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Examination of students' digital gaming habits at secondary school level in Elazig Province of Turkey

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In this study, the opinions of the secondary school students on digital games were examined. The research is a screening model research and has a descriptive feature. It was carried out with 521 secondary school students in Elazığ (a province in eastern part of Turkey) in 2013. Almost all of the participants use computer. More than half of them have computers and internet connection in their houses. It was found that 83.3 % of the participants use computer 0-2 h a day. It has been found out that the secondary school students use the internet to do research, play games, watch videos or movies and communicate with their friends. Most of the students stated that they like playing computer games, feel happy when they complete the game stages successfully. However, there are also some negative aspects, such as addiction as a result of immense gaming motive, some games which involve violence affect individuals adversely, and is considered a waste of time. The findings showed that male students like playing computer games, become happier when they succeed; want to play games more than the female ones and they believe playing computer games contributes to their effort to tranquilise. On the other hand, the female students primarily believe that playing computer games is a waste of time, affects their social life in a negative way and the violent elements in these games are more dominant on the individuals.

Key words: Computer games, digital games, secondary school students.

INTRODUCTION

Computers, particularly the internet technology, are one of the most significant inventions that affect our daily life in recent years. Computers and the internet appear in all parts of human life, from home to work, from entertainment to daily life and sharing, from education to recreation.

Besides their feature to faciliate completion of tasks, computers are utilised as a way to entertain through games (Çelen et al., 2011; Kıran, 2013). Nowadays, playing computer games has become a frequently preferred activity as an entertainment and recreation by children, teenager and adults.

Playing games are regarded as a significant means and stage in children's and teeangers' development (Horzum et al., 2008). In the past, children played games with their friends on outdoors (parks, streets, gardens, etc.). It has been observed technological advancements have had an influence on children's habit of playing

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(Akçay and Özçebe, 2102). Along with technological developments children have started to play games with virtual people on cyber world via computer and the internet (Gökçearslan and Durakoğlu, 2014).

As all these games played through computer and the internet in a virtual platform and the ones executed with computer, the internet and video consoles (for instance; play Station) and portable game consoles (such as Game Boy, PSP which provides opportunity to play the games in hand) are played in digital environment, hence they can be branded as digital games (Fromme, 2003; Whitton, 2010; Erboy and Vural, 2010; Gentile and Anderson, 2003; Dolu and et al., 2010; Pala and Erdem, 2011). From the 1990s up to the present, traditional children games have been left over time and people have begun to prefer play the games played on computers and electronical environment.

In *Level*, a magazine on computer games, digital games are classified as action, adventure, motor sports and competition; acting/animation games, simulation, sports, and strategy games with regard to their thematic and technological features. In addition, digital games classified pursuant to players' participation are divided into two categories as single or multiplayer games. Mostly preferred online multiplayer games are the computer games that support hundreds or thousands of players at the same time and enable the players to collaborate and communicate with people from all over the world (Gürcan et al., 2008; Binark and Sütçü, 2008).

Game notion is one of the common fields of study to the sciences such as sociology, psychology, philosophy, antropology and educational sciences. From past to present, various remarks on what a game is have been brought forward. The common ground on these remarks is the fact that a game is an essential occupation for children. Computer games are considered as a frequenlty implemented activity to make use of spare time not only for children but also teenagers and adults (Güllü and et al., 2012). Why are people so enthusiastic about playing games? Malone (1981), Sherry and Lucas (2001) and Tüzün (2004) claimed this enthusiasm incurs four factors: control, confrontation, social communication, creating imaginary environment and curiosity in their studies. On similar studies, the reasons to play games are summarised as rivalry, confrontation, entertainment, social communication, their stimulant and enthusing effect, creating imaginary environment, qualifying spare time, relaxation and escaping from stres, moving away from dail life and being liberal (Griffiths and Hunt, 1995; Sherry and Lucas, 2001; Erickson, 1985; Pellegrini and Smith, 1998; Elwain and Volling, 2005; İnal and Çağıltay, 2005; Wan and Chiou, 2006; Erboy and Vural, 2010). Computer games and the internet lead to socialization by replacing friends. For the first time, "electronic friend" hypothesis was brought forward by Selnow. Computer and internet addiction has been considered as an important problem like substance addiction (Kıran, 2013).

Long time usage of technology has brought forward various addiction types regarding technology. We often have been confronted with the internet, game, mobile phone and technology addictions in recent years. Individuals' spending too much time at computer screens to the degree that they are exposed to pyhsical, social and pyschological problems is defined as computer addiction (Weinstein, 2010; Chang, 2011; Xu et al., 2012; Winkler et al., 2013; Tarafdar et al., 2013; Şahin et al., 2013:913-918; Lawinson, 2004; Erboy and Vural, 2010).

It has been confirmed that playing computer games are beneficial for children. These benefits can be summarised as obtaining computer literacy and eye-hand coordination, enhancing spatial ability, imagining, thinking, comparing, geometry and mathematical thinking, visualising the objects relating to chemistry and physics (Güllü et al., 2012). Although computer technology and games promise hope for children, they distress human in terms of their effect on childrens' development (Wartella and Jennings, 2000).

Nonetheless, school-age teenagers' excessive and improper computer and internet usage may cause adverse effect on their psychological and physical development, social relations and academic development and self-improvement (NİMF, 2005; Erboy and Vural, 2010). In the consequence of several studies, excessive and improper computer and internet usage lead to problems such as health problems, learning and attention disorder, mechanization and tendency to violence, anti-social behaviours, fixation and aggressive behaviorus, deppression, feeling of loneliness, loss of sense, failure in family relations, irresponsiblity, being less efficient and failure, living between real and imaginary world (Chie et al., 2004; Hauge and Gentile, 2003 ; Wan and Chiou, 2006; Erboy and Vural, 2010; Amatem 2012).

The online games in which children create a character in cyber world and aim at reaching to the top level with these characters equipped with various skills and powers cause ambition to continuous success and achievement and people complain about these games lead children to be mentally depressed. Pedagogues have stated that children internalise computer games containing violence and tend to act violent in their real life. Children who solve their problems with a click in virtual world cannot resolve their problems in real life, which leads them to violence. Thus, they begin to act aggressively (Gürcan et al., 2008). Güllü et al. (2012) have specified primary school students have a more tendency to become addict to computer games in their study (Güllü et al., 2012).

Studies conducted on the habit to play computer games of the secondary school students who are at a critical period regarding their development are considered important as they attract parents' and teachers' attention to that matter. The aim of this study was to determine primary school students' personal information, having or not having a computer, frequency of internet usage, habit to play digital games and its reasons, communication

level with their environment and also which types of games they prefer to play. Furthermore, it has been aimed to identify the secondary school students' considerations on digital games.

Therefore this study tried to explore one of the main issues of technology age, digital gaming habits of children, within the Turkish population. In this way, the positive and negative effects of digital gaming would be defined and practical suggestions could be brought into discussion.

METHOD

The study used a screening model research and presents a descrip-tive feature. Thus, a survey form that comprises two parts and several items regarding the matter was formed by the researcher. It was carried out with 521 secondary school students in Elazığ (a province in eastern part of Turkey) during 2013-2014 academic year's autumn term. The students were chosen randomly and voluntarily. It took over two months to complete the total surveys.The students were explained edtailly about the questionnaire form.

As a consequence of reliability and validity study of the assessment instrument, considerations of the secondary school student were received and the Unrotated Factor Solution was utilised. Pursuant to the analysis results, the items of which factor load is above 0.35 were assessed and it was observed 21 items were functioning. At the end of the factor analysis, KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) was found out 0.887 and Bartlett Test calculation was found as 2950.024. The reliability coefficient of the instrument was estimated Cronbach Alpha .819. Moreover, it was consulted to a specialist for the validity of the instrument. The data were acquired through survey in the study. 5 point likert scale that consists of 21 items was used to acquire data. SPSS was utilized to analyse the acquired data and they were evaluated by means of percentage, frequency and arithmetic mean techniques. The independent samples t-test was used in order to identify whether a significant difference between the considerations based on demographic data.

FINDINGS

In this section, the acquired data regarding the reearch results are given in charts and evaluated.

When Table 1 is analysed, it is seen that 48.4% of the participants are females and 51.6% of them are males.

In the study of Güllü et al. (2012) conducted on the primary school students, it was determined that the addiction level of male students is higher than the female students' level. In another study, it was stated boys play more games than girls (Akçay and Özcebe, 2012; Aksut and Batur, 2007). In another study, children at the ages of 3-18 spend more time in using computers and the internet as they grow (Arnas, 2005).

As Table 2 is examined, it is clearly seen that 20.2% of the study participants are 11 years old, 23% of them are 12 years old, 29.4 % of them are 13 years old, 20.5% of them are 14 years old and 6.5% of them are 15 years old and above. In a study carried out on the preschool students, it was found out as the children grow, their frequency of playing computer games increases (Akçay and Özçebe, 2012).

As analysed, it is seen 22.6% of the participants are 5th grade students, 19.4% of them are 6th grade students, 32.4% of them are 7th grade students and 25.5% of them are 8th grade students (Table 3).

When Table 4 is analysed, it is seen that 97.7% of the study participants can use computer and 2.3% of them do not know how to use a computer. It is observed these rates are very high. At the present time, computer technology increases continuously its presence in social life and the rate of individuals who use computer rises constantly. In recent years, computer laboratories have

Table 1. General distribution of the research participants with reference to their gender.

Gender	f	%
Female	252	48.4
Male	269	51.6
Total	521	100

Table 2. General distribution of the research participants with reference to their age.

Age	f	%
10 years	2	0.4
11 years	105	20.2
12 years	120	23.0
13 years	153	29.4
14 years	107	20.5
15 years and over	34	6.5
Total	**521**	**100**

Table 3. General distribution of the research participants with reference to their grade.

Grade	f	%
5th Grade	118	22,6
6th Grade	101	19,4
7th Grade	169	32,4
8th Grade	133	25,5
Total	521	100

Table 4. General distribution of the research participants with reference to their ability to use computer.

Ability to use computer	F	%
Yes, I can use computer	509	97,7
No, I cannot use computer	12	2,3
Total	521	100

Table 5. General distribution of the research participants with reference to age of onset using computer.

The age of beginning to use computer	f	%
4-5 years	47	9,2
6-7 years	123	24,2
8-9 years	219	43,0
10-11 years	117	23,0
12 years and over	3	0,6
Total	**509**	**100**

Table 6. General distribution of the research participants with reference to where they begin to use computer.

Where they begin to use computer	f	%
Home	231	45,3
School	182	35,7
Phone	6	1,2
Internet Café	59	11,6
Other	31	6,2
Total	509	100

Table 7. General distribution of the research participants with reference to whether they a computer at home.

Whether they have a computer at home	F	%
Yes, I have a computer	301	57,8
No, I do not have a computer	220	42,2
Total	521	100

been put into service at schools.

When Table 5 is examined, it is found out 9.2% of the participants began to use computer at the ages of 4-5, 24.2% of them began at the ages of 6-7, 43% of them began at the ages of 8-9, 23% of them began at the ages of 10-11 and 0.6 % of them began at the age of 12 and over. Based on these findings, nearly 75% of the children become acquainted with computer till the age of 9. Accordingly, ¾ of the children meet and use computer before primary school education regarded as the basic education ends.

In a study conducted on undergraduate students, it was found out 28% of the children begin to play computer games primarily at the ages of primary school, 49% of them begin at high school and 9% of them begin in their college years (Akçay- Özçebe, 2012). In a study carried out on preschool children, it was asserted that the age of beginning to play computer games decreases to pre-school ages, which is regarded a remarkable finding (Akçay- Özçebe, 2012). In another study done on 8th grade students, it was indicated the students had been using the internet since age of 10 (Mert et al., 2012). In other studies, it was stated that children start to use the internet at the age of 10 (Günel et al., 2011; Kaşıkçı et al., 2014).

This study also conveyed similar findings showing that many children started using computer games since very early ages, and almost 75% of children younger than 10 years are engaged with computers.

As Table 6 is examined, it is clearly seen that 45.3% of the participants start to use computer at home, 35.7% of them start at school, 1.2% of them start with phones, 11.6 % of them start at cyber cafes and 6.2% of them start at other places. Based on this, it is found out that children become acquainted with computer mostly at home and school. Moreover, the fact that 11.6% of them begin to use computer at cyber cafes is a remarkable finding. In a study, the rate of using computer at cyber cafes has been determined as 51.1% (Kaşıkçı et al., 2014). In this study, it can be put forth the ratio of going to the cyber cafes is low as the age group level of the sample children is low.

When Table 7 is studied, it is seen that 57.8% of the participants have a computer at their houses and 42.2% of them do not have a computer at home. In the study of Güllü et al. (2012), the students who have a computer at their home prefer playing computer games to any other activity (Güllü et al., 2012). In a study conducted on 8th grade students, it was found out 45% of them have a computer and internet connection at their houses (Mert et al., 2012). In another study, it was put forth undergraduate students who have a computer play more computer games than the ones who do not have a computer (Durdu et al., 2005). On the other hand, Yılmaz (2008) asserted there was not a significant difference between the students who have a pc and the ones who do not have a pc regarding their tendency to have addiction in his study carried on 6th and 7th grade students.

As Table 8 is examined, it is seen 43.1% of the study participants use the internet mostly at home, 27.4% of them use mostly at school, 5% of them use moslty via phone, 17% of them use mostly at yber cafes and 7.5% of them use the internet moslty at other places. Based on these findings, it is concluded children connect to the internet particularly at home and school. Furthermore, the fact that almost 17% of the children prefer to use the internet at cyber cafes is a signal finding.

In a study, it was determined that 56.6% of the students who stated they played computer games go to the cyber cafe occasionally, 40.2% of them never go to the cyber cafes and 3.2% of them go to the cyber cafes everyday (Kıran, 2013). In a study conducted on the 8th grade students and in other several studies, it was found out that the students primarily prefer to use the internet at their home and secondarily they prefer schools and cyber cafes (Ayık, 2008; Ersoy, 2011; Arnas, 2005; Valcke et al., 2011). The ratio of the students who have a computer at their home is above 50% (Mert, 2012).

When Table 9 is examined, it is seen that 83.3 of the participants use computer for 0-2 h, 11.9 % of them use it

Table 8. General distribution of the research participants with reference to their preference to connect to internet.

Where they mostly prefer to connect to internet	F	%
Home	220	43,1
School	140	27,4
Phone	26	5,0
Internet café	87	17,0
Other	39	7,5
Total	509	100

Table 9. General distribution of the research participants with reference to their daily duration to use computer.

Daily duration to use computer	F	%
0-2 h	424	83,3
3-4	61	11,9
5-6	16	3,1
7-8	2	0,4
9 h and over	6	1,3
Total	509	100

for 3-4 h, 3.1% of them use it for 5-6 h, 0.4% of them use it for 7-8 h and 1.3 of them use it for 9 h and over a day. In other studies, it was determined the students play computer games for 8.47 h on average in a week (Güllü et al., 2012). In a study carried out on preschool students, it was found out that children play games 0.53 h on average on weekdays and 1.62 h at weekends (Akçay and Özçebe, 2012). In their studies, Hasting et al. (2009) found out children at the ages of 6-10 play 3/4 ± 2.8 video-computer games on average. In another study, it was concluded that children allocate 20 min to use computer and play video games, 10 min to play computer games and 10 min to use the internet; and the time allowed for these activities increases by age (Robert et al., 1999). In another study done with 8th grade students, 42% of the students answer the question “How many hours do you spend on the internet in a day?” as 30 min-1 h. 27 % of them spend 10-30 min and 15% of them spend 1-3 h on the internet (Mert, 2012). In many studies, it was indicated the students use the internet in 1-1.5 h a day (Günel et al., 2011; EUKidsOnline, 2011). Kaşıkçı et al. (2014) stated 36.2% of the children use the internet 1 h on average a day in Turkey.

As Table 10 is examined, it is seen that 30.2 % of the participants use the internet to play games, 42.4 % use it to do research, 11.9% use it to communicate with their friends, 12.3 % use it to watch videos or movies and 3.2 % use it for other purposes. With this aspect, it is concluded secondary school students mainly use the internet to do researches and play games.

Deverensky and Gupta (2004) indicated almost all of the time the children spend on the internet comprises

Table 10. General distribution of the research participants with reference to why they use the internet.

Why do they use the internet	F	%
Playing games	303	30,2
Doing research	427	42,4
Communicating with friends	120	11,9
Watching video or movie	124	12,3
Other	32	3,2
Total	1006	100

Table 11. General distribution of the research participants with reference to whether they have an e-mail address.

Whether they have an e-mail address	F	%
Yes, I have an e-mail address	363	69,7
No, I do not have an e-mail address	158	30,3
Total	521	100

Table 12. General distribution of the research participants with reference to their frequency of using computer to play games.

Frequency of using computer to play games	F	%
Sometimes	155	51,8
At weekends	58	19,4
2-3 times a week	48	16,1
Everyday	38	12,7
Total	**299**	**100**

playing computer games. While students use the internet to play games, watch movies, have access to social networks, chat, do homework and listen to music, the studies show that students use the internet principally to play games (Ayık, 2008; Ersoy, 2011). In the study of Valcke et al. (2011), the rates of using the internet for entertainment and for training-development are quiet close to each other (Valcke et al., 2011).

When Table 11 is analyzed, it is found out 69.7 % of the participants have an e-mail address and 30.3 % of them do not have an e-mail address.

When Table 12 is analysed, it is seen 51,8 % of the participants sometimes use computer to play games, 19,4 % of them use computer to play games at weekends, 16,1 % of them use it to play games 2-3 times a week and 12,7% of them use computer to play games everyday. In a study, when they are asked “Do you play computer games?”, 65,4 % of the participants answer “Yes, I do” and 34,6 % of them answer “No, I do not” (Kıran, 2013). In another study, when examined particularly which game group female and male students choose to play, it was found out 86.1 % of them prefer to play computer games (Arslan et al., 2010).

As Table 13 is analysed, it is seen that 10 % of the

Table 13. General distribution of the research participants with reference to the types of computer games they prefer to play.

Types of computer games they play	F	%
Call Of Duty	100	10
Metin2	66	6.6
Fifa	133	13.4
Counter	183	18.3
Wolf Team	87	8.7
GTA	225	22.5
Other (war craft, lort of the rings, league of legends)	205	20.5
Total	**999**	**100**

Table 14. General distribution of the research participants with reference to whether they have a character while they play computer games.

Whether they have a character	F	%
Yes, I have a character	73	24,3
No, I do not have a character	227	75,7
Total	300	100

Table 15. General distribution of the research participants with reference to whether they spend money on the characters.

Whether they spend money on the characters	F	%
Yes, I spent money	63	21,0
No, I did not spend money	237	79,0
Total	**300**	**100**

study participants prefer to play “call of duty”, 6,6 % of them prefer to play “metin2”, 13,4 % of them prefer to play “fifa”, 18,3 % of them prefer to play “counter”, 8,7 % of them prefer to play “wolf team”, 22,5 % of them prefer to play “GTA”and 20,5 % of them prefer to play games of different kinds. Games like Call Of Duty, counter, wolf team and metin2 are war and move games. GTA is played as an action games by children. As a sports game, FIFA is the most preferred game. Football is one of the favourite sports of the children and teenagers. Nowadays, football is the most played and watched sports branch. We can indicate that secondary school students play mostly GTA and Counter games. As the game types the participants prefer to play are examined, it is concluded that there is a weight on the games appealing to boys and mainly the games containing war, rivalry and action attract greater attention.

In the study of Arnas (2005), as which types of game the children prefer to play is examined, it is indicated that 23,3 % of them prefer sports games, 25,1 % of them prefer adventure games, 18,8 % of them prefer war-fight games, 12,7 % of them prefer puzzles and 10,8 % of them prefer fantastic and adventure games. It has been affirmed by several scientific studies that the games containing violence have negative effect on the children and teenagers (Dolu et al., 2010). In another study, it is indicated that technology and digital games push people into crime (Sonnemann, 2014).

When Table 14 is examined, it is seen that 24,3 % of the participants have a character on games and 75,7 % of them do not have a character. In that period, children are observed to be in search of a model they can identify themselves with. These models presented at games can be irrational and non-realistic models for children who have a tendency to identify themselves with a model (Arslan, 2004).

When Table 15 is analysed, it is seen that 21 % of the study participants spend money on a character at games and 79 % of them do not spend money for the game characters. As the sum 59 students spend on the game characters, submitted in black and white, is examined, it has been found out total 5.269 Turkish Lira has been spent. As averaged to the students who answer the question, it has been ascertained 95.4 Turkish Lira per capita has been spent on the game characters.

Games are presented as free at first and they aim to reach more users. When the content is appreciated, payments become mandatory and increases over time. In spite of the game market usage convenience in Turkey, it is found out that payments for games are lower than the ones in foreign markets. As compared, it is seen that we have not been able to reach payment conversion rate at markets in America and Europe even though it is observed that payment rates have risen in 2 years (Erol et al., 2014).

When Table 16 is examined, it is seen that the participants express an opinion as "I agree" to 1st item which is expressed as "I like playing computer games"(= 3,85), to 2nd item which is expressed as "I become happy when I succeed in computer games"(= 3,75), to 7th item which is expressed as "I think playing computer games causes addiction" (= 3,92) and to 8th item which is expressed as "I think violent games affect people in a negative way" (= 3,92).

They have expressed that elementary school students think violent computer games affect people and especially children negatively (8th item). They have observed in many studies that aggressiveness behaviors on children and adolescents have increased because of violent computer games (Mahmoudi et al., 2014). Being used of information and communication technologies by children in an uncontrolled way brings many risks and increases them (Erdur and Kavşut, 2007).

Anderson and his friends (2007) also stated that the speech and behaviors of the students playing violent games showed more aggressiveness (Anderson et al., 2007). In many studies, it was stated that action and violent games directed children to agressive behaviors and some changes occurred at their behaviors (Yu-sien, 2012; Staude- Muller, 2012). Rate of aggrement with the 9th item which is expressed as "playing computer games

Table 16. General opinions of the people attending the study about online games.

i.No	General opinion of the students attending the study about online games	$\overline{X}$	Ss
1	I like playing computer games	3,85	1,03
2	I become happy when I succeed in computer games	3,75	1,25
3	When I succeed in computer games, I want to play it again and again	2,91	1,45
4	When I fail at computer games, I skip another game	2,83	1,46
5	I think playing computer games is waste of time	3,53	1,34
6	I think playing computer games is suitable for all age groups	2,19	1,42
7	I think playing computer games causes addiction	3,92	1,28
8	I think violent games affect people negatively	3,92	1,32
9	Playing computer games affects social life negatively	3,35	1,38
10	Even I do not play computer games, I lstill have lack of communication with my friends	2,39	1,45
11	I can create my own world by the help of computer games	2,38	1,43
12	I learn many things from computer games	2,55	1,44
13	I have improved my English thanks to computer games	2,49	1,44
14	When I participate in a new environment, I can make friends by starting a topic about computer games	2,55	1,52
15	When I am too depressed, computer games help me to calm down	3,00	1,51
16	When computer games are played with a group (friends, family etc), they improve my social skills	2,86	1,44
17	Computer games can be used for educational purposes	3,33	1,49
18	Playing games on computer arouses curiosity on me about learning new things	2,98	1,48
19	When computer games having educational purposes are used as a reward, they can be useful	3,15	1,44
20	When computer games having educational purposes are used to fill students' spare time, they can be useful	3,38	1,40
21	I want a social club about computer games at school	3,34	1,57

affects social life negatively", the 7th item which is expressed as " I think playing computer games causes addiction", the 5th item which is expressed as "I think playing computer games is waste of time" can show us that there is excessiveness about playing computer games. In conducted study, it was indicated that there is an excessive internet usage habit on the 25% of the children in Turkey (Kaşıkçı et al., 2014).

In Table 16, it is seen that participants express an opinion as "I agree" that is very similar to 'partly agree' to the 5th item which is expressed as "I think playing computer games is waste of time"(= 3,53). In a study, increasing high school students' internet and computer usage and then, failure at their lessons distinctly after there is internet connection at their home draw attention (Özmenler, 2001).

In Table 16, it is seen that the participants express an opinion as "I agree" that is very similar to 'partly agree' to the 9th item which is expressed as "Playing computer games affects social life negatively" (= 3,35), to 17th item which is expressed as "Computer games can be used for educational purposes" (= 3,33), to 20th item which is expressed as "When computer games having educational purposes are used to fill students' spare time, they can be useful" (= 3,38) and to 21st item which is expressed as "I want a social club about computer games at school" (= 3,34). In a study conducted for the expression "Computer games can be used for educational purposes", it was stated that children in Turkey mostly use the internet for school subjects (Kaşıkçı et al., 2014).

In Table 16, it is seen that participants express an oinion as "partly agree" to 3rd item which is expressed as "When I succeed in computer games, I want to play it again and again"(= 2,91), to 4th item which is expressed as "When I fail at computer games, I skip another game" (= 2,83), to the 15th item which is expressed as "When I am too depressed, computer games help me to calm down" (= 3,00), to 16th item which is expressed as "When computer games are played with a group (friends, family etc), they improve my social skills" (= 2,86), to 18th item which is expressed as "Playing games on computer arouses curiosity on me about learning new things" (= 2,98), and to 19th item which is expressed as "When computer games having educational purposes are used as a reward, they can be useful" (= 3,15). In a study study conducted for the expression at 15th item "When I am too depressed, computer games help me to calm down" with secondary school students, 41,8% of them said "I forget my depression" and 50.8% of them said "I feel to blow off the steam" (Kurt et al., 2014).

In Table 16, it is seen that participants express an opinion as "I don't agree" to 6th item which is expressed as "I think playing computer games is suitable for all age groups" (= 2,19), to 10th item which is expressed as "If I do not play computer games, I will keep stranger to my friends' speeches"(= 2,39) and to 11st item which is expressed as "I can create my own world by the help of computer games" (= 2,38).

In Table 16, it is seen that participants express an opinion as "I don't agree" that is very similar to 'partly agree' to 12th item which is expressed as "I learn many things from computer games" (= 2,55), to 13th item which is expressed as "I have improved my English thanks to computer games" (=2,49) and to 14th item which is expressed as "When I participate in a new environment, I can make friends by starting a topic about computer games" (= 2,55). Even though the opinion that computer and computer games improved children's English level occurred, the children expressed a negative opinion.

When Table 17 is examined, a significant difference is observed at all the items (0.05) except for item 4,7 and 17 according to t-test results that have been designed to determine whether there is a significant difference between participants' point of view in terms of gender variable. Only the items that have significant difference are presented in the table and some of them are interpreted below.

Examining Table 17, it is observed that there is a significant difference as to participants' gender variable in the first item which is expressed as "I like playing computer games" [t=5,676; p<0,5 (p=0,000)]. This difference is in favor of males. According to this, it can be said that male students (=4.09) like playing computer games more than female students (=3,59). In a research conducted, it was stated that there is more tendency to play computer games at males than females (Akçay – Özcebe, 2012). Many researches conducted also affirmed that male students play more computer games than female students (Hastings et al., 2009; Kars, 2010; İnal and Çağıltay, 2005). When internet user profiles are examined, a distribution consisting of mainly young and male users draws attention (Erol et al., 2014).

There is a significant difference as to participants' gender variable in the second item which is expressed as "I become happy when I succeed in computer games" [t=3,154; p<0,5 (p=0,002)]. This difference is in favor of males. According to this, it can be said that male students (=3,91) become happier than female students (=3,57) when they succeed in computer games. In a research conducted, when a look was taken into students' moods, it was observed that the expression "I want to win" was stated at the rate of 39.3 % and the expression "I enjoy" was stated at the rate of 63.1 % (Kurt et al., 2014).

There is a also significant difference as to participants' gender variable in the third item which is expressed as "When I suceeed in computer games, I want to play again and again" [t=2,537; p<0,5 (p=0,011)]. This difference is in favor of males. According to this, it can be said that male students (=3,06) want to play computer games again and again more than female students (=2,74) when they succeed in. In a research conducted, when a look was taken into students' moods, it was indicated that students answered as "I never want the game to end" at the rate of 17.2% (Kurt et al., 2014).

There is a significant difference as to participants' gender variable in the 9th item which is expressed as "playing computer games affects social life negatively" [t=-3,679; p<0,5 (p=0,000)]. This difference is in favor of females. According to this, the result that female students (=3,57) believe playing computer games affects social life more negatively when it is compared to male students (=3,13) comes up. Social life can be defined as human relations, responsibilities, familial responsibilities, lessons, homeworks, tasks. In a reserach conducted, it was stated that there was a difference in the variable named as "delaying the classes because of playing computer games" in terms of gender (Erboy and Vural, 2010).

There is a significant difference as to participants' gender variable in the 13rd item which is expressed as "I have improved my English thanks to computer games" [t=4,259; p<0,5 (p=0,000)]. This difference is in favor of males. According to this, it can be said that male students (=2,75) accept they improve their English thanks to computer games more than female students (=2,22).

There is also a significant difference as to participants' gender variable in the 14th item which is expressed as "When I participate in a new environment, I can make friends by starting a topic about computer games" [t=6,719; p<0,5 (p=0,000)]. This difference is in favor of males. According to this, the result that male students (=2,96) can make friends by starting a topic about computer games when they enter a new environment compared to female students (=2,11) comes up. Another reason of this difference between two genders can be interpreted in the manner of that males' demand to make friends is more than females'.

According to Table 17, there is a significant difference as to participants' gender variable in the 21st item which is expressed as "I want a social club about computer games at school" [t=4,408; p<0,5 (p=0,000)]. This difference is in favor of males. According to this, it shows up that male students (=3,64) want a social club about computer games at school more than female students (=3,04). This conclusion can be interpreted as male students want to be organised and organize a club about computer games more than female students.

DISCUSSION AND CONCLUSION

This research cleary pointed out that children start using computers and playing computer games at very early ages, and almost all of the secondary school level

Table 17. Comparison of participants' point of view pursuant to their gender.

M. No	Gender	$\bar{X}$	S	t	P
1	Female (n=252)	3,59	0,97	5,676*	0.000*
	Male (n=269)	4,09	1,03		
2	Female (n=252)	3,57	1,28	3,154*	0,002*
	Male (n=269)	3,91	1,20		
3	Female (n=252)	2,74	1,37	2,537*	0,011*
	Male (n=269)	3,06	1,50		
5	Female (n=252)	3,76	1,27	-3,823*	0,000*
	Male (n=269)	3,32	1,37		
6	Female (n=252)	2,04	1,33	2,408*	0,016*
	Male (n=269)	2,34	1,48		
8	Female (n=252)	4,22	1,11	-5,166*	0,000*
	Male (n=269)	3,64	1,34		
9	Female (n=252)	3,57	1,31	-3,679*	0,000*
	Male (n=269)	3,13	1,42		
10	Female (n=252)	2,08	1,34	4,828*	0,000*
	Male (n=269)	2,68	1,48		
11	Female (n=252)	2,07	1,26	4,895*	0,000*
	Male (n=269)	2,67	1,51		
12	Female (n=252)	2,26	1,29	4,489*	0,000*
	Male (n=269)	2,82	1,51		
13	Female (n=252)	2,22	1,28	4,259*	0,000*
	Male (n=269)	2,75	1,52		
14	Female (n=252)	2,11	1,32	6,719*	0,000*
	Male (n=269)	2,96	1,57		
15	Female (n=252)	2,72	1,44	4,209*	0,000*
	Male (n=269)	3,27	1,52		
16	Female (n=252)	2,71	1,39	2,319*	0,021*
	Male (n=269)	3,01	1,48		
18	Female (n=252)	2,75	1,43	3,626*	0,000*
	Male (n=269)	3,21	1,49		
19	Female (n=252)	2,95	1,44	3,062*	0,002*
	Male (n=269)	3,34	1,43		
20	Female (n=252)	3,22	1,42	2,712*	0,007*
	Male (n=269)	3,55	1,37		
21	Female (n=252)	3,04	1,54	4,408*	0,000*
	Male (n=269)	3,64	1,54		

*P<.05.

children play computer games. This result is totally in line with similar researches in the literature (Kars, 2010; İnal and Çağıltay, 2005; Pala and Erdem, 2011).

The reasons for using internet are various, such as making researches, playing games, watching films or videos, and connecting with friends. Another important finding of this study was that students spend an important amount of their pocket money (41 USD per month) for computer games. This is definitely an important indicator for possible addiction to computer games. It is also important to underline that the students mainly preferred to play games including violent elements, which would probably motivate them for negative behaviors and attitudes. Although majority of the students clearly declared that playing computer games result with misbehaviors and loss of time, the results showed that they cannot protect themselves. However, when the gender variable was taken into consideration, this study found out that female students are more conscious and critical about digital gaming.

According to t-test results which was used to determine whether there is a significant difference in terms of

gender variable or not, it was found that male students like playing computer games more than female students. This is also another main finding which is in line with the previous researches (Akçay - Özcebe, 2012; Hastings et al., 2009; Kars, 2010; İnal and Çağıltay, 2005; Pala and Erdem, 2011).

This research was limited with a general approach to define the digital gaming habits of the children in Elazığ province of Turkey, and further researches should be carried out in order to define negative aspects of these games on physical, psychological, social, mental, and moral development of children.

To conclude, although computer games are not yet considered a formal diagnosis, it should be treated as a disorder, especially for the children. Therefore, it has turned out to be a primary concern for parents to monitor their childrens' use of computers and other digital game devices. As a result, it is suggested that the parents have to guide their children about these games, and also do their best to control their usage of digital devices. The following practical steps should be followed by parents:

1. Limit your child's usage of digital devices (e.g. 1 or 2 h on daily basis)
2. Control types of games and get informed about the negative effects of certain games (especially some online games)
3. Make sure that your child spends time with friends
4. Motivate your child for physical and cultural activities
5. Do not let your child use mobile phones at very early ages
6. Do not leave your child alone with digital devices for very long behaviors

Conflict of Interests

The author has not declared any conflict of interests.

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