. (2016). Managing student digital distractions and hyperconnectivity: communication strategies and challenges for professorial authority. *Communication Education*, 65(3), 272-289.
- Colliot, T. (2022). How Digital Distractions Influence Learner Information Processing. In *Digital distractions in the college classroom* (pp. 38-61). IGI Global Scientific Publishing.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
- Dontre, A. J. (2021). The influence of technology on academic distraction: A review. *Human Behavior and Emerging Technologies*, 3(3), 379-390.
- Flanigan, A. E., & Babchuk, W. A. (2022). Digital distraction in the classroom: exploring instructor perceptions and reactions. *Teaching in Higher Education*, 27(3), 352-370.
- Gazzaley, A., & Rosen, L. D. (2016). Philosophers' Notes: More Wisdom in Less Time The Distracted Mind Ancient Brains in a High-Tech World THE BIG IDEAS Matacognition. 1-6.
- Ghorraishi Khorasgani, M. (2022). Students' lived experience of m-learning in the COVID-19 crisis: A phenomenological study of the challenges. *Technology of Education Journal (TEJ)*, 16(2), 323-338. doi: 10.22061/tej.2022.8400.2658 (In Persian)
- Göl, B., Özbek, U., & Horzum, M. B. (2023). Digital distraction levels of university students in emergency remote teaching. *Education and Information Technologies*, 1-22.
- Halubanza, B., Kadakwiza, S., & Mulenga, J. (2023, August). Distracted Minds and Declining Grades: Unveiling the Detrimental Effects of Digital Distraction on Student Academic Performance. In *Zambia Association of Public Universities and Colleges (ZAPUC) Conference* (Vol. 3, No. 1, pp. 27-36).
- Hanin, M. L. (2021). Theorizing digital distraction. *Philosophy & Technology*, 34(2), 395-406.
- Khasawneh, M. A. S., & Jadallah, A. B. Khasawneh, Y. (2023). Uncovering The Impact Of Mindfulness-Based Interventions On Digital Distractions In The Learning Environment. *Journal of Namibian Studies: History Politics Culture*, 34, 7147-7163.
- Kumar, C., Rangappa, K. B., Suchitra, S., & Gowda, H. (2024). Digital distractions during blended learning and its negative repercussions: an empirical analysis. *Asian Association of Open Universities Journal*, 19(1), 1-18.
- Liao, C. H., & Wu, J. Y. (2022). Deploying multimodal learning analytics models to explore the impact of digital distraction and peer learning on student performance. *Computers & Education*, 190, 104599.
- Lockee, B. (2021). Online education in the post-COVID era, natural electronics, 4, 5-6.
- Mehralizadeh S, Ghorbani R, Zolfaghari S, Shahinfar H, Nikkhar, R, Pourazizi M. (2013). Factors Affecting Student Concentration in Classroom: Medical Students' Viewpoints in Semnan University of Medical Sciences. *Iranian Journal of Medical Education*; 13 (8) :663-671. (In Persian)
- Mohammadi M, Keshavarzi F, Naseri Jahromi R, Naseri Jahromi R, Hesampoor Z, Mirghafari F et al. (2020). Analyzing the Parents' Experiences of First course Elementary School Students from the Challenges of Virtual Education with Social

- Networks in the Time of Coronavirus Outbreak. *erj*; 7 (40) :74-101 (In Persian)
- Mondal, P. K. (2024). Exploring the Impact of Digital Distraction on Learning: A Qualitative Analysis of University Students Experiences and Strategies.
- Moore, M.G. Kearsley, G. (2011). Distance education : A systems view of online learning. Belmont ,CA :wadsworth cengage learning.
- Moradi, E., & Didehban, H. (2018). The position of mobile learning in the country's universities of medical sciences: Opinions and consequences. *Teb va Tazkieh*, 27(2), 133–145. (In Persian)
- Moustakas Clark E (1994). *Phenomenology research methods*. Thousand Oaks. Ca: Sage Publications.
- Nakayama, M., Chen, C. C., & Au, Y. (2022). Digital and Non-Digital Distractions for IT Professionals' Remote Work. *Journal of the Midwest Association for Information Systems (JMWAIIS)*, 2022(2), 3.
- Pandya, K. & Gor, K. (2011). "Knowledge management: A success key for higher education". *Federation University Journal of Higher Education*, 5(1) :16- 23.
- Parry J. (2020). China coronavirus: cases surge as official admits human to human transmission. *British Medical Journal Publishing Group*; doi:10.1136/bmj.m236.
- Parvari, Peyman. (2019). The transition from philosophy to methodology, a new reading of the phenomenology method: the foundation of philosophical approaches and implementation steps. *Sociological studies*, 12 (44), 87-106. (In Persian)
- Pérez-Juárez, M. Á., González-Ortega, D., & Aguiar-Pérez, J. M. (2023). Digital Distractions from the Point of View of Higher Education Students. *Sustainability*, 15(7), 6044.
- Strauss, A L. & Corbin, J. (2008). *Basics of Qualitative Research: Techniques and Procedures for developing Grounded Theory*. Thousand Oaks, CA: Sage.
- Talebipour Sanich, Samaneh. (2021). A study of first-grade elementary teachers' perceptions in District 1 of Yazd about the challenges of virtual education (Master's thesis, Supervisor: Dr. Mohsen Shakeri, Advisor: Dr. Ahmad Zandvanyan). Faculty of Psychology and Educational Sciences, Humanities and Social Sciences Campus, University of Yazd. (In Persian)
- Valipour Batvandi, Ziba & Amiri, Rana and Balvasi, Razieh (2014). The Effect of Cyberspace on Students' Learning and Concentration. The first national conference of new attitudes in education issues, Ramshir. <https://civilica.com/doc/2267736>. (In Persian).
- Verkuyl, M., & Hughes, M. (2019). Virtual Gaming Simulation in Bridging Nursing Education: A mixed methods study. *Clinical Simulation in Nursing*, 29 (C): 9-14. <https://doi.org/10.1016/j.ecns.2019.02.00>
- Wang, C. H., Salisbury-Glennon, J. D., Dai, Y., Lee, S., & Dong, J. (2022). Empowering College Students to Decrease Digital Distraction through the Use of Self-Regulated Learning Strategies. *Contemporary Educational Technology*, 14(4).