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## **ANALYSIS OF THE PERCEPTIONS OF THE DIGITAL GAME CONCEPT OF 9-10 YEAR CHILDREN BY MEANS OF METAPHORS\***

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### **ABSTRACT**

The aim of this research is to determine the thoughts of 9-10 year old children about the digital game concept with the help of metaphors. The study group of the study consisted of 40 students, 22 in the age group of 9 and 18 in the age group of 10, who were educated in the academic year of 2016-2017 in 30 Ağustos Zafer Primary School in Kırşehir. In order to collect data in the study, "metaphor form" was prepared to determine the students' thoughts about digital game concept. Students in metamorphic form are like "digital game ..." because ... " they are asked to complete the coven. In this study prepared according to qualitative research model, phenomenology is used. In the analysis of the data; content analysis technique. For the reliability of the analysis of the research data, the reliability coefficient between the participants was calculated [Opinion union / (Union union + Discretion of opinion) x 100] and this value was found to be 90%. By evaluating the data, it was seen that the students produced a total of 19 metaphors. These metaphors produced are collected in 5 different categories. While the students were found to develop metaphors in the most "addictive" category of digital game, they followed this category associate, Entertaining activities, Spending time, Violence". In the addiction category, 6 metaphors were produced by the participants and it became the most widely used "harmful habit" metaphor. As a result, it has been determined that students express the concept of digital game through different perspectives through metaphors.

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### STRUCTURED ABSTRACT

Along with evolving communication technology, researchers are focusing on increasingly technological tools such as computers, tablets and mobile phones, especially on the Internet. In this study, it is aimed to examine the perceptions of 9-10 age group students regarding digital games with the increasing use of digital games.

In this study prepared according to qualitative research model, phenomenology is used. Phenomenology focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding. In this study, 9-10 age group students' thoughts about digital game concept were determined through metaphor. This study was carried out in 2016-2017 academic year; 22 in the 9 age group and 18 in the 10 age group. Due to reasons such as the need to collect detailed data on the subject and the high quality of the data, a study group was selected according to the purposeful sampling method in this study. In the selection of the study group, criterion sampling was used from the purposeful sampling methods which enable to conduct in-depth research by selecting rich situations in terms of information depending on the purpose of the study. Criteria sampling is the study of situations that meet a set of predefined criteria. In this context, criteria such as the voluntary participation of the students to work are taken into consideration.

The research data were collected in the form of a metaphor composed of semi-structured questions prepared by the researcher. In order to determine the mental imagery of the students' digital game concept in the form, each student is asked to complete the culm "It's like a digital game, because ..."

Metaphors created by taking into account the perception of digital game were collected in 5 different categories. According to these categories digital game; addiction, unsocial, wasteing time, entertaining activities, violence. This suggests that students have some negative mental imagery (metaphor) about the game concept. With the lack of playgrounds, unsafe playgrounds and the development of technology, the need for gaming has been moved from digital to digital. All of these situations may have caused the students to have negative mental imagery related to the digital game concept.

It has been determined that the metaphor produced by the students is the "digital game addictive" category at the beginning. In the light of these findings, it is seen that the metaphorical clues of the digital game metaphor that the students produce are used especially to explain the digital game concept. *"Digital gaming is like addiction. Because I think it is both psychologically and physically harmful."*, *"Digital play is like harmful habits. Because we prefer more violent games than educational ones."*, *"The digital game is like a seed. Because I spend hours on computer, tablet, phone."* The game is of course addictive. As children play, they want to play again. When they play games, they have no boundaries and no time for themselves because they express themselves in the best way in their own world.

In the second category, it is understood that ten learners regard the digital game as "unsocial" in three metaphors. This is expressed in the following sentence: *"It's like a digital gaming phone. Because we spend all our time on these games."*, *"The digital game is unsocial. Because it's better*

*to play outside with friends.", "Digital gaming is like a computer. Because it ties the children home, removes the social lifebird, and it becomes addictive.", "The digital game is like a tablet. Because nowadays all the children are at the tablet for hours now. Playing games with tablets or smartphones for hours. This causes them to become unsocial."*

The findings of this research aimed at revealing the mental imagery of the students about the game concept draw attention to several important points. But most importantly, the process begins with a process in which the mental image of the individual changes and the meaning of the game journey that starts as a child grows and changes according to circumstances.

In this respect, it seems that there is no scientific work reached in the field literature. Mental facts are transmitted to the future through the individual and so that the mental images carried by the digital game can be revealed by means of surveys to be done on the families or in the individuals in different age groups, we can understand the elements that threaten the digital game better and their importance can be taken by field experts.

**Keywords:** 9-10 years, digital game, metaphor, qualitative research method.

## 9-10 YAŞ ÇOCUKLARIN DİJİTAL OYUN KAVRAMINA İLİŞKİN ALGILARININ METAFORLAR ARACILIĞI İLE ANALİZİ

### ÖZET

Bu araştırmanın amacı, 9-10 yaş çocukların dijital oyun kavramına ilişkin sahip oldukları düşünceleri metaforlar yardımıyla belirlemektir. Araştırmanın çalışma grubunu Kırşehir ilinde bulunan 30 Ağustos Zafer İlkokulunda 2016-2017 eğitim öğretim yılında öğrenim gören 9 yaş grubunda 22, 10 yaş grubunda 18 olmak üzere toplam 40 öğrenci oluşturmuştur. Araştırmada veri toplamak amacıyla öğrencilerin dijital oyun kavramına ilişkin sahip oldukları düşünceleri belirlemek için "metafor formu" hazırlanmıştır. Metafor formunda öğrencilerden "*Dijital oyun...gibidir; çünkü...*" cümlesini tamamlamaları istenmiştir. Araştırmada, nitel araştırma yaklaşımlarından olgubilim deseni kullanılmıştır. Verilerin analizinde ise; içerik analizi tekniği kullanılmıştır. Araştırma verilerinin analizinin güvenilirliği için katılımcılar arası güvenirlik kat sayısı hesaplanmış [Görüş birliği / (Görüş birliği + Görüş ayrılığı) x 100] ve bu değer %90 olarak bulunmuştur. Verilerin değerlendirilmesiyle, öğrencilerin toplam 19 metafor ürettikleri görülmüştür. Üretilen bu metaforlar 5 farklı kategoride toplanmıştır. Öğrencilerin dijital oyuna ilişkin en çok "*Bağımlılık*" kategorisinde metaforlar geliştirdikleri belirlenirken, bunu "*Asosyallık, Eğlendirici etkinlikler, Boşa zaman harcama, Şiddet*" kategorileri izlemiştir. Bağımlılık kategorisinde katılımcılar tarafından 6 metafor üretilmiş olup, en çok kullanılan "*zararlı alışkanlık*" metaforu olmuştur. Sonuç olarak öğrencilerin dijital oyun kavramını metaforlar yoluyla farklı bakış açılarıyla ifade ettikleri belirlenmiştir.

**Anahtar Kelimeler:** 9-10 yaş, dijital oyun, metafor, nitel araştırma yöntemi.

## INTRODUCTION

When individuals' thoughts and the way they are expressed are examined, it is observed that they try to explain relations between abstract concepts and known ones (Saban, 2003). The metaphorical term supposed to be used more in the field of literature as a way of expressing a thought, object or action is in fact a linguistic analogy often used by individuals in their daily life. According to Lakoff and Johnson (2005), who think that a considerable part of our conceptual system is structured with metaphorical relationships, metaphor is to perceive and experience a phenomenon / phenomenon according to another phenomenon / phenomenon. Metaphor, a major perception tool, involves the transfer of information from a known area to a new / unknown area.

Studies on metaphors or metaphors in different disciplines of social sciences have increased considerably in recent years. The increase in studies on metaphors has been influenced by the fact that this phenomenon is a powerful mental mapping and modeling tool for understanding and structuring the worlds of individuals (Arslan and Bayrakçı, 2006). Especially in the learning process of difficult concepts and terms, metaphors are extremely important in the concretization and visualization of abstract concepts. In this context, metaphors are a way of thinking and seeing as well as facilitating the learning of a new knowledge (Morgan, 1998).

Digital gaming has become a violent and pleasure tool today. Computer-based games, which open a new living space, are being produced and marketed every day in increasing amounts. In this age, games are reinforced with technological infrastructure and filled with contents that surround lives. Numerous games with potency to adversely affect mental and physical health, especially violence-based games, are spreading from computer to mobile phones in order to keep the industry alive. Computer games create economic, social and psychological impact areas according to their level of knowledge on users. Perhaps the most important of these effects is psychological and physiological dependence.

According to a survey conducted by 2014 with 31 countries participating 89 thousand 281 participants, 6% of the world population is Internet addict (Cheng and Li, 2014). It is not difficult to say that the number of addictions and the number of addictions will increase in the near future when the increased usage periods are joined to the account. But researches on the habits of playing computer games have conflicting results. In some studies, computer games reveal that children and young adults may increase attention and concentration, especially in hyperactive children, computer games are observed to have a positive effect on attention and concentration. On the other hand, it is stated that it is the calming effect of computer games (Tarhan and Nurmedov, 2011). The positive behaviors provided by the conscious use of computer games are influential on imagination, autocontrol and other behavioral mechanisms in children. However, because the value judgments do not develop in children, the influence of games can develop in anticipation. For violent games, children and adolescents who can not distinguish between right and wrong while harming the stage of development, these periods can turn into a nightmare (Çavuş, et al., 2016).

### Purpose of the Research

Along with evolving communication technology, researchers are focusing on increasingly technological tools such as computers, tablets and mobile phones, especially on the Internet. In this study, it is aimed to examine the perceptions of 9-10 age group students regarding digital games with the increasing use of digital games.

## METHOD

### Research Model

In this study prepared according to qualitative research model, phenomenology is used. Phenomenology focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding (Creswell, 2013; Yıldırım and Şimşek, 2014). In this study, 9-10 age group students' thoughts about digital game concept were determined through metaphor.

### Workgroup

This study was carried out in 2016-2017 academic year; 22 in the 9 age group and 18 in the 10 age group. Due to reasons such as the need to collect detailed data on the subject and the high quality of the data, a study group was selected according to the purposeful sampling method in this study. In the selection of the study group, criterion sampling was used from the purposeful sampling methods which enable to conduct in-depth research by selecting rich situations in terms of information depending on the purpose of the study (Büyüköztürk et al., 2012). Criteria sampling is the study of situations that meet a set of predefined criteria (Yıldırım and Şimşek, 2014). In this context, criteria such as the voluntary participation of the students to work are taken into consideration.

**Table 1.** Distribution of Participants according to Age and Gender

	<b>Famele</b>	<b>Male</b>	<b>Total</b>
9 age	9	13	22
	<b>Famele</b>	<b>Male</b>	<b>Total</b>
10 age	11	7	18

### Data Collection Tools

The research data were collected in the form of a metaphor composed of semi-structured questions prepared by the researcher. In order to determine the mental imagery of the students' digital game concept in the form, each student is asked to complete the culm "It's like a digital game, because ..."

### Analysis of the Data

To begin the analysis of the data, the answer sheets of the students were first numbered from 1 to 40. In this study, content analysis was used from data evaluation methods used in researches in social areas. Content analysis is the process of defining, coding and categorizing data (Patton, 2014). The evaluation and interpretation of the metaforths indicated by the participants in the survey by content analysis was carried out in 9 stages in total. These; (1) Examination of papers, (2) Disqualification of unsuitable papers, (3) Recompilation of papers, (4) Numbering of papers (5) Examination of metaphors, (6) Development of categories, (7) Ensuring validity and reliability (8) Calculation of the frequencies of the obtained metaphors and (9) The interpretation of metaphors is in the form of stages (Ekici, 2016).

*During the examination of the papers,* it was examined in general whether the participants had expressions and blank parts.

*In the process of eliminating unsuitable papers,* explanations of metaphors and metaphors in each form have been examined one by one. A missing form was not found. So no form has been sifted.

*In the course of recompiling the papers,* as there are no forms that do not match the criteria, the metaphors in the form are listed and tabulated in alphabetical order.

*During the numbering of the papers*, numbering between 1 and 40 has been made after editing the metaphors in alphabetical order.

*In the course of the development of the category*, the metaphors mentioned for the concept of digital gaming have been examined in terms of their common characteristics.

*In the process of achieving validity and reliability*, attention has been drawn to the validity of the results of the research, "detailed reporting of aggregated data and clarification of how the investigator achieved the results". For this purpose, the analysis process and how the resulting codes are related to the categories are presented to the reader directly with participant expressions. For each of the categories obtained in the study, samples were selected from the presumptions that they best represent it and are included in the findings (Yıldırım and Şimşek, 2014). To ensure the reliability of the study data were analyzed by two field experts to determine whether the conceptual categories reached as a result of the data analysis represent the acquired themes; the codes obtained and the categories represented by the codes were compared. The reliability of data analysis in this way;  $[\text{Vision union} / (\text{Vision union} + \text{Vision separation}) \times 100]$  formula (Miles and Huberman, 1994). A total of 19 metaphors were produced in the study, and the average reliability between the coders was found to be 90%. This result shows that the desired level of reliability in the research has been achieved. In qualitative studies, a level of reliability is achieved when the fit between expert and researcher evaluations is 90% and above (Saban, 2008).

*In the course of calculating the frequencies of the obtained metaphors*, the frequency of the metaphors is in brackets. Finally, the metaphors exhibited by the participants were interpreted with their views.

## FINDINGS

**Table 2.** Generated Metaphors and Frequency Distributions Related to Digital Game Perception

Categories	Metaphor (f)	Metaphor Quantity	Total Frequency
1 Addiction	drug (1), cigarette (1), core (1), chocolate (1), harmful habit (14)	6	18
2 Unsocial	telephone (3), tablet (5), computer (2)	3	10
3 Wasting time	laziness (1), loss of time (2), technological tools (1)	3	4
4 Entertaining activities	social media (1), game (1), action (2), excitement (1)	4	5
5 Violence	war (1), desire to win (1), aggression (1)	3	3
<b>Total</b>		<b>19</b>	<b>40</b>

As seen in table 2, students mostly developed a metaphor for digital game using the term "harmful habit" in the "addiction" category.

**Table 3.** Metaphor Categories for Digital Game Concepts

Metaphor Categories	Frequency (f)
Digital game is addictive.	18
Digital game is unsocial.	10
Digital game is wasting time.	4
Digital game is entertaining activities.	5
Digital game is violent.	3
<b>Total</b>	<b>40</b>

It turns out that there are 5 different categories of 40 digital game metaphors created as shown in table 3. According to this, metaphor is the category of "digital game addiction" and "digital game asociacy" which have the highest frequency distribution among the produced metaphors.

**Table 4.** Frequency Distributions of Metaphors in the Digital Game Addictive Category

Category 1: Digital game is addictive. (f:18)
Metaphors: drug (1), cigarette (1), core (1), chocolate (1), harmful habit (14)

**Category 1:** In this category, 6 metaphors were produced by the participants and it was the most commonly used "harmful habit" metaphor. Some examples of metaphors and developmental reasons that participants have developed in this category include:

*"Digital gaming is like addiction. Because I think it is both psychologically and physically harmful."*

*"Digital play is like harmful habits. Because we prefer more violent games than educational ones."*

*"The digital game is like a seed. Because I spend hours on computer, tablet, phone."*

**Table 5.** Frequency Distributions of Metaphors in the Digital Game Unsocial Category

Category 2: Digital game is unsocial. (f:10)
Metaphors: telephone (3), tablet (5), computer (2)

**Category 2:** In this category, it is stated that the students in the 3 metaphors view the digital game as "unsocial."

*"It's like a digital gaming phone. Because we spend all our time on these games."*

*"The digital game is unsocial. Because it's better to play outside with friends."*

*"Digital gaming is like a computer. Because it ties the children home, removes the social lifebird, and it becomes addictive."*

*"The digital game is like a tablet. Because nowadays all the children are at the tablet for hours now. Playing games with tablets or smartphones for hours. This causes them to become unsocial."*

**Table 6.** Frequency Distributions of Metaphors in the Digital Game Wasting Time Category

Category 3: Digital game is wasting time. (f: 4)
Metaphors: laziness (1), loss of time (2), technological tools (1)

**Category 3:** This category of digital games is seen as "wasting time", it seems that the reason for the digital game is due to the fact that there is no educational direction. Some examples are:

*"Digital gaming is technological tools. Because most of our time is taking. "*

*"Digital play is a wasting time. Because they are non-educational games played in a technological environment. "*

*Digital play time is wasted. Because it does not teach anything, it is just waste of time."*

*"Digital play is laziness. Because research destroys the ability of questioning."*

**Tablo 7.** Frequency Distributions of Metaphors in the Category of Digital Gaming Entertainment Activities

Category 4: Digital game is entertaining activities. (f: 5)
Metaphors: Social media (1), game (1), action (2), excitement (1)

**Category 4:** This category is the section where 4 students compare 5 metaphors to digital entertainment "fun events." Some examples are:

*"Digital games are entertaining activities. Because I do not understand how time passes in social media. "*

*"Digital games are entertaining activities. Because it contains exciting and action games."*

*"Digital games are entertaining activities. Because of the developing technology, the games are also varied."*

*"Digital games are entertaining activities. Because I choose what is fun."*

**Table 8.** Frequency Distributions of Metaphores in the Digital Game Violence Category

Category 5: Digital game is violent. (f: 3)
Metaphors: War (1), desire to win (1), aggression (1)

**Category 5:** The students who produced the metaphors in this category likened the digital game to "violence." Examples are as follows:

*"The digital game is violent. Because I want to break the tablet when I lose the game while playing on the tablet. "*

*"The digital game is a war. Because there are violent games. Human beings are psychologically harmful. "*

*"The digital game is violent. Because when they play war games they can start to form an aggressive personality."*

## DISCUSSION AND CONCLUSION

The purpose of this study is to investigate the perception of digital game perceptions of 9-10 age group students through metaphor analysis. Metaphors created by taking into account the perception of digital game were collected in 5 different categories. According to these categories digital game; addiction, unsocial, wasting time, entertaining activities, violence. This suggests that students have some negative mental imagery (metaphor) about the game concept. With the lack of playgrounds, unsafe playgrounds and the development of technology, the need for gaming has been moved from digital to digital. All of these situations may have caused the students to have negative mental imagery related to the digital game concept.

It has been determined that the metaphor produced by the students is the "digital game addictive" category at the beginning. In the light of these findings, it is seen that the metaphorical

clues of the digital game metaphor that the students produce are used especially to explain the digital game concept. *"Digital gaming is like addiction. Because I think it is both psychologically and physically harmful."*, *"Digital play is like harmful habits. Because we prefer more violent games than educational ones."*, *"The digital game is like a seed. Because I spend hours on computer, tablet, phone."* The game is of course addictive. As children play, they want to play again. When they play games, they have no boundaries and no time for themselves because they express themselves in the best way in their own world.

In the second category, it is understood that ten learners regard the digital game as "unsocial" in three metaphors. This is expressed in the following sentence: *"It's like a digital gaming phone. Because we spend all our time on these games."*, *"The digital game is unsocial. Because it's better to play outside with friends."*, *"Digital gaming is like a computer. Because it ties the children home, removes the social lifebird, and it becomes addictive."*, *"The digital game is like a tablet. Because nowadays all the children are at the tablet for hours now. Playing games with tablets or smartphones for hours. This causes them to become unsocial."*

These results; students may have a negative mental image of the concept of digital gaming. Research has revealed that computer games are particularly harmful to children and young people. The report of the Prime Ministry Family Social Policy Presidency on the Digital Games and the Influence on Children in 2008 reveals that the complaints and complaints about violent and addictive games to the notice board and the internet address of the Communication Presidency have come up (Gürcan, Özhan and Uslu 2008).

According to the study results of Hazar et al., (2016) Opinion for Parents of Children Ages 6-14 Digital Play Game; the impact of digital games on the child's cognitive, emotional, social and psychomotor development areas is negatively affected. However, opinions have also been reached that digital games have contributed positively to the areas of affective, social and psychomotor, especially cognitive development. According to Anlı and Taş (2018) Game addiction among adolescents increases day by day and this situation becomes a serious problem. Before IoT becomes more prevalent, many serious problems must be solved. Unless these are resolved in cooperation with, it is a matter of time when the opportunities turns into major threats. These problems are not only the problem of the companies that produce devices, but also of governments, of individuals and of all the people who are responsible to protect the world we live in (Keleş & Keleş, 2018).

The findings of this research aimed at revealing the mental imagery of the students about the game concept draw attention to several important points. But most importantly, the process begins with a process in which the mental image of the individual changes and the meaning of the game journey that starts as a child grows and changes according to circumstances.

### Recommendations

In this respect, it seems that there is no scientific work reached in the field literature. Mental facts are transmitted to the future through the individual and so that the mental images carried by the digital game can be revealed by means of surveys to be done on the families or in the individuals in different age groups, we can understand the elements that threaten the digital game better and their importance can be taken by field experts.

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