

## Examination of Parental Attitudes in Digital Game Addiction of Primary School 4th Grade Students<sup>1</sup>

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**Abstract:** In this study, it was aimed to examine the parent's attitudes on digital game addiction of primary school which are 4th grade students. The universe and sample of the research consists of 200 students, 100 girls and 100 boys, selected by simple random selection method from a primary school affiliated to the Ministry of National Education in Kağıthane district of Istanbul. The research is a relational survey model in the type of quantitative research. Scales to be filled in by the students themselves were used as a data collection tool. In this context, the demographic information form the "Parent Attitude Scale" created by the researchers, developed by Lamborn et al. (1991) and adapted to Turkish by Yılmaz (2000) for reliability and validity studies, "Digital Game Addiction Scale for Children" was used, which was developed by Hazar and Hazar (2017) and whose reliability and validity studies were conducted. The data were analyzed to using the SPSS 20.0 package program. Frequency analysis was used to make descriptive, and explanatory analyzes, and Chi-Square test was used to compare the two scales. As a result of the findings obtained in the research; gender, father's job, family's economic status and technological devices at home are not effective variables on parental attitudes; number of siblings, birth order, parental education level, mother's job and family structure variables were found to be effective on parental attitudes. Gender, number of siblings, birth order, parental education level and technological devices at home are not effective variables on digital game addiction; It has been determined that the jobs of the mother and father, the family economic status and family structure variables are effective in digital game addiction. As a result of the research, it was concluded that most of the students participating in the research were addicted to digital games and that their parent's attitudes were not an effective factor on digital game addiction.

*Keywords: Game, Game Addiction, Digital Game Addiction, Parents Attitude, Pre-Adolescence*

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### 1. INTRODUCTION

The game has evolved into various forms from the existence of humanity to the present day. The most important thing that is effective in this change is the characteristics of the current age. Each era has brought new games and toys with it. The fact that today's age is the age of technology has made the most important revolution in the game. The most important change in the games played and the game materials is seen in this period. Played game materials turned

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into screens, games played on screens in games. This revolution has caused us to reconsider and interpret the concept of digital games, which has existed since the past. The age of technology, which exists with the developing technology, has affected the lives of people of all ages on various issues. Especially the children born after the year 2000, known as the Z generation, have been introduced to technology from a very young age, leaving traditional games in the background and bringing digital games to the fore. The fact that children spend too much time with technological devices increases the threat of digital game addiction in the future. As with traditional games, digital games can affect children's development both positively and negatively, but nowadays it is observed that digital games have more negative effects. In this direction, the increase in the number of children addicted to digital games is becoming a problem. Many factors are effective in children's playing digital games. One of them is parental attitude. It is known that parental attitudes have a significant effect on the child's behavior. These attitudes affect children's behavior in many ways and reflect on their future personalities. The interaction with the family, the child's first social environment, forms the basis of children's own attitudes. It is possible to say that children who grow up in a democratic attitude, which is accepted as a positive attitude, grow up in an environment of love and trust. Children who grow up in negative parental attitudes, that is, in an environment where love is low on the scales and neglect is high, are likely to exhibit negative behaviors such as bad habits and addiction. Excessive gaming can become addictive in the future, and this situation bring negative effects. In this context, in this study, the relationship between digital game addiction and parental attitude is examined. The problem sentence of the research is "Is there an effect of parental attitude on digital game addiction of primary school 4th grade students?" has been determined.

## **2. LITERATURE REVIEW**

Playing games is an important action that contributes to the development of the child from birth, teaches while entertaining, improves his/her weaknesses while supporting his/her strengths, makes the child happy and is seen as the child's job (Yavuzer, 2017). At the same time, the most important activity that enables the child to cope with the problems that he cannot overcome in his inner world, as well as to socialize with interaction with the outside world, is play. In every age and place where human beings existed, the game has been continued for different purposes. Today, this purpose can only be seen as entertainment and having a good time, but it can be said that it is an activity carried out in terms of education and development in every age (Pehlivan, 2012). Games, which are an important tool in child development, provide benefits in many development areas of the child, especially in the pre-school and primary education period (Horzum, 2011).

In this process, important theorists have made different definitions about the game. When the concepts of "game" in the literature are examined, we can say that the game is a process that is organized to have a good time without any coercion, with or without rules, and contributes to the social and individual development of children (Eni, 2017). The geography we have lived in for centuries is in a state of constant change. We can add the change of games and toys we play to this change. When we look at the games played until the recent past, we see that these are mostly games played on the street and in groups, such as skittles, five stones, playing house,

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dodgeball. However, the technology that develops day by day and the physical change experienced by the environment change the games and playgrounds that today's children play. With the transformation of childhood from streets to concrete buildings, from wooden toys to technological tools, from groups to individuality, the concept of "digital game", which has existed since the past, has come to light.

Digital games: It is a computer-based, entertainment and leisure activity software that is built on text or visuals, enables one or more people to log in together over a physical or online network on technological devices (Ankara Development Agency, 2016; Kızılkaya, 2010). When we look at the history of digital games, we see that they are as old as the history of computers. We see the examples of the first game genres that appeared as video and console games in the 1950s. "Tennis for Two" game, which is a simple simulation of table tennis, is accepted as the first computer game developed (Kızılkaya, 2010). "Spacewars" game, which aims to fight two spaceships, was developed by Steve Russell in 1962 and this game went down in history as the first interactive video game (Öztürk, 2007). However, at that time, the game did not receive enough attention because computers were very expensive. When it comes to the 80s, it can be said that there were important developments in digital games both in the world and in Turkey. The reason for this is that computers became widespread in the 80s. With the game called "Space Invaders", which was recorded as the first digital war game, there was a spread and the production of such games started with the game taking hold (Günay, 2011). Developed by Namco in 1980, the game named "Pac-Man" is the first game to deal with the themes of friendship and humor, unlike games involving violence and threats, and the fact that this game appeals to girls and young women and attracts their attention has expanded the digital game market. Looking at the history of digital games, it is known that Turkey did not meet with digital games until the 80s, and there were important developments in this field in the 80s. Turkey's acquaintance with digital games was with the color television, video and arcade craze experienced at that time, and the arcades opened in most cities (Say, 2016). Today, the increases of technology and the fact that it is easily accessible to everyone has increased the number of participants in the games. It is seen that the plays of this period are different from the plays of other periods. In most of the games produced in many themes, individuals can create a character for themselves. This adds to the appeal of the games.

Digital games are very diverse, so many people wanted to put these games into a system, classify similar games, and deal with games on various topics. Digital games can be classified according to different parameters. Digital games are mostly classified according to the themes of the games. In this context, according to the field in which it is played; console games, computer games and smartphome and tablet games (Akin, 2012). These are; action games based on speed and movement, adventure games with the aim of completing given tasks and progress, strategy games in which planning, resource generation, management, tactics and timing are at the forefront, role-playing games that play characters created with various features, closely imitating real-world situations These are simulation games, sports games, fighting games, puzzle games, entertainment games and mission games are designed for children (Akbay, 2015; Demizbozan, 2019; Eni, 2017; Köse, 2013; Öz, 2009; Topsar, 2015).

The spread of technology has increased in the allotted time, along with technological tools. The increase in the use of technological tools has positive and negative effects on the development and health of people (Demirbozan, 2019). When it comes to children, the content watched is as important as the duration of use. When the use of modern devices (such as computers, tablets, smart phones) is considered from the point of view of children, it has been proven by some studies that they are beneficial but carry a health risk (Ölmez, 2018). Children can gain some positive features while playing digital games. They need to use previously learned knowledge to progress through the game, which requires them to demonstrate good results in planning, recall, and managerial control. While coping with the difficulties encountered during the game, it develops active, problem-based, and experiential learning skills, and at the same time, there is development in independent and critical thinking skills. While helping to eliminate the sense of curiosity that exists in the child, it also improves the "ability of doing multiple tasks" thanks to the "doing more than one task at the same time", especially in strategy games. Games categorized according to age levels, parallel to memory, intelligence, or school lessons, increase the motivation of the child while making learning permanent. Apart from children with normal development, games specially designed for children with special needs facilitate learning. Using fingers while playing games on a tablet, smartphone or computer not only contributes to the development of small muscles, but also improves hand-eye coordination. In sports games, children learn the rules of the type of sports they play and their interest in this sport is increasing. While digital games have some positive features that they add to children, they also have negative sides. First, it can be said that the health problems that develop depending on the length of time allocated to the screen. Looking at moving objects on the screen for a long time can cause a disorder in the eyes, as well as problems leading to autism (Ölmez, 2018). As the time allocated to digital games increases, the time that children allocate to their homework and lessons decreases, and this causes a decrease in school success. Digital games played at an early age for a long time can negatively affect the development of "early literacy" skills of children (Adams, 2005). Frequent playing of violent games can normalize violence in children and cause them to imitate the content they watch in their social environment, encourage children to violence and display aggressive behaviors (Ölmez, 2018). Children's acquaintance with technological devices at an early age, spending a lot of time and being exposed to inappropriate content negatively affect the development of children in terms of cognitive functions (mental flexibility, self-regulation, impulse control, empathy) (Aladé, Christy, Nathanson, Rasmussen & Sharp, 2013). Playing digital games frequently for a long time can become addictive in children after a while.

Although digital game addiction is accepted in the category of behavioral addictions, a standard diagnosis has not been made yet. This concept is a concept that expresses the harmful and long-term uncontrolled use of the computer (Grüsser, Thalemann, Wolfing, 2007). Many expressions have been used to describe digital game addiction. Some of these; video game addiction, internet game addiction, computer game addiction (Aksel, 2018). Digital game addiction is more common in children and adolescents. One of the main reasons for this is the technological possibilities of the Z generation who grew up in the 21st century and their easy adaptation to technology. If children make digital games addictive, some psychosocial problems such as loneliness, aggression, decrease in positive behaviors, low life satisfaction,

anxiety, depression and increase in hostile feelings may occur (Ölmez, 2018). Among the most important reasons why digital games are addictive is that games are fun and that they relieve stress (Arslan, İnce & Kurt, 2014). Apart from this, parental attitudes, which affect our behaviors in many ways, are also one of the important reasons why children play digital games.

Pre-adolescence is a period that is the end of childhood and the beginning of adolescence and is called the transition period to adolescence. The pre-adolescence period, which corresponds to the 4th grade of primary school, is also the period when the transition from the concrete operational period to the abstract operational period begins (Yavuzer, 2017). In this process, children begin to devote more time to technological tools and digital games. In this, as well as the peer environment, the attitude of the parents can be effective. Situations such as the time the child spends on digital games and the content of the game he plays should be controlled by the parents, and in this case, the attitude of the parent is important. The effect of parental attitude on digital game addiction has been wondered by researchers. In this direction, in this study, it is aimed to examine the parents' attitudes towards digital game addiction of primary school 4th grade students. The basic problem sentence of this research is "Is there an effect of parental attitude on digital game addiction of primary school 4th grade students?" has been determined.

### **3. METHODOLOGY**

The research is an example of the type of quantitative research with screening model because of examining the effect of parental attitudes on digital game addiction. Relational screening model is a research model that aims to determine whether there is a co-change between two or more variables, the degree and direction of the change (negative and positive) (Karasar, 2009).

#### **3.1. Working Group**

The universe of the research is the European side of Istanbul, the sample is a group of 200 students, 100 girls and 100 boys, selected by simple random selection method, in a primary school in the district of Kağıthane. The frequency and percentage values describing the demographic characteristics of the study group of the research are presented in Table 1.

**Table 1.** Demographic Characteristics of the Students Participating in the Study

		n	%
<b>Gender</b>	Girl	100	50.0
	Boy	100	50.0
<b>Number of Siblings</b>	Only Child	49	24.5
	2 children	68	34.0
	3 children	59	29.5
	4 or more children	24	12.0
<b>Birth Order</b>	First Child	83	41.5
	Middle Child	54	27.0
	Last Child	63	31.5
<b>Mother's Educational Status</b>	Illiterate	19	9.5
	Primary School	41	20.5
	Middle School	41	20.5
	High School	53	26.5
	University	38	19.0
	Master's degree and above	8	4.0
<b>Mother's Job</b>	Housewife	103	51.5
	Worker	25	12.5
	Civil servant	25	12.5
	Self-employment	9	4.5
	Not Working	15	7.5
	Other	23	11.5
<b>Father's Educational Status</b>	Illiterate	2	1.0
	Primary School	33	16.5
	Middle School	44	22.0
	High School	62	31.0
	University	55	27.5
	Master's degree and above	4	2.0
<b>Father's Job</b>	Worker	47	23.5
	Civil servant	36	18.0
	Self-employment	50	25.0
	Not Working	11	5.5
	Other	56	28.0
<b>Economic Status of the Family</b>	Lower	19	9.5
	Middle	149	74.5
	Top	32	16.0
<b>Family Structure</b>	Nuclear Family	136	68.0
	Extended Family	55	27.5
	Fragmented Family	9	4.5
<b>Having technological devices at home - mobile phone</b>	No	27	13.5
	Yes	172	86.5
<b>Having technological devices at home - Tablet</b>	No	90	45.0
	Yes	110	55.0
<b>Having technological devices at home - Television</b>	No	3	1.5
	Yes	197	98.5
<b>Having technological devices at home - PS4</b>	No	134	67.0
	Yes	66	33.0
<b>Having technological devices at home - Computer</b>	No	35	17.5
	Yes	165	82.5

**3.2. Data Collection Tools**

Demographic information form was used in the first part of the questionnaire, the Parent Attitude Scale was used in the second part, and the Digital Game Addiction Scale was used in the third part.

**3.2.1. Demographic Information Form**

In the demographic information form, the student's gender, number of siblings, birth order, education level of the parents, job of the parents, family structure, economic status of the family, information about the technological devices in the house are included.

**3.2.2. Parenting Scale**

The "Parental Attitude Scale", which was developed by Lamborn et al. (1991) and adapted to Turkish by Yılmaz (2000), was used for reliability and validity studies. Three factors emerged because of the factor analysis applied by the researchers to the scale scores. These factors are acceptance/involvement, strictness/supervision, and psychological autonomy. The acceptance/interest dimension aims to measure the extent to which children perceive their parents as loving, caring, and participatory. The supervision dimension aims to measure the extent to which children perceive their parents as controlling. The psychological autonomy dimension aims to measure the extent to which parents implement the democratic attitude and encourage the child's individuality to express themselves. The dimension of acceptance/interest is measured with 9 items, the dimension of supervision with 8 items and the dimension of psychological autonomy with 9 items. Items in the first and third dimensions are evaluated on a 4-grade Likert-type scale, while the first two items in the second dimension are evaluated on a 7-grade Likert-type scale and the other items are evaluated on a 3-grade Likert-type scale. The Cronbach Alpha internal consistency coefficient in the first dimension was found to be 0.72, the internal consistency coefficient in the second dimension was 0.76 and the internal consistency coefficient in the third dimension was 0.82. Four parental attitudes are distinguished from the intersection of Acceptance-Care and Control-Control dimensions. The parents of the subjects who score above the median in the acceptance/interest and supervision dimension of the scale are "democratic", those who score below are "permissive-neglectful", and the parents of the children who score below the median in the acceptance/care dimension and above the median in the supervision dimension are "authoritarian". Parents of children who score above the median in the dimension of acceptance/interest and below the median in the dimension of supervision are called "permissive-tolerant".

**3.2.3 Digital Game Addiction Scale for Children**

The "Digital Game Addiction Scale for Children", developed by Hazar and Hazar (2017), whose reliability and validity studies were conducted, was used in the research. The scale consists of 24 items and four dimensions in five-grade Likert type. To ensure the construct validity of the scale, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed. In the exploratory factor analysis, the items were grouped under four factors. The first sub-dimension items are items 5, 6, 7, 10, 13, 14, 23; second sub-dimension items 1, 3, 11, 16, 18, 21; third sub-dimension items 12, 15, 17, 19, 20, 22; fourth sub-dimension items 2, 4, 8, 9 items; forms. The reliability of the measurement tool was tested with the Cronbach Alpha internal consistency coefficient and the Test-retest method. The Cronbach's Alpha

internal consistency coefficient was 0.90 for the total scale, 0.78 for the first sub-factor, 0.81 for the second sub-factor, 0.76 for the third sub-factor, and 0.67 for the fourth sub-factor. The Test-Retest correlation coefficient was found to be 0.81 for the total scale, 0.82 for the first sub-factor, 0.88 for the second sub-factor, 0.73 for the third sub-factor, and 0.70 for the fourth sub-factor. 24 A 5-grade Liker-type scale was used in the evaluation of the statements in the scale (1= Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree). The lowest score that can be obtained from the scale is “24” and the highest score is “120”. The grading of the scale scoring is; It is evaluated as “1-24: Normal group, 25-45: Low risk group, 49-72: Risk group, 73-96 Dependent group, 97-120 Highly dependent group”.

### 3.3. Data Collection

Contact was made with the primary school affiliated to the Ministry of National Education in Kağıthane district of Istanbul. Necessary permissions were obtained from the school administration. The forms and scales to be applied within the time interval determined by the school administration were taken. The tools to be applied were first explained to the teachers, and the forms to be applied to the students were explained and distributed with the help of the teachers. The distributed forms were received, and the data collection process was completed.

### 3.4. Data Analysis

Data were analyzed by using the SPSS 20.0 package program. Frequency analysis was used for descriptive and explanatory analysis. The Chi-Square test was used to compare the two scales. The obtained frequency analysis results were examined in the findings section and discussed in the discussion section.

## 4. FINDINGS

The statistics of the Parent Attitude Scale of the students participating in the research are given below. The Parent Attitude Scale was used in the study, the median of the scores obtained by the students in the dimensions of acceptance/interest, psychological autonomy and supervision was taken. It was determined that the median of the acceptance/interest dimension was 29, the median of the psychological autonomy dimension was 20, and the median of the control dimension was 29. According to these values, parental attitudes were evaluated under 4 headings.

**Table 2.** Examination of the Parent Attitude Scale

	n	%
Democratic Parental Attitude	45	22.5
Permissive – Negligent Parent Attitude	57	28.5
Authoritarian Parental Attitude	35	17.5
Permissive – Tolerant Parental Attitude	30	15

According to Table 2, It was determined that 22.5% (45 people) of the 200 students participating in the study had a democratic parental attitude. It was determined that 28.5% (57 people) of the 200 students who participated in the study had a permissive-negligent parental attitude of their parents. It was determined that 17.5% (35 people) of 200 students participating



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in the study had an authoritarian parental attitude. 28 It was determined that 15% (30 people) of 200 students participating in the study had a permissive and tolerant parent attitude. The remaining 16.5% (33 students) out of 200 students was not evaluated in any parental attitude as it corresponds to the median value.

**Table 3.** *Examination of Parent Attitude Scale According to Children's Demographic Characteristics*

	Gender			
	Girl		Boy	
	n	%	n	%
Democratic Parental Attitude	26	57.8	19	42.2
Permissive – Negligent Parent Attitude	27	47.4	30	52.6
Authoritarian Parental Attitude	16	47.7	19	54.3
Permissive – Tolerant Parental Attitude	14	46.7	16	53.3

  

	Number of Siblings							
	Only Child		2 children		3 children		4 or more	
	n	%	n	%	n	%	n	%
Democratic Parental Attitude	13	28.9	20	44.4	10	22.2	2	4,5
Permissive – Negligent Parent Attitude	10	17.5	18	31.6	15	26.3	14	24,6
Authoritarian Parental Attitude	8	22.9	7	27	16	45.7	4	11,4
Permissive – Tolerant Parental Attitude	11	36.7	11	36.7	6	20.0	2	6,7

  

	Birth Order					
	First Child		Middle Child		Last Child	
	n	%	n	%	n	%
Democratic Parental Attitude	21	46.7	10	22.2	14	31.1
Permissive – Negligent Parent Attitude	18	31.6	19	33.3	20	35.1
Authoritarian Parental Attitude	13	37.1	10	28.6	12	34.3
Permissive – Tolerant Parental Attitude	16	53.3	5	16.7	9	30.0

According to Table 3, It was determined that 57.8% (26 people) of the students whose parents have a democratic parental attitude are girls, 52.6% (30 people) of the students whose parents have a permissive - neglectful parental attitude are boys. It was determined that 54.3% (19 people) of the students with authoritarian parental attitudes were boys, and 53.3% (16 people) of the students whose parents were permissive - tolerant parents were boys.

It was determined that 44.4% (20 people) of the students whose parents have a democratic parental attitude are two children, 31.6% (18 people) of the students whose parents have a permissive-negligent parental attitude are two children. 45.7% (16 people) of the students who have authoritarian parental attitude have three children, 36.7% (11 people) of the students whose parents are permissive - tolerant parents have one child.

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It was determined that 46.7% (21 people) of the students whose parents have a democratic parental attitude are the first child, 35.1% (20 people) of the students whose parents have a permissive - negligent parental attitude are the last child. It has been determined that 37.1% (13 people) of the students who have authoritarian parental attitude are the first child, 53.3% (16 people) of the students whose parents have a permissive - tolerant parental attitude are the first children.

**Table 4.** Examination of Parent Attitude Scale According to Parent's Educational Status

		Mother's Educational Status					
		Illiterate	Primary School	Middle School	High School	University	Master's degree and above
Democratic Parental Attitude	<b>n</b>	2	4	7	16	14	2
	<b>%</b>	4.5	8.9	15.6	35.5	31.0	4.5
Permissive – Negligent Parent Attitude	<b>n</b>	12	18	10	15	1	1
	<b>%</b>	21.1	31.6	17.5	26.3	1.8	1.8
Authoritarian Parental Attitude	<b>n</b>	3	11	11	6	3	1
	<b>%</b>	8.6	31.4	31.4	17.1	8.6	2.9
Permissive – Tolerant Parental Attitude	<b>n</b>	1	2	3	9	11	4
	<b>%</b>	3.3	6.7	10.0	30.0	36.7	13.3
		Father's Educational Status					
Democratic Parental Attitude	<b>n</b>	0	5	3	15	19	3
	<b>%</b>	0.0	11.1	6.7	33.0	42.2	6.7
Permissive – Negligent Parent Attitude	<b>n</b>	1	15	18	17	6	0
	<b>%</b>	1.8	26.3	31.6	29.8	10.5	0
Authoritarian Parental Attitude	<b>n</b>	1	9	6	14	5	0
	<b>%</b>	2.9	25.7	17.1	40.0	14.3	0
Permissive – Tolerant Parental Attitude	<b>n</b>	0	2	9	5	13	1
	<b>%</b>	0	6.7	30.0	16.7	43.3	3.3

According to Table 4, It was determined that 35.5% (16 people) of mothers of the students whose parents have a democratic parental attitude have high school graduation. 31.6% (18 people) of mothers of the students whose parents have a permissive - negligent parental attitude have primary school graduation. 31.4% (11 people) of the mothers of the students with authoritarian attitude are primary school graduation. 31.4% (11 people) of the mothers of the students whose parents have an authoritarian attitude are primary and middle school graduates, 36.7% (11 people) of the mothers of the students whose parents are permissive - tolerant parents' attitude were university graduates.

According to Table 4, It was determined that 42.2% of the fathers (19 people) of the students whose parents have a democratic parental attitude are university graduates, 31.6% of the fathers (18 people) of the students whose parents have a permissive - negligent parental attitude are middle school graduates, 40% of the fathers (14 people) of the students whose parents have an authoritarian parental attitude are high school graduates and 43.3% (13 people) of the fathers

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of the students whose parents were permissive and tolerant parents attitude are university graduates.

**Table 5. Examination of Parent Attitude Scale According to Parent's Job**

		<b>Mother's Job</b>					
		Housewife	Worker	Civil servant	Self-employment	Not working	Other
Democratic Parental Attitude	<b>n</b>	18	4	10	2	5	6
	<b>%</b>	40.0	8.9	22.2	4.5	11.1	13,3
Permissive – Negligent Parent Attitude	<b>n</b>	43	5	2	1	1	5
	<b>%</b>	75.4	8.8	3.5	1.8	1.8	8,8
Authoritarian Parental Attitude	<b>n</b>	22	3	2	2	2	4
	<b>%</b>	62.9	8.6	5.7	5.7	5.7	11,4
Permissive – Tolerant Parental Attitude	<b>n</b>	5	6	8	3	4	4
	<b>%</b>	16.7	20.0	26.7	10.0	13.3	13,3

  

		<b>Faher's Job</b>				
		Worker	Civil servant	Self-employment	Not working	Other professions
Democratic Parental Attitude	<b>n</b>	7	7	10	2	19
	<b>%</b>	15.6	15.6	22.2	4.4	42.2
Permissive – Negligent Parent Attitude	<b>n</b>	18	7	14	6	12
	<b>%</b>	31.4	12.3	24.6	10.5	21.1
Authoritarian Parental Attitude	<b>n</b>	6	7	11	1	10
	<b>%</b>	17.1	20.0	31.4	2.9	28.6
Permissive – Tolerant Parental Attitude	<b>n</b>	6	9	8	1	6
	<b>%</b>	20.0	30.0	26.7	3.3	20.0

According to Table 5, It was determined that 40% (18 people) of the mothers of the students whose parents have a democratic parental attitude are housewives, 75.4% (43 people) of the mothers of the students whose parents have a permissive - negligent parental attitude are housewives, 62.9% (22 people) of the mothers of the students whose parents have an authoritarian parental attitude are housewives and 26.7% (8 people) of the mothers of the students whose parents are permissive and tolerant parents are civil servants. According to Table 5, It was determined that 42.2% (19 people) of the fathers of the students whose parents have democratic parenting style work in other professions, 31.4% (18 people) of the students whose parents have a permissive - negligent parent attitude are workers, 31.4% (11 people) of the students whose parents have an authoritarian parental attitude are self-employed, and 30% (9 people) of the fathers of the students whose parents have a permissive and tolerant parents were civil servants.

**Table 6.** Examination of Parent Attitude Scale According to Family Demographic Characteristics

		Economic Status of the Family		
		Lower	Middle	Top
Democratic Parental Attitude	<b>n</b>	2	33	10
	<b>%</b>	4.5	73.3	22.2
Permissive – Negligent Parent Attitude	<b>n</b>	10	43	4
	<b>%</b>	17.5	75.4	7.1
Authoritarian Parental Attitude	<b>n</b>	6	28	1
	<b>%</b>	17.1	80.0	2.9
Permissive – Tolerant Parental Attitude	<b>n</b>	0	19	11
	<b>%</b>	0.0	63.3	36.7
		Family Structure		
		Nuclear family	Extended family	Fragmented Family
Democratic Parental Attitude	<b>n</b>	35	10	0
	<b>%</b>	77.8	22.2	0
Permissive – Negligent Parent Attitude	<b>n</b>	30	22	5
	<b>%</b>	52.6	38.6	8.8
Authoritarian Parental Attitude	<b>n</b>	25	10	0
	<b>%</b>	71.4	28.6	0.0
Permissive – Tolerant Parental Attitude	<b>n</b>	21	6	3
	<b>%</b>	70.0	20.0	10.0

According to Table 6, It was determined that 73.3% (33 families) of the families of the students whose parents have a democratic parental attitude are of middle economic level, 75.4% (43 families) of the families of the students whose parents have a permissive - negligent parental attitude are of a middle economic level, 80% of the families (28 families) of the students whose parents have an authoritarian parental attitude are of middle economic level and 63.3% of the families (19 families) of the students whose parents have a permissive and tolerant parents attitudes are of middle economic level.

It was determined that 77.8% of the families (35 families) of the students whose parents have a democratic parental attitude are the nuclear family, 52.6% of the families (30 families) of the students whose parents have a permissive - negligent parental attitude are the nuclear family, 71.4% (25 families) of the families of students whose parents have an authoritarian parental attitude are nuclear families and 70% (21 families) of families of students whose parents have a permissive and tolerant parents attitudes are nuclear families.

**Table 7.** Examination of Parent Attitude Scale According to Technological Devices at Home

		Mobile Phone		Tablet		Television		PS4		Computer	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Democratic Parental Attitude	n	5	40	19	26	1	44	27	18	4	41
	%	11.1	80.9	42.2	57.8	2.2	97.8	60.0	40.0	8.9	91.1
Permissive – Negligent Parent Attitude	n	11	46	37	20	0	57	50	7	16	41
	%	19.3	80.7	64.9	35.1	0.0	100.0	87.7	12.3	28.1	71.9
Authoritarian Parental Attitude	n	9	26	21	14	2	33	25	10	5	30
	%	25.7	74.3	60.0	40.0	5.7	94.3	71.4	28.6	14.3	85.7
Permissive – Tolerant Parental Attitude	n	0	30	3	27	0	30	12	18	3	27
	%	0.0	100.0	10.0	90.0	0.0	100.0	40.0	60.0	10.0	90.0

According to Table 7, It was determined that of the students whose parents have democratic parent attitude, 80.9% (40 people) have a phone at home, 57.8% (26 people) have a tablet at home, 97.8% (44 people) have a television at home, %40 (18 people) have PS4 at home, and 91.1% (41 people) have a computer at home. It was determined that of the students whose parents have permissive and negligent parent attitude, 80.7% (46 people) have a mobile phone at home, 35.1% (20 people) have a tablet at home, 100% (57 people) have a television at home, 12.3% (7 people) have a PS4 at home, and 71.9% (41 people) have a computer at home. It was determined that of the students whose parents have authoritarian parental attitude, 74.3% (26 people) have a mobile phone at home, 40% (14 people) have a tablet at home, 94.3% (33 people) have a television at home, 28.6% (10 people) have a PS4 at home, and 85.7% (30 people) have a computer at home. It was determined that of the students whose parents have permissive and tolerant parent attitude, 100% (30 people) have a mobile phone at home, 90% (27 people) have a tablet at home, 100% (30 people) have a television at home, 60% (18 people) have a PS4 at home, and 90% (27 people) have a computer at home.

The scores obtained in the Digital Game Addiction Scale for Children used in the study were grouped. The lowest score that can be obtained from the scale is “24” and the highest score is “120”. “The normal group with a score of 1-24, a low-risk group with a score of 25-45, a risky group with a score of 49-72, a dependent group with a score of 73-96, a highly dependent group with a score of 97-120” evaluated.

**Table 8.** Examination of The Digital Game Addiction Scale

	n	%
Normal Group	5	2.5
Low Risk Group	28	14.0
Risky Group	65	32.5
Dependent Group	83	41.5
Highly Dependent Group	19	9.5
Total	200	100.0

Frequency analyzes of the digital game addiction scale are given in Table 8. Of the students who took part in the research, 2.5% (5 people) are in the normal group, 14% (28 people) are in the low-risk group, 32.5% (65 people) are in the risk group, 41.5% (83 people) dependent group, 9.5% (19 people) were found to be a highly dependent group. The statistics regard with the comparison of addiction levels, which are considered important according to the Digital Game Addiction Scale for Children, according to demographic characteristics are given below.

**Table 9.** Examination of The Digital Game Addiction Scale According to Children's Demographic Characteristics

	Gender			
	Girl		Boy	
	n	%	n	%
Risky Group	34	52.3	31	47.7
Dependent Group	41	49.4	42	50.6
Highly Dependent Group	10	52.6	9	47.4

  

	Number of Siblings							
	Only Child		2 children		3 children		4 or more	
	n	%	n	%	n	%	n	%
Risky Group	16	24.6	21	32.3	19	29.2	9	13,9
Dependent Group	19	22.9	33	39.8	20	24.1	11	13,3
Highly Dependent Group	4	21.0	5	26.0	6	32.0	4	21,0

  

	Birth Order					
	First Child		Middle Child		Last Child	
	n	%	n	%	n	%
Risky Group	26	40.0	20	30.8	19	29.2
Dependent Group	33	39.8	22	26.5	28	33.7
Highly Dependent Group	7	36.9	4	21.0	8	42.1

According to Table 9, It was determined that 52.3% (34 people) of the students in the risk group are girls, 47.7% (31 people) are boys, 49.4% (41 people) of the students in the dependent group are girls, 50.6% (42 people) of the students in the dependent group are boys and 52.6% (10 people) of the students in the highly dependent group are girls and 47.4% (9 people) are boys.

**Examination of Parental Attitudes in Digital Game Addiction of Primary School 4th Grade Students**

It was determined that 32.3% (21 people) of the parents of the students in the risk group have two children, 39.8% (33 people) of the parents of the students in the dependent group have two children, 32% (6 people) of the parents of the students in the highly dependent group have three children.

It was determined that 40% (26 people) of the students in the risk group are the first children, 39.8% (33 people) of the students in the dependent group are the first children, 42.1% (8 people) of the students in the highly dependent group are the last child.

**Table 10.** Examination of The Digital Game Addiction Scale According to Parent's Educational Status

		Mother's Educational Status					
		Illiterate	Primary School	Middle School	High School	University	Master's degree and above
Risky Group	n	8	14	14	14	13	2
	%	12.3	21.5	21.5	21.5	20.0	3.1
Dependent Group	n	5	14	19	25	17	3
	%	6.0	16.9	22.9	30.1	20.5	3.6
Highly Dependent Group	n	2	6	2	5	1	3
	%	10.5	31.6	10.5	26.3%	5.3	15.8
		Father's Educational Status					
Risky Group	n	1	9	14	20	20	1
	%	1.5	13.8	21.5	30.8	30.8	1.5
Dependent Group	n	1	15	18	28	19	2
	%	1.2	18.1	21.7	33.7	22.9	2.4
Highly Dependent Group	n	0	4	4	6	4	1
	%	0.0	21.0	21.0	32.0	21.0	5.0

According to Table 10, It was determined that 21.5% (14 people) of the mothers of the students in the risk group are primary school graduates, 21.5% (14 people) are middle school graduates, 21.5% (14 people) are high school graduates, 30.1% (25 people) of the mothers of the students in the dependent group are high school graduates, 26.3% (5 people) of the mothers of the students in the highly dependent group are high school graduates.

It was determined that 30.8% (20 people) of the fathers of the students in the risk group are high school graduates, 30.8% (20 people) are university graduates, 33.7% (28 people) of the fathers of the students in the dependent group are high school graduates, 32% (6 people) of the fathers of the students in the highly dependent group are high school graduates.

**Table 11.** Examination of The Digital Game Addiction Scale According to Parent's Job

		<b>Mother's Job</b>					
		Housewife	Worker	Civil servant	Self-employment	Not working	Other
Risky Group	<b>n</b>	34	6	9	3	5	8
	<b>%</b>	52.3	9.2	13.8	4.6	7.7	12,3
Dependent Group	<b>n</b>	37	17	9	3	7	10
	<b>%</b>	44.6	20.5	10.8	3.6	8.9	12,0
Highly Dependent Group	<b>n</b>	12	1	2	1	1	2
	<b>%</b>	63.0	5.0	11.	5.0	5.0	11,

  

		<b>Faher's Job</b>				
		Worker	Civil servant	Self-employment	Not working	Other professions
Risky Group	<b>n</b>	15	14	15	5	16
	<b>%</b>	23.1	21.5	23.1	7.7	24.6
Dependent Group	<b>n</b>	24	11	20	4	24
	<b>%</b>	28.9	13.3	24.1	4.8	28.9
Highly Dependent Group	<b>n</b>	5	4	6	1	3
	<b>%</b>	26.0	21.0	32.0	5.0	16.0

According to Table 11, It was determined that 52.3% (34 persons) of the mothers of the students in the risk group are housewives, 44.6% (37 persons) of the mothers of the students in the dependent group are housewives, 63% (12 people) of the mothers of the students in the highly dependent group are housewives.

It was determined that 24.6% (16 people) of the fathers of the students in the risk group work in other professions, 28.9% (24 people) of the fathers of the students in the dependent group are workers and 28.9% (24 people) are working in other professions, 32% (6 people) of the fathers of the students in the highly dependent group are self-employment.

**Table 12.** Examination of The Digital Game Addiction Scale According to Family Demographic Characteristics

		<b>Economic Status of the Family</b>		
		Lower	Middle	Top
Risky Group	<b>n</b>	7	53	5
	<b>%</b>	10.8	81.5	7.7
Dependent Group	<b>n</b>	7	57	19
	<b>%</b>	8.4	68.7	22.9
Highly Dependent Group	<b>n</b>	1	15	3
	<b>%</b>	5.0	79.0	16.0

  

		<b>Family Structure</b>		
		Nuclear family	Extended family	Fragmented Family
Risky Group	<b>n</b>	42	21	2
	<b>%</b>	64.6	32.3	3.1
Dependent Group	<b>n</b>	58	21	4
	<b>%</b>	69.9	25.3	4.8
Highly Dependent Group	<b>n</b>	13	4	2
	<b>%</b>	68.0	21.0	11.0



**Examination of Parental Attitudes in Digital Game Addiction of Primary School 4th Grade Students**

According to Table 12, It was determined that 81.5% (53 families) of the families of the students in the risk group are at middle economic level, 68.7% (57 families) of the families of the students in the dependent group are at middle economic level, 79% (15 families) of the families of the students in the highly dependent group at middle economic level.

It was determined that 64.6% (42 families) of the families of the students in the risk group are nuclear family, 69.9% (58 families) of the families of the students in the dependent group are nuclear family, 68% (13 families) of the families of the students in the highly dependent group are nuclear family.

**Table 13.** Examination of The Digital Game Addiction Scale According to Technological Devices at Home

		Mobile Phone		Tablet		Television		PS4		Computer	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Risky Group	n	9	56	29	36	1	64	44	21	9	56
	%	13.8	86.2	44.6	55.4	1.5	98.5	67.7	32.3	13.8	86.2
Dependent Group	n	9	74	37	46	0	83	57	26	15	68
	%	10.8	89.2	44.6	55.4	0.0	100	68.7	31.3	18.1	81.9
Highly Dependent Group	n	3	16	9	10	1	18	13	6	4	15
	%	16.0	84.0	47.0	53.0	5.0	95.0	68.0	32.0	21.0	79.0

According to Table 13, It was determined that 86.2% (56 people) of the students in the risk group have a mobile phone at home, 55.4% (36 people) have a tablet at home, 98.5% (64 people) have a television at home, 32.3% (21 people) have a PS4 at home, and 86.2% (56 people) have a computer at home. Of the students in the dependent group, 89.2% (74 people) have a mobile phone at home, 55.4% (46 people) have a tablet at home, 100% (83 people) have a television at home, 31.3% (26 people) have a PS4 at home, and 81.9% (68 people) have a computer at home. 84% (16 people) of the students in the highly dependent group have a mobile phone at home, 53% (10 people) have a tablet at home, 95% (18 people) have a television at home, 32% (6 people) have a PS4 at home, and 79% (15 people) have a computer at home.

**Table 14.** Examination of the Digital Game Addiction Scale According to the Parent Attitudes Scale

	Democratic Parental Attitude			Permissive – Negligent Parent Attitude			Authoritarian Parental Attitude			Permissive – Tolerant Parental Attitude		
	n	%	Sig.	n	%	Sig.	n	%	Sig.	n	%	Sig.
Risky Group	12	18.5	.550	18	27.7	.980	9	13.8	.099	12	18.5	.094
Dependent Group	21	25.3	.550	24	28.9	.980	12	14.5	.099	16	19.3	.094
Highly Dependent Group	4	21.1	.550	5	26.3	.980	7	36.8	.099	2	10.5	.094

The Digital Game Addiction Scale and the Parental Attitude scale are examined in Table 14. The Chi-Square test was used to see if there was a significant difference between the scales. From the Digital Game Addiction Scale, the risky group, the addicted group, the highly addicted group; from the Parental Attitude scale, the democratic attitude, permissive-negligent attitude, authoritarian attitude, permissive-tolerant attitude was evaluated. According to Table 14, It was determined that parents of 27.7% (18 people) of 65 students who participated in the study and are in the risky group for addiction have a permissive-neglectful parental attitude, while 28.9% (24 people) of 83 students in the dependent group have a permissive and negligent parent attitude, parents of 36.8% (7 people) of 18 students in the highly dependent group have an authoritarian parental attitude. In line with these data, it was determined that the students in the risk group and the dependent group have the most permissive-neglectful parental attitude, while the students in the highly dependent group have the most authoritarian parental attitude. As a result of these data, it was determined that digital game addiction did not differ significantly according to parental attitudes ( $p>0.05$ ).

## **5. RESULTS AND DISCUSSION**

The data obtained according to the results of the simple analysis were interpreted based on the literature. When the distribution of parental attitudes by gender is examined, it is seen that the number of female students with democratic parental attitudes is higher than that of male students. It is thought that this result is since girls think structurally more positively and are fonder of their families, but when the literature is examined, it is seen that there are studies that have different results from the results of our study. Demirbozan (2019) found in his study that the number of male students who perceive the parental attitude as democratic is significantly higher than that of female students. In his research, Tozkoparan (2014) found that female students perceive parental attitudes as authoritarian. In accordance with the findings obtained, as a result of the comparison made according to the educational status of the parents; Considering the number of students, it was seen that mothers and fathers with a high school or higher education level were prone to democratic and permissive-tolerant parental attitudes, while mothers and fathers with a secondary education level and below were prone to authoritarian and permissive-neglectful parenting attitudes. It is thought that conscious behaviors related to raising children will decrease with the decrease in the education level, and it is possible that the pressure and indifference towards the child will increase in direct proportion. Looking at the literature, Taşkın (2012) found that as the education level of the parents increased, the democratic attitude level increased, and the authoritarian and protective/demanding parents' attitudes decreased. Contrary to these views, Demirbozan (2019) and Tozkoparan (2014) found in their studies that there is no relationship between perceived parental attitude, mother's education level and father's education level.

When the digital game addiction scale was examined, it was determined that 41.5% of the students participating in the research were addicted. When the distribution by gender was examined, it was determined that there was no difference in addiction levels according to gender. Aydoğdu (2018) stated in his study that he could not find a significant difference on digital game addictions by gender. The result of this study supports the result of our research, but this result is a result that does not overlap with the findings in the literature. In their

research, Eni (2017), Keskin (2019), Öçalan (2019), Karabulut (2019) and Yayman (2019) found that male students' digital game addiction levels were significantly higher than female students. It was examined whether the levels of digital game addiction differed according to the educational status of the parents and it was determined that the education level of the parents was not effective in the addiction levels. When we look at the literature, it is seen that the findings differ in the levels of digital game addiction according to the educational status of the parents. In the studies conducted by Aydoğdu (2018) and Hazar (2017), it was observed that the educational status of the parents did not differ in the level of addiction, on the contrary, in the study conducted by Gökçearsan and Durakoğlu (2014), it was stated that as the education level of the parents increased, the level of digital game addiction of the students also increased. The researchers, who obtained this finding, thought that the level of working in a job increased in direct proportion to the increase in the education level, and therefore, less control of the parents at home could lead to less control over the child. When the distribution of digital game addiction according to the father's job was examined, it was determined that the addiction levels of the students whose fathers were not working were low. Considering the fact that the group that poses a risk in game addiction is male children, it is thought that the father's being at home, having more control over the child and the opportunity to spend productive time with his child may be effective in reducing the level of addiction.

As a result of the analysis, it was determined that there was no significant relationship between parental attitudes and digital game addiction ( $p>0.05$ ). This result was different from the researchers' hypothesis. This finding of the study does not coincide with the findings of Demirbozan's (2019) study with high school students. According to the researcher, students who perceive their parents' attitudes as democratic and protective/demanding have a high level of digital game addiction. Again, according to the same research, students who perceive their parents' attitude as authoritarian have a low level of digital game addiction. In another study, the research conducted by Yönet and Çalık (2020) found that the highest level of digital game addiction was in authoritarian families.

As a result, when the two scales were compared, it was concluded that there was no significant relationship between parental attitudes and digital game addiction. It is thought that this result is due to the simple analysis made. For this reason, it is considered correct not to generalize the research results to large samples. According to the data obtained as a result of the research; the percentages of the students participating in the research were examined and it was concluded that the majority (28.5%) perceived the permissive-neglectful parental attitude. It was concluded that the attitudes of the parents did not differ according to the gender variable, and that democratic parents' attitudes were perceived more by female students and other attitudes by male students. It was concluded that as the education level of the parents increased, the perceived democratic and permissive-tolerant attitude increased, and as the education level of the parents decreased, the perceived authoritarian and permissive-negligent attitude increased. The percentages of the students participating in the research were examined and it was concluded that the majority of the students (41.5%) were addicted. It was concluded that the father's being not working is a protective factor in digital game addiction.

## 6. RECOMMENDATIONS

- It was observed that due to the length of the data collection tools used in the research, the students were distracted and prevented them from giving objective answers. For this reason, who researchers want to do research on this are recommended to use shorter scales that serve the same in order for students to give more objective answers.
- In order to reach more generalizable data, it is recommended to include students from different economic levels and different family structures in the sample group.
- Due to the main limitation of the research, the study was conducted with primary school 4th grade students. However, it is recommended to conduct new research by addressing digital game addiction, which is one of the important problems of today, in wider audiences and in a wide age spectrum.
- If the study is carried out with a larger study group and more advanced statistical analysis in the next stage, it will contribute more to the field.

## 7. ABOUT THE AUTHORS

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