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**METAPHORS REGARDING THE CONCEPT OF E-SPORTS
PRODUCED BY UNIVERSITY STUDENTS IN TURKEY**

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Keywords: Turkey, e-sports, metaphor, perception, university, student.

E-sport is developing rapidly both in the world and in Turkey, especially with increasing interest among young people. In parallel with this interest, “E-sports Student Communities” are being established at many universities in Turkey and new ones are being added to these communities every day. In this context, the aim of this research is to reveal the perceptions that university students have about the concept of e-sports through metaphors.

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A total of 223 students participated in the research voluntarily. The research's sample group consists of 190 volunteer university students, 77 of were female and 113 were male, who study at different universities in Turkey in the 2020-2021 academic year. A structured interview form which prepared online (google forms) was used to evaluate the perception of university students about the phenomenon of e-sports. According to results, it can be said that e-sport has a rapidly growing popularity and a positive perception among Turkish university students, especially in recent years. Moreover, research results indicate that universities in developing countries such as Turkey, especially with a young population, have a potential audience that can play a productive role in the economic and socio-cultural dimension of the e-sports industry in different business lines and career areas.

METAFORY ZWIĄZANE Z E-SPORTEM ZAPROPONOWANE PRZEZ STUDENTÓW W TURCJI

Słowa kluczowe: Turcja, e-sport, metafora, percepcja, uniwersytet, student.

E-sport rozwija się dynamicznie zarówno na świecie, jak i w Turcji. Wraz z rosnącym zainteresowaniem wśród młodych ludzi, na wielu tureckich uniwersytetach powstają „studenckie społeczności e-sportowe”, do których codziennie dołączają nowe osoby. Celem badania jest zbadanie, jak studenci postrzegają pojęcie e-sportu za pomocą metafor. W projekcie uczestniczyło 223 ochotników. Grupa badawcza składa się ze 190 studentów, w tym 77 kobiet i 113 mężczyzn, studiujących na różnych uniwersytetach w Turcji w roku akademickim 2020-2021. Do oceny percepcji zjawiska e-sportu przez studentów wykorzystano formularz w pełni ustrukturyzowanego wywiadu został przygotowany online (Google Forms). Wyniki wskazują, że popularność i pozytywne postrzeganie e-sportu przez tureckich studentów szybko rośnie, szczególnie w ostatnich latach. Ponadto, uzyskane wyniki sugerują, że uniwersytety w krajach rozwijających się, takich jak Turcja, gdzie mieszkają głównie młodzi ludzie, mają dużą liczbę potencjalnych odbiorców, którzy mogą odegrać znaczącą rolę w gospodarczym i społeczno-kulturowym wymiarze branży e-sportowej w różnych obszarach biznesowych i zawodowych.

Introduction

E-sports are a product of the internet age and have become an immensely popular form of entertainment. Wagner (2006) defines e-sports as a field of sports activity in which people develop and train mental or physical skills using information and communication technologies. Kartal (2020, p. 48) emphasizes the commerce and tournament aspects of e-sports: “*in which specific digital game types with a predetermined pool of money or equipment prizes and competitive gameplay dynamics are organized on a national-global scale by the relevant federation or transnational companies to participate online or physically on an amateur or professional level by means of computers or game consoles, in individual or teams, in league or elimination-style tournaments and organizations*”. The annual report on the e-sports industry by the analysis company Newzoo states that global e-sports revenues increased from \$950.6 million in 2019 to \$1.1 billion in 2020, with an annual increase of 15.7%. In addition, the total e-sports audience globally is projected to grow to 495 million people by 2020, with an annual growth of 11.7%, while e-sports enthusiasts will make up 222.9 million of this number and increase by 10.8% each year (Newzoo dots 2021). Especially with the spread of the COVID-19 that emerged in 2019 and posed a global threat, many countries have implemented strict social isolation measures and in the news it has been shared that this situation has led to a rapid growth in the game industry and a significant increase in the number of individuals playing games (Koetsier 2020).

Young people are the main players of e-sports, and these young e-sports enthusiasts can be found around the world, including Turkey¹. The rapid development in Turkey does not differ from the global scale². The phenomenon of e-sports is developing rapidly both in the world and in Turkey, which has a young population, especially with the growing interest of the young generation. “E-sports Student Communities” are now being established at many universities in Turkey, and new communities are being added to these communities every day. In fact, a university in Turkey has taken one of the first steps of cooperation between e-sports and educational institutions by giving scholarships to e-athletes (A First in

¹The head office of Riot Games, which sees this young generation as a potential consumer and has an important role in the global spread of e-sports, is located in Los Angeles (United States) and operates in a total of 23 countries, including Turkey (Istanbul) (riotgames.com 2021).

²According to the “mobile game in Turkey” report published by Global Mobile Gaming Research, 79% of adults play games and 50.2% of these players are men and 49.8% are women (adcolony.com 2021).

Turkey dots 2021). Moreover, some game companies organize award-winning e-sports organizations by choosing an ambassador from the students who are members of the Turkish university e-sports community³.

Considering that e-sports occupy the attention of millions of young people around the world, including perhaps a hundred thousand in Turkey, scholars have sought to understand how young people conceive of this relatively new form of entertainment. Indeed, Karagün et al's (2018) study of e-sport metaphors by students in Turkey found that the most frequently used metaphors by all students are "digital technological environment" (9.2%) ; "basic need" (7.5%); and "fun-games" (6.8%). Also, the results for female students were as follows the rate for: "basic need"- 9.2% ; "positive feeling"- 6.2%; and "entertainment-games"- 4.2%. Results as for the male students were as follows: 11% of them used metaphors for "digital technological environment"; 7.5% - "entertainment-games" and 7% - "basic need". Ayar (2018) states that the investments made in e-sports both in the world and in Turkey will bring about a new sector, arguing that the contributions of football clubs to the sector in sports clubs in Turkey, America and Europe have caused an increase in the number of e-sports teams. There search shows that university students can be considered to be both e-sports consumers anda mass that has the potential to play a productive role in the continuity of e-sports phenomenon.

The aim of this paper is to explore Turkish students' conceptions of e-sports and the role that it plays in their lives via metaphors. Hutchins (2008) states that e-sports is a techno-social phenomenon that has emerged as a characteristic of a meta-change in social relations globally. Redden (2017) notes that metaphors can be useful for researchers to understand and report social phenomena and events in fairly rich and interesting ways, to uncover hidden or ambiguous meanings, and to investigate assumptions. In this case, it is important to evaluate the students' perceptions and expectations of the e-sports phenomenon through metaphors in terms of determining its economic, social and cultural position as well as its place in universities. In this context, the aim of this research is to determine the perceptions of university students about the concept of e-sports through metaphors.

Literature Review

The e-sports literature has been the subject of debates about whether e-sports is a sport or not. Heere (2018) discusses e-sports through the

³Riot Games evaluates the positive or negative feedback about these organizations through these ambassadors (tr.leagueoflegends.com 2021).

concept of “sportification”. He defines sportification as (a) displaying, organizing or arranging a non-sport event in a way that resembles a sport and provides a fair, enjoyable and safe environment for individuals to compete and cooperate and to compare their performance with their competitors; or (b) adding a sports component to an existing activity to make it more attractive to audiences. In addition, while the sports industry itself accepted e-sports as a sport, he emphasizes that scholars should adopt e-sports as a manifestation of sportification and examine its negative and positive effects on industries. E-sports can be positive for one’s wellbeing. Reer and Quandt (2020) conducted a study where they discussed some key research findings on the hedonic, eudaimonic, and social aspects as well as three different types of well-being. In their research, they stated that these concepts, while contributing positively to social interaction and relationships, also enable positive emotional states, fulfillment of central psychological needs and appreciation of meaningful experiences. They also suggested that research on these three forms consistently shows that digital games can be very effective in improving well-being. Similarly, Duplra et al. (2017) suggest that digital games can improve the quality of life of older adults through improved physical, cognitive and social health as well as general psychological and emotional health. It was determined that the research participants mostly associated e-sports with the metaphor of “teacher” in the “personal development” category.

E-sports can have positive cognitive benefits. Hung et al. (2018) systematically analyzed 50 scientific studies on the use and effects of digital games in language education from 2007 to 2016 on digital game-based language learning. As a result of these analyses, they stated that digital games can be useful for promoting language and literacy learning from various aspects of individuals whose native language is English or not. Similarly, Carolyn Yang (2012) conducted a scientific research to analyze the effect of digital game-based learning on students’ problem solving, learning motivation and academic achievement. As a result of her scientific analysis, she stated that digital game-based learning can be used as a useful and productive tool to support students in effective learning while improving the classroom atmosphere, depending on the finding of quantitative improvement in problem solving and learning motivation. In this case, it can be said that e-sport, which is based on digital games, can contribute to the cognitive and social development of individuals, especially foreign language development. Individuals who participated in the study typically associated e-sport with the metaphor of “a way of life” in the category of “socialization” and the metaphor of “entertainment” in the

category of “recreation”. Sun (2017) analyzed the factors that motivate e-athletes to play e-sports games under three sub-dimensions: “success”, “socializing” and “immersion”. In her research, she found that the dimensions of “success” and “socialization” are a much more effective motivator than the sub-dimension of “immersion”.

E-sports can be a positive form of social interaction. Neus et al. (2019) conducted a scientific study to reveal the differences in online and offline consumption trends of individuals engaged in e-sports activities. In their research, they found that social interaction is an important source of motivation for participation in e-sports. In this context, it can be said that the online organization of e-sports can enable global participation, as well as individuals participating in e-sports can participate in a cultural and social interaction and sharing process with people living in different countries of the world, and this situation creates a positive perception of e-sports in people. Other categories of positive metaphors produced by participants regarding e-sports have appeared under the titles of “online competition” and “career opportunity”.

E-sports are competitive. Liu, Li, Santhanam (2013) note that when individuals playing digital games compete with players with similar skill levels to their own, they play longer and put more effort into it. However, they conclude that players show higher levels of pleasure and lower levels of arousal when competing with players with lower skill levels. On the other hand, Taylor (2012) state that e-sports cannot be a competitive game without professional competitors in e-sports and emphasize that training is an important factor in getting a professional career opportunity in e-sports. Participants’ positive metaphors on conceptual categories called “online competition” and “career opportunity” can be associated with the fact that many digital games where e-sports are performed have a global success ranking system, and the opportunity to participate in award-winning e-sports organizations and tournaments online. For this reason, it can be said that people from every age group interested in e-sports can make their success visible in a specific e-sports game through this global ranking system, and it is predicted that when this opportunity is combined with e-sports scholarships offered at universities can further increase the motivation to participate in e-sports.

There are negative aspects of e-sports, especially “addiction”. Regarding the negative metaphors produced by the research participants, two conceptual categories emerged, namely “game addiction” and “waste of time”. In the category called “game addiction”, the participants found that e-sports are mostly associated with “addiction” and “drug” metaphors. In

their study examining the digital game addiction levels of secondary school students, Korkmaz and Korkmaz (2019) concluded that a significant number of the students play digital games intensively and devote a significant amount of time to these games. On the other hand, Griffiths (2017) drew attention to a different type of addiction such as a betting addiction in e-sports and stating that it causes most major betting operators to include e-sports in their daily gambling offers. Macey and Hamari (2018) concluded that video game addiction has a negative association with online, offline and problematic gambling tendencies, and that e-sports consumption has a low to moderate relationship with video game-related gambling, online gambling and problematic gambling.

Method

This research is a qualitative phenomenological study that examines university students' perceptions of e-sports with the help of metaphors. Metaphors are used for the purpose of revealing and interpreting individual perceptions about any phenomenon (Yildirim, Şimşek 2008). In this context, metaphors were used to determine the perceptions of university students about e-sports.

Sample Group

While determining the sample group of the research, maximum diversity sampling which is one of the purposeful sampling type was used (Yıldırım, Şimşek 2008). Sample group of research is limited with the six Turkish University students who attended public universities. While determining the sample group of study, the maximum diversity sampling principles, one of the types of purposeful sampling strategy, were taken into account. Maximum diversity sampling was used in order to provide access to individuals who can reveal different perspectives on the phenomenon of e-sports (Johnson, Christensen 2014).

Web Survey

The web survey consists of 190 volunteer participants, 77 of whom are female and 113 male, who studied at different universities in Turkey during in the academic year 2020-2021.

Data Collection Tool

A structured interview form which was prepared online (via Google forms) was used to evaluate the perception of university students about the

phenomenon of e-sports⁴. This form consists of two parts and includes 12 question items. In the first part of the form, there are questions about the demographic characteristics of the individuals participating in the study with 10 items, and in the second part, there is an open-ended question designed to determine students' perceptions about e-sports with 2 items. Regarding data collection, it was also stated that participation in the study was voluntary. It took four or five minutes on average to complete the survey form.

During the data collection phase, students were briefly informed in the online form about metaphors, and then a metaphor example about a different subject was given to clarify the concept of metaphor. For this reason, participants were asked to complete the following sentence: "E-sports is like dots dots dots ., because dots dots dots ". The phrase "because" was given so that the students who participated in the research could offer a justification for the metaphors they produced for e-sports. Research data was obtained online by researchers in the fall semester of the 2020-2021 during the academic year at different universities in Turkey.

The data on the demographic characteristics of the individuals participating in the study also are given in the table below.

Table 1

Data on demographic characteristics of the study participants

Variables	Group	(f)	(%)
Age	18-20 years old	74	38.9
	21-23 years old	91	47.9
	24-26 years old	18	9.5
	27 years old and older	7	3.7
	Total	190	100,0
Gender	Male	113	59.5
	Female	77	40.5
	Total	190	100.0
Income Status	Low income level	57	30.0
	Middle income level	102	53.6
	High income level	31	16.4
	Total	190	100.0

⁴The online structured interview form in the research is a limitation of the research, since face-to-face interviews are not possible due to the restrictions of the COVID-19 outbreak. It should be considered that face-to-face unstructured interviews may open the door to different and more detailed perspectives in the analysis of university students' perceptions of e-sports.

E-sports Knowledge Level	I have knowledge	133	70.0
	I don't have knowledge	57	30.0
	Total	190	100.0
Time Devoted to E-sports	Don't spare time	83	43.7
	1-2 hour a day	50	26.3
	3-4 hours a day	26	13.7
	5-6 hours a day	13	6.8
	7 hours and more in a day	18	9.5
	Total	190	100.0
Game Console Ownership Status	I do not have any game consoles	156	82.1
	I have a game console	34	17.9
	Total	190	100.0
Status of Supporting an E-sports Team	I support an e-sports team	56	29.5
	I don't support an e-sports team	134	70.5
	Total	190	100.0
Status of Following E-Sports Organizations	I follow	121	63.7
	I don't follow	69	36.3
	Total	190	100.0
Most Played E-sports Game Type	FPS (First Person Shooter)	35	18.5
	MOBA (Multiplayer Online Battle Arena)	32	16.8
	Battle Royale games	42	22.1
	Sports games	21	11.1
	Other games	9	4.7
	I don't play any games	51	26.8
	Total	190	100.0
Computer Type	Normal computer	144	75.8
	Gaming computer	44	24.2
	Total	190	100.0

Source: authors' own work.

When the above table was examined, it was determined that the majority of the individuals participating in the study were in the age range of 21-23 (47.9%). When the gender variable is examined, it is seen that 113 participants (59.5%) are male and 77 participants (40.5%) are female. It is seen that the majority of the individuals participating in the study have a middle income level (53.6%) according to the income status variable. When the knowledge levels of the participants about e-sports are examined, it is seen that the majority (70.0%) have knowledge of e-sports. When the time devoted to e-sports variable is examined, it is seen that most of the

individuals participating in the study (43.7%) do not spare time for e-sports. It was determined that a significant majority of the participants do not own any game console (82.1%), do not support an e-sports team (70.5%), and do not follow e-sports organizations (63.7%). In addition, the majority of research participants do not play e-sports games (26.8%), the most played type of e-sports game is Battle Royale games (22.1%), and the majority of participants have a normal computer (75.8%).

Data Analysis

In qualitative research, it has been stated that the data analysis process generally takes place in four different stages in the form of *coding data*, *finding themes*, *editing codes and themes*, *defining and interpreting findings* (Yildirim, Şimşek 2011). The analysis process of the metaphors produced by the university students participating in this study regarding e-sports is summarized in the following stages:

- At the first stage, a preliminary analysis was carried out for the data set containing the metaphor sources produced by the students. We found 33 forms that are not consistent with the research focus and not related to the metaphor source, and thus we did not include them in the analyses. The metaphors produced by the students were then grouped under two categories, generally positive and negative according to their meanings. We found 70 metaphors produced by 190 students to be included in the analyses.
- At the second stage, metaphors that have common characteristics in certain aspects are classified according to their conceptual categories and the all data coded. In content analysis, the source of the metaphor is taken into account in determining the categories and the metaphors forming the categories were supported by direct quotations from the metaphor explanations of the participants. Hence, the same metaphors (ex. Time Machine) can take place in different categories. This situation is related to the meaning ascribed to the produced metaphor. In order to clarify the sources of the metaphors produced, direct quotes representing metaphors produced by students are included.

Our coding process included an inter-rater reliability procedure. In this process, researchers encode the same qualitative data set and reach a coding percentage by comparing the similarities and differences of these encoded data with numerical data. This coding percentage must be at least 70% reliability level (Yildirim, Şimşek 2011). In this context, Miles and Huberman’s formula “Reliability = consensus / (consensus + disagreement)

x 100” was used to calculate the consistency of the study (Miles, Huberman 1994). According to this formula, 89% reliability percentage was reached in the research.

Results

In this section, the metaphors produced by the university students participating in the research related to “e-sports” are presented in tables. It was found that 190 university students produced a total of 70 different metaphors related to e-sports. It was found that the majority of the produced metaphors (62.9%) were positive, while negative metaphors were 37.1%. The positive and negative metaphors produced by university students are listed according to their frequencies, and the number (f) and percentage (%) of students representing each metaphor are shown in the tables below. Frequencies and percentages are included in order to reinforce the emphasis intensity in the metaphors produced by the participants.

Table 2

Positive metaphors and categories created by university students regarding e-sports

Category	Metaphor Name (*f)	(%)
Stress relief	Therapy (16*), Medicine (7), Stress Ball (6), Escape (3), Psychological Comfort (1), Fidget spinner (1), Oxygen (1), Necessity (1)	24,6
Recreation	Entertainment (15), Hobby (3), Happiness (2), Holiday (2), Home (2), Neighborhood match (2), Action movie (2), Occupation (1), Novel (1), Art (1), Time machine (1)	22,0
Online Competition	Sports competition (8), Internet sport (7), Virtual game (6), Different world (5), Imagination (2), Olympic game (2), New generation sports (2), Online battle (1), Representing the country (1), Race (1), Fantastic (1)	24,6
Personal development	Teacher (6), School of life (1), Mind game (1), Mind game (1), Brain (1), Chess (1), Gymnastics (1), Vaccine (1)	8,3
Socialization	A way of life (15), Socialize (3), Companion (2), Life (1), Family (1)	15,1
Career opportunity	Work (5), The future (3)	5,4

Source: authors' own work.

Table 2 shows that 44 positive metaphors of the university students who participated in the study are in 6 different categories: “Stress Relief (24.6%)”, “Recreation (22.0%)”, “Online Competition (24.6%)”, “Personal

Development (8.3%)”, “Socialization (15.1%)” and “Career Opportunity (5.4%)”. However, it seems that the same metaphors (e.g. Time Machine) fall into different categories. This situation is related to the meaning attributed to the produced metaphor.

Table 3

Negative metaphors and categories created by university students regarding e-sports

Category	Metaphor Name (*f)	(%)
Game addiction	Addiction (8*), Drug (6), Coffee (4), Cigarette (2), Television (1), Chocolate (1), Alcohol (1), Drug addiction (1)	54,5
Unhealthy life	Stress (1), Physical inactivity (1), Cancer (1), Privacy (1), Isn't a sport (1), Wilderness (1)	13,7
Waste of time	Wasted time (2), Rowing for nothing (2), Time machine (1), Outer space (1), Black hole (1), Rosary (1), Sleep (1), Whim (1), Turtle (1), Unqualified (1), Advertisement (1), Effort to prove yourself (1)	31,8

Source: authors' own work.

In Table 3, it was determined that students produced 26 negative metaphors in 3 different categories. These categories are “game addiction (54.5%)”, “unhealthy life (13.7%)” and “waste of time (31.8%)” respectively.

Discussion and Conclusion

In this research, the level of perceptions of students studying at universities in Turkey regarding the phenomenon of e-sports, which is developing rapidly throughout the world, has been examined through metaphors. The metaphors produced by university students regarding e-sports are grouped into two general categories: positive and negative. The positive metaphors created by the participants for e-sports are collected in six categories under the headings of stress relief, recreation, online competition, personal development, socialization and career opportunity. The negative metaphors produced by the individuals participating in the study regarding e-sports were collected in three different categories: addiction, unhealthy life and waste of time. When the findings of the study are examined, it is seen that in the “stress relief” category, students mostly explain e-sports with a “therapy and medicine” metaphor.

The metaphors of “stress and physical inactivity” produced by the participants in the category of “unhealthy life” regarding e-sports are striking. Regarding the relationship between e-sports and health, Marelić

and Vukušić (2019) state that e-sports have similar characteristics with traditional sports at some points, but that e-sports is a sedentary and mostly unhealthy sports activity in its current form. It is considered that the negative perspective emphasized by the participants in the conceptual category called “unhealthy life” can be overcome with some e-sports derivatives such as Hado (hado-official.com, 2021), which provides a dynamic participation in e-sports by combining digital e-sports games with various wearable virtual and augmented reality technologies. Researchers have also stated that today’s video games are not, by themselves, associated with the increased potential of problematic gambling. Problematic games and other underlying causes of gambling should be questioned. In this case, as some participants pointed out, it can be stated that issues such as gaming and especially betting addictions are currently problems of e-sports, and the measures or legal regulations that can be taken in this regard are important for the correct positioning of e-sports in the lives of individuals.

The e-sports market is growing and getting better as a result of the COVID-19 epidemic, driving more people into e-sports competitions. In this case, especially in a period when digital markets are growing effectively with the effect of the COVID-19 epidemic, it can be said that the investments of various national or transnational companies in e-sports with the potential audience in universities may create an alternative economic resource for countries, as well as contribute to the sustainability of e-sports in the economic and socio-cultural dimension. Kim et al. (2020) suggest that most traditional sports brands made large investments in e-sports, especially after the COVID-19 epidemic, which prevented the playing and monitoring of traditional sports, and that some traditional sports teams operated e-sports teams or bought shares from existing established teams. In addition, according to them, with the increased use of technology in our lives more, e-sports can reach its potential to become the next big sport and therefore it is important for cities and countries to start investing in the e-sports sector. Similarly, Nauright et al. (2020) state that e-sports-related events and organizations are rapidly expanding industry sectors, and in South Korea, which has one of the best operations and management systems in the world is now a billion dollar industry.

In this study, the fact that university students produce predominantly positive metaphors about e-sports can be associated with the economic and socio-cultural momentum of e-sports, which has become popular in parallel with the developing internet and information technologies in recent years. This paper suggests that universities in developing countries such as Turkey, especially with a young population, have a potential audience that

can play a productive role in the economic and socio-cultural dimension of the e-sports industry in different business lines and career areas.

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