



Research Article

A QUALITATIVE RESEARCH ON PARENTS' VIEWS REGARDING DIGITAL GAMES PLAYED BY THE CHILDREN AGED BETWEEN 4-5 AS WELL AS WHY THEY KEEP PLAYING SUCH GAMES

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ABSTRACT

The aim of this study was to examine parent opinions about 4-5 age group children to play digital games causes and digital games. In the study, a semi-structured interview form which is include 13 questions has been used. The study consists of 17 parents who have children aged between 4-5. As a result of the study 4-5 age group of girls "educational games" often expressed by parents preferred. 4-5 age group male children, "action games" and "brain teaser games" for the most part have expressed that they prefer. It was expressed that children usually playing digital game 1 hour in a day. Pointed out; digital games were mostly affect negatively to children's cognitive enhancement but, partly affect positively for learning new things. In terms of children's emotional development affect negatively was more obvious and they attached this to being children introverted. Most of the parents of children that play digital games had stated that they considered neutral part while suffering from this condition. The majority of parents stated as digital games are unnecessary. Parents attributed the reason of their children playing digital games to; environmental factors, attraction of digital games and individual factors. Their children affected by their friends, the media and external environment, parents pointed out. Most of the parents said that their children are incited with conscious or unconscious to play digital games.

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INTRODUCTION

Games are activities which are performed during the times that remain outside people's daily activities, which are played for certain purposes (e.g. entertainment, education, health), which are also played by means of physical and mental skills, which are played by obeying the rules specific to the game itself within a limited place and time, which constitute a group through voluntary participation, which develop social adaptation and emotional maturity, which are based on talent, intelligence, attention, skill and coincidence, which keep participants and mostly the audience under their influence, which are also accompanied by a sense of tension, and which, as a result, are the activities that do not gain materialistic advantage but often give pleasure (Hazar, 2006). Digital games, on the other hand, are those that are programmed by various technologies and that allow users to make a user's access along with a visual medium (Ocak, 2013). Just like many other things that have been changing from past to present, games are also changing shape with each passing time. Conventional games have also been replaced by digital ones (Yengin, 2012).

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Digital games are known with different names, such as computer games, video games, console games and mobile games. Yet; because of the fact that these different classifications are limited and that they do not reflect the whole area, the usage of the concept referred to as "Digital Game" has been considered to be more appropriate (Kerr, 2006). With the foundation of The Turkish Digital Games Federation (TÜDOF) in 2010, digital games have now been transferred to a more official platform (Ocak, 2013). The academic interest in digital games dates back to the beginning of 1980s. However, the number of the researches conducted on digital games is on the increase with each passing day. When the studies published about digital games on ISI Web of Knowledge database are reviewed, a twice as much increase is seen between the years 2000-2004 in comparison to the years 1995-1999. While there were 275 studies involving the concepts of video games or computer games between the years 1995-1999, it was determined that there were 535 studies between the years 2000-2004. The rapidly-growing subject of digital games has brought different disciplines close together. Thanks to this, new opportunities to be explored through digital games have arisen (Rutter et al., 2006). Along with the increase in the impact of the visual media in recent years, the interest in the physical activity games played by children has declined, and this

interest has been replaced by the interest in digital games (Dolipolou *et al.*, 2012). The children aged between 3-6, who are the native individuals of 21st century digital world, spend most of their leisure time by playing digital games (Prensky, 2001; Lieberman *et al.*, 2009). Although digital games are considered to be a threat for children, they somehow provide an opportunity for their creativity and autonomy, as well (Buckingham *et al.*, 2006). Online digital games which can be played together with family, friends and strangers cover wide geographical distances, and not only do they exceed cultural boundaries but they also surpass the differences in generations, socio-economic differences as well as lingual differences (Granic *et al.*, 2014). In spite of the views indicating to the harmful effects of digital games played at an early age, it was argued that the digital games played under the supervision of families were useful at least in terms of their children's future (İşçibaşı, 2011). Griffiths (2002) stated that when digital games were designed for solving a particular problem or for teaching a certain skill, a remarkable success would be achieved, and that such games had a positive potential besides their entertaining aspects. Computer games are seen to be used in such fields as science, mathematics, medicine, engineering, language learning, problem solving and developing the skill of strategic thinking. Since computer games provide fun media for students, students want to use them during their class hours as well as trying to do researches and solve problems. Separately, the fact that such games also provide the media that support co-operation is among the general findings, as well. While games increase the level of motivation in students, they also allow them to get interested in the content and to sustain the self-confidence and efficiency over what they could learn; additionally, they create relief and motivation in students. Thus, the student's success and perception of self-sufficiency in the course that s/he takes increase (Bayırtepe *et al.*, 2007). Sherry (2001), in one of his researches stated that the effect of digital games with the content of violence on aggression was less than the television containing violent content.

Apart from these, there is this problem of dependence likely to occur due to the use of digital games as well as current and theoretical developments promoting physiological and psychological negation associated with this. These may pose a negative effect on social relationships and may lead to negative outcomes both in the academic and in the personal developments of children. Dependence, which means that individuals' autonomy is lost in time and that they start to be incapable of performing the duties to be done, occurs in the form of health problems (e.g. hand wrist syndrome, stiffness in the neck muscles, decrease in the sleeping hours, eye fatigue) that occur as the result of inappropriate and excessive use, setback in family relationships, decline in efficiency, and also failure (AMATEM, 2008).

The Objective and Importance of this Study

The objective of this study is to determine the views of the parents who have children aged between 4-5 regarding the digital games their children keep playing as well as the reasons as to why they play such games. The concept of digital games used in this study involves online and offline games as well as console games, such as computers, tablets, and cell phones. This study is of importance in terms of performing an assessment by determining the views of the parents of the

children who play digital games at the age of 4-5 and in terms of bringing forward suggestions right at this point.

MATERIALS AND METHODS

In this study, a semi-structured interview, which is one of the qualitative research methods, has been used. In this semi-structured interview, some parts of the interview have been structured, whereas some other parts have not been structured, and the type of interview at issue consists of the questions that allow an individual to give an unconstrained reaction to the questions asked (Erkuş, 2005).

Study Group

In this study, the maximum variation sampling method, which is one of the purposeful sampling methods, has been applied. The objective in this sampling is to diversify the participants incorporated into the partial small sampling that is formed as much as possible (Yıldırım *et al.*, 2013). In line with this, the group of participants comprise 17 parents with different demographic information, such as age, occupation, educational status, income level and settlement type.

Data Collecting Tool

In this study, open-ended questions were developed by the researchers, and an interview form of 23 questions was prepared for the pilot study. This interview is one of the most common data collecting methods used in a qualitative research. The reason for this is that this type of interview is powerful in terms of revealing the emotions, thoughts and experiences of the participants by taking their speech as the basis (Yıldırım *et al.*, 2013). These interview questions were reviewed by both in-field and off-field experts, as the result of which some corrections were made. Along with the ultimate interview form, a pilot study was conducted with 5 parents. Raising open-ended questions in the first place for the discovery or as the pilot stage as well as using these results within the structured question form are the suggestions of the karma-method approach (Bernard *et al.*, 2015). As the result of the pilot study and the opinions of in-field and off-field experts, the interview form consisting of 23 questions was reduced down to 13 questions which were thought to be of service to this study. The ultimate form was determined as the interview form of this study. Within the personal information form contained in the interview form are the ages, educational status, occupations, monthly income levels and settlement/residence types (e.g. apartment building, detached house, etc.) pertaining to the parents in question. The main questions included in the interview form, on the other hand, are as follows:

- Q1. Does your kid play any digital games?
- Q2. What digital game devices does your kid prefer?
- Q3. What kind of digital games does your kid play? (Female-Male)
- Q4. For how long does your kid play digital games on a daily basis?
- Q5. How, do you think, digital games affect the cognitive development of your kid?
- Q6. How, do you think, digital games affect the emotional development of your kid?

- Q7.** How, do you think, digital games affect the psycho-motor development of your kid?
- Q8.** How, do you think, digital games affect the social development of your kid?
- Q9.** What emotion is triggered in you when your kid plays a digital game?
- Q10.** Do you think digital games are necessary for your kid?
- Q11.** Why, do you think, your kid keeps playing digital games?
- Q12.** Who influences your kid in playing digital games?
- Q13.** Do you ever happen to tempt your kid to play digital games, either by being aware of or unaware of this?

Data Analysis

The interviews were performed by using the voice-record feature of the cell phone as well as by taking down some notes. Afterwards, these data were transformed into a written text on the computer environment. The data were analyzed according to the descriptive and content analysis method. The main purpose in the content analysis in which the data are analyzed in further depth is to create themes by conceptualizing the collected data and to interpret them in the way that the reader can understand. The data summarized and interpreted in the descriptive analysis are subjected to a more in-depth process in the content analysis, and thus, the concepts and themes that cannot be noticed through the descriptive approach can be discovered as the result of this analysis (Yıldırım at al., 2013). In line with this, the questions within the interview form were encoded and separated into themes, and their frequency values in accordance with the frequency of repetitions were given and turned into a table. Prior to the stage of asking the questions in the interview form to the parents, the concept of digital games was explained to them in detail.

Validity and Reliability of the Research

In qualitative researches, it is important that the data be presented in a clear and detailed manner as much as possible for the validity and reliability of the research results (Yıldırım at al., 2013). In line with this, the views of the participants in this study were presented clearly and in detail. In addition, variation (diversification) and participant confirmation methods were applied, as well. In order to be able to learn different aspects and formations of reality, the researcher has to find out different viewpoints, different meanings, different indicators and resources relative to the event and the case s/he researches into. It is natural that there be different perceptions, experiences and point of views pertaining to the data resources (that is, the individuals) that exist within the environment where the research is focused on. Rather than reaching a common result by filing these differences, the researcher should exhibit these differences with all their richness as much as s/he can. Otherwise, the effort to reveal and generalize the reality of the majority may pose a major threat to the validity of the research. To that end, the researcher is expected to apply the variation (diversification) strategy as well as increasing the credibility of the research and its results. A research in which there is no variation (diversification) on any dimension may remain weak in terms of validity and reliability (Yıldırım at al., 2013). The participant confirmation is the verification of the data obtained in the research as well as the verification of the results and the interpretations attained by the researcher with respect to them, which are provided by the data resources

(participants). The data obtained from the interview were provided in their raw form within the study and were also subjected to an expert's review. During the expert's review, the involved expert reviews the processes taking place from the research design up to the collected data and up to their analysis and to the editing of the results through a critical eye and then gives feedback to the researcher (Yıldırım at al., 2013). For the reliability calculation of the research, the reliability formula (Reliability= Consensus/ (Consensus + Dissensus)) proposed by Miles at al(1994) was used. As the result of the calculations, the reliability of the research was determined to be 92%. The escalation of the reliability calculations towards over 70% is accepted as reliable for the research (Miles at al., 1994).

Demographic Findings pertaining to Families and Their Children

Table 1. Demographic Information of Parents

Age Range	26-47
Mother	11
Father	6
Total	17

When Table 1 is reviewed, the participant group of the study consists of 17 parents, 11 of whom are mothers and 6 of whom are fathers. The age range of the parents is 26-47.

Table 2. Demographic Information of Children

Male	9
Female	8
Total	17

When Table 2 is reviewed, it is seen that a total of 17 children, 9 of whom were male and 8 of whom were female, participated in the study.

Table 3. Educational Status of Parents

MOTHER	Primary School	2
	Secondary School	-
	High School	4
	Associate Degree	3
	Bachelor's Degree	5
	Post graduate	3
	Doctorate	1
FATHER	Primary School	1
	Secondary School	-
	High School	3
	Associate Degree	2
	Bachelor's Degree	4
	Post graduate	5
	Doctorate	1

When Table 3 is reviewed; it is seen that the number of mothers who are primary school graduates is 2, and that there is no mother who is a secondary school graduate, and that the number of mothers who are high school graduates is 4, while the number of mothers who have associate's degree is 3, and the number of mothers who have bachelor's degree is 5, and the number of mothers who have post graduate degree is 3, and the number of mothers who have doctor's degree is 1. When the educational status of the fathers are reviewed; it is seen that the number of fathers who are primary school graduates is 1, and that there is no father who is a secondary school graduate, and that the number of fathers who are high school graduates is 3, while the number of fathers who have associate's degree is 2, and the number of fathers who have bachelor's degree is 4,

and the number of fathers who have post graduate degree is 5, and the number of fathers who have doctor's degree is 1.

Table 4. Occupational Status of Parents

MOTHER	Housewife	8
	Teacher	3
	Doctor	2
	Pharmacist	1
	Civil Servant	1
	Engineer	1
	Biologist	1
FATHER	Self-Employed	5
	Civil Servant	4
	Engineer	4
	Doctor	2
	Lawyer	1
	Teacher	1

When Table 4 is reviewed; it is seen that the occupational statuses of the mothers are as follows: 8 of them are housewives, 3 of them are teachers, 2 of them are doctors, whereas 1 of them is a pharmacist, 1 of them is a civil servant, 1 of them is an engineer, and 1 of them is a biologist. When the occupational statuses of the fathers are reviewed, on the other hand, it is seen that 4 of them are civil servants, 5 of them are self-employed, 4 of them are engineers, whereas 2 of them are doctors, 1 of them is a lawyer and 1 of them is a teacher.

Table 5. Monthly Income Level of Parents

Amount of Income	Number of Parents
2000-5000 TRY	8
5000-8000 TRY	6
8000-11000 TRY	3

When Table 5 is reviewed, it is seen that there are 8 families with the amount of income ranging between 2000-5000 TRY, while there are 6 families with the amount of income ranging between 5000-8000 TRY, and there are 3 families with the amount of income ranging between 8000-11000 TRY.

Table 6. Neighbourhood of Residence and Settlement Style

Keçiören	7
Yenimahalle	4
Çankaya	3
Etimesgut	2
Mamak	1
Detached House	2
Apartment Building	16

When Table 6 is reviewed, it is seen that the number of families residing in Keçiören is 7, and the number of families residing in Yenimahalle is 4, and the number of families residing in Çankaya is 3, and the number of families residing in Etimesgut is 2, while and the number of families residing in Mamak is 1. There are 2 families living in detached houses, whereas 16 families are known to be living in an apartment building.

Findings pertaining to Parents' Views on the Digital Games Played by Their Children aged between 4-5.

Table 7. Does your kid play any digital games?

Yes	17
No	-

In Table 7, it is seen that the children of 17 participants play digital games.

Table 8. What digital game devices does your kid prefer?

Tablet	11
Phone	7
Computer	6

In Table 8, it is seen that 11 children prefer playing games on the tablet, whereas 7 of them prefer playing games on the cell phone, and 6 of them prefer playing games on the computer.

Table 9. What kind of digital games does your kid play? (Female)

Category	Sub-Category	Codes	f	
TYPES OF DIGITAL GAMES	Educational Games	Playing House	5	
		Playing Doll-Dressing Games	2	
		Playing Coloration Games	1	
		Playing Educational-Instructive Games	1	
		Playing Number Games	1	
		TOTAL	10	
	Platform Games	Playing the Angry Bird Game	1	
		Playing Strawberry-Collecting Games	1	
		Playing Candy-Blast Games	1	
		TOTAL	3	
	Action Games	Playing Race Games	3	
		TOTAL	3	
	Brain Teasers	Playing Puzzle Games	1	
		TOTAL	1	
	FINAL TOTAL			17

The category of "The Types of Digital Games" played by female children is composed of 4 sub-categories as "Educational Games", "Platform Games", "Action Games", and "Brain Teasers". The sub-category referred to as "Educational Games" is seen to be formed of the codes called Playing House (5), Playing Doll-Dressing Games (2), Playing Coloration Games (1), Playing Educational-Instructive Games (1), and Playing Number Games (1), and they carry the frequency value (10) in total. The sub-category referred to as "Platform Games", on the other hand, is composed of the codes called Playing the Angry Bird Game (1), Playing Strawberry-Collecting Games (1), and Playing Candy-Blast Games (1), and they carry the frequency value (3) in total. On the other hand, the sub-category referred to as "Action Games" is composed of only one code called Playing Race Games (3), which carries the frequency value (3) in total. The sub-category referred to as "Brain Teasers" is also composed of only one code called Playing Puzzle Games (1), the frequency value of which is seen to be (1) in total. When the final total is reviewed, it is seen that the frequency value is (17).

The category of "The Types of Digital Games" Played by male children is composed of the sub-categories referred to as "Action Games", "Sports Games", "Educational Games", "Brain Teasers", and "Simulation Games". The sub-category referred to as "Action Games" is seen to be formed of the codes called Playing Race Games (4), Playing

Table 10. What kind of digital games does your kid play? (Male)

Category	Sub-Category	Codes	f	
TYPES OF DIGITAL GAMES	Action Games	Playing Race Games	4	
		Playing Transformers	2	
		Playing War Games	1	
		Playing Robot Games	1	
		Playing Chase Games	1	
	TOTAL	9		
	Sports Games	Playing Bowling	1	
		TOTAL	1	
	Educational Games	Playing Coloration Games	2	
		TOTAL	2	
	Brain Teasers	Playing Puzzle	4	
		TOTAL	4	
	Simulation Games	Playing the 'Talking Tom' Game	1	
		TOTAL	1	
	FINAL TOTAL			17

Transformers(2), Playing War Games (1), Playing Robot Games (1), Playing Chase Games (1), which carry the frequency value (9) in total. The sub-category referred to as "Sports Games" is composed of only one code called Playing Bowling (1), which carries the frequency value (1) in total. While the sub-category referred to as "Educational Games" carries the frequency value (2) in total along with the code called Playing Coloration Games (2), the sub-category referred to as "Simulation Games" is represented by the code called Playing the "Talking Tom" Game (1). When the final total is reviewed, it is seen that the frequency value is (17).

Table 11. For how long does your kid play digital games on a daily basis?

30 minutes	2
1 hour	11
2 hours	3
3 hours	1

In Table 11, it is seen that 2 of the children play digital games for 30 minutes, 11 of them play digital games for 1 hour, whereas 3 of them play such games for 2 hours, and 1 of them plays these games for 3 hours. In Table 12, the category referred to as "The Effect of Digital Games on Cognitive Development" is formed of 2 sub-categories, which are "Negative Cognitive Effect" and "Positive Cognitive Effect". The codes forming the sub-category called "Negative Cognitive Effect" are General Negative Effect on Cognitive Development (9), Getting Monotonous (2), Yelling (1), Difficulty in Perception (1), Distractibility (1), Slow Learning (1), Delirium (1), The Negative Effect of War Games (1), Learning how to fight (1), which carry the frequency value (18) in total. When the views of the participants are reviewed; it is seen that they provided the following opinions:

Participant 1: "I think they have no effect at all on cognitive development".

Participant 2: "The child becomes monotonous and spends less time with his/her friends; we see no positive effect whatsoever".

Table 12. How, do you think, digital games affect the cognitive development of your kid?

Category	Sub-Category	Codes	f		
The Effect of Digital Games on Cognitive Development	Negative Cognitive Effect	General Negative Effect on Cognitive Development	9		
		Getting Monotonous	2		
		Yelling	1		
		Difficulty in Perception	1		
		Distractibility	1		
		Slow Learning	1		
		Delirium	1		
		The Negative Effect of War Games	1		
		Learning how to fight	1		
		Total	18		
		Positive Cognitive Effect	Learning new information	5	
			Development of Intelligence	2	
			Total	7	
			Final Total		25

Participant 3: "They influence the kid in a negative way; his/her learning process slows down, and s/he becomes distracted very easily".

Participant 4: "S/he sees how babies fight. S/he learns by becoming incorporated into what we keep away from her/him. It is likely that s/he see the wrong thing".

In the sub-category referred to as "Positive Cognitive Effect", on the other hand, are the codes called Learning new information (5), and Development of Intelligence (2), which carry the frequency value (7) in total. When the final total is reviewed, it is seen that the frequency value is (25). When the views of the participants are reviewed; it is seen that they provided the following opinions:

Participant 1: "S/he tries to figure it out since it is a complicated game, which, in terms of intelligence, creates a positive effect".

Participant 2: "As she dresses up baby dolls, she arranges the colour harmony through this game in terms of getting dressed up. She learns how to design clothes, and she learns something new".

In Table 13, the category referred to as "The Effect of Digital Games on Emotional Development" consists of the sub-categories called "Positive Emotional Effect" and "Negative Emotional Effect". The sub-category, "Positive Emotional Effect", comprises the codes, Being Happy (1), Being Creative (1), and Peacefulness (1), which carry the frequency value (3) in total. Considering the views of the participants;

Participant 1: "S/he becomes happy because s/he plays whatever s/he loves".

Participant 2: "S/he learns how to be creative; I haven't observed any side-effects of the play called Minecraft, and if I saw any negative effect, I'd immediately cut it off".

Table 13.How, do you think, digital games affect the emotional development of your kid?

Category	Sub-Category	Codes	f
The Effect of Digital Games on Emotional Development	Positive Emotional Effect	Being Happy	1
		Being Creative	1
		Peacefulness	1
		Total	3
	Negative Emotional Effect	Being introverted	5
		Causing dependence	2
		Being Rageful	2
		Less sharing	1
		Breaking away from social life	1
		Causing fears	1
		Total	12
		Final Total	15

On the other hand, the sub-category, ‘‘Negative Emotional Effect’’, comprises the codes, Being introverted (5), Causing dependence (2), Being Rageful (2), Less sharing (1), Breaking away from social life (1), and Causing fears (1), which carry the frequency value (12) in total. The final total, on the other hand, has the frequency value (15). Considering the views of the participants;

Participant 1: "S/he becomes introverted; S/he is influenced in a negative way”.

Participant2: "Dependency develops in this case. Now it has started to happen recently. Thus, s/he is not influenced in a positive way in this respect. There are both positive and negative effects at issue”.

Participant3: "He is influenced negatively, because he becomes full of rage when he plays war games. When he loses the battle while playing on the tablet, he begins to break his toys. In a negative sense, he breaks away from life and becomes more dependent on it”.

Participant4: "He becomes nervous, ill-tempered and aggressive”.

In Table 14, the category referred to as ‘‘The Effect of Digital Games on Psycho-motor Development’’ is composed of two sub-categories called ‘‘Positive Psycho-motor Effect’’ and ‘‘Negative Psycho-motor Effect’’. The sub-category ‘‘Positive Psycho-motor Effect’’ comprises the codes, Being able to perform actions on the touch screen (2), and Developing hand-eye coordination (1), and it is seen that they have the frequency value (3) in total.

Considering the views of the participants;

Participant1: ‘‘I think her/his hand-eye coordination improves, as well’’.

Participant2: "S/he can perform sensitive actions on the touch screen, which is a progress”.

Table 14.How, do you think, digital games affect the psycho-motor development of your kid?

Category	Sub-Category	Codes	f
The Effect of Digital Games on Psycho-motor Development	Positive Psycho-motor Effect	Being able to perform actions on the touch screen	2
		Developing hand-eye coordination	1
		Total	3
	Negative Psycho-motor Effect	Staying immobile	8
		Eye Disorders	3
		Crying	2
		Damaging the toys	2
		Receiving radiation	1
		Gaining weight	1
		Negative effect on the child’s growth	1
		Interruption of Sleep	1
		Total	19
		Final Total	22

On the other hand, the sub-category, ‘‘Negative Psycho-motor Effect’’ comprises the codes, Staying immobile (8), Eye Disorders (3), Crying (2), Damaging the toys (2), Receiving radiation (1), Gaining weight (1), Negative effect on the child’s growth (1), Interruption of Sleep (1), and it is seen that they have the frequency value (19) in total. The final total, on the other hand, has the frequency value (22). Considering the views of the participants;

Participant1: "S/he is affected negatively, because s/he stays immobile for a very long time, since s/he doesn’t even understand how time passes by”.

Participant2: "This has a negative effect in terms of the child’s growth”.

Participant3: "When s/he plays for long periods of time, her/his eyes are affected negatively; some eye disorders show up. There is weight gain in particular, because there is immobility”.

Participant4: "It has a negative effect; s/he plays the games at where s/he sits. S/he also receives radiation, and her/his eyes turn red”.

Participant5: "It has some benefits when it becomes instructive. There are some educational games involving colours and numbers, through which s/he learns something. I don’t think it has zero effect, or there are some English games, for instance, and s/he learns some words from them, through which her/his ears improve. However, there could be some trouble, for instance, if s/he plays such games before going to sleep, there is a situation we call ‘‘night terror’’. S/he wakes up crying, or appears to be in a delirium; s/he wakes up often, so there are such sort of problems showing up”.

In Table 15, the category referred to as ‘‘The Effect of Digital Games on Social Development’’ is composed of two sub-categories called ‘‘Positive Social Effect’’ and ‘‘Negative Social Effect’’. The sub-category ‘‘Positive Social Effect’’ comprises the code called Establishing Communication (4), with the frequency value (4). Considering the views of the participants;

Table 15. How, do you think, digital games affect the social development of your kid?

Category	Sub-Category	Codes	f
The Effect of Digital Games on Social Development	Positive Social Effect	Establishing Communication	4
		Total	4
	Negative Social Effect	Lack of Communication	6
		Being introverted	3
		Becoming distanced from people	2
		Becoming secluded from the environment	1
		Insufficiency of social development	1
		Total	13
		Final Total	17

Participant1: "S/he is affected a little bit. They talk about it with their friends, in the way that "I did this" and "I did that on the computer".

The sub-category "Negative Social Effect", on the other hand, comprises the codes, Lack of Communication (6), Being introverted (3), Becoming distanced from people (2), Becoming secluded from the environment (1), and Insufficiency of social development (1), with the frequency value (13) in total. The final total, on the other hand, has the frequency value (17). Considering the the views of the participants;

Participant1: "I think it is negative, because s/he does not establish a communication. S/he directly concentrates on it, thinking of nothing else; s/he doesn't even talk to us, nor does s/he engage with us".

Participant2: "Her/his social development is influenced in a negative way. S/he becomes rather introverted".

Participant3: "As s/he plays all alone, s/he may break away from her/his friends, from us, I mean, from people".

Table 16. What emotion is triggered in you when your kid plays a digital game?

Category	Sub-Category	Codes	f
Moods-States of Parents	Negative Mood	Restless	6
		Reluctant	2
		Anxious	1
		Sad	1
		Nervous	1
		Feeling bad	1
		Total	12
	Neutral State	Neutral	5
		Total	5
		Final Total	17

In Table 16, the category referred to as "Moods-States of Parents" is composed of two sub-categories called "Negative Mood" and "Neutral State". The sub-category "Negative Mood" comprises the codes called Restless (6), Reluctant (2), Anxious (1), Sad (1), Nervous (1), Feeling bad (1), and it is seen that they have the frequency value (12) in total. Considering the views of the participants;

Participant 1: "In a general sense, I am restless about it".

Participant 2: " I don't want her/him to play such games".

Participant 3: "S/he makes me really worried; I'm so unhappy that s/he is attached to it".

Participant 4: "To put it simply, I feel so bad about myself; I don't want her/him to play with those things".

On the other hand, in the sub-category referred to as "Neutral State" is the neutral code (5), and in total, it carries the frequency value (5). Considering the final total, the frequency value (17) is there for the main category called "Moods-States of Parents". Considering the views of the participants;

Participant1: " I'm neutral about it."

Table 17. Do you think digital games are necessary for your kid?

Necessary	Unnecessary	Makes No Difference
1	15	1

As for the question, " Do you think digital games are necessary for your kid?", 1 parent answered "necessary", whereas 15 parents answered "unnecessary" and 1 parent answered as "Makes no difference". Considering the views of the participants;

Participant 1: "It is necessary in a good way, of course; as long as there is no excessive use, I think it is necessary".

Participant2: "It's definitely unnecessary".

Participant3: "I mean, s/he wouldn't lose anything even if s/he didn't play with it".

Findings pertaining to Parents' Views on the Reasons as to why Their Children aged 4-5 Play Digital Games

FINDINGS

Table 1. Why, do you think, your kid keeps playing digital games?

When Table 1 is reviewed; the category referred to as "Reasons for Playing Digital Games" is seen to show up along with 3 sub-categories called "Individual Reasons", "Environmental Reasons" and "Appeal of Digital Devices". Considering the sub-category "Individual Reasons", we see these codes: They love it(1), It is exciting for them (1), Loneliness (1), They enjoy it (1), and Boredom (1), which, in total, makes the frequency value (5). Considering the views of the participants;

Participant 1: " The games are exciting to her/him since s/he loves them, that is why".

Participant 2: " There's nothing to do at home, so it is due to loneliness".

The codes comprising the sub-category "Environmental Reasons" are as follows:

There is no other option (3), Being influenced by friends (2), Being influenced by the environment (1), Being influenced by the sibling (1), Being influenced by relatives (1), Being unable to go out (1), and Indifference of parents (1), which, in total, makes the frequency value (10). Considering the views of the participants;

Participant 1: "Because s/he has nothing else to do right at that moment, s/he is home alone".

Participant 2: "Since cell phones and tablets are quite popular at this age, s/he notices it from the outside environment even if s/he doesn't observe it on us. Thus, a desire to have it shows up".

Participant 3: "S/he saw it in her/his social circle, such as relatives and friends".

Participant 4: "If there is not much care on the part of parents, there is nothing else to do about it".

Participant 5: "Because we can't go out. The streets are not safe. I also have a younger daughter and I cannot control both of them at the same time. I let them play digital games because I have to, depending on the situation".

The sub-category "Appeal of Digital Devices" consists of the codes, Audio-visual feedback (4), and Being appealing (1), which carry the frequency value (5) in total. These sub-categories have the frequency value(20) in the final total. Considering the views of the participants;

Category	Sub-Category	Codes	f
Reasons for Playing Digital Games	Individual Reasons	They love it	1
		It is exciting for them	1
		Loneliness	1
		They enjoy it	1
		Boredom	1
		Total	5
	Environmental Reasons	There is no other option	3
		Being influenced by friends	2
		Being influenced by the environment	1
		Being influenced by the sibling	1
		Being influenced by relatives	1
		Being unable to go out	1
		Indifference of parents	1
		Total	10
	Appeal of Digital Devices	Audio-visual feedback	4
		Being appealing	1
		Total	5
		Final Total	20

Participant 1: "It provides her/him with a separate opportunity, that is, there's audio-visual feedback, which is interesting..."

Participant 2: "There's a coloured warning for this age group, and they play with it due to the continuous change in the screen as well as a continuous colour cycle".

Table 2. Who influences your kid in playing digital games?

Category	Sub-Category	Codes	f
The Reasons Affecting the Child in Playing Digital Games	Family	Parent	5
		Sibling	3
		Grandmother	2
		Total	10
	Others	Friend	6
		Media	3
		External environment	2
		Total	11
		Final Total	22

In Table 2, the answers to the question, "Who influences your kid in playing digital games?", are seen in two sub-categories called "Family" and "Others". The sub-category "Family" consists of the codes, Parent (5), Sibling (3), and Grandmother (2), which have the frequency value (10) in total. Considering the views of the participants;

Participant1: "As a mother and a father, I mean, we usually just take a look at the tablet and go, you know".

Participant2: "I mean, I can say that her/his grandmother influences her/him".

Participant3: "S/he sees it in her/his brother's hand, and if s/he didn't know her/his brother played with it, s/he wouldn't play, either. S/he sees it in her/his brother's hand, otherwise, how would she/he know and then play with it".

The sub-category "Others", however, consists of the codes, Friend(6), Media (3), and External environment (2), with the frequency value (11) in total. The final total has the frequency value (22). The views of the participants are as follows:

Participant1: "Her/his friend circle could also influence her/him. When s/he comes home, s/he has some conversations like "Let's download it, there's this sort of game".

Participant2: "These tablets or phones are everywhere, on television, in the streets, in everyone's hands out there, so s/he sees them and also wants to play with it herself/himself".

Table 3. Do you ever happen to tempt your kid to play digital games, either by being aware of or unaware of this?

Yes	10
No	7

In Table 3; as for the question, "Do you ever happen to tempt your kid to play digital games, either by being aware of or unaware of this?", the answers given by 10 participants to this question was "Yes", whereas 7 participants answered "No" to this question. Considering the views of the participants;

Participant 1: "No, I would never tempt her/him in this. I neither use facebook nor any computer, since such things are a waste of time".

Participant 2: "No, we never tempt her/him, because I am totally opposed to these kinds of things".

Participant3: "No, I don't. I don't use a smart phone anyway. If you use one, then you need it, and if you don't use any, then you don't need it already, that's at least what I stand up to. My kid doesn't witness me spending time on my phone or tablet, but I do spend time in front of the computer due to both business matters and my field of interests".

Participant4: "We may be tempting her/him without ever being aware of this".

Participant5: "Yes, we do tempt her/him".

Participant6: "Maybe. S/he could have it because s/he sees it in our hand".

DISCUSSION

The findings show that all of the female and male children aged between 4-5, who also represent the study group, keep playing digital games and often prefer tablets. It was determined that the female and male children aged between 4-5 had different preferences over digital games, and while female children preferred "Educational Games (Playing House, dressing up dolls, playing coloration games, playing educational and instructive games, playing number games), male ones seemed to prefer "Action Games" more (Playing race games, playing transformers, playing war games, playing robot games, playing chase games). The tendency of violence is seen more in those who play strategic games at an early age. It is pointed out that the strategic games in particular create chaos in the inner world of children during the period when they start to question their power of judgement, and that these games could even blind children's sense of conscience and force them to break away from social life by giving them a sense of achievement, at which point the reward could be the element triggering their dependence on such games (Gürcan *et al.*, 2008). According to the parents' statements, 65% of female and male children aged 4-5 play digital games for 1 hour, while 18% of them play these games for 2 hours, and 11% of them play for 30 minutes, and 6% of them play for 3 hours on a daily basis. In his study, Çakır (2013) stated that the duration of playing computer games in the secondary grade primary school children took 1-2 hours in 76,3% of them, while 13,0% of them played for 3-5 hours, and 0,9% of them played such games for 6 hours and more. Kılınç (2015), in his master's thesis involving 314 parents, reported that almost 35% of the parents had permitted their pre-school children to use information and communication technologies only once or a couple of times a week. Only 30% of the parents seem to allow their children to use information and communication technologies daily.

The majority of families are of the opinion that digital games pose a negative effect on the cognitive, emotional, psycho-motor and social developments of their children. In contrast to the criticisms that computer games diminish socialization, it is suggested that the games which improve children's skills allow the children who play such games to be able to get in contact and cooperate with other children in the world who also play the same kind of game at the same time, which leads children towards a more sociable atmosphere, as well (Ocak, 2013).

Çakır (2013), in his study conducted along with 215 students and parents, stated that 43,9% of the families agreed on the fact that computer games caused their child to waste their time, while 25,8% of them remained indecisive in this matter, and 30,3% of them answered "I do not Agree". As for the situation indicating that computer games forced children to distance themselves away from their friends; 27,0% of the families gave the answer 'I Agree', whereas 14,4% of them remained indecisive, and 58,6% of them answered as 'I do not Agree'. Kılınç (2015), in his master's thesis, stated that parents had agreed on a moderate level on the statements regarding the benefits of using information and communication technologies on the part of their children. The view that information and communication technologies will make a positive contribution to their children's development if proper programs and/or proper games are provided for them during that period is accepted among the parents. However, it was also determined that parents did not quite agree on the statements that technological devices enabled children to increase the development of attention and to improve their creative skills as well as allowing them to develop the concepts they learned and giving them the chance to get to know the world better.

It was reported that the use of computers by children had made a contribution to children's learning processes by positively affecting their skills development, social communications, cognitive, social and emotional developments as well as their lingual, psycho-motor developments and physical activities as long as the duration, its appropriateness for the child did not hinder the child's progress, and as long as the child's communicative skills and the actions the child needs to perform on a daily basis are not hindered, as well (Gacal, 2005; Lieberman *et al.*, 2009). Salceanu (2014), in his study, stated that the greatest advantage of computer games for parents was the development of thinking process, observation capacity, and creativity, whereas the greatest disadvantage of these games was the lack of physical mobility, eye disorders and stress. Most of the parents stated that they were worried and irritated about the fact that their children kept playing digital games as such games led them into a negative mood. Similar to this finding, Çakır (2013), in his research, reported that 45,6% of the families had agreed on the statement that they were worried about their children playing computer games, whereas 18,6% of them remained unsure about this, and 35,8% of them answered "I do not Agree" to that statement. 88% of the parents find it unnecessary for their children to play digital games.

Most parents are of the opinion that their children's habits of playing digital games were caused by environmental conditions. They also think that the people who influence their children in playing such games are their friends in the first place, and then themselves. 59% of the parents stated that they happened to tempt their children to play digital games, either by being aware or unaware of this fact. In line with these findings, it is thought that organizing educational seminars on digital games for parents and their children is of great importance in terms of the current problems seen in children as well as the problems to occur in the future. When the literature regarding the effects of digital games on children is reviewed, it is seen that there are different approaches, as well. While some of the studies mention of the positive effects of digital games on children, some others examine the negative effects in this matter (Oblinger, 2004; Boot *et al.*, 2008; Granic *et al.*,

2014; Anderson et al., 2001; Scoric et al., 2009). In conclusion, it is thought that it would be right to allow children to play selected digital games under the supervision of their parents and to let them deal with such games in the way that they will not hinder children's daily lives. At this point, parents are greatly responsible for the situation. They should play the digital games chosen for their children by themselves in the first place, and later on, they should allow their children to play them. Some important points to be taken into consideration by the parents who have children aged 4-5 with respect to playing digital games are as follows:

- The games in which there are too many contents involving murder and violence must not be preferred.
- The games that teach something while entertaining will be more useful.
- It is important that a digital game apply to the age group of the child.
- Games should be played as long as they will not hinder the daily life of children.

REFERENCES

- AMATEM, 2008. Bilgisayar ve internet, Ankara.
- Anderson, C. A., and Bushman, B. J. 2001. Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological science*, 12(5), 353-359.
- Bayırtepe, E. and Tüzün, H. 2007. Oyun-tabanlı öğrenme ortamlarının öğrencilerin bilgisayar dersindeki başarıları ve öz-yeterlik algıları üzerine etkileri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 33, 41-54.
- Bernard, H. R. and Gravlee, C.C. 2015. *Handbook of methods in cultural anthropology*. USA: Rowman and Littlefield.
- Boot, W. R., Kramer, A. F., Simons, D. J., Fabiani, M. and Gratton, G. 2008. The effects of video game playing on attention, memory, and executive control, *Acta Psychologica* 129 (3) , 387-398.
- Buckingham, D. and Willett, R. 2006. *Digital generations: children, young people and new media*. NY: Rotledge.
- Çakır, H. 2013. Bilgisayar oyunlarına ilişkin ailelerin görüşleri ve öğrenci üzerindeki etkilerin belirlenmesi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 9 (2). 138-150.
- Doliopoulou, E. and Rizou, C. 2012. Greek kindergarten teachers and parents view a bot changes in play since their own childhood. *European Early Childhood Education Research Journal*, 20 (1), 133-147.
- Erkuş, A. 2005. *Bilimsel Araştırma Sarmalı*. Ankara: Seçkin Yayıncılık.
- Gacal, A. 2005. Okul öncesi Çocukların Eğitimde Bilgisayar Kullanımı, *Çocuk Çocuk Aylık Anne, Baba, Eğitimci Dergisi*
- Granic, I., Lobel, A. and Engels, R.C.E.M. 2014. The benefits of playing video games. *American Psychologist*, 69(1), 66-78.
- Griffiths, M. 2002. The educational benefits of videogames. *Education and health*, 20(3), 47-51.
- Gürcan, A., Özhan, U. Y. S., and Uslu, U. Y. R. 2008. Dijital oyunlar ve çocuklar üzerindeki etkileri. Ankara: Aile ve Sosyal Araştırmalar Genel Müdürlüğü, Ankara, 1-50.
- Hazar, M. 2006. *Beden eğitimi ve sporda oyunla eğitim*. Ankara.
- Huizinga J. 2006. *Homo Ludens, Oyunun Toplumsal İşlevi Üzerine Bir Deneme*. İstanbul: Ayrıntı Yayınları.
- İşçibaşı, Y. 2011. Bilgisayar, internet ve video oyunları arasında çocuklar. *Selçuk İletişim*, 7(1), 122-130.
- Kerr, A. 2006. *The Business and Culture of Digital Games, Game Work and Game Play*. London: Sage Publications.
- Kılınç, S. 2015. Okul öncesi çağındaki çocukların teknoloji kullanımı hakkında ebeveyn görüşlerinin incelenmesi. *Yüksek Lisans Tezi, Dumlupınar Üniversitesi Eğitim Bilimleri Enstitüsü, Kütahya*.
- Lieberman, D. A., Fisk, M. C., and Biely, E. 2009. Digital games for young children ages three to six: From research to design. *Computers in the Schools*, 26(4), 299-313.
- Miles, M. B. and Huberman, A.M. 1994. *Qualitative data analysis : an expanded sourcebook*. (2nd Edition). Calif.: SAGE Publications.
- Oblinger, D. 2004. The next generation of educational engagement. *Journal of Interactive Media in Education*, 2004(8), 1-18.
- Ocak, M. A. 2013. *Eğitsel dijital oyunlar: kuram, tasarım ve uygulama*. Ankara: Pegem Akademi.
- Prensky, M. 2001. *Digital game-based learning*. McGraw-Hill, (Chapter 2).
- Rutter, J., Bryce, J. 2006. *Understanding dijital games*. London: Sage Publication.
- Sherry, J.L. 2001. The effects of violent video games on aggression. *Human Communication Research*, 27(3), 409-431.
- Skoric, M. M., Teo, L. L. C., and Neo, R. L. 2009. Children and video games: addiction, engagement, and scholastic achievement. *Cyberpsychology and behavior*, 12(5), 567-572.
- Yengin, D. 2012. *Dijital oyunlarda şiddet*. İstanbul: Beta Basım.
- Yıldırım, A., Şimşek, H. 2013. *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık.
