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ARAŞTIRMA Açık Erişim

Positive and Negative Aspects of Digital Games from the Perspective of Adolescents

Ergenlerin Bakış Açısından Dijital Oyunların Olumlu ve Olumsuz Yanları

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ABSTRACT

The game, which is the work of the child, is handled in two ways as real play and digital play. From these games, digital games can be played with technological tools owing to the development of technology. These games also have positive and negative aspects. For this reason, it was aimed to reveal the positive and negative aspects of digital games from the point of view of adolescents in the study. Therefore, the study was carried out with 106 voluntarily adolescents who play digital games and between ages 12-14. In the study, where the data were collected quantitatively, a questionnaire consisted of open-ended-multiple-choice questions were used. According to the adolescents, the positive aspects of digital games were; eliminating boredom, reflex development, learning language, strategic thinking, experiencing competitiveness, earning money, relaxation, possibility to being an e-sport player. The negative aspects of digital games were; physical problems, problems related to lessons, attention, family.

Article Information

Keywords

Game, Adolescent, Digital Game, E-Sport, Game Addiction

Anahtar Kelimeler

Oyun, Ergenler, Dijital Oyunlar, E-Spor, Oyun Bağımlılığı

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ÖZET

Çocuğun işi olan oyun, gerçek oyun ve dijital oyun olmak üzere iki şekilde ele alınmaktadır. Teknolojinin gelişmesiyle birlikte teknolojik araçlarla dijital oyunlar oynanabilmektedir. Bu oyunların olumlu ve olumsuz yönleri de vardır. Bu nedenle çalışmada ergenlerin bakış açısından dijital oyunların olumlu ve olumsuz yönlerinin incelenmesi amaçlanmıştır. Bu nedenle araştırma, 12-14 yaşları arasında dijital oyun oynayan gönüllü 106 ergen ile gerçekleştirilmiştir. Verilerin nicel olarak toplandığı çalışmada, açık uçlu ve çoktan seçmeli sorulardan oluşan bir anket kullanılmıştır. Ergenlere göre dijital oyunların olumlu yönleri; can sıkıntısını giderme, refleks geliştirme, dil öğrenme, stratejik düşünme, rekabet edebilme, para kazanma, rahatlama, e-spor oyuncusu olma imkanıdır. Dijital oyunların olumsuz yönleri ise; fiziksel sorunlar, dersler, dikkat ve aile ile ilgili sorunlardır.

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Ethical Statement: The study was approved by the Ankara University Ethics Committee on April 13, 2017 (No: 13/04/2017-7/119).

INTRODUCTION

The rapid development of contemporary technologies has created digital games to accompany the more traditional ones, although the main audience for such games continues to be children. Today, games can be broadly classified into two categories: physical and digital. Games have a history that is older than that of literature, while video games first emerged in the 1970s (Avcı & Avşar, 2016). Starting with Atari, Gameboy and Tetris, digital games later transformed into console games, and games in different virtual spaces, like Xbox. Digital games can be defined as games that are played on digital devices such as computers, game consoles, tablets or phones (Baranowski et al., 2008). Digital games are played by an ever increasing number of people. Depending on the number of participating players, digital games can be further divided into single-player and multi-player categories (Gürcan et al., 2008). When it comes to genre, digital games can be divided into fighting games, first person shooter games, real-time strategy games, sport and racing games, massive online battle arena games, and others (Information Technologies and Communications Authority, 2017). Apps like Blue Whale, Mariam, and Momo, which offer challenges that, upon completion, provide prestige are not considered as digital games. These apps assign various tasks to the user, expecting them to complete these tasks, and use various threats to induce compliance, such as by stating that bad things could happen should the "player" fail to fulfill the task.

Around 671 million online games are played on laptop and desktop computers. The number of daily gamers is around 145 million. Of these, 47.9 million are from the Asia-Pacific region, 45.6 million are from Europe, 30.3 million are from North America, 14.9 million are from Latin America, and 6.2 million are from the Middle East/Africa (Comscore, 2020). In Turkey, overall around 30 million people play digital games (Information Technologies and Communications Authority, 2017). Minors aged 0–17 make up approximately 29 percent of Turkey's population, and many people in Turkey, particularly children and teens, come into contact with digital games at an early age. According to a 2013 study conducted by the Turkish Statistical Institute (TurkStat), children aged 6–10 in Turkey started using computers by the age of 6, on average, and children in the age group 11-15 started using computers by the age of 10. The age of first Internet use, on the other hand, is 9 (TurkStat, 2013). According to TurkStat (2013) data, 60.5% of children aged 6–15 use computers, 50.8% use the Internet and 24.3% use smartphones. Among the children in this age group, the most often-cited reason for using the Internet was to assist with homework, stated by 84.8% of the respondents, followed by playing games, with 79.5%. In addition, the most-often cited reason for using smartphones was for talking, stated by 92.8% of the respondents, followed by playing games, with 66.8%. Of the young people aged 16–24, 93% use the internet on a regular basis (TurkStat, 2019). As of January 2019, China led the world in terms of game revenues, with 850 million Internet users spending in the region of $34,400,000,000 on gaming. Turkey, with 53 million Internet users, spending $853,000,000, ranked 18th on the list (Newzoo, 2019). Gamers do not consist only of children and teens, however, as people of all almost all age groups play games.

According to a report by the Entertainment Software Association (ESA), the gaming industry reported total revenues of $23.5 billion in 2015 (ESA, 2016), showing that the gaming industry plays a substantial role in the global economy. Aside from traditional games, digital games are the most preferred activity among children and adolescents. Digital games can be played on-line or off-line, on computers, cell phones and tablets, and on home or handheld game consoles.

There are many kinds of games that can be played on screens. For example, young people may play "advergames," which are apps that combine digital games and brands. Advergames are games designed for specific brands, and as long as users are comfortable with the brand, they can keep playing advergames (Bozkurt & Oyman, 2016). When games resemble reality, users can perceive them as real, and so continue playing (Huizinga, 2010). New technologies bring multiple senses into play via elements such as software, hardware and place, thus immersing the player more deeply into the game, and consequently, to spend more time playing.

Digital games have both negative and positive effects (Tablo 1). Studies have showed some benefits of the digital games in improving some problems (behavioral, physical or psychological) related to disordered eating (Tang et al., 2022). According to the meta-analysis study, it suggests that digital gaming interventions may be useful for reducing mental disease related symptoms (Lau et al., 2017). Some studies showed that digital games can be used in psychological evaluation of adolescents and in therapy process and treatment (Ceranoglu, 2010; Eichenberg & Schott, 2017; Townsend et al., 2022; Zayeni et al., 2020). Digital games can be used in improvement of language (Smith, 2004). Digital games also have benefits in increasing academic skills. Studying with digital tools (games, exercises) have promoted vocabulary knowledge (Sadan & Katzir, 2022). Digital games have some benefits although, it is quite difficult in designing digital games to prevent some risks, such as gaming addiction (Tang et al., 2022) and addiction is one of the most important negative effects of digital games.

Table 1. Positive and negative effects of digital games (Prot et al., 2012)

Positive Effects	Negative Effects
"Action games improve a range of visual-spatial skills	"Violent games increase aggressive thoughts, feelings, and behaviors
Educational games successfully teach specific knowledge and skills	Violent games desensitize players to violence, decrease empathy and helping
Exergames can improve physical activity levels	Video game play is negatively related to school performance
Prosocial games increase empathy and helping	Video games may exacerbate attention problems
Prosocial games may decrease aggression"	It seems that some players can become addicted to video games"

In a comparative study involving a number of European countries, computer games were found to be the most preferred interactive media device among children aged 6–16 (Fromme, 2003). Young brains are affected most by the effects of digital technologies, and consequently, young people are the most vulnerable group in society in this respect (Small & Vorgan, 2008). Children and adolescents can play digital games in almost any setting. Such games can lead to positive or negative experiences in the lives of gamers (Shi et al., 2019). People who play digital games naturally form opinions about, benefit from and complain about the games they play. The present study examines the positive and negative aspects of digital games from the perspective of adolescents, and to this end, answers will be sought to the following research questions: 1) What are the positive aspects of digital games from the perspective of adolescents? 2) What are the negative aspects of digital games from the perspective of adolescents?

METHOD

Participants and Procedure

Data for this study was garnered through quantitative and qualitative methods. The participants in the study were adolescent seventh and eighth graders attending two public schools in central Ankara. The participants were selected using criterion sampling, which is a purposive sampling method that is used when an in-depth follow-up study is planned based on the results of a quantitative study (Büyüköztürk et al., 2015). The inclusion criteria were aged 12–14, and playing digital games. Upon obtaining consent from all participants, in the classes the students filled in the questionnaire in October 2018. The study was conducted with the voluntary participation of 106 adolescents aged 12–14, all of whom had played digital games and who gave their consent to participate.

Ethical Issues

Approval was obtained from the Ankara University Ethics Committee (13.4.2017/7/119) and the school administration where the study was conducted. Verbal consent was obtained from all adolescents who participated in the study by giving information about the study. Written consent was obtained from the families of the adolescents.

Data Collection Instrument

Data for the study was collected using a questionnaire containing both multiple choice and open-ended questions that was prepared following expert advice. The questionnaire included items on duration of playing digital games, the devices used, reasons for playing, the type of game played, and the positive and negative aspects of playing digital games.

Data Analysis

The data collected from the respondents for evaluation was in the form of frequencies and percentages, and the responses to the open-ended questions are presented as themes and direct quotes.

Participant Characteristics

Of the 106 respondents, 54.8% were 13 years old, 29.2% were 12 years old and 16% were 14 years old; 71.7% were male and 28.3% were female; and 61.3% were seventh graders and 38.7% were eighth graders.

RESULTS

The Positive and Negative Aspects of Digital Games

This study focuses on the positive and negative aspects of digital games from the perspective of adolescents, and the data obtained through the questionnaire is presented in the following tables.

Table 2. Frequency and percentage distributions describing the gaming behaviors of adolescents

	f	%
Duration of playing digital games		
I have been playing digital games for less than a year	14	13.2
I have been playing digital games for 1–2 years	18	17
I have been playing digital games for 3–4 years	35	33
I have been playing digital games for 5 years or more	39	36.8
The most preferred device on which to play digital games		
Computer	53	50
Phone	47	44.4
Tablets and/or game consoles	6	5.6
Type of game played		
Online games	43	40.6
Offline games	7	6.6
Both online and offline games	56	52.8
Time spent playing digital games a day		
I play digital games for less than an hour	19	17.9
I play digital games for 1–2 hours	32	30.2
I play digital games for 3–4 hours	33	31.1
I play digital games for 5–7 hours	20	18.9
I play digital games for 8 hours or more	2	1.9
Total	106	100

Table 2 shows that 36.8% of the respondents have been playing digital games for five years or more. Furthermore, 50% of the respondents use computers to play digital games, and 44.4% use cell phones; 52.8% of the respondents play both online and offline games. A total of 31.1% of the respondents play digital games for 3–4 hours a day.

Table 3. Frequency and percentage distributions describing the reasons adolescents play digital games

	f	%
I play digital games to deal with boredom	31	29.2
I play digital games in my free time	3	2.8
I play digital games to relax	2	1.9
I play digital games for fun	45	42.5
I play digital games to compete and win	11	10.4
I play digital games to be popular	1	0.9
I play digital games to forget about my issues and problems	3	2.8
I play digital games because I am planning to have a gaming-related job in the future	4	3.8
I don't know why	3	2.8
Other (learn a foreign language, improve foreign language)	3	2.8
Total	106	100

Table 3 shows that 42.5% of the adolescents who participated in the study play digital games for fun, and 29.2% out of boredom. The respondents expressed the reasons they play digital games as follows:

"I feel talented."

"Games take away boredom, and I am happy when I am playing games."

"There is competition, and it improves your reflexes. There are valuable items in the game I play, like dollars, cents, and various goods, and you can sell them to earn money."

"I play games when I am bored. They alleviate boredom and let me have fun. Winning trophies in the games makes me somewhat happy."

"I am happy when I win."

"My reflexes are now faster. Sometimes it helps me forget about things when I have the blues." "I can play e-sports if I can't find a job in the future."

"I relax by playing games. I cannot do without games. I am always playing, even during mealtimes."

"I mostly play strategy games, which improve your intellect. They make me happy because they are fun."

"Imagination, not being perceived as a 'nerd' among friends, a better sense of humor, having a more realistic perspective on life, being solution-oriented, noticing details."

"We can make lots of money if we become e-sports players."

"Quiz games (like Know and Conquer) improve my general knowledge, and I do better when there are general knowledge questions in my exams. Games improve my English vocabulary because most games are in English."

Table 4. Positive aspects of digital games from the perspective of adolescents

	f	**%**
Fun	27	12.8
Improves reflexes (hand-eye coordination)	24	11.4
Contributes to learning foreign languages (English/Japanese)	21	9.9
Helps use/pass free time	21	9.9
Makes me happy/ relaxed	18	8.6
Alleviates boredom	15	7.1
Improves strategic thinking	12	5.7
Learning	12	5.7
Making friends	11	5.2
Improves attention span	10	4.7
Allows competition	7	3.3
Improves imagination and creativity	7	3.3
Distracts from problems	6	2.9
Has no positive aspects	6	2.9
Makes you more disciplined/better organized	4	1.9
Lets you earn money	4	1.9
Becoming better at playing the game	3	1.4
Chance to become an e-sports player	2	0.9
Learning how to code	1	0.5

Table 4 shows that when asked to identify the positive aspects of playing digital games, 12.8% of respondents said it offers fun, 11.4% said it improves reflexes, and 2.9% said digital games have no positive aspects.

Table 5. Negative aspects of digital games from the perspective of adolescents

	f	%
Experiencing physical problems	36	21.2
Experiencing family problems	22	12.9
Experiencing problems with classes	22	12.9
No negative aspects	20	11.8
Makes you angry	15	8.8
Eye-related problems	13	7.6
Waste of time	13	7.6
Attention and focus problems	9	5.3
Food and sleep problems	7	4.1
Emotional problems	4	2.4
Socialization-related problems	4	2.4
Addiction	3	1.8
Being affected by negative content	2	1.2

Table 5 shows that when asked about the negative aspects of playing video games, 21.2% of the respondents reported experiencing physical problems (hand, wrist, head, neck, back, lower back, and hearing-related problems). Moreover, 11.8% of the respondents said that digital games had no negative aspects.

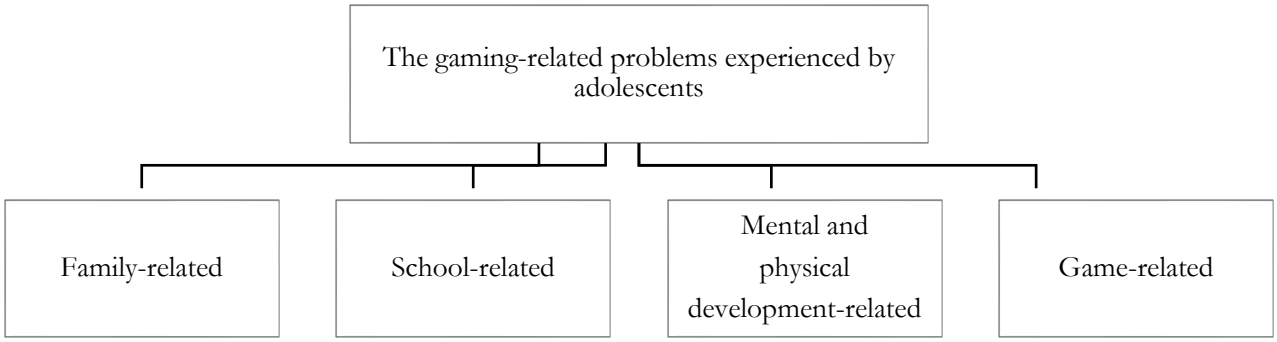

Figure 1. The Gaming-Related Problems

The gaming-related problems experienced by adolescents (Fig. 1) can be classified into those that are family-related, school-related, mental, and physical development-related, and game-related. The respondents elaborated on the family-related problems they had experienced related to their playing of digital games:

"Sometimes I get carried away and waste too much time. I have arguments with my family."

"What is harmful about the game is that I have to play because I am an admin, which I am fine with, but my family gets angry."

"It takes me away from social settings."

"When I play games, my mom yells at me to stop playing and start studying. I get headaches when I play too much."

"It makes me spend less time with my family."

"Mom and dad get angry sometimes."

"There is too much family pressure, this is why we have problems."

The respondents elaborated on the school-related problems they experience related to their playing of digital games:

"Sometimes I get carried away and forget to study."

"I find it hard to pay attention in class. I get easily distracted."

The respondents expressed the mental and physical development-related problems they experience related to their playing of digital games:

"If there are levels in the game, I get very frustrated when I fail to make it to the next level. I also get very frustrated when the Internet connection is lost when playing online games."

"It is harmful. It keeps me from eating and sleeping and I find it hard to stop playing."

"Being unable to eat because gaming takes up all my time. Physical problems."

"I can get very angry when I lose games. You end up wasting all your day."

The respondents expressed the game-related problems they experience related to their playing of digital games:

"My time is wasted. For example, I could have spent my time doing something useful, but I end up playing a game that only provides fun and nothing else."

"Sometimes I spend too much time playing."

"Only that I spend too much time playing sometimes and turn up late for other things."

DISCUSSION

Technological progress and technological devices change people's lives and have led to the creation of a new culture (Yan, 2018). Culture, in turn, directly affects child development. This new culture, created by technology, has both negative and positive aspects, and changes people's lifestyles and habits. In this process of change, children and adolescents are the most vulnerable to the negative effects of technology (Aral & Doğan-Keskin, 2018). Adolescence is a critical period for the development of personality. Peer relations and group identity are important in this period, while through simulation games, adolescents are able to create "worlds" that are entirely under their own control. Adolescents can be the protagonist of this world and create any identities they imagine or desire in the virtual world (Adanır et al., 2016). It has been argued, given the developmental characteristics of adolescents, that simulation games can have positive effects on their personality development through virtual socialization, although it would be difficult to argue for the presence of any positive effects unless such socializations are transferred to the real world.

Literature reports that use of the Internet and computers can lead to such physical problems as back, lower back, neck, knee and wrist problems, as well as burning or stinging eyes (Saito et al., 2000). In the present study, the respondents complained of such physical problems as headaches and neck, back and wrist pain when asked to identify the negative aspects of digital games. The respondents stated further that these negative aspects had been caused not by games per se, but by such things as computers, computer desks, seats, chairs, keyboards, mouses and lighting. Computers are not designed for children

or their physical characteristics in terms of height and weight, being designed usually for adults, despite the fact that both adults and children make use of computers. Items such as furniture, chairs and desk lamps are sometimes specially produced for children and adolescents, as are some technological devices, while there are no special-production computers for digital games that target early adolescents. As such, the immobility associated with playing digital games for many hours can lead to physical problems. In the case of children and adolescents, the physical problems resulting from staying immobile for long hours are accompanied by those associated with the furniture and devices used (desk, chair, computer, keyboard, etc.), and exacerbated in terms of duration and severity. The respondents also mentioned the physical and mental problems among the negative aspects of playing digital games, although this view was limited to the short-term effects. The respondents did not mention that declines in academic achievement, family problems and physical problems could be permanent or difficult to resolve after a certain stage.

In a study examining Internet use among children and adolescents of different ages, adolescents aged 13–17 were found to be more knowledgeable about the Internet that their parents (Yeygel & Eğimli, 2009). This shows that adolescents, if left to their own devices, can do practically anything on the Internet. Therefore, adolescents constitute the most critical group that requires utmost attention. In another study, adolescents aged 12–14 were found to spend an average of 137 minutes a day in front of computers (Ho & Lee, 2000, cited by Gürcan et al., 2008). In the present study, some of the respondents reported spending less than an hour playing digital games, whereas others played for more than 8 hours a day. Over 50% of the respondents reported using computers to play digital games, and this finding highlighting computers as the most preferred device for playing games indicates important role of computers in gaming addiction.

The use of games in the healthcare sector for the treatment of certain conditions shows that the gaming industry may compete with the pharmaceutical industry in the future. Having certain groups of patients play selected games for prescribed amounts of time can play a supporting or healing role in healthcare. Some games, however, are addictive, and the addiction process has certain similarities with the way substance addictions develop. The same substance can serve as treatment or support treatment when used as a medicine, or can cause addiction when used too much, in an uncontrolled manner, and/or for different purposes. Similarly, some games can be used for treatment purposes and can be beneficial, whereas others can cause harm through addiction. Gaming addiction, one of the negative aspects of digital games, was recognized as a disorder by the World Health Organization (WHO) in 2018. From June 2018 onwards, it has been included in the International Classification of Disease 11 (ICD-11) under the name Gaming Disorder (WHO, 2018).

In addition to their negative effects, games have also some positive effects. There have been studies reporting that digital games improve attention and concentration among children diagnosed with ADHD and can help calm them down. In one study, brain activity was recorded in children while they played games using a joystick, and it was found that children's brains generate high-frequency waves while gaming, indicating heightened attention. In addition to increasing the attention and concentration of children and calming them down, digital games have other benefits, such as teaching how to remain calm under stress (Tarhan & Nurmedov, 2013). In any discussion of the benefits of digital games, it is important to note that not all digital games offer these benefits. It is argued that digital games can bring benefits and positive experiences when used properly but can result in harm and negative experiences

when used improperly (Tarhan & Nurmedov, 2013). Some researchers argue that focusing exclusively on the negative aspects of digital games is a superficial approach (Tuğran, 2016). Digital games allow individuals to enjoy themselves and have fun. Some well-designed virtual games improve hand-eye coordination, increase visual/spatial attention and make it easier to acquire computer skills (Doğan, 2006), offer computer-based learning environments (Bütün-Ayhan & Aral, 2005), improve visual intelligence (DeBell & Chapman, 2006; Subrahmanyam et al., 2000), act as a model teacher (active participation, feedback, the ability to repeat, motivation) (Gentile & Gentile, 2008), make it easier to deal with physical aches and pains (Kirsch, 2010), help develop new schemes for orienteering and cognitive coordination (Çelen, 2013) and are used for treatment purposes (Avcı & Avşar, 2016). The other positive effects of digital games are "strategies for dividing visual attention, spatial integration skills, spatial abilities, improvement of iconic languages" (Smith, 2004). The present study had similar findings, with the respondents mentioning improved reflexes and strategic thinking ability among the positive aspects of gaming. When asked to identify the positive aspects of playing digital games, the respondents said such games were fun, were a way to spend free time, made people happy and relaxed, remove boredom, help in the development of strategic thinking abilities, provide opportunities to make friends, improve attention span, provide an opportunity to compete, improve imagination and creativity, distracts one from problems, makes people more disciplined and better organized, can be used to make money, develops gaming skills, provides an opportunity to become an e-sports player and teaches coding, whereas others said digital games have no positive aspects.

Alongside these positive aspects, digital games also have negative aspects.

Negative aspects of digital games are addiction, distraction from education, aggression (Smith, 2004). There is a relationship between violent digital game use and aggressive cognitions, affect, and behavior. In addition, there is a relationship between the use of violent digital games and physiological arousal and decreased empathy (Blumberg et al., 2019). Game addicted children and adolescents tend to exhibit high levels of internalizing symptoms (anxiety, depression) (Tavares et al., 2022). Game play is associated with adverse behaviour (abuse, neglect, bullying etc.) in some individuals (Bavelier et al., 2011). There are harmful effects of some digital games on cognitive control (Jordan and Romer, 2014). And violent game play reduces prosocial behaviors and attention (Groves and Anderson, 2015).

These include tendinitis, neurological conditions, spasms resembling epileptic fits, hemiparesis, increased heartbeat and metabolism (Dolu et al., 2010), attention deficit, aggression, lack of empathy, insensitivity, family problems, and school attendance, detriment to psychological function (Çelen, 2013), increased tendency to violent behavior (Anderson & Bushman, 2001), anxiety and worry (Schulte-Markwort, 2005), negative physical, psychological and social effects, declines in academic achievement, and most importantly, risk of addiction. The present study produced similar findings. When asked about the negative aspects of playing video games, the respondents reported experiencing physical problems (hand, wrist, head, neck, back, lower back and hearing-related problems), family problems, school-related problems, anger-related issues, eye- and sight-related problems, feelings of wasting time, attention and focus problems, food- and sleep-related problems, emotional problems, socialization problems, addiction problems and being affected by negative content. Some respondents, on the other hand, said digital games had no negative aspects.

Limitations

There are some limitations in this study. These limitations are as follows: Sample size was limited and the questionnaires were completed only in two schools. The questionnaire is the self-report and there are open-ended questions in the questionnaire. Also self-reported response is a typical limitation of survey designs and methods. Because adolescents may not want to write, they may have given short answers. Despite all these limitations, since multiple choice questions were not asked in this study, adolescents were not directed and they were expected to answer themselves with open-ended questions.

Conclusion

The foundations of personality development are laid during adolescence. In this period, adolescents may play digital games to socialize, pass time or have fun, but they should be reminded that there are activities to do in the real world as well as in the virtual one, and they should be encouraged to take up art, sport or similar pursuits. Moreover, they should be reminded that some of the negative effects of playing digital games can be permanent or difficult to reverse. Some of the respondents in this study reported having been playing games for five years or more. Given that the age of the respondents varied between 12 and 14, this means that some of the respondents have been playing since that ages of 7–9 years old, or even earlier. Playing games, of course, is what children are supposed to do, but in the real world, not just in the virtual world of video monitors. This is because games in the real world rarely have negative effects on child development, whereas some digital games in the virtual world do have such effects. Among the adolescents that participated in the study, computers were the most preferred device for the playing of digital games. Some of the respondents said that they played games with the goal of becoming e-sports players in the future, which shows that e-sports is considered a viable career option among young people. To be successful this profession, adolescents may be tempted to spend long hours in front of their computers playing games, leading them to neglect their studies. Such a dream could be detrimental not only to academic achievement, but also social ties and family life. The respondents in the present study were enrolled in schools providing full-time education, but reported playing three–four hours a day on average. Adolescence is a period of growth and development, and spending three to four hours a day immobile while playing games carries physical and mental development risks, as well as a risk of developing obesity. The respondents in the study reported that they sometimes played out of boredom or to have fun. Parents can recommend activities to their children that will help them relax and make better use of their free time. Street games, sports like football and basketball, board games that can be played as a family, or activities such as setting the table or doing the dishes can also serve as opportunities for family members to spend quality time together. Such activities allow parents to spend more time with their children, and allow children to play with friends in the real world.

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Approval was obtained from the Ankara University Ethics Committee (13/04/2017-7/119) and the school administration where the study was conducted. Verbal consent was obtained from all adolescents who participated in the study by giving information about the study.
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