

# An Investigation on Young Individuals' E-Sports Participation Motivations

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*Abstract: The rapid changes and transformations experienced with the development of communication and technology, the differentiation of individual behaviour and social changes have been reflected in the field of sport, as in all areas of life. In fact, this reflection has combined technology and sport, creating electronic sport (e-sport) as a technological form of sport (Işıköz et al. 2023). In this context, the aim of the study is to investigate the motivation levels of young individuals to participate in e-sports. The population consisted of those who engage in e-sports, with a sample size of a total of 175 individuals, 84 females (Avgage=23.15±5.02) and 97 males (Avgage=22.06±1.48), selected via convenience sampling method. The data were collected using a personal information form, including questions about participants' gender, age, educational status, monthly income, and daily playtime, and the "E-sports Participation Motivation Scale (EPMS)" developed by Öz and Üstün (2019) to assess motivational factors. The scale consists of 5 sub-scales and 74 items. For the data analysis, descriptive statistical methods, including frequency (n) and percentage (%), were employed to determine the distribution of participants' personal information. Kurtosis and skewness values were checked to ascertain normal distribution, revealing that the data did not have a normal distribution. Thus, nonparametric tests, Kruskal Wallis, and Mann-Whitney U tests were performed. The findings indicated no significant difference in e-sports participation motivation sub-scales among participants based on their gender, education status, monthly income, and daily playtime. Similarly, there was no significant difference between participants' socio-demographic characteristics and the e-sports participation motivation sub-scales. However, similar studies in the literature yielded statistically significant disparities between socio-demographic characteristics and participation motivations.*

*Keywords: Young Individuals, E-Sports, Participation Motivation, Digital Game, Sports.*

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## INTRODUCTION

E-sports has become a rapidly growing and popular industry in recent years. Starting with professional players competing in tournaments, eSports now reaches millions of viewers with events held in large arenas. Rapid advances in technology have impacted the field of sports as they have impacted every other field, leading to the emergence of the concept of electronic sports (e-Sports). The fall in the price of technological equipment has enabled the move from the arena to the home and the television screen. In this context, the study has made it important to investigate the motivations of young people to participate in e-sports today.

The term "play" is defined as a spontaneous, goal-free activity that gives joy. Games are categorized into motor and physical games, social games, structural games, and games with rules. In every aspect, play is considered a distinct system of movement and thought, which are designed based on others' behaviors and situational conditions, contrary to the typical forms of behavior (Mustafaoğlu, 2018). Electronic sports, cyber sports, and virtual sports all refer to the same concept as e-sports. The terms "virtual athlete" or "cyber athlete" are used to define e-athletes. E-sports share similarities with academically recognized sports definitions (Yükçü & Kaplanoğlu, 2018). E-sports has evolved alongside technology just like the development of traditional sports. The Internet was initially used as a military communication network in the USA. Today, it serves not only as a communication network but also as an essential tool in all aspects of our lives (Menteş & Saygın, 2019). With the widespread use of the Internet, local network connections initially confined to the Internet or large organizations have expanded the limited competitive environment of businesses known as Internet cafes to a globally competitive environment. Thus, this phenomenon called electronic sports still gains popularity by taking its place in

the industrial revolution (Kartal, 2020). E-sports are digital sports activities where people develop their cognitive and physical abilities in a digital environment through using technology and science. Similarly, e-sports also refers to a sport in which both amateur and professional players can compete either as a team or individually in a computerized environment (Bingöl et al. 2021). With the development of the gaming industry, the concept of a professional gaming career has emerged. Professional e-sports players hold the same status as athletes in traditional sports branches. The gaming industry has now been recognized as a legitimate sport with the awards reaching incredible levels, which makes professional gaming careers even more attractive. Consequently, interest in traditional sports has decreased while the interest in e-sports has increased. Nowadays, some students consider earning their livelihoods by playing or designing games (Kocadağ, 2017). The factors that foster participation in sports include skill development, entertainment, physical and mental well-being, socialization, and success. Motivation to participate in sports can provide personal comfort through exercise, joy, excitement, skill development, and emotional control. Motivation is one of the factors affecting the performance of e-athletes, and electronic games offer various opportunities for skill development. For instance, video games have positive motivational benefits such as improving cognitive strategies, decision-making and cooperation skills, instilling a sense of team belonging, and promoting positive motivation (Şimşek et al. 2023). Research on motivations for participation in e-sports has identified factors like passion for the e-games in e-sports marketing, financial gain, career aspirations, and entertainment as the key components that boost e-sports motivation (Güngör Gülsoy & Tunca, 2023). The growing interest in e-sports has captured the attention of prestigious institutions worldwide. In this sense, several higher education institutions have begun to incorporate e-sports within their education programs (Üstün et al. 2022). In light of the given information above, we aimed to examine the motivation levels of e-sports players in engaging in e-sports.

## METHOD AND MATERIALS

### Research Design

In this study, the relational survey model, one of the quantitative research methods, was employed. This model is characterized by describing a situation or event as it is and identifying the relationships, effects, and degrees of the variables that affect these situations (Kaya et al. 2012).

### Research Group

The population comprised individuals engaged in e-sports. The sample consisted of a total of 175 e-sports players, with 84 females (Avgage=23.15±5.02) and 97 males (Avgage=22.06±1.48) selected using the convenience sampling method. The inclusion criteria were specified as being interested in and actively playing e-sports.

### Data Collection Tool

This section includes the data collection tools used in the study. The study consists of two parts. In the first part, the Personal Information Form and in the second part, the E-sports Participation Motivation Scale were used.

### Personal Information Form

A personal information form, including questions on gender, age, education status, monthly income, and daily play time, was utilized to ascertain the demographic characteristics of the participants.

### E-Sports Participation Motivation Scale (EPMS)

The instrument was developed by Öz and Üstün (2019) to assess the motivation of individuals who engage in e-sports. The 5-point Likert scale has 74 items and five sub-scales: "Taxonomic domain", "Competence", "Relational self", "Competitiveness and success", and "Leisure time". The options on the scale range from "1=strongly disagree" to "5=strongly agree". The internal consistency coefficient of the sub-scales are as follows: .93 for "Taxonomic domain", .90 for "Competence", .85 for "Relational self", .84 for "Competitiveness and success, and .87 for "Leisure time".

### Data Analysis

In the analysis of the data, descriptive statistics methods, specifically frequency (n) and percentage (%), were utilized to examine the distribution of the participant's personal information. Kurtosis and skewness were evaluated to determine whether the data had a normal distribution. The results indicated no normal distribution, so non-parametric tests of Kruskal Wallis and Mann-Whitney U tests were performed. The significance level was set at 0.05.

**FINDINGS**

**Table 1.** Distribution of demographic data

<b>Variables</b>	<b>n</b>	<b>%</b>	
<b>Gender</b>	Female	84	48.0
	Male	97	52.0
<b>Education status</b>	Elementary school	55	31.4
	High school	87	49.7
	University	33	18.9
<b>Monthly income</b>	1000-5000 TL	48	27.4
	5000-10000 TL	49	28.0
	10000-15000 TL	54	30.9
	15000 TL and above	24	13.7
<b>Daily playtime</b>	1-2 hours	27	15.4
	3-4 hours	41	23.4
	5-6 hours	34	19.4
	7 hours and above	73	41.7
<b>Total</b>	<b>175</b>	<b>100</b>	

Table 1 presents the analysis results regarding the socio-demographic characteristics of the participants. Accordingly, 52,0% of the participants are males, 49,7% have had a high school degree, 30,9% have a monthly income between 10000 and 15000 TL", and 23,4% have reported playing games for 3-4 hours daily.

**Table 2.** E-Sports Participation Motivation Sub-Scales

<b>Sub-scales</b>	<b>Item no</b>	<b>Mean</b>	<b>Sd</b>	<b>Min.</b>	<b>Max</b>	<b>Cronbach alpha</b>
<b>Taxonomic domain</b>	15	3.48	.75	1.20	5.00	.95
<b>Competence</b>	11	3.67	.72	1.09	5.00	.93
<b>Relational self</b>	7	3.28	.82	1.00	5.00	.94
<b>Competitiveness and success</b>	8	3.55	.76	1.38	5.00	.95
<b>Leisure time</b>	6	3.60	.82	1.00	5.00	.97

Table 2 presents the values for the sub-scales of the e-sports participation motivation scale. The sub-scale with the highest mean was "Competence" (3.67), while the lowest mean was found in the "Relational self" sub-scale (3.28). Following an analysis of internal consistency coefficients of the sub-scales, it was observed that the highest mean belonged to "Leisure time" (.97) and the lowest mean was in "Competence"(.93).

**Table 3.** E-sports participation motivation levels based on gender

<b>Sub-scales</b>	<b>Gender</b>	<b>N</b>	<b>Mean rank</b>	<b>Z</b>	<b>p</b>
<b>Taxonomic domain</b>	Female	84	91.60	-.905	.365
	Male	91	84.68		
<b>Competence</b>	Female	84	92.30	-1.082	.279
	Male	91	84.03		
<b>Relational self</b>	Female	84	90.53	-.638	.523
	Male	91	85.66		
<b>Competitiveness and success</b>	Female	84	90.73	-.686	.493
	Male	91	85.48		
<b>Leisure time</b>	Female	84	93.11	-1.295	.195
	Male	91	83.28		

**p<0.05**

As seen in Table 3, the Mann-Whitney U test was performed to ascertain whether the EPMS sub-scale scores differed depending on the gender of the participants. The analysis results indicated no statistically significant differences in the given sub-scales by gender variable.

**Table 4.** E-sports participation motivation levels based on education status

<b>Sub-scales</b>	<b>Education status</b>	<b>N</b>	<b>Mean rank</b>	<b>X<sup>2</sup></b>	<b>p</b>
<b>Taxonomic domain</b>	Elementary school	55	87.37	.463	.793
	High school	87	86.38		
	University	33	93.32		
<b>Competence</b>	Elementary school	55	87.03	.059	.971
	High school	87	87.96		
	University	33	89.73		
<b>Relational self</b>	Elementary school	55	88.85	.611	.737
	High school	87	85.44		
	University	33	93.33		
<b>Competitiveness and success</b>	Elementary school	55	88.19	.143	.931
	High school	87	86.84		
	University	33	90.73		
<b>Leisure time</b>	Elementary school	55	87.05	.060	.970
	High school	87	88.94		
	University	33	87.11		

**p<0.05**

Table 4 presents the results of the Kruskal-Wallis test that was performed to determine whether the sub-scale scores varied depending on the educational status of the participants. Accordingly, no statistically significant difference was observed in this regard.

**Table 5.** E-sports participation motivation levels based on monthly income

<b>Sub-scales</b>	<b>Monthly income</b>	<b>N</b>	<b>Mean rank</b>	<b>X<sup>2</sup></b>	<b>p</b>
<b>Taxonomic domain</b>	1000-5000 TL	48	86.23	2.148	.542
	5000-10000 TL	49	85.89		
	10000-15000 TL	54	95.57		
	15000 TL and above	24	78.81		
<b>Competence</b>	1000-5000 TL	48	79.36	4.622	.202
	5000-10000 TL	49	93.37		
	10000-15000 TL	54	96.03		
	15000 TL and above	24	76.25		
<b>Relational self</b>	1000-5000 TL	48	87.33	5.229	.156
	5000-10000 TL	49	83.43		
	10000-15000 TL	54	99.33		
	15000 TL and above	24	73.17		
<b>Competitiveness and success</b>	1000-5000 TL	48	82.03	5.147	.161
	5000-10000 TL	49	85.69		
	10000-15000 TL	54	100.32		
	15000 TL and above	24	76.92		
<b>Leisure time</b>	1000-5000 TL	48	89.76	3.193	.363
	5000-10000 TL	49	80.97		
	10000-15000 TL	54	96.45		
	15000 TL and above	24	79.81		

**p<0.05**

Table 5 shows the Kruskal Wallis test results regarding the difference between sub-scale scores and participants' monthly income. Accordingly, there existed no statistically significant difference in sub-scale scores depending on participants' monthly income.

**Table 6.** E-sports participation motivation levels based on daily playtime

Sub-scales	Daily playtime	N	Mean rank	X <sup>2</sup>	p
<b>Taxonomic domain</b>	1-2 hours	27	80.65	1.487	.685
	3-4 hours	41	93.67		
	5-6 hours	34	92.19		
	7 hours and above	73	85.58		
<b>Competence</b>	1-2 hours	27	74.06	2.906	.406
	3-4 hours	41	94.90		
	5-6 hours	34	87.29		
	7 hours and above	73	89.61		
<b>Relational self</b>	1-2 hours	27	77.94	2.489	.477
	3-4 hours	41	94.60		
	5-6 hours	34	94.01		
	7 hours and above	73	85.21		
<b>Competitiveness and success</b>	1-2 hours	27	75.50	2.676	.444
	3-4 hours	41	94.22		
	5-6 hours	34	93.15		
	7 hours and above	73	86.73		
<b>Leisure time</b>	1-2 hours	27	87.26	2.744	.433
	3-4 hours	41	95.84		
	5-6 hours	34	93.59		
	7 hours and above	73	81.27		

**p<0.05**

In Table 6, Kruskal Wallis test results regarding whether the sub-scale scores differed according to the daily play time of the participants. The results revealed no statistically significant difference in the sub-scale scores depending on daily playtime.

## DISCUSSION AND CONCLUSION

Technological advancements have affected the sports industry, leading to various developments. Such a development has shifted games into digital platforms and created a new form of sports. As a sport branch, computer games, are now recognized as e-sports in the literature (Güler, 2021). In this regard, this study aimed to evaluate the motivations of those engaging in e-sports. A total of 175 voluntary e-sports players, 48.0% (84) females and 52.0% (97) males, participated in the study which investigated the motivation levels depending on gender, educational status, monthly income, and daily playtime. The analysis results revealed no statistically significant difference in participants' scale scores based on their gender (see Table 3). However, in the literature, Üstün et al. (2022) observed a significant difference in the EPMS sub-scale scores in favor of male players. Similarly, in a study conducted by Tezcan and Ayhan (2023) on the effect of e-sports audience demands on e-sports participation motivation, there was a statistically significant difference in favor of male participants in the "taxonomic domain", "competence" and "leisure time" sub-scales. The findings in the literature differ from those of this study. As seen in Table 4, there was not a statistically significant difference in e-sports players' participation motivation levels depending on their education status. Similarly, Uzuner and Sarper Kahveci (2023) investigated motivations to engage in recreational e-sports and observed no significant difference in scale scores by education status. These results parallel those within the existing literature. The analysis results regarding the discrepancy in participants' EPMS sub-scale scores in terms of their monthly income indicated no statistically significant difference. However, Uzuner (2023) observed a significant difference in the "taxonomic domain" and "leisure time" scores by the monthly income factor. According to the analysis results, participants' EPMS sub-scale scores did not vary depending on their daily playtime. Nevertheless, Gökören (2022) reached statistically significant differences in motivation levels according to participants'

daily playtime. Similarly, Kabalay (2022) found a significant difference in participants' daily playtime and their EPMS sub-scale scores. Our results differ from those in the existing literature.

When overall results were evaluated, no significant differences were found between the socio-demographic characteristics of the participants and the EPMS sub-scales. However, the literature reviews present differences based on the socio-demographic characteristics. It should be noted that e-sports attract millions of individuals, and this number is estimated to increase, leading to the widespread popularity of e-sports worldwide like traditional sports. In parallel, there is an estimated reduction in the average age of e-sports enthusiasts, because especially lower age groups spend more time on digital tools such as smartphones and computers. Future studies may focus on specifically primary school, high school, or university students' motivations to engage in e-sports. Additionally, further studies can be conducted on the specific games that e-sports players find appealing.

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