

# 10<sup>th</sup> INTERNATIONAL BASKENT CONGRESS ON PHYSICAL, ENGINEERING, AND APPLIED SCIENCES

OCTOBER 28-30, 2023

ONLINE & IN-PERSON PARTICIPATION

ZOOM & ANKARA, TURKIYE

## CONGRESS PROCEEDINGS BOOK

### EDITORS

Prof. Dr. Fehiman ÇINER

Prof. R. RAMESH

BZT AKADEMİ YAYINEVİ®

TÜRKİYE, GERMANY

TR: +90543 671 0123 GR: +491774586777

[internationalbaskentcongress@gmail.com](mailto:internationalbaskentcongress@gmail.com)

<https://www.baskentkongresi.com/>

All rights reserved

BZT AKADEMİ YAYINEVİ®

BZT ACADEMY PUBLISHING HOUSE

Publishing Date: 31.10.2023

ISBN: 978-625-6879-32-4

# FACTORS INFLUENCING DIGITAL GAME ADDICTION IN HIGH SCHOOL STUDENTS: SCHOOL BURNOUT, FEAR OF NEGATIVE EVALUATION, AND TOLERANCE PERSPECTIVES

Fatma Gizem KARAOĞLAN YILMAZ <sup>1\*</sup>, Ramazan YILMAZ <sup>2</sup>

<sup>1,2</sup> Bartın University, Faculty of Sciences, Information System and Technology

<https://orcid.org/0000-0003-4963-8083>

<https://orcid.org/0000-0002-2041-1750>

## Abstract

Today, the widespread use of smartphones and mobile internet has provided various advantages, such as using technology in teaching processes inside and outside the classroom and transitioning to hybrid education applications. However, increasing and facilitating access to these technologies lead to increased digital game addiction. This study examined the relationships between students' digital game addiction in individual and school psycho-social environments. In this direction, the relationships between digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance were explored. The research was conducted on 403 high school students. The relationship between structures was examined. Research findings reveal that digital game addiction positive and significantly correlates with school burnout and fear of negative evaluation. On the other hand, a significant inverse relationship was found between digital game addiction and a tendency to tolerance. In addition, fear of negative evaluation positive and significantly correlates with school burnout however, tendency to tolerance no significant relationship between school burnout and fear of negative evaluation. Based on the research results, what can be done to reduce the digital game addiction of high school students was discussed, and various suggestions were made for researchers, teachers, and school guidance services.

**Keywords:** Digital game addiction; adolescence; school burnout; fear of negative evaluation; tendency to tolerance

## 1. Introduction

The internet, mobile devices, and social media use are increasing rapidly. According to Statista (2021) report data, it is seen that more than half of the world's population is active internet user. Furthermore, as per the report, it has come to light that over 50% of the global population currently engages with mobile internet and social media platforms. The report also anticipates a growth in the number of smartphone users, internet usage, and social media participation in the forthcoming years.

The swift proliferation of emerging technologies has sparked extensive theoretical debates and empirical investigations regarding their potential advantages. For example, when it is considered educational environments, it is known that the use of mobile devices and the internet facilitates students' access to information without the time and place restrictions, and the continuation of education is ensured with distance education applications during the pandemic period (Al-Rahmi et al., 2022; Avcı et al., 2023; Burke et al., 2022). Today, within the scope of hybrid education applications, it is seen that mobile devices and the internet are actively used in both in-class and out-of-class teaching processes (Alturki & Aldraiweesh, 2022; Karaoglan Yilmaz et al., 2023; Karaoglan Yilmaz, Ustun et al., 2023; Lai, Saab, & Admiraal, 2022).

Notwithstanding the manifold benefits, the prevalence of deficient self-regulation in the utilization of diverse new technologies is widespread, and the immoderate consumption of digital technologies has been acknowledged as a public health concern (World Health Organization (WHO), 2015). One of these behavioral addiction areas is digital game addiction. According to the American Psychiatric Association (APA), it explains that this addiction consists of both online and offline games (APA, 2013). WHO has officially included "Gaming disorder" in the 11th Revision of the International Classification of Diseases (ICD-11) (WHO, 2018).

Presently, students' active integration of mobile devices and internet connectivity in both the classroom and extracurricular pursuits has facilitated their accessibility to digital games (Chen & Tsai, 2021; Karaoglan Yilmaz & Yilmaz, 2023; Karaoglan Yilmaz, Yilmaz, & Erdogdu, 2023; Krouska et al., 2022). Therefore, students can play digital games even during the lesson. This situation may lead to individual problems, such as reducing the student's interest and motivation in the lesson, and problems that disrupt the classroom order, such as confusion and restlessness at the class level. The risk of digital game addiction is increasing among today's youth and is a problem area that needs to be solved urgently in educational environments (Rahayu et al., 2021; Wang, Abdelhamid, & Sanders, 2021; Yilmaz et al., 2023; Yilmaz, Sulak et al., 2023). When the literature is examined, it is seen that various studies have been conducted to determine the causes of digital game addiction (Li et al., 2021; Salvarli & Griffiths, 2021; Sariyska et al., 2017). Within these investigations, the connection between diverse individual variances and addiction to games is explored. However, according to the researchers, many more dimensions need to be examined in individual and socio-environmental terms. One of them is the relationship between school burnout, fear of negative evaluation, and tendency to tolerate with digital game addiction. These variables can negatively affect students' perceptions and attitudes toward school in terms of school environments. Therefore, it is thought that these variables may also be related to digital game addiction. When the literature is examined, it is seen that the relationship between these variables and digital game addiction has not been investigated yet. This study explores the role of school burnout, fear of negative evaluation, and tendency to tolerate on digital game addictions in adolescents. It is hoped that the research findings will guide teachers and school guidance service experts in behavioral interventions to reduce digital game addiction in students.

## **2. Theoretical Background and Hypotheses**

### **2.1. School burnout and digital game addiction**

The concept of burnout was first put forward in business life, and then it started to be used in educational environments. Burnout is characterized as the emotional, cognitive, and physical exhaustion experienced by an individual as a result of the unbridled expenditure of their energy, capabilities, and other resources, as if they were attempting to deplete them without restraint (Maslach, Schaufeli, & Leiter, 2001). Conversely, school burnout pertains to the overwhelming pressures associated with academic life

and the educational environment as a whole, leading to emotional, cognitive, and physical depletion or exhaustion among students (Aypay & Eryilmaz, 2011). School burnout is defined as burnout due to school demands, a negative attitude towards school, decreased commitment to school and experiencing a sense of personal inadequacy as a student (Fredricks, Blumenfeld, & Paris, 2004).

Schaufeli et al. (2002) state that academic stress is an important cause of school burnout. Zhang, Gan, and Cham (2007) stated that student's constantly feeling of tiredness, show indifference to school assignments, take a careless attitude towards school, become insensitive to people around them, perceive themselves as inadequate, doubt their abilities, and parallel, decrease in academic achievement is an important symptom of school burnout.

It is thought that school burnout may be one of the factors that lead to digital game addiction. Because students with high school burnout will be able to deal with other activities that will attract their attention instead of dealing with academic affairs. Considering that almost every student has access to smartphones and mobile internet today, students are likely to turn to digital games. Therefore, the increase in school burnout is thought to be one of the factors that may lead to an increase in students' digital game addiction. No research has been found yet examining the relationship between school burnout and digital game addiction when the literature is reviewed. In light of this perspective, the initial hypothesis of this research can be stated as below.

*H<sub>1</sub>: School burnout significantly correlates digital game addiction.*

## **2.2. Fear of negative evaluation, school burnout, and digital game addiction**

Cognitive-behavioral approaches have revealed the fear of negative evaluation as the core of social phobia (Weeks, Heimberg, & Rodebaugh, 2008). According to Rapee and Heimberg (1997), individuals with social phobia believe that others perform much better than themselves in social performance situations, such as public speaking. This belief causes social phobic individual who doubts their abilities and performance to think that they will not be successful, and that other people will evaluate them negatively or reject them (Cetin et al., 2010; Leary, 1983). As a natural consequence of these and similar thoughts, the individual with social phobia tries to avoid social environments and situations requiring social performance or seek safety-providing behaviors not to be exposed to such negative evaluations or rejection (Cetin et al., 2010).

Students with a fear of negative evaluation have difficulty expressing themselves in front of the public (Geukens et al., 2022). Therefore, these students may experience situations such as not participating in classroom discussions, not being able to interact with the teacher and other students, and not performing collaborative learning activities (Trompeter et al., 2018; Ugur, Kaya, & Tanhan, 2021). As a result of the fear of negative evaluation, the student may experience school burnout over time, and digital game addiction may occur in these students. No research has been found yet examining the relationship between these structures when the literature is reviewed. With this viewpoint in mind, the second and third hypotheses of this research can be stated as below.

*H<sub>2</sub>: Fear of negative evaluation significantly correlates digital game addiction.*

*H<sub>3</sub>: Fear of negative evaluation significantly correlates school burnout.*

## **2.3. Tendency to tolerance, school burnout, fear of negative evaluation and digital game addiction**

Tolerance is one of the basic values individuals should have in our modern world. Tolerance is seen as a value that provides individual rights and freedoms based on respect for others (Caliskan & Saglam,

2012). Tolerance is an operative form of communication rooted in mutual affection, regard, confidence, and comprehension, which enables coexistence within society despite all disparities (Gozubuyuk, 2002). Upon scrutinizing the definition, it becomes evident that it accentuates the significance of love, mutual respect, and empathy as core values. Humans are social beings who live together and have some needs required to live together. One of the main values that ensure that needs are met in a healthy, peaceful, and peaceful manner is the value of tolerance. As Agius and Ambrosewicz (2003) stated, teaching the values and skills of “learning to live together” becomes a priority issue for education. It is known that schools have critical importance in adopting this value (Caliskan & Saglam, 2012).

It is stated that the high tolerance tendencies of students will increase teacher-student and student-student interaction and make it more qualified, and it can enable students to participate in information-sharing and collaborative learning activities (Curran, 2016; Gregory & Cornell, 2009). On the contrary, it will be difficult to talk about quality communication and interaction in a classroom with students who cannot tolerate others. This situation may lead to school burnout in time. In this case, the student will prefer to be alone rather than interacting with other students. Students may lead to behavioral addictions such as digital game addiction. When the literature is analyzed, these are problems that need to be investigated. Building upon the aforementioned premises, the fourth, fifth and sixth hypotheses of this research can be articulated as below.

$H_4$ : *Tendency to tolerance significantly correlates digital game addiction.*

$H_5$ : *Tendency to tolerance significantly correlates school burnout.*

$H_6$ : *Tendency to tolerance significantly correlates fear of negative evaluation.*

### 3. Method

#### 3.1. Participants and procedure

The research was conducted using a correlational study approach. Correlational methods are employed to investigate the influence of various variables on the dependent variable under scrutiny (Creswell, 2003). The variables of this study are digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance. The online survey was answered by 403 high school students.

#### 3.2. Measures

Self-report scales were used to obtain the data of the study. These scales are as follows.

*Digital game addiction scale*: The digital game addiction scale was developed by Şahin, Keskin, and Yurdugül (2019). The scale consists of six items. The scale form is in a 5-point likert type. The Cronbach alpha value calculated for the scale is 0.78.

*School burnout scale*: School burnout scale was developed by Salmela-Aro et al. (2009). Secer et al. (2013) adapted it into Turkish. The scale consists of nine items. The scale form is in a 5-point likert type. The Cronbach alpha value calculated for the scale is 0.80.

*Fear of negative evaluation scale*: Fear of negative evaluation scale was developed by Hart et al. (2008). Cetin, Dogan, and Sapmaz (2010) adapted the scale to Turkish. The scale consists of 11 items. The scale used in the study was a 5-point Likert scale. The Cronbach alpha value calculated for the scale is 0.82.

*Tendency to tolerance scale:* The Tendency to Tolerance Scale was developed by Caliskan and Saglam (2012). The scale consists of 18 items. The scale form is in a 5-point likert type. The Cronbach alpha value calculated for the scale is 0.84.

## 4. Results

### 4.1. Students' responses to digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance scales

The descriptive statistical scores of the students' responses to digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance scales are given in Table 1.

**Table 1. Descriptive statistics**

Scales	Number of items	The lowest score	The highest score	$\bar{X}$	sd	Skewness	Kurtosis	$\bar{X}/k$
Digital game addiction	6	6.00	30.00	10.01	5.52	1.352	1.290	1.67
School burnout	9	9.00	72.00	29.09	13.74	1.032	1.118	3.23
Fear of negative evaluation	11	19.00	47.00	30.56	5.95	-.110	-.195	2.78
Tendency to tolerance	18	18.00	90.00	70.76	14.52	-.742	.463	3.93

As indicated in Table 1, the mean score of students on the digital game addiction scale is 10.01 (1.67 out of 5), and the average score on school burnout scale is 29.09 (3.23 out of 5), average score for fear of negative evaluation scale is 30.56 (2.78 out of 5), and the average score of tendency to tolerance scale is 70.76 (3.93 out of 5). Based on these findings, it was established that students exhibited low scores on the digital game addiction scale, moderate scores on the school burnout and fear of negative evaluation scales, and high scores on the tolerance tendency scale.

### 4.2. Relations between students' digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance scales

The Pearson correlation has investigated relationships between digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance scales.

Table 2. Correlations between variables

		Digital game addiction	School burnout	Fear of negative evaluation	Tendency to tolerance
Digital game addiction	r	-			
School burnout	r	.180**			
Fear of negative evaluation	r	.226**	.477**		
Tendency to tolerance	r	-.347**	.038	-.090	-

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 \* . Correlation is significant at the 0.05 level (2-tailed).

As seen in Table 2, there is a moderate relationship among school burnout – and fear of negative evaluation ( $r=.477$ ,  $p<.01$ ). Besides, there is a moderate and negative relationship between digital game addiction - tendency to tolerance ( $r=-.347$ ,  $p<.01$ ). In addition, there is a small and positive relationship between digital game addiction - school burnout ( $r=.180$ ,  $p<.01$ ) and digital game addiction - fear of negative evaluation ( $r=.226$ ,  $p<.01$ ). Behind that, there is no significant relationship between tendency to tolerance - school burnout ( $r=.038$ ,  $p>.01$ ) and tendency to tolerance - fear of negative evaluation ( $r=-.090$ ,  $p>.01$ ).

## 5. Discussions and Conclusions

This study discovered the relationships between digital game addiction, school burnout, fear of negative evaluation, and tendency to tolerance for the sample consisting of high school students. The correlations of school burnout and students' digital game addiction was examined. Analysis results reveal a significant relationship between students' school burnout and digital game addictions. For students with a high school burnout level, the risk of digital game addiction may be increased. Because for these students, digital game addiction can be seen as a cognitive escape route. Although there is no research investigative the association among school burnout and digital game addiction in the literature, it is seen that similar results are obtained in terms of other addiction types. Tomaszek and Muchacka-Cymerman (2019) revealed in their research that there is a positive and significant relationship between school burnout and problematic internet use. In Choi's study conducted in 2021, a positive and statistically significant association was identified between academic burnout and smartphone addiction. Salmela-Aro et al. (2017) determined that students' excessive internet use significantly predicts school burnout. In the study of Bilgiz and Peker (2021), it was revealed that problematic smartphone and problematic social media use increase school burnout. These results in the literature seem to be consistent with the results of our study. From this point of view, it can be said that reducing students' school burnout levels may be beneficial to facilitating students' digital game addictions.

The correlations of fear of negative evaluation and digital game addiction. The analysis results reveal a significant relationship between students' fear of negative evaluation and digital game addictions. Students with a high fear of negative evaluation may tend to play digital games instead of communicating

and interacting with the teacher and other students in the classroom and participating in collaborative learning activities. Because students are in the virtual environment, and the control of the environment is in their hands. Therefore, they can experience the feeling of fear of negative evaluation less in the digital game. Although there is no study in the literature examining the relationship between fear of negative evaluation and digital game addiction, it is seen that similar results are obtained in terms of other types of addiction and social phobia. In the study by Sioni, Bursleson, and Bekerian (2017), it was revealed that increased social phobia levels of individuals lead to an increase in Internet gaming disorder symptoms. Yayan et al. (2017) showed in their research that there is a significant positive relationship between Internet addiction and social phobia. These results in the literature seem to be consistent with the results of our study. From this point of view, it can be said that reducing the fear of negative evaluation levels of students may be beneficial in reducing students' digital game addictions.

The correlations of fear of negative evaluation and school burnout was examined. The analysis results reveal a significant relationship between students' fear of negative evaluation and school burnout. Therefore, to reduce students' school burnout levels, it may be appropriate to facilitate students' fear of negative evaluation and take measures for this. Kocak and Secer (2018) revealed in their research that emotional exhaustion and anxiety are associated with school burnout. It can be said that emotional exhaustion and anxiety are psychological structures related to fear of negative evaluation. In this context, it can be stated that the research results are similar to the results of our research.

The correlations of tendency to tolerance and digital game addiction was examined. The analysis results reveal a significant inverse relationship between students' tendency to tolerance and digital game addictions. It is expected and desired that students have a high tolerance towards each other. Thus, the student will be more open to in-class communication and cooperation. Students in a positive classroom atmosphere resulting from tolerance will be able to show interest and participation in the lesson instead of extracurricular activities such as digital games. This may lead to a decrease in students' digital game addictions.

The correlations of tendency to tolerance and school burnout was examined. The analysis results reveal no significant relationship between students' tendency to tolerance and school burnout. However, high tolerance tendencies of other students towards students who exhibit undesirable behaviors in the classroom may mean the continuation of undesirable behaviors. The correlations of tendency to tolerance and fear of negative evaluation was examined. The analysis results reveal no significant relationship between students' tendency to tolerance and fear of negative evaluation. Showing undesirable behaviors in the classroom may cause deterioration of the classroom order and positive climate. It is thought that this situation may cause the formation of school burnout in students. The study by Molinari and Grazia (2021) revealed that students' perceptions of school climate effectively affect school burnout. Based on the consequences, it was stated that while a positive atmosphere reduced school burnout, a negative atmosphere increased school burnout.

Some inferences can be made for teachers, school administrators, and school guidance service experts based on the research findings. First, it is important to create a demographic and positive classroom climate to reduce students' digital game addiction (Chang & Kim, 2020; Zhu et al., 2015). Students should not hesitate to share their ideas, even if they are wrong. Teachers should try to get all students to participate in classroom discussions. Thus, the student's interest will be directed to the lesson, their motivation will increase, and undesirable extracurricular behaviors will be reduced (Lizzio, Dempster, & Neumann, 2011). In this context, teachers need to minimize the fear of negative evaluation in students. It may be beneficial for school guidance services to support students who have problems in this regard. The gamification method used in education can be a helpful strategy at this point. With the gamification method, students can learn the course topics in fun, and students' interest, motivation, and participation



can be increased (da Rocha Seixas, Gomes, & de Melo Filho, 2016; Saleem, Noori, & Ozdamli, 2021). Thus, it can be ensured that students' interest and participation in the lesson can be increased, and their digital game playing behaviors can be reduced. Creating a demographic and positive classroom climate is also important for reducing school burnout. However, the establishment of school and classroom rules and the students' compliance with these rules should not be ignored. Failure to comply with the classroom rules and the tolerance of other students may cause the students to develop a sense of school burnout over time (Kalkan & Dagli, 2021; Molinari & Grazia, 2021). For this reason, measures can be taken to restrict students' use of smartphones outside of course purposes.

It's important to acknowledge that this study, designed to investigate the connections among digital game addiction, school burnout, fear of negative evaluation, and tolerance tendency, is subject to certain limitations. First of all, the research results are valid for the participants consisting of high school students. Future studies can enhance the validity of the research outcomes by replicating the study with distinct participant groups, such as secondary school students and university students. In some schools, students are even prohibited from bringing smartphones to school. In some schools, the use of smartphones in the classroom for educational purposes is allowed. The results can be compared by repeating the research on students in schools with these two different approaches. Thus, the psycho-social effects of demographic understanding or prohibitions can be compared.

## References

- Agius, E., & Ambrosewicz-Jacobs, J. (2003). *Towards a culture of tolerance and peace*. International Bureau for Children's Rights.
- Al-Rahmi, A. M., Al-Rahmi, W. M., Alturki, U., Aldraiweesh, A., Almutairy, S., & Al-Adwan, A. S. (2022). Acceptance of mobile technologies and M-learning by university students: An empirical investigation in higher education. *Education and Information Technologies*, 1-22. <https://doi.org/10.1007/s10639-022-10934-8>
- Alturki, U., & Aldraiweesh, A. (2022). Students' perceptions of the actual use of mobile learning during covid-19 pandemic in higher education. *Sustainability*, 14(3), 1125.
- Avci, U., Karaoglan Yilmaz, F. G., & Yilmaz, R. (2023). Parental attitude and Instagram addiction: The mediating role of obsessive-compulsive disorder. *Psychology in the Schools*, 60(3), 830-842.
- Aypay, A., & Eryilmaz, A. (2011). Investigation of the relationship between high school students' motivation to class engagement and school burnout. *Mehmet Akif Ersoy University Journal of Education Faculty*, 11(21), 26 – 44.
- Bilgiz, S., & Peker, A. (2021). The mediating role of mindfulness in the relationship between school burnout and problematic smartphone and social media use. *International Journal of Progressive Education*, 17(1), 68-85.
- Burke, P. F., Kearney, M., Schuck, S., & Aubusson, P. (2022). Improving mobile learning in secondary mathematics and science: Listening to students. *Journal of Computer Assisted Learning*, 38(1), 137-151.
- Caliskan, H., & Saglam, H. I. (2012). A study on the development of the tendency to tolerance scale and an analysis of the tendencies of primary school students to tolerance through certain variables. *Educational Sciences: Theory and Practice*, 12(2), 1440-1446.
- Cetin, B., Dogan, T., & Sapmaz, F. (2010). The turkish adaptation of brief fear of negative evaluation scale: the validity and reliability study. *Education and Science*, 35(156), 205-216.
- Chang, E., & Kim, B. (2020). School and individual factors on game addiction: A multilevel analysis. *International Journal of Psychology*, 55(5), 822-831.
- Chen, C. H., & Tsai, C. C. (2021). In-service teachers' conceptions of mobile technology-integrated instruction: Tendency towards student-centered learning. *Computers & Education*, 170, 104224.

- Choi, J. (2021). The effect of academic burnout of elementary school students on the smartphone game addiction crisis: mediating effects of anxiety and ADHD tendency. *International Journal of Crisis & Safety*, 6, 38-49.
- Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed approaches*. Thousand Oaks, CA: Sage.
- Curran, F. C. (2016). Estimating the effect of state zero tolerance laws on exclusionary discipline, racial discipline gaps, and student behavior. *Educational Evaluation and Policy Analysis*, 38(4), 647-668.
- da Rocha Seixas, L., Gomes, A. S., & de Melo Filho, I. J. (2016). Effectiveness of gamification in the engagement of students. *Computers in Human Behavior*, 58, 48-63.
- Fredricks, J., Blumenfeld, P., & Paris, A. (2004). School engagement: potential of the concept, state of the evidence. *Review of Educational Research*, 74, 59-109.
- Geukens, F., Maes, M., Spithoven, A., Pouwels, J. L., Danneel, S., Cillessen, A. H., ... & Goossens, L. (2022). Changes in adolescent loneliness and concomitant changes in fear of negative evaluation and self-esteem. *International Journal of Behavioral Development*, 46(1), 10-17.
- Gozubuyuk, M. (2002). *Türkiye’de demokrasi ve hoşgörü kültür ve eğitiminin yaygınlaşmasında sivil toplum kuruluşlarının yeri ve önemi [The place and importance of non-governmental organizations in the spread of democracy and tolerance culture and education in Turkey]*. Master thesis, Ankara University, Ankara, Turkey.
- Gregory, A., & Cornell, D. (2009). “Tolerating” adolescent needs: Moving beyond zero tolerance policies in high school. *Theory into Practice*, 48(2), 106-113.
- Kalkan, F., & Dagli, E. (2021). The relationships between school climate, school belonging and school burnout in secondary school students. *International Journal of Contemporary Educational Research*, 8(4), 59-79.
- Karaoglan Yılmaz, F. G., & Yılmaz, R. (2023). Examining the factors influencing students’ knowledge-sharing behavior in the social media-based learning community. *Psychology in the Schools*, 1-16. <https://doi.org/10.1002/pits.22997>
- Karaoglan Yılmaz, F. G., Yılmaz, R., & Sulak, S. (2023). Cyberloafing in the Online Synchronous Lessons: Exploring Variables Associated with University Students’ Cyberloafing Behaviors. *Technology, Knowledge and Learning*, 1-16. <https://doi.org/10.1007/s10758-023-09676-4>
- Karaoglan Yılmaz, F. G., Ustun, A. B., Zhang, K., & Yılmaz, R. (2023). Smartphone Addiction, Nomophobia, Depression, and Social Appearance Anxiety Among College Students: A Correlational Study. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 1-17. <https://doi.org/10.1007/s10942-023-00516-z>
- Karaoglan Yılmaz, F. G., Yılmaz, R., & Erdogdu, F. (2023). The Relationship Between Nomophobia, Emotional Intelligence, Interpersonal Problem-Solving, Perceived Stress, and Self-esteem Among Undergraduate Students. *Journal of Technology in Behavioral Science*, 8(1), 27-35.
- Kocak, L., & Secer, I. (2018). Investigation of the relationship between school burnout, depression and anxiety among high school students. *Cukurova University Faculty of Education Journal*, 47(2), 601-622.
- Krouska, A., Troussas, C., & Sgouropoulou, C. (2022). Mobile game-based learning as a solution in COVID-19 era: Modeling the pedagogical affordance and student interactions. *Education and Information Technologies*, 27(1), 229-241.
- Lai, Y., Saab, N., & Admiraal, W. (2022). University students’ use of mobile technology in self-directed language learning: Using the integrative model of behavior prediction. *Computers & Education*, 179, 104413.
- Leary, M. R. (1983). A brief version of the fear of negative evaluation scale. *Personality and Social Psychology Bulletin*, 9, 371-376.
- Li, L., Griffiths, M. D., Mei, S., & Niu, Z. (2021). The mediating role of impulsivity and the moderating role of gender between fear of missing out and gaming disorder among a sample of chinese university students. *Cyberpsychology, Behavior, and Social Networking*, 24(8), 550-557.

- Lizzio, A., Dempster, N., & Neumann, R. (2011). Pathways to formal and informal student leadership: The influence of peer and teacher–student relationships and level of school identification on students’ motivations. *International Journal of Leadership in Education*, 14(1), 85-102.
- Maslach, C., Schaufeli, W., & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Molinari, L., & Grazia, V. (2021). Students’ school climate perceptions: do engagement and burnout matter?. *Learning Environments Research*, 1-18. <https://doi.org/10.1007/s10984-021-09384-9>
- Rahayu, I. S., Karana, I., Hardiansyah, M. A., Dewi, D. H., & Elihami, E. (2021). The relationship of online game addiction with learning motivation in school age children on COVID-19 pandemic. *Linguistics and Culture Review*, 5(1), 384-396.
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behavioral Research and Therapy*, 35(8), 741-756.
- Saleem, A. N., Noori, N. M., & Ozdamli, F. (2021). Gamification applications in E-learning: a literature review. *Technology, Knowledge and Learning*, 1-21. <https://doi.org/10.1007/s10758-020-09487-x>
- Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J. E. (2009). School burnout inventory (SBI) reliability and validity. *European Journal of Psychological Assessment*, 25(1), 48-57.
- Salmela-Aro, K., Upadyaya, K., Hakkarainen, K., Lonka, K., & Alho, K. (2017). The dark side of internet use: Two longitudinal studies of excessive internet use, depressive symptoms, school burnout and engagement among Finnish early and late adolescents. *Journal of Youth and Adolescence*, 46(2), 343-357.
- Salvarli, S. I., & Griffiths, M. D. (2021). Internet gaming disorder and its associated personality traits: A systematic review using PRISMA guidelines. *International Journal of Mental Health and Addiction*, 19(5), 1420-1442.
- Sariyska, R., Lachmann, B., Markett, S., Reuter, M., & Montag, C. (2017). Individual differences in implicit learning abilities and impulsive behavior in the context of Internet addiction and Internet Gaming Disorder under the consideration of gender. *Addictive Behaviors Reports*, 5, 19-28.
- Schaufeli, W., Salanova, M., Gonzales-Roma, V., & Bakker, A. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.
- Secer, I., Halmatoc, S., Veyis, F., & Ates, B. (2013). Adapting school burnout inventory to turkish culture: study of validity and reliability. *Turkish Journal of Education*, 2(2), 16-27.
- Sioni, S. R., Burlison, M. H., & Bekerian, D. A. (2017). Internet gaming disorder: Social phobia and identifying with your virtual self. *Computers in Human Behavior*, 71, 11-15.
- Statista. (2021). Number of smartphone users worldwide from 2016 to 2021 [statistic]. Retrieved from <https://www.statista.com/statistics/330695/number-of-smartphoneusers-worldwide/>
- Tomaszek, K., & Muchacka-Cymerman, A. (2019). Sex differences in the relationship between student school burnout and problematic internet use among adolescents. *International Journal of Environmental Research and Public Health*, 16(21), 4107.
- Trompeter, N., Bussey, K., Hay, P., Mond, J., Murray, S. B., Lonergan, A., ... & Mitchison, D. (2018). Fear of negative evaluation and weight/shape concerns among adolescents: The moderating effects of gender and weight status. *Journal of Youth and Adolescence*, 47(7), 1398-1408.
- Ugur, E., Kaya, Ç., & Tanhan, A. (2021). Psychological inflexibility mediates the relationship between fear of negative evaluation and psychological vulnerability. *Current Psychology*, 40(9), 4265-4277.
- Wang, X., Abdelhamid, M., & Sanders, G. L. (2021). Exploring the effects of psychological ownership, gaming motivations, and primary/secondary control on online game addiction. *Decision Support Systems*, 144, 113512.
- Weeks, J. W., Heimberg, R. G., & Rodebaugh, T. L. (2008). The fear of positive evaluation scale: assessing a proposed cognitive component of social anxiety. *Journal of Anxiety Disorders*, 22, 44–55.

- World Health Organization (WHO). (2015). *Public health implications of excessive use of the Internet, computers, smartphones and similar electronic devices: meeting report*. Foundation for Promotion of Cancer Research, National Cancer Research Centre, Tokyo, Japan, 27–29 August 2014.
- World Health Organization (WHO). (2018). Gaming disorder. <http://www.who.int/features/qa/gaming-disorder/en/>(accessed 18 Feb 2022).
- Yayan, E. H., Arıkan, D., Saban, F., Gürarslan Baş, N., & Özel Özcan, Ö. (2017). Examination of the correlation between Internet addiction and social phobia in adolescents. *Western Journal of Nursing Research*, 39(9), 1240-1254.
- Yılmaz, R., Karaoglan Yılmaz, F. G., & Avcı, U. (2023). Examining the role of cyberloafing, narcissism, locus of control, and social appearance anxiety on the Internet gaming disorder in university students. *Psychology in the Schools*, 60, 3040–3055. <https://doi.org/10.1002/pits.22894>
- Yılmaz, R., Sulak, S., Griffiths, M. D., & Yılmaz, F. G. K. (2023). An exploratory examination of the relationship between internet gaming disorder, smartphone addiction, social appearance anxiety and aggression among undergraduate students. *Journal of Affective Disorders Reports*, 11, 100483.
- Zhang, Y., Gan, Y., & Cham, H. (2007). Perfectionism, academic burnout and engagement among Chinese college students: A structural equation modeling analysis. *Personality and Individual Differences*, 43(6), 1529-1540.
- Zhu, J., Zhang, W., Yu, C., & Bao, Z. (2015). Early adolescent Internet game addiction in context: How parents, school, and peers impact youth. *Computers in Human Behavior*, 50, 159-168.