

DİJİTAL OYUN ALIŞKANLIKLARI VE BAĞIMLILIĞI HAKKINDA KISA BİR DEĞERLENDİRME

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Özet

Teknolojik gelişmeler, iletişim, ulaşım, sağlık, eğitim ve eğlence gibi birçok alanı etkileyerek hayatımızda önemli değişikliklere yol açmaktadır. Özellikle telefon, televizyon, sosyal medya ve internet kullanımının ortaya çıkardığı bağımlılıklar giderek artmaktadır. Dijital oyun bağımlılığı özellikle çocuklar ve ergenler arasında oldukça yaygın görülmektedir. Telefon, tablet ve bilgisayarların kolayca ulaşılabilir olması, dijital oyunlara olan ilgiyi artırmıştır. Bu durum, zamanın kontrolünü kaybetme, sağlıksız beslenme, uyku bozuklukları, iskelet ve kas hastalıkları, depresyon gibi ciddi sorunlara yol açabilmektedir. Bu çalışma, dünyada dijital oyun bağımlılığı üzerine yapılan çalışmaları incelemekte ve güncel istatistikleri yorumlamayı hedeflemektedir. Dünyadaki dijital oyun bağımlılığı istatistikleri ile ülkemizdeki istatistikler karşılaştırılarak yorumlanmıştır.

Anahtar Kelimeler: Oyun, Dijital Oyun Bağımlılığı, İnternet Bağımlılığı

A BRIEF REVIEW OF DIGITAL GAMING HABITS AND ADDICTION

Abstract

Technological developments affect many areas such as communication, transportation, health, education and entertainment, and lead to significant changes in our lives. In particular, addictions caused by the use of phones, television, social media and the internet are increasing. Digital game addiction is especially common among children and adolescents. The easy accessibility of phones, tablets and computers has increased the interest in digital games. This situation can lead to serious problems such as losing control of time, unhealthy nutrition, sleep disorders, skeletal and muscular diseases and depression. This study examines the studies conducted on digital game addiction in the world and aims to interpret current statistics. The statistics on digital game addiction in the world and in our country have been also compared and interpreted.

Keywords: Game, Digital Gaming Addiction, Internet Addiction

1. Introduction

Technological advances have major impacts on many areas of life, such as communication, transportation, health, education and entertainment. These developments cause significant changes in our lifestyles and habits. Until recent history, games were usually played in public areas, gardens, parks or streets with peers (Irmak and Erdoğan, 2016). With the developing technology, the perception of traditional games has changed and the concept of digital games has emerged (Ülker et al., 2017)(Hazar et al., 2017). While developing technology makes life easier, it also brings some negative effects. For example, a new concept called technological addiction has emerged among behavioral addictions (Denizci Nazlıgül and Yılmaz, 2019). Technological addictions are divided into various categories such as internet, social media, phone, game, computer, and television addiction (Özdemir, 2023). Game addiction is a type of addiction that occurs due to excessive and uncontrolled use of technological devices such as game consoles, tablets, televisions, phones and computers. Digital game addiction affects individuals of all age groups, but is generally more common among adolescents (Duran, 2020)(Yiğit, 2017). Digital game addiction attracts attention not only because of the time spent on games, but also because of its various negative consequences. For example, violent games played uncontrollably threaten mental health. In addition, adolescents may experience problems such as physical developmental delays, eye disorders, weight loss or excessive weight gain, hand, shoulder and spine problems due to sitting for long periods of time and psychomotor skills disorders. (Irmak and Erdoğan, 2016). Contrary to all their negative effects, playing educational, development-supporting digital games at appropriate times and in a controlled manner can make positive contributions to the development of adolescents.

Technological developments have affected many areas of daily life. With digitalization, many analog materials such as data, sound, music, and photographs have been transferred to digital media (Değirmencioglu, 2016: 593). Digitalization has accelerated the exchange of information between people and allowed for the rapid transmission of large amounts of data. This process emerged with the beginning of Web 1.0 and accelerated with the spread of social media. The speed of interaction and communication increased through platforms such as social networks, blogs, microblogs, content sharing sites, podcasts, and wikis brought by Web 2.0. In a short time, Web 2.0 technologies were replaced by Web 3.0 technologies, which are the beginning of a transition that machines can understand and interpret (Alptekin, 2020: 140). Digital Games continue to exist as an important content category in every phase of the internet.

1.1. The Concept Of “Game”

In fact, the concept of game is as old as human history and have been defined in various ways in different cultures. In archaeological excavations, it was seen that two girls were playing with ankle bones in wall paintings dating back to 800 BC. In ancient wall paintings in India and Egypt, traces of games played with dice on a game board and children's top and hand-clapping games were found (Karaduman & Aciyan, 2020: 459). Many games have been transferred from one culture to another and have survived to the present day. Every society has created games and entertainment suitable for its own cultural structure (Biricik and Atik, 2021: 449). Figure 1 shows an illustration of children playing marble games in 2nd century of Rome.



Figure 1. Illustration of children playing marble games (McCormack, 2024)

Games take place in a specific area and within the framework of specified rules. Time also ensures that the game progresses without interruption (Huizinga, 2006: 27). Games generally affect children's social relationships and help them develop their mental skills. In addition, games create many effects in terms of physical, psychological, sociological and mental aspects (Yalçın & Bertiz, 2019: 28-29). Games have both beneficial and harmful aspects. One of the harmful aspects is the potential to encourage violence. People can reveal their true personalities through games (Mustafaoğlu, 2018: 85). According to Huizinga, games should be considered as a phenomenon that exists together with culture (Huizinga, 2006: 14-20). Games, which differ from culture to culture, have been stripped of cultural distinctions with the development of communication technologies. As a result of digitalization, traditional street games have turned into a virtual socialization tool (Akgöl, 2019: 212). However, functional games are at the forefront in children's development process. Children shape games using their own bodies (Söylemez and Ayas 2023). The biggest reasons why digital games have replaced traditional outdoor games are urbanization, security concerns and easy access to digital games at home (Biricik & Atik, 2021: 447-452). Today, families try to keep their children as close as possible to ensure children's safety. For this reason, digital games that allow playing at home have become attractive. Street games that used to be played are now less preferred. The interest in digital games has led many companies to invest in the digital game sector and the emergence of different types of games. The emergence of play options on various platforms such as computers, consoles, mobile phones and tablets, and virtual reality equipment has also led to the diversification of games. Thus, digital games have begun to be seen as an industrial product (Karaduman & Aciyan, 2020: 459-462). Children have begun to get away from stress by establishing social interaction within games. Many games offer complex challenges to the player and aim to motivate players with constant new goals. This has a positive effect on

children's development processes, entertainment style and game culture (Söylemez and Ayas 2023).

After the 2000s, digital games have gained great popularity. In recent years, digital games have been designed that offer players experiences as if they were in the real world. The rich scenarios, impressive stories and character diversity of the games have increased the interest in digital games (Öztürk, 2007). Crawford divides digital games into two categories; skill/action games and strategy games (Crawford, 1982). In the skill/action games category; there are various subclasses such as maze games, fighting games, racing games, mixed games and sports games, and similarly in the strategy category; multiplayer games, adventure games, educational and children's games, role-playing games, war games and games of chance. Skill games require psychomotor skills, while strategy games require cognitive effort. According to another classification in the literature, digital games are divided into categories such as educational games, puzzle games and violent games (Şengül and Büber, 2016). Ögel, on the other hand, divided digital games into ten different categories; action, adventure, fighting, puzzle, role playing, simulation, sports, strategy, entertainment and mission content games (Ögel, 2012). Strategy games are among the most popular game types, where players develop the ability to position themselves against other players. In fighting games, players can become desensitized to real-world violence by experiencing long-lasting fights in a virtual environment. Among digital games, there are educational and sports games, as well as war games that encourage violence, especially among adolescents. (Torun et al., 2015: 28). Some examples of games that encourage violence are Blue Whale and PUBG. While PUBG encourages violence, the Blue Whale game has led to fatal consequences. The third most preferred game category is adventure and action games. These type of games require hand, eye and body coordination. However, in addicts, it can cause involuntary hand movements, dry eyes and joint disorders (Ögel, 2012).

1.2. Digital Games-Related Habits

Digital games are frequently preferred entertainment tools for the purpose of spending free time. They have many positive effects such as increasing hand-eye coordination, strengthening spatial abilities, developing imagination, supporting mathematical and geometric thinking skills (Yalçın & Bertiz, 2019: 30), reducing fatigue, coping with stress, increasing self-confidence (Kesgin, 2019), and accelerating learning (Irmak & Erdoğan, 2016: 133-134). Digital game designers create entertaining designs where players can experience various emotional experiences with realistic simulations. Avatars and characters in many games can be developed by players for a long time. Players can experience feelings of success and value that they cannot experience in the real world through the characters they develop. During the game, momentary emotional changes such as losing, achieving, being happy, and getting angry can be experienced. The desire to be the most successful in interactive games and to maintain this success can lead players to continue playing the game continuously. Factors such as the tendency to extend the duration of playing games, the feeling of control, the search for entertainment, being immersed in the game, and the feeling of curiosity also cause game addiction to increase (Yumrukuz, 2021) and negatively affect the player's social relationships in daily life (Yalçın and Bertiz, 2019).

Addiction represents a pathological condition that expresses an involuntary and constant desire and need. Individuals have always been highly interested in various objects, phenomena, substances, people and behaviors at certain periods as a result of their experiences, and this interest has turned into addiction over time and has made people captive (Ayhan & Köseliören, 2019: 3-4). For the diagnosis of addiction which is a psychiatric syndrome, it is sufficient that only three of the following criteria are seen together (Macit et. al., 2018);

- Tolerance development in the used substance
- The manifestation of withdrawal symptoms when the substance is cut or reduced
- Efforts to control or abandon the use of drugs
- Spend a lot of time to provide, use or leave the substance
- Adverse effects in social, occupational and personal activities because use of substance
- Taking the substance in a long time and higher quantities
- Continue use of substance despite the emergence or increase of physical or mental problems

Digital game addiction is considered a subtype of internet addiction. Internet addiction, also called pathological internet use, excessive internet use, compulsive internet use, problematic internet usage, can be defined as going to excessive nervous and aggressive state when deprived of using the internet (Arısoy, 2009: 56). Digital game addiction is expressed with terms such as excessive use of games, obsessive-compulsive gaming, pathological gaming behaviors and problematic gaming behaviors (Hazar, 2016: 65). Diagnosing addiction becomes difficult due to the widespread use of technological devices. The fact that each individual has different personality traits shows that addiction can occur in various ways and for various reasons. The symptoms of digital game addiction are similar to other types of addiction and negatively affect the individual's life. Game addiction can cause the individual to distance himself from his daily responsibilities, uncontrollable gaming periods and psychological changes (Hazar, 2016: 68). The criteria used to detect digital game addiction are similar to the criteria for pathological gambling. These criteria include how important gaming behavior has become in a person's life, and the uncontrolled direction of game-focused thoughts, emotions, and behaviors (Irmak & Erdoğan, 2016: 131-132). Digital game addiction is especially common among young people and can lead to physical and psychological health problems. Therefore, it is of great importance to prevent and control this addiction (Festl, 2012).

There are numerous academic studies on digital game addiction in Turkey and around the world. However, due to cultural and genetic differences, as well as differences in scales and methodologies, inconsistent results can be obtained even within the same country. The rapid change in the number of digital players also affects the results of the studies. The number of digital gamers has increased by more than 50% in the last 10 years. Figure 2 shows the estimated change in the number of digital gamers worldwide over the last 10 years (Howarth, 2024).

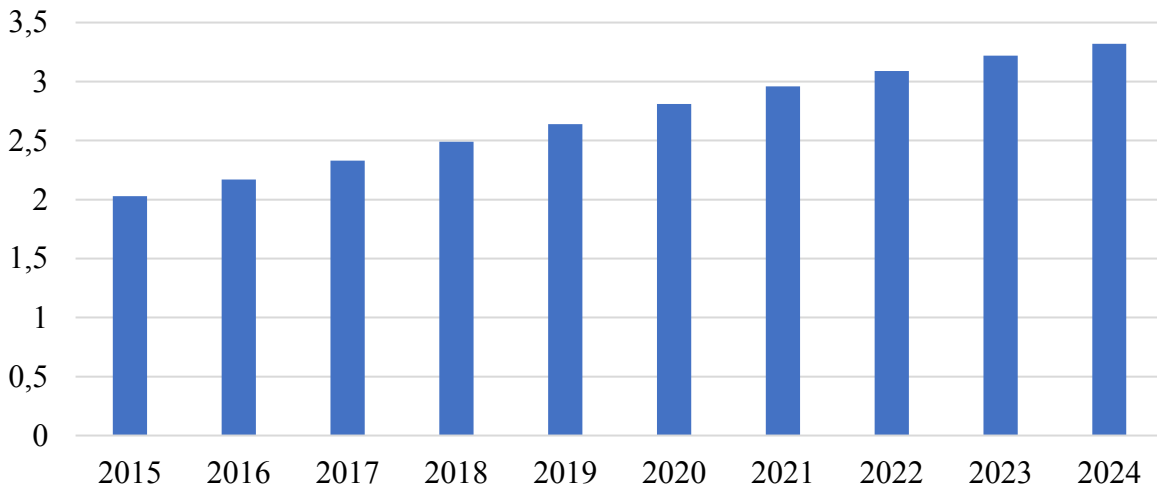


Figure 2. Global active gamers over years (x billion)

The gender distribution of digital gamers by year is given in Figure 3 (Gilpress, 2024). As can be seen, there are more male gamers than female gamers.

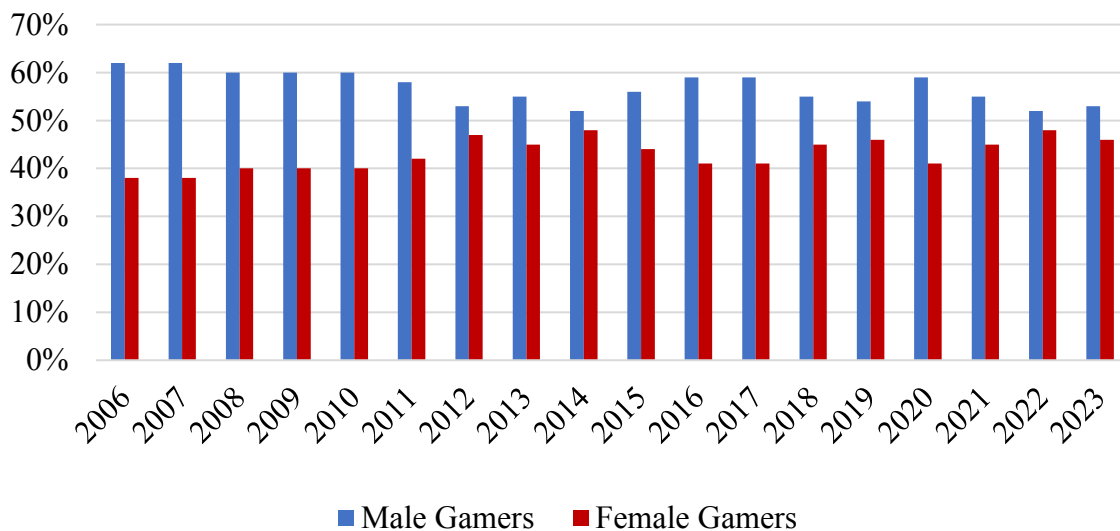


Figure 3. The gender distribution of digital gamers

Figure 4 shows the worldwide age distribution of digital gamers. The largest population of gamers worldwide comes under the age group of 18 to 34 years with 1.17 billion. While there are only 7% of gamers who are above the age of 65 (Howarth, 2024).

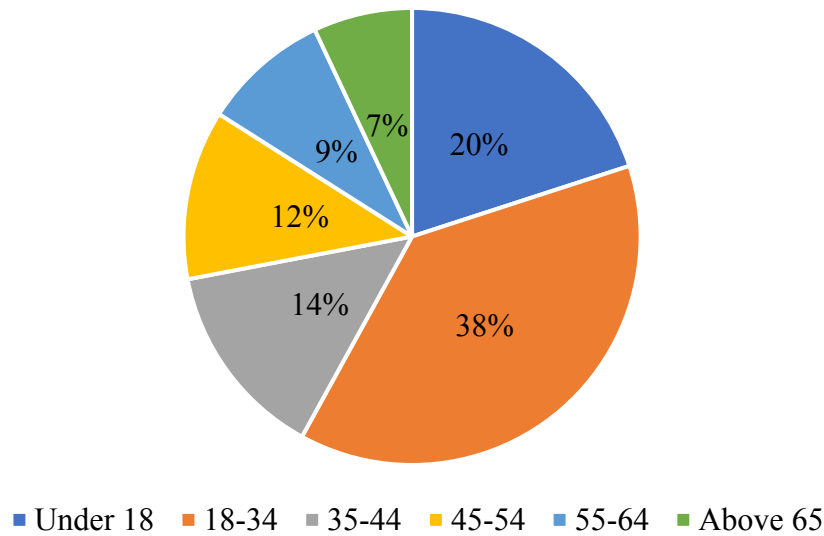


Figure 4. The worldwide age distribution of digital gamers

The social restrictions imposed due to the Covid19 pandemic have increased interest in digital games. This interest continues after the pandemic. For example, in 2022, 90% of gamers spent the same amount of time on digital games as during the pandemic. Gamers put forward different reasons for spending time on games. For example, according to a research conducted by Olson on children, children generally suggested that games are interesting, fun, useful for spending time when bored, competitive and relaxing (Olson, 2010). Table 1 shows the results of a study conducted by the Entertainment Software Association (ESA) on 13.000 individuals over the age of 16 across 12 countries in 2022 (Stuart, 2023).

Table 1. Results of the study conducted by ESA

Percentage	Declaration
67%	Video games can introduce people to new friends and new relationships.
53%	I have had positive experiences meeting people through video games that I otherwise would not have met.
50%	Video games have helped me make lasting memories.
46%	Video games help me stay connected to friends/family.
43%	Video games help me develop deeper relationships with others.
41%	Video games strengthen my relationships with friends/family.

64% of gamers stated that they get away from the stress of daily life by playing games. 26% stated that they socialize by playing online games regularly every day. 53% stated that they feel less lonely when they play games. Young adults between the ages of 18-24 play games for comfort, relaxation, excitement and friendship, while individuals aged 65 and over prefer games for spending time and improving themselves. The proportion of online games decreased from 77% in 2022 to 65% in 2023. In 2022, players played games for an average of 13 hours per week, while this time decreased to an average of 12.8 hours per week in 2023 (ESA, 2023). According to the 2023 Digital Gaming Sector Report of Gaming in Turkey Agency, while there were 44 million players in Turkey in 2022, this figure reached 47 million in 2023. Same year, 44 million players have played mobile games. Most of the players are individuals between the

ages of 25-34 and 55% of the players are male. PUBG was the game that generated the most revenue in Turkey in 2023 with \$11 million. Players in Turkey reported that they play games mostly for entertainment, comfort, stress reduction and freedom. 45% of the players reported that they play games for an average of 1 hour or less per day, while 45% reported that they play games for an average of 1-4 hours per day. Approximately 10% of the players reported that they play games for an average of more than 4 hours per day (Gaming in Turkey, 2024).

In the study published by Bayzan et.al in Turkey in 2024, it was aimed to determine the digital game playing habits of middle and high school students. The sample of the study consisted of 28,096 students. As a result, approximately 35% of the students were seen as at risk for digital game addiction. In addition, it was seen that male students were at higher risk of becoming game addicts than female students. The variables that had the most impact on students' game addictions were; internet addiction levels, social media addiction levels, cyberbullying levels, loneliness levels, distress levels and happiness levels. While all other variables except students' happiness levels increased Digital Game Addiction levels, Digital Game Addiction levels decreased as happiness levels increased. As a result of the research, the following practices were suggested to be carried out to combat digital game addiction (Beyzan et.al., 2024);

- Developing cooperation programs between educational institutions and families
- Strengthening cooperation between educational institutions, relevant civil society organizations and families to increase social awareness
- Conducting studies to determine social, interactive and educational areas of interest
- Combating cyberbullying with cooperation among students, teachers, schools and families, and developing strategies specific to gender, age and other factors in this fight
- Conducting studies with cooperation between educational institutions, families and health professionals to better understand the perceptions of loneliness that emerge in students

2. Results and Conclusion

This study aims to address the causes, types, prevalence and consequences of digital game playing behaviors and addiction based on literature. Adolescents in particular are prone to digital games. This propensity can turn into addiction. Digital game addiction, as in physical addiction types, can lead to negative social, economic, cultural and biological outcomes. It is known that digital games provide positive contributions in cognitive, emotional and social aspects. However, game addiction can result in many negative effects in individuals such as sleep and nutritional disorders, skeletal, muscular and eye diseases and obesity. Violent games threaten the psychological health of individuals. Digital game addiction, which is widespread worldwide, is also observed intensively in our country, especially among the young population. It is very important for families, educational institutions, health institutions and non-governmental organizations to work together to prevent and treat digital game addiction. Adolescents in particular should be directed to sports activities. Parents should communicate well with their children, especially during adolescence.

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