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# Determining the Opinions of Parents with Children with Special Needs on Digital Games

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**Abstract**: With the development of technology, interest in digital games has increased in children with typical development and children with special needs. Many digital games with different contents are played by children with special needs. The research was carried out with the parents of diagnosed children aged 6-13 years. The aim of the research is to determine the views of parents of children with special needs on digital games. The research was designed with phenomenology (phenomenology), one of the qualitative research methods, and the data were created and analyzed using content analysis. A semi-structured interview form and a questionnaire containing demographic information were used in the research. As a result of the data, codes were created and thanks to them, themes and sub-themes were reached. In the research, digital game theme and sub-themes were reached. In consequence of them, it was obtained that children with special needs mostly prefer war games, their purpose of playing games is entertainment, they mostly prefer mobile phones while playing games, and they play games for at least two hours a day. In addition to the findings that digital games contribute positively to the educational processes, skills and development of children with special needs, there were also findings that digital games have negative effects such as children not being able to spare time for their lessons and spending all their time in digital games.

*Keywords:* Children with Special Needs, Game, Digital Game, Parents, Phenomenology, Technology

## Özel Gereksinimli Çocuğu olan Ailelerin Dijital Oyunlara Yönelik Görüşlerinin Belirlenmesi

**Öz:** Teknolojinin gelişmesi ile birlikte dijital oyunlara yönelik ilgi tipik gelişim gösteren çocuklarda ve özel gereksinimli çocuklarda artış göstermiştir. Farklı içeriğe sahip birçok dijital oyun özel gereksinimli çocuklar tarafından oynanmaktadır. Araştırma tanı almış 6-13 yaş arasındaki çocukların aileleri ile gerçekleştirilmiştir. Yapılan araştırmanın amacı, özel gereksinimli çocukları olan ailelerin dijital oyunlara yönelik görüşlerinin belirlenmesidir. Araştırma, nitel araştırma yöntemlerinden fenomenoloji (olgu bilimi) ile desenlemiş içerik analizi kullanılarak veriler oluşturularak analiz edilmiştir. Araştırmada yarı yapılandırılmış görüşme formu ve demografik bilgileri içeren soru formu kullanılmıştır. Ortaya çıkan veriler sonucu, kodlar oluşturulmuş bunların sonucunda da tema ve alt temalara ulaşılmıştır. Araştırmada dijital oyun teması ve alt temalarına ulaşılmıştır. Bunların sonucunda, özel gereksinimli çocukların en çok savaş oyunlarını tercih ettikleri, oyun oynama amaçlarının eğlence olduğu, oyun oynarken en çok cep telefonunu tercih ettikleri, günde en az iki saat oyun oynadıkları sonucuna ulaşılmıştır. Bunlara ek olarak, dijital oyunların özel gereksinimli çocukların eğitim süreçlerine, beceri ve gelişimlerine olumlu katkı sağladığına ilişkin bulgulara ayrıca çocukların derslerine zaman ayıramaması, tüm vaktini dijital oyunlarda harcaması gibi olumsuz etkilerinde olduğuna ilişkin bulgulara ulaşılmıştır.

*Anahtar Sözcükler:* Özel Gereksinimli Çocuklar, Oyun, Dijital Oyun, Aile, Fenomenoloji, Teknoloji

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Play has an important field in the lives of children with special needs just as their typically developing peers. In early childhood, play contributes to children's social, cognitive, psychological and biological development (Horzum, 2011). Play is defined as an activity in which both children and adults participate to have fun, learn and engage in social activities, and in which children are freely and willingly involved in the process with both intrinsic and extrinsic motivation (Pellegrini, 2009). In addition, playing games helps children develop various areas such as thinking, problem solving, creativity and social skills (Ginsburg, 2007). According to Huizinga (2006), play is an action that is played freely, has certain rules, a specific time and place, serves a specific purpose, and is accompanied by a mixture of tension and joy.

Play has reached a different level with the advancement of technology (Güzen, 2021). People are increasingly turning to digital games as time goes by (Bayındır & Mısırlı, 2017). Other names for digital games are electronic games, video games, computer games, and handheld games (Wolf, 2021). With the advancement of technology, the interest in traditional games has decreased, leading to a rapid rise in digital gaming. In times when technology was not as widespread, children used to interact and play games with their friends in the streets and parks, but nowadays, they communicate virtually through playing games on computers and the internet (Horzum, 2011). The development of technology has brought about some pros and cons to children playing digital games. Research has found that children develop their social skills and become motivated through playing digital games (Gee, 2003; Kebritchi et al., 2010). Another study observed that children enhance their social interaction skills through digital games and apply them in their lives (Kuo et al., 2017). In a study conducted by Kuo et al. (2007), it was observed that parents found digital games to be more beneficial when they provided them to their children for a specific duration and purpose. This finding suggests that parents can contribute positively to their children's development by providing digital games in a balanced manner.

Digital games can have a positive impact on children's learning process. In a study by Kebritchi et al. (2010), it was found that a digital game designed to improve mathematical skills was more effective than traditional methods. Additionally, some research suggests that digital games increase motivation and serve as an effective learning method for children (Gee, 2003). A study conducted by Smith (2010) indicated that children's concentration skills improve through digital games. These types of digital games contribute positively to the learning process. Johnson (2018) noted in their research that students using digital games better understand learning materials and overcome learning obstacles. When used in accordance with learning styles, digital games provide learning opportunities for children with special needs. Along with its advantages, digital gaming can also have disadvantages. For example, in a study conducted by Jones et al. (2014), it was noted that excessive time spent by children on digital games led to a decrease in their social interactions, resulting in negative impacts on social interaction and interaction with friends, particularly affecting children with autism.

In a study conducted by Mazurek et al. (2013), it was found that individuals with autism spectrum disorder who spend a lot of time playing digital games are at an increased risk of obesity. Excessive screen time among individuals with special needs can lead to reduced physical activity and health problems. Another con of digital gaming found in research with children with special needs is its impact on mental health. In a study by Ferguson (2015), it was found that children who become addicted to digital games are more likely to experience problems such as depression and anxiety, making it difficult for them to cope with these issues. Besides that, their academic achievements are affected. Spending hours playing digital games can negatively affect their education and learning processes, resulting in a decline in academic performance. In a study by Mazurek (2013), it was shown that the addiction of individuals with autism to digital games impacted their academic achievements negatively. This highlights the detrimental effects of digital gaming on their studies and learning processes. Consequently, excessive addiction and distraction can also be cited as negative consequences (Ferguson, 2015; Gentile et al., 2011).

Regarding the studies conducted in Turkey, Kara (2023) investigated the views of parents of children with special needs on digital games. The study was conducted with the parents of 5th grade children who were diagnosed with attention deficit and hyperactivity deficit, learning disability and mild intellectual

disability. According to the results of the study, some of the children were dependent on digital tools. Parents stated that they had difficulty in communicating with their children, and as a result of this, they used different varieties of methods such as restricting digital screens and reward-punishment to prevent digital game addiction. Participants remarked that they received professional help to cope with the addiction. In another study, Şen (2022) examined the effect of parental attitudes on digital game addiction in children diagnosed with learning disabilities. This study examined the effect of parental attitudes on digital game addiction in children aged 10-14 years with learning disabilities. As a result of the research, it was found that children's digital game addiction was at a moderate level and the addiction score of children diagnosed with learning disabilities using tablets was higher than children using computers. In the study, children of parents with authoritarian and protective attitudes were found to be more addicted to digital games.

Digital games' prevalence and the positive and negative effects of digital games, the opinions of parents of children with special needs about digital games are very important. This study was designed to investigate how aware parents of children with special needs are about the potential dangers their children may encounter online, what kind of content they follow in games, and the positive and negative effects of digital games on their children's lives. Literature on children with special needs and digital games is quite limited, while there are many studies on digital games with children with typical development. The primary aim of the study is to determine the views of parents of children with special needs on digital games and their children's digital game preferences. For this purpose, the following questions were investigated:

1. What are the views of parents who have children with special needs on the types of digital games played by their children?
2. What are the views of parents who have children with special needs on the content of digital games played by their children?
3. What are the views of parents who have children with special needs on the positive contributions of digital games to their children?
4. What are the views of parents who have children with special needs on the negative effects of digital games on their children?
5. How many hours do children with special needs play digital games on weekdays and weekends?

## Method

The qualitative research method and the Phenomenology (phenomenological science) research model were utilized to determine the views of parents with children with special needs regarding digital gaming. Phenomenology is aimed at understanding how objects are perceived, interpreted, and given meaning within the human experience, rather than focusing solely on the objects themselves. This involves examining individuals' inner worlds to explain the subjective experiences of objects. It represents a philosophical and scientific approach used to develop an understanding of human experience and to comprehend individuals' subjective experiences (Smith, 2008). The research utilized content analysis. A semi-structured interview form was adopted as the data collection method. Through content analysis, codes, themes, and subthemes were derived from the data. Semi-structured interviews were conducted to collect data, which were then analyzed using content analysis.

### Participants of The Study

In qualitative research, purposive sampling enables the discovery and explanation of facts and events as it allows in-depth study of situations that are thought to have rich information (Yıldırım & Şimşek, 2016). In this study, interviews were conducted with parents who volunteered for the research, had children with special needs, whose children played digital games, and who could make time for the interview. The participants of the study consist of 36 individuals, including mothers, fathers, older brothers, older sisters, and aunts of students attending a special rehabilitation center located in the Sultangazi district of Istanbul during the 2022-2023 academic year. Table 1 presents the demographic information of the sample group used in the

research. The distribution of the participants' children according to their demographic characteristics is provided in Table 2.

**Table 1.** *Distribution of Participants According to Demographic Characteristics*

| Demographic Variable | Group | N |
|---|---|---|
| Interviewees | Mother | 25 |
| | Older Brother | 5 |
| | Father | 4 |
| | Older Sister | 1 |
| | Aunt | 1 |
| Total | | 36 |

The demographic information of the participants in the study reveals that the majority of the interviewees are mothers. The participants in this study consisted of 25 mothers, four fathers, five older brothers, one older sister, and one aunt. The ages of the mothers are as follows: one person between the ages of 20 and 30, 20 people between the ages of 30 and 40 and 15 people over the age of 40. As for the ages of the fathers, there are eight people between the ages of 30 and 40 and 28 people over the age of 40. The number of children in the parents of the participants is as follows: four people have one child, nine people have two children, 18 people have three children and five people have four or more children. The educational level of the mothers includes four illiterate or literate, 20 primary school graduates, three secondary school graduates, seven high school graduates and two university graduates. In terms of the education level of the fathers, there are three illiterate or literate, 19 primary school graduates, five secondary school graduates and nine high school graduates. As for the occupations of the mothers, it is seen that two of them are self-employed or work in the private sector, while 34 of them are housewives. Regarding the occupational status of the fathers, two of them are civil servants and 34 of them are self-employed or work in the private sector.

**Table 2.** *Distribution of Participants' Children According to Demographic Characteristics*

| Demographic Variable | Group | N |
|---|---|---|
| Children's Gender Distribution | Male | 30 |
| | Female | 6 |
| Total | | 36 |
| Children's Age | 6-8 | 8 |
| | 8-10 | 11 |
| | 10-13 | 17 |
| Total | | 36 |
| Type of Disability of the Child | Learning Disability | 25 |
| | Intellectual Disability | 6 |
| | Autism | 5 |
| Total | | 36 |

Demographic information of children with special needs shows that there are 30 boys and six girls. The age groups of children with special needs were analyzed; there were eight children between the ages of 6-8, 11 children between the ages of 8-10 and 17 children between the ages of 10-13. The types of disabilities of the children participating in the study are as follows: 25 children were diagnosed with specific learning disabilities, six children with intellectual disabilities and five children with autism.

## Ethical Issues

Written permission was obtained from İstanbul Kent University Health Sciences Scientific Research and Publication Ethics Committee for this research. Before starting the interviews, the purpose and rationale of the research were explained to the participants. It was clearly stated that the interviews would be recorded, the audio recordings would be kept confidential, and only the researcher would listen to them for the purposes of this research. The participants willingly signed a consent form.

**Data Collection Process**

Interviews were used as data collection method. The most commonly used data collection method in qualitative research is the interview method (Yıldırım & Şimşek, 2016). Semi-structured interview forms and forms containing demographic information were used to ask questions for the participants. The interview form used in the research was prepared by receiving expert opinions. During the preparation of the interview form, the point of views of an expert who completed his doctorate in the field of early childhood education, an expert who has a master's degree in special education, and an expert who continues his master's degree in special education were taken. The data were collected by interviewing the parents and relatives of students attending special education institutions in Istanbul in the 2022-2023 academic year. Interviews for the research that were done face to face in the teachers' room in the rehabilitation center were conducted between 18 March 2023 and 3 April 2023. The duration of the interviews ranged from a minimum of 02:43 minutes to a maximum of 07:14 minutes. The interviews lasted 2 hours 38 minutes 33 seconds in total and audio recordings were taken.

**Analyzing Data**

Consent forms were filled out voluntarily by the parents participating in the research. Content analysis method was used to analyze the interview questions in the study. Participants were given code names. These names were assigned as codes such as "K1, K2, K3, ..., K36" to represent each participant. In the process of content analysis, interviews were coded, and themes and subthemes were created based on these codes. The frequency values of participants' statements were determined according to the frequency of codes. Participants' words were included in the research directly without any addition or removal.

**Validity and Reliability**

In order to ensure the reliability of the research, the research data were coded independently by three different researchers and the resulting themes, sub-themes and codes were finalized. In order to evaluate the reliability of the research, the formula "P (Percentage of Agreement %) = [Na (Agreement) / Na (Agreement) + Nd (Disagreement)] X 100" suggested by Miles and Huberman (1994) was used. The P value obtained as a result of this calculation was found to be 93%.

## Findings

The research has identified one main theme and five sub-themes. The main theme obtained from the data analysis is described as "Digital Games." From the participants' responses, five sub-themes emerged: "Digital Game Contents, Children's Purposes of Playing Digital Games, Effects of Digital Games, Time Spent on Digital Gaming, and Devices Used by Children for Digital Gaming." In the sub-theme "Digital Game Contents," codes were determined based on the discussions with the participants, resulting in four separate codes: "War Games, Construction Games, Car Games, and Other Games." Under the sub-theme "Children's Purposes of Playing Digital Games," two codes were depicted, namely "Entertainment and Passing Time." In the sub-theme "Effects of Digital Games," two codes were determined as "Positive Contributions and Negative Effects," each further divided into their own categories. Under the sub-theme "Time Spent on Digital Gaming," two codes were identified: "Weekdays and Weekends." Lastly, in the sub-theme "Devices Used by Children for Digital Gaming," three codes were gathered: "Phone, Tablet, and Computer." The theme and sub-themes are given in Table 3.

**Table 3.** *Digital Games*

| **Subthemes** |
|---|
| Digital Game Contents |
| Children's Purposes for Playing Digital Games |
| Effects of Digital Games |
| Devices Used by Children for Playing Digital Games |
| Time Spent on Digital Games |

The participants in the interviews formed codes based on their responses in the "Digital Game Contents" sub-theme. The sub-themes were divided into five categories: "Digital Game Contents, Children's Purposes for Playing Digital Games, Effects of Digital Games, Time Spent on Digital Games, Devices Used by Children for Playing Digital Games." The frequency distributions related to sub-themes and codes are presented in Table 4 below.

**Table 4.** *Digital Game Contents*

| Codes | f |
|---|---|
| War Games | 15 |
| Building-Construction Games | 7 |
| Action-Adventure Games | 5 |
| Sport Games | 5 |
| Car Games | 4 |

"Special Needs Parents' views on the Digital Games Their Children Play" has been presented as a subtheme in Table 4. The codes for the subtheme of digital game content were determined through discussions with the participants, resulting in five codes: "War Games, Building Games, Action-Adventure Games, Sports Games, and Car Games." Fifteen participants mentioned that their children played war games. The names of these war games include "Pubg, Roblox..." Building games were mentioned by seven participants, with "Minecraft" being mentioned as the specific game. Five participants mentioned the names of action-adventure games, citing "Gta" as an example. Sports games were mentioned by five participants, with names such as "Fifa, Basketball, Bowling" being mentioned. Additionally, four participants stated that their children played car games.

Fifteen participants stated that the content of the games their children played was war games. In the war games code, they mentioned games like Roblox and Pubg. Participants expressed that they did not want their children to play war games but felt unable to prevent it anymore, noting that everyone plays war games and that these games have become normalized. Participant K5 mentioned that the games their child plays contain profanity and violence, expressing their view that it would lead to negative behavior, saying: "In Pubg, there's killing. In Minecraft, there's a lot of profanity, verbal direction towards negative behavior, I can say. Profanity, hitting, killing….". They stated this during the interview. Participants mentioned Minecraft as a building and construction game. Seven participants mentioned this game. The interviewees stated that their children play Minecraft for long periods. The interviewed participants mentioned that the content of the Minecraft game involves activities like building houses and constructions. Participant K9 described the game's content as follows: "Well, umm, Minecraft, as I said, he's building, making houses. He gathers animals there, collects items in the game." Participants provided examples of action-adventure games that children play such as GTA and other games on gaming websites. Participant K4 expressed that they do not allow their child to play this game, but their child secretly plays it. They stated: "If permission is given on the computer, yes, they also play GTA, GTA 5, I cannot remember the full name. But as I said, I don't allow them to play these at home. Sometimes, they ask for permission to switch on the computer, and I think they play secretly without anyone knowing." Participants mentioned sports games such as football, basketball, and bowling as examples of sports games. They also mentioned car games as another code. Car games were stated to be among the games played by boys. Participants mentioned that they prefer their children to play car games more and allow them to play car games. Participant K4 mentioned about their child's game: "Since I allowed specific games to be installed, only car racing games, umm…".

Another subtheme is the purposes of digital gaming. Table 5 presents the purposes of playing games for children with special needs.

**Table 5.** *Children's Purposes for Playing Digital Games*

| Codes | f |
|---|---|
| Entertainment | 26 |
| Passing time | 6 |
| Other reasons | 4 |

The codes for the purposes of playing digital games were determined through interviews with the participants as "Entertainment, Passing time, and Other reasons." 26 participants stated that the purpose of their children playing digital games was "Entertainment." Six participants mentioned that the purpose was "Passing time." Additionally, four participants mentioned other reasons such as "Boredom, education, playing with friends, curiosity, and introversion." Participant K13 expressed their views on the purpose of playing digital games as follows: "This is because he enjoys it. He plays because he enjoys it. We cannot force him to do anything he does not like. He plays for fun because he likes it." Participant K2, who mentioned education as the purpose of playing digital games, responded as follows: "Um, I wanted the car driving game myself initially, he didn't want it. I made him play for hand-eye coordination. I downloaded the word game to improve his vocabulary. I downloaded the puzzle game for attention." Participant K20's response regarding the addictive nature of digital games is as follows: "I don't know, honestly, if it became a habit now... for fun. I think it is a bit addictive, but now it is turned into a habit..." Another theme is the effects of digital games. Table 6 provides information on the positive and negative effects of digital games.

**Table 6.** *Effects of Digital Games*

| **Positive effects of digital games** | **f** | **Negative effects of digital games** | **f** |
|---|---|---|---|
| Contribution to educational processes | 8 | Inability to allocate time for lessons | 13 |
| Contribution to skill acquisition | 5 | Behavioral disorders | 7 |
| Contribution to development | 4 | Addiction | 6 |
| | | Eating/Sleeping problems | 5 |
| | | Irritability | 5 |

In the interview, participants pointed out that digital games contribute to education by mentioning that children learn things from the screen. K23 expressed the contribution to education with these words: "Definitely, sir. For example, he learned numbers, English numbers from there, colors, matching, and coloring mostly from there. He watches those kinds of things a lot, generally looks at them. He does not play that many games. Mostly looks at those kinds of things like coloring, matching, numbers, beads like that." Participants who stated that digital games have an impact on skill acquisition mentioned that their children gain skills and their existing skills improve. Participant K6 expressed the impact of digital games on skill acquisition with the following words: "I think, sir, their visual skills improve. At least they can recognize which color, which shape does what. It gathers their attention, I mean attention... maybe I couldn't explain it well. Let's say it helps them gather their attention. Both in terms of color and shape, they can match them, from that perspective." Participant K4 expressed that digital games contribute to their children's development and improve their attention. They mentioned: "There are games that develop attention sometimes like building towers or making houses, they seem to affect his attention. When he plays such games, his attention is influenced in a better way. Yes, there is development... for example, using the internet, using the phone, computer usage, learning about how to access things on the internet, and similar things related to informatics are learned well."

Thirteen participants expressed that their children could not allocate time for their lessons due to playing digital games. They mentioned that their children wasted their time on computer games instead of studying. Participant K6 mentioned that their child spent too much time on games and could use that time for more productive activities such as studying, reading books, or engaging in different activities. They stated: "He spends a lot of time on it. Instead of doing that, he could do something more useful. He could study, read books, or do something different, but he spends too much time on it." Seven participants mentioned that the negative impact of digital games was behavioral disorders. They expressed that digital games negatively affected their children's behavior, causing them to learn violence and reflect it in their surroundings. Participant K5 expressed the following regarding behavioral disorders: "He curses. He hits without thinking about how much damage he inflicts while hitting. To anything. Of course, it exists. It already makes learning difficult. It has become integrated into his life. Even when speaking normally, he incorporates whatever sentences he hears there into his life. He curses seriously. He may not do it here, he used to do it a lot, but he stopped a bit after I talked to him. But he does it." Participant K10, expressing concerns about addiction to digital games, stated the following: "Once he gets used to something, he wants the same thing over and over

again. Constantly asking for it, saying 'Mom, give it to me, Mom, give it to me. Mom, let me play a bit more.' He gets used to playing games. If he did not get used to it, if we could adjust it in moderation and give it to him for a while, then he would stop again. But no. Once you give it to him, it's over. He will constantly want to play. He takes out my phone from under the pillow when he goes to bed, saying 'Let me play a little…' in the morning."

Five participants mentioned that their children experience eating and sleeping disorders due to playing digital games. K7 expressed that digital games cause eating and sleeping disorders with the following words: "He screams, saying turn it off, but you know, when it's 10-11, he says he will turn it off, but he does not. Of course, he stays sleepless, loses his appetite, and eats quickly, saying let me eat quickly and get over with it. There's no regularity left..." Five participants stated that digital games cause irritability as a negative effect on children. Participant K17 expressed the impact of digital games on irritability as follows: "Recently, with the game Pubg, he gets quite angry. He gets really upset. When we try to take his phone away, he attacks us. He cries, he whines." Special needs children's devices for playing digital games are shown in Table 7.

**Table 7.** *Devices Used by Children for Playing Digital Games*

| Codes | f |
|---|---|
| Phone | 28 |
| Tablet | 8 |
| Computer | 8 |

Children with special needs mostly prefer to play digital games on their phones. 28 participants stated that their children mostly play digital games on their phones. Eight participants mentioned that their children play digital games on tablets. Meanwhile, eight participants stated that their children prefer computers when playing digital games. K22 expressed their child's device preferences as follows: "They play GTA on the computer and play matches on the phone." K20 stated: "Computer, tablet. They watch videos on the tablet and play games on the computer." Participants mentioned that their children's choice of devices for playing digital games varies depending on the place and the game. However, the most preferred device remains the phone. The time spent by children with special needs on digital games varies both based on the device they use for gaming and whether it is a weekday or weekend. Table 8 illustrates the time allocated by children with special needs to digital games on weekdays and weekends.

**Table 8.** *Time Spent on Digital Games*

| The time spent on gaming during weekdays | f | The time spent on gaming during weekends | f |
|---|---|---|---|
| 1-6 hours | 13 | 1-6 hours | 17 |
| 6-12 hours | 13 | 6-12 hours | 9 |
| 12 hours and over | 10 | 12 hours and over | 6 |

The participants have indicated that their children immediately start playing digital games after school, and without restriction, they would play from morning until evening. K17: Stays at home so playing 3, even 4 hours. Also playing 3-4 hours on Saturday and on Sunday it becomes 5 hours, totaling 9 hours. K18: They play for 6 hours every day. They play for 12 hours on the weekend.

## Conclusion and Discussion

This study provides detailed knowledge about the preferences of children with special needs regarding on digital games. When the literature was examined, many studies on children with typical development and their parents were found (Eryol, 2023; Ferguson, 2015; Gentile et al., 2011; İnce, 2022; Jones, 2014; Lemmens et al., 2011; Mercan-Uzun et al., 2023; Smith, 2010; Sönmez & Sönmez, 2023; Swing et al., 2010; Toran et al., 2016; Üstündağ, 2019). However, studies investigating the effects of digital games on children with special needs are quite limited. The aim of this study is to provide information about the views of parents of children with special needs on digital games and thus to shed light on the use of digital games among children with special needs in the literature.

As a result of the research, the opinions of parents of children with special needs regarding digital games

were examined within the sub-theme of the content of digital games. Based on the information gathered from the opinions, it was observed that children with special needs tend to prefer war games. Participants have indicated that they play games such as Roblox and PUBG among war games. The preference of children with special needs for war games may result from their inability to distinguish between the real world and the virtual world, which could negatively affect their social interactions and empathy skills (Gentile et al., 2011). Constantly playing war games may also increase their anxiety levels (Nikkelen et al., 2014). It is essential for parents and teachers to monitor the content of the games played by children with special needs. They can contribute to their development by recommending alternative games that do not contain violence, thus promoting their well-being (American Academy of Paediatricians (AAP), 2016). After war games, their preferred game genre is construction games. Specifically, they prefer Minecraft as a construction game. Other preferred game genres include action-adventure and sports games. İnce (2022) found in their study titled "Examination of the Views of Parents on the "Digital Game and Child" Family Education Program Before and After" that the games most commonly preferred by children, according to parents, were PUBG and Minecraft. These games are similar to the examples of games mentioned in the research. From these findings, it can be said that children with special needs play similar games with their typically developing peers.

As a result of the research, it has been observed that the primary purpose of children with special needs playing digital games is for entertainment, followed by simply passing time. In a study conducted by Toran et al. (2016), it was noted that typical developing children also prefer digital games for reasons such as entertainment and passing time. Another study revealed that 63% of participants cited finding digital games enjoyable as their reason for playing (Üstündağ, 2019). These findings align with the results of this research.

Educational digital games facilitate learning for children with special needs by enhancing their cognitive skills, problem-solving abilities, and attention skills (Virvou & Katsionis, 2008). In this context, the research indicates that the parents of children with special needs have provided information about the positive effects of digital games. Parents expressed that digital games contribute most to educational processes. Another achievement mentioned by parents is the impact on skill development. Some families also stated that digital games contribute to the development of their children with special needs. In İnce's study (2022), the positive effects of digital games were listed as being educational, enabling the use of technology, building self-confidence, and calming the child. Similarly, Mercan-Uzun et al.'s (2023) study "Evaluation of Children's Digital Game Playing Habits from the Perspective of Parents" indicates that parents report improvement in their children's skills due to playing digital games, aligning with the findings of this study.

The prolonged use of digital games can lead to social relationship issues and communication skill problems in children with special needs (AAP, 2016). The families of children with special needs have mentioned that the most significant negative impact of digital games is that their children cannot allocate time for their studies. They have complained that their children spend the majority of their time playing digital games, leaving no time for their studies. Another negative effect of digital games is the occurrence of behavioral disorders in children. Parents of children who play digital games have reported that their children do not listen to them, exhibit aggressive behavior, and engage in profanity during conversations. Another adverse effect of digital games is addiction. Parents have stated that their children cannot stop playing digital games and constantly want to play. They have also mentioned that children with special needs get angry and disobey when they are not allowed to play digital games or when their requests to play are denied.

Participants reported that some days, the playing time of children with special needs exceeds 10 hours, while some participants could not specify an exact number of hours. Generally, participants stated that children with special needs play for at least two to three hours daily, with some playing up to nine hours. Toran et al. (2016) mentioned in their study that the duration of children's digital game playing has become uncertain, thus reaching similar results as in this research. It has been noted that when digital games are played for long periods, children may experience problems with their perception of reality, leading to difficulties when playing both virtual and real games (Tuğrul et al. 2014). In İnce's study (2022), it was mentioned that the duration of digital game playing during weekdays and weekends varied, with some parents stating that this duration decreased while others stated that it increased. This result is similar to the findings of this study.

The research also indicates that children with special needs prefer to play digital games on their phones. Although the phone is the most commonly used device, tablets and computers are also used alongside it. Participants mentioned that children with special needs use different devices depending on the game and the location they are in. In the study conducted by Toran et al. (2016), it was found that typically developing children use different devices such as phones, tablets, and computers to play digital games. This finding is consistent with the research.

As a result, children with special needs play digital games for long hours and the contents of the games they play are not appropriate for their age and developmental level. Parents should control the time their children spend with digital games, know the content of the digital games played by their children, and choose age-appropriate digital games. In addition, parents should be informed about games that support children's education and development.

## Limitations and Recommendations

This research was conducted in Sultangazi district and Rehabilitation Centre. Researchers can expand the scope of the study by including more parents, possibly enlarging the area and including more schools. The study was conducted with the participation of 36 people and the number of participants can be increased. Although this study includes parents of children aged 6-13 years, it can be expanded to include different age groups. The study focused on students diagnosed with intellectual disability, learning disability and autism. Future research may focus on other disability groups. Qualitative methods were used in this study; however, a quantitative study focusing on children with special needs and digital games can be designed. The majority of the participants in this study were mothers and future studies could include other family members. In further research, a study on the relationship between the frequency of playing digital games and problem behaviors or peer factors affecting children's game preferences can be conducted.

## Declarations

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