



An Examination of Esports Players' Participation Motivations and Flow States

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Abstract

Despite being a rapidly growing sector intertwined with many major industries worldwide, and despite numerous studies abroad, esports is still in its infancy in Turkey and requires further research. Therefore, this study aims to identify the factors motivating esports players in Turkey to participate in esports and to examine their flow experiences. 570 esports players participated in the study, reached through a snowball sampling technique. Data were collected using a demographic information form, the esports participation motivation scale developed by Öz and Üstün, and the recreational flow experience scale developed by Özdemir, Ayyıldız Durhan, and Akgül. The results showed that men had higher levels of flow experiences, while women had higher levels in the anxiety sub-dimension. Male participants were found to have higher motivation to participate in esports compared to female participants. Significant differences were observed in all sub-dimensions and total scores except for the relational self and leisure time evaluation sub-dimensions of esports participation motivation. Participants with longer gaming experience showed higher levels of flow and motivation. A high correlation was found between flow experience and motivation to participate in esports.

Keywords: Esports, digital games, gaming motivation, flow experience.

INTRODUCTION

Our world is constantly changing. Therefore, it's natural that forms of entertainment and the sports industry are also evolving. While traditional sports activities have maintained their fan base for centuries, the sports industry continues to grow and expand with the advancement of technology. Many people are unaware of the rapid growth of the alternative sports world, more specifically, e-sports or electronic sports (Szablewicz, 2016: 259).

Advances in technology have caused change and development in many areas of our lives. These developments have also affected the structure of recreational activities carried out in leisure time, causing them to change as well. The concept of games, which people use from infancy to spend their leisure time and socialize, has been greatly affected by this change (Özhan, 2011; Uzun et al., 2025). In studies dealing with digital games played between two rival teams and in a competitive style, the term e-sports is used for this field. Although not used very often, the concepts of virtual sports and cyber sports also correspond to the term e-sports. When the terms cyber athlete or virtual athlete are used, e-sports players are meant. Although e-sports has not yet fully achieved stability, it has major national and international organizations and leagues, as well as governing elements such as e-sports federations (Seth et al., 2017: 5-15; Schaeperkoetter et al., 2017: 3-4).

Today, e-sports is experiencing significant growth. According to Argan et al. (2006), e-sports, defined as a sport conducted through virtual games played online, represents a concept based on voluntary participation and intrinsic motivation when compared to the characteristics of traditional sports that are not performed virtually. Although it is difficult to regulate the rules in digital games referred to as e-sports, there are rules such as a specific game duration and a certain number of players, and at the end of a certain period, one side wins and the other loses. These competitions involve concepts requiring skills such as tactics, strategy, and motivation (Yükçü and Kaplanoğlu, 2018; Uzun & Orhan-Akar, 2025).

It is incorrect to label every digital mobile game as an e-sport, and this labeling can lead to negative consequences. Classifying every game released as an e-sport can negatively impact the perception of e-sport. For any digital computer game to be included in the e-sport category, it must meet certain conditions and possess some characteristics specific to e-sport. An e-sport game should have a professional league like traditional sports, professional teams, clubs, and players, be competitive like traditional sports, be easily accessible to everyone, have an audience, and have matches broadcast and viewable live (Argan et al., 2006).

E-sports, a rapidly developing field worldwide with huge budgets, both positive and negative impacts, and a massive audience, has also influenced young people in Turkey, and this influence is growing day by day. In Turkey, there is significant interest in e-sports not only from professional and amateur participants but also from recreational activities (Mustafaoğlu, 2018).

People participate in electronic games for various reasons, including: to unwind, have fun, overcome communication problems with their social environment, challenge others, escape their current situation, achieve things in the game environment that they cannot achieve in real life, make time pass more quickly, and progress in the game (Tekkurşun, et al., 2019). The primary reason is the desire to escape the crowds and intensity of life and to realize oneself freely. This self-realization process, previously practiced in different ways, has evolved according to the conditions of the new generation and the era, taking on a very different form. This change has resulted in the emergence of a very different e-sports fan base, a community of e-sports supporters open to their individual development. From this perspective, while in traditional sports competitions support is for the player or team, in the field of e-sports, matches are followed for the game being played, marking the beginning of a new era (Özbiçakçı, 2016; Yılmaz et al., 2024; Ozkan & Uzun, 2025).

Despite the sheer size of the esports industry, and despite numerous studies abroad, esports in Turkey is still in its infancy and requires much more research. It is believed that there is a general misconception about esports players in our country. This misconception about esports player profiles stems from a lack of understanding of esports itself. Therefore, this research was conducted to reveal the profiles of esports players in our country, identify the factors that motivate them to participate in esports, and measure their flow experiences.

METHOD

Research group (population-sample)

The study included 570 e-sports players who participated recreationally or professionally. According to Yazıcıoğlu and Erdoğan's (2004: 50) sample size calculation method, this sample is considered representative of the population. A non-probabilistic sampling method, snowball sampling, was used to reach the sample (Yazıcıoğlu and Erdoğan, 2004: 45). Snowball sampling is used when information about the population is not fully known and it is difficult to reach the individuals who make up the population. In this method, a reference person or persons are selected in relation to the study, and through these persons, other individuals are reached (Biernacki and Waldorf, 1981). Participants guide the researchers, direct new participants to the study, and the sample grows. For this reason, it is referred to as the "snowball effect" (Noy, 2008).

Data collection tools

In this study, data were collected by the researcher from private e-sports clubs and amateur e-sports communities on a voluntary basis. Data were collected using a demographic information form and the "E-sports Participation Motivation Scale" (EPMS) developed by Öz and Üstün (2019) and the "Recreational Flow Experience Scale" (RFES) adapted by Özdemir, Ayyıldız Durhan and Akgül (2020). The E-sports Participation Motivation Scale had sub-dimensions of 'taxonomic domain' with a score of .960, 'competence' with a score of .953, 'competition and achievement' with a score of .90, 'relational self' with a score of .912, and 'leisure time evaluation' with a score of .905, and its total reliability ($\alpha_{total} = .98$) was found to be at an acceptable level (Cronbach's $\alpha > 0.72$). The item-total correlation coefficients were found to range between 0.665 and 0.830. In this study, the internal reliability coefficient of the E-sports Participation Motivation Scale was determined to be .97. The internal consistency coefficient of the Recreational Flow Experience Scale was determined to be .86 for the first sub-dimension and .70 for the second sub-dimension. To test the validity and accuracy of the construct obtained after the exploratory factor analysis, a confirmatory factor analysis was

performed. The test-retest results show that the CFA provides evidence of construct validity (RMSEA .083, SRMR 0.72, NFI 0.90, CFI 0.93, NNFI 0.91, χ^2/df 3.14). In this study, the internal reliability coefficient of the Recreational Flow Experience Scale was determined to be .74.

To collect data, the scales and demographic information form were first converted to 'Google Forms' format. The survey form created in Google Forms was sent via email to esports players and esports community leaders who had been contacted previously. The main communities included university esports groups called Riot Campus Ambassadors, FIFA teams competing in the Turkish Esports Football League and Virtual Pro League, teams competing in League of Legends leagues in Türkiye, and professional CS:GO teams. In addition, data was collected by sharing the survey form in gaming groups on social media. The research data was obtained from 72 cities, including Istanbul, Ankara, and Eskişehir.

Data analysis

In addition to descriptive statistics, since the data were determined to be normally distributed, independent single-sample test, one-way analysis of variance (ANOVA), Tukey test, LSD test and Pearson correlation analysis were used for within-group comparisons. SPSS 22.0 was used for data analysis.

FINDINGS

The majority of participants were aged 18-25 (61.6%), male (83.5%), had a high school education or lower (52.5%), were unemployed (57.7%), and had a middle-income level (61.1%). Furthermore, while the majority of participants played FIFA (38.1%), the majority had played for 1-2 years (27%), spent 3 hours or more per day (40.9%), and had a skill level below 6 out of 10 (37.9%). Additionally, the majority of participants stated that they had not participated in any tournaments (63.5%), were amateur (90%), and were not members of any esports community (73.5%). Based on these results, it can be said that the esports sector primarily appeals to men and individuals aged 18-25.

Table 1. Arithmetic Mean and Standard Deviation Values of RFES and EPMS

	n=(570)			
	Min.	Max.	\bar{x}	ss
RFES Total	16.00	63.00	47.33	8.02
Flow	10.00	50.00	38.42	8.31
Anxiety	3.00	15.00	8.90	3.32
EPMS Total	46.00	230.00	162.82	38.62
Taxonomic Area	15.00	75.00	53.97	13.79
Competence	11.00	55.00	40.33	10.55

Relational self	7.00	35.00	23.44	6.74
Competition and success	8.00	40.00	27.31	8.45
Leisure time activities	6.00	30.00	21.85	5.65

Looking at the table above, while the participants' average total flow scores are high (47.33 ± 8.02), the flow subscale shows the highest subscale score, while the anxiety subscale shows the lowest subscale score. Participants, whose motivation to participate in e-sports was also determined to be high (162.82 ± 38.62), achieved the highest e-sports motivation score in the taxonomic domain subscale and the lowest e-sports participation motivation score in the relational self subscale.

No significant differences were found between participants' streaming experiences, motivations for participating in e-sports, and age groups, except for the competency sub-dimension. A statistically significant difference was found in the competency sub-dimension, and a post hoc analysis revealed that all three groups were related, with the under-18 age group having a higher level of competency compared to the other groups.

Table 2. T-Test Results Between Participants' Gender Variable and RFES and EPMS Scores.

	Gender	n	\bar{x}	ss	t	p
RFES Total	Male	476	47.58	7.36	1,681	0.093
	Woman	94	46.06	10.72		
	Woman	94	36.31	10.77		
Anxiety	Male	476	8.74	3.26	-2,681	0.008*
	Woman	94	9.74	3.50		
EPMS Total	Male	476	166.23	37.03	4,839	0.000*
	Woman	94	145.54	41.93		
Taxonomic area	Male	476	55.48	13.20	6,051	0.000*
	Woman	94	46.34	14.28		
Competence	Male	476	41.29	10.01	4,981	0.000*
	Woman	94	35.47	11.85		
Relational self	Male	476	23.69	6.78	1,950	0.052
	Woman	94	22,21	6.44		
Competition and success	Male	476	27.92	8.24	3,930	0.000*
	Woman	94	24,22	8.88		
Leisure time activities	Male	476	22.03	5.46	1,695	0.091
	Woman	94	20.95	6.50		

*p<0.05

An independent samples t-test conducted between participants' flow and e-sports scale scores and the gender variable revealed a significant difference between the sub-dimensions of the flow scale and the gender variable. Accordingly, it was determined that men had higher levels of flow experiences in the flow sub-dimension ($t=2.700$), while women had higher levels in the anxiety sub-dimension ($t=-2.681$).

The analysis findings on the e-sports participation motivation scale and gender reveal statistically significant differences in all sub-dimensions except for relational self and leisure time evaluation sub-dimensions, as well as in the total score. In all sub-dimensions where significant differences were found, male participants were observed to have higher motivation to participate in e-sports than female participants. This may be because the games consist mostly of elements that appeal to men, such as football, war, and fighting.

No statistically significant difference was observed between the participants' flow experience scale and their educational level. Regarding the sub-dimensions of e-sports participation motivation, specifically leisure time activity, a significant difference was found between the group with a bachelor's degree or higher and the group with a high school education or lower, indicating a higher level of leisure time activity compared to the group with a high school education or lower.

The flow experiences and motivation for participating in esports among esports players do not differ according to their employment status. However, although not statistically significant, it was found that the working group exhibited higher scores in flow experiences and the non-working group exhibited higher scores in motivation for participating in esports compared to the other group.

There were no statistically significant differences between participants' income levels and their streaming experiences and motivation to participate in esports. However, it was observed that the group reporting a high income level exhibited higher levels of streaming experience and motivation to participate in esports compared to other groups. This could be because participants with higher income levels may have better gaming equipment than other participants, leading to greater streaming experience and motivation.

While the flow experiences of esports players did not differ according to their most preferred games, their motivation for participating in esports showed significant differences in all sub-dimensions except relational self and leisure time management, as well as in total scores. Accordingly, it was determined that those who preferred CS:GO had higher motivation for

participating in esports compared to other groups in terms of total scores and the competence sub-dimension; on the other hand, in the taxonomic domain, participants who preferred FIFA had higher motivation for participating in esports compared to other game groups in the competition and achievement sub-dimensions.

According to the ANOVA test findings regarding the relationship between participants' flow experiences, motivation to participate in esports, and duration of esports play, significant differences were found in all sub-dimensions except anxiety on the flow scale and in the relational self-dimensions and total scores on the esports participation motivation scale, depending on the number of years spent playing games. While within-group differences regarding significant differences are described in the table, it is generally shown that participants with longer years of playing games exhibit higher flow experiences and motivation.

It was determined that participants' flow experiences and motivation to participate in esports differed according to their daily gaming time. Accordingly, in all groups where a significant difference was found, the group that played for 3 hours or more exhibited higher flow experiences and motivation to participate in esports. Since the group that played for less than 2 hours daily showed the lowest flow and motivation levels, the group that played for 2-3 hours showed higher levels than those who played for 2 hours, and the group that played for 3 hours or more showed the highest flow and motivation levels as determined by post hoc tests, it can be said that increasing daily participation time increases flow experiences and motivation.

Table 3. Cross-Table of Participants' E-sports Participation Patterns and Daily Gaming Time

Method of Participation	1 Hour	2 Hours	3+ Hours	Total
Amateur	217	97	199	513
Professional	11	12	34	57
Total	228	109	233	570

The table above shows that most amateur players play less than 1 hour a day, but most professional players play more than 3 hours a day. Based on this result, it can be concluded that professional players need to play for longer periods to improve their skills.

Based on responses where participants rated their gaming level on a scale of 1 to 10, the majority of participants were found to be below level 6. Furthermore, in all groups where significant differences were observed, participants with a level of 8 to 10 were found to have higher streaming experiences and motivation to participate in esports.

Table 4. T-Test Results Between Participants' E-Sports Participation Style and RFES and EPMS Scores

	How to participate in esports	n	\bar{x}	ss	t	p
RFES Total	Amateur	513	47.05	8.04	-2,482	0.013*
	Professional	57	49.82	7.41		
Flow	Amateur	513	38.01	8.26	-3,540	0.000*
	Professional	57	42.08	8.00		
Anxiety	Amateur	513	9.03	3.24	2,821	0.005*
	Professional	57	7.73	3.80		
EPMS Total	Amateur	513	160.16	37.25	-5,032	0.000*
	Professional	57	186.73	42.69		
Taxonomic area	Amateur	513	53.13	13.37	-4,416	0.000*
	Professional	57	61.50	15.33		
Competence	Amateur	513	39.61	10.27	-5,011	0.000*
	Professional	57	46.84	10.85		
Relational self	Amateur	513	23.14	6.58	-3,244	0.001*
	Professional	57	26.17	7.58		
Competition and success	Amateur	513	26.58	8.25	-6,384	0.000*
	Professional	57	33.87	7.40		
Leisure time activities	Amateur	513	21.73	5.49	-1,606	0.109
	Professional	57	23.00	6.87		

*p<0.05

The table above shows that the vast majority of participants engage in esports recreationally. Furthermore, independent samples t-test findings regarding the relationship between streaming experience, motivation to participate in esports, and the type of esports participation in the study group revealed that the minority professional group exhibited higher streaming experiences and motivation to participate in esports compared to the amateur group in all significant differences.

Table 5. Pearson Correlation Test Results Between RFES and EPMS

	RFES	Flow	Anxiety	EPMS	Taxonomic	Competence	Relational	Rivalry	Leisure time
RFES Total	1								
Flow	.918**	1							
Anxiety	.117**	-.287**	1						
EPMS Total	.316**	.488**	-.433**	1					
Taxonomic	.327**	.458**	-.356**	.907**	1				
Competence	.394**	.524**	-.361**	.920**	.809**	1			
Relational Self	.167**	.322**	-.402**	.818**	.631**	.690**	1		
Rivalry	.217**	.382**	-.433**	.846**	.658**	.732**	.688**	1	
Leisure time	.241**	.357**	-.311**	.767**	.606**	.633**	.621**	.610**	1

p<0.05*; p<0.01**

A high correlation was found between the RFES and EPMS sub-dimensions. The highest correlation ($r = .920$) was observed between the total EPMS score and the competence sub-dimension. The correlation between the total RFES score and the flow sub-dimension ($r = .918$) was also found to be quite high. The lowest correlation ($r = .117$) was observed between the total RFES score and the anxiety sub-dimension, followed by the correlation between the total RFES score and the relational self sub-dimension ($r = .167$). Positive correlations were determined between all sub-dimensions except the anxiety sub-dimension.

DISCUSSION AND CONCLUSION

The digital gaming industry holds a very significant place today and continues to develop day by day. According to 2014 data, approximately 1.82 billion people worldwide played digital games, while this number rose to approximately 2.5 billion in 2019, and is expected to exceed 2.7 billion in 2021. A similar picture exists in our country. While approximately 2.5 billion people played digital games worldwide in 2019 (Gough, 2019), the number of people playing digital games in our country reached 32.8 million (Çelebi, 2019). Furthermore, according to data from the Turkish Esports Federation, the number of athletes involved in esports in Türkiye in 2020 was approximately 4 million.

This research aims to examine the motivation for participation in esports and the flow experience of individuals who engage in esports professionally and recreationally. It also aims to determine the relationship between motivation for participation and flow experience, and to investigate how specific variables differentiate these levels. The study included 570 esports players (94 women and 476 men) from 72 provinces of Türkiye.

According to the research findings, participation in esports differs by gender, with men participating more frequently at 83.5%. However, it is not accurate to say that participation in esports is exclusive to men based on the research findings. While female athletes participate less than male athletes, their number is still significant.

A study by Yıldız, Kırtepe, and Baydilli in 2020, which supports existing research findings, compared the demographic characteristics of licensed e-sports players with the factors influencing their motivation. The sample consisted of 146 licensed e-sports players. The study found that participation in e-sports was higher among men. Furthermore, when compared by gender, it was determined that male athletes valued competition and success more in e-sports. It was also found that younger participants felt more excitement about participating in e-sports than older participants, the type of electronic device used by participants had no effect on their motivation to participate in games, and the vast majority of the sample members were unemployed, and this did not affect their e-sports motivation levels.

According to the current research findings, men experienced more flow than women ($t=2.700$). Additionally, it was found that younger athletes experienced more flow, and that flow experience decreased with age. Looking at the motivation dimension of the research, it can be said that younger athletes were more motivated. Motivation was observed to decrease with age. Similar results were obtained in Gön's 2020 research. According to the findings of this study, the vast majority of participants (68.82%) were male. Looking at the age range of the participants, it was found that the highest percentage (36.1%) was between 20-24 years old. In this study, it was also found that men experienced more flow than women, and in the age category, younger players had higher flow scores than older players, and consequently, flow experience decreased with age. Furthermore, it was observed that flow experience increased as the participants' playing experience increased.

The majority of athletes participating in the study, at 57.7%, were unemployed. Based on these results, it is thought that unemployed individuals may have more free time and therefore dedicate more time to esports. Furthermore, the findings indicate that esports players' flow experiences and motivation for participating in esports do not differ according to their employment status.

The vast majority of athletes participating in the study belonged to middle-income groups. Furthermore, participants with higher income levels were found to have higher levels of flow and motivation. This suggests that higher-income participants may have better access to

equipment and resources, and therefore experience more flow. This finding could be a subject for future research.

The current study shows that when examining the games played by esports players, FIFA is the most played game with 38.1%. This is followed by League of Legends with 26.8%, Player Unknown Battle Ground (PUBG) with 15.4%, and Counter-Strike: Global Offensive (CS:GO) with 14.4%. The reason for FIFA's higher popularity is thought to be that football is the most watched and played sport.

According to the research findings, the majority of participants (27%) are players who have been playing for less than two years. This result can be considered an indicator of the growth of esports in recent years. Furthermore, 21.4% of the participants are players who have been playing for nine years or more. The research findings indicate that as individuals' gaming experience increases, their flow experience also improves. It can be assumed that participants with more years of playing experience are less challenged due to their greater experience, and therefore achieve better flow.

40.9% of participants reported playing games for more than 3 hours a day. The group playing for 3 hours or more showed higher levels of flow and motivation to participate in esports. Post hoc tests revealed that the group playing for less than 2 hours showed the lowest flow and motivation levels, the group playing for 2-3 hours showed higher levels than those playing for 2 hours, and the group playing for 3 hours or more showed the highest levels. Therefore, it can be said that increasing daily participation time increases flow and motivation. This raises questions about whether participants engage for longer periods because they experience more flow and motivation, or whether increased participation time leads to higher flow and motivation levels, and could serve as a guide for future research.

Research findings indicate that most amateur gamers play less than 1 hour a day, but most professional gamers play more than 3 hours a day. Parallel to these findings, research examining the relationship between gaming disorder, gaming motivations, and mental health is increasing, according to the 2019 study by Banyai et al., but types of gaming use, such as recreational gaming and esports, are not commonly distinguished. This study compared recreational and esports players across a range of variables including gaming time, gaming motivations, severity of gaming disorder, and psychiatric symptoms. Furthermore, the mediating effect of gaming motivations between psychiatric distress and problematic gaming was examined in esports and recreational gamers. The results showed that professional esports players spend significantly

more time playing video games than recreational players, both on weekdays and weekends. Moreover, professional esports players were found to have higher scores in gaming motivation than recreational players. These results are consistent with current research.

When players were asked to rate their skill level on a scale of 10, the largest group (37.9%) rated their level below 6. 35.1% of players indicated they were between levels 8 and 10. The findings suggest that players with a skill level between 8 and 10 achieved greater flow and motivation. This is thought to be because participants with higher skill levels experienced less difficulty, thus achieving greater flow.

63.5% of participants stated that they had never participated in an esports tournament before. It was determined that athletes who had previously participated in tournaments had higher levels of flow and motivation. Thus, it is thought that players who participated in tournaments may have been influenced by the more competitive environment, prizes, and audience, resulting in higher flow and motivation. Furthermore, only 2.6% of participants stated that they had participated in an international tournament. According to this finding, it is seen that very few esports players in our country participate in international tournaments with large prize pools. It is expected that this rate will increase as esports develops in our country. However, according to the findings of Akın's 2008 study, 25.4% of participants stated that they had participated in an international tournament. Also, the vast majority of athletes participating in this study (67.11%) stated that they had been involved in esports for more than 4 years. This is followed by those who played for 3-4 years at 13.1%, those who played for 2-3 years at 11.2%, those who played for 1-2 years at 5.5%, and finally, those who played for less than 1 year at a very low rate of 1.4%. Again, these results do not parallel the current research. In addition, the findings of the two studies show similarities in terms of gender and age.

In Schmidt et al.'s 2020 study, cortisol levels were measured in 23 computer gamers (19 men and 4 women) immediately before, during, and 30 minutes after a match in an esports tournament. Players also completed the Flow Short Scale, consisting of sub-dimensions of "flow experience" and "anxiety," after their games. Performance was evaluated based on the outcome of each player's game (win or loss). Average cortisol levels increased significantly during the game. Winners showed higher anxiety levels when compared to losers. Furthermore, after dividing the results into three groups based on different cortisol response patterns, low to moderate cortisol levels were most associated with high performance, flow, and anxiety. In this research, low to moderate physiological arousal and high levels of anxiety (a sub-dimension of

flow) simultaneously represent a positive state for achieving optimal performance during esports. The flow experience scores of the players in this study are consistent with the results of the current study.

90% of participants stated that they participate in esports recreationally and have no financial expectations. Professional esports players appear to have greater flow and motivation. This is thought to be because professional players are more experienced, which reduces the challenges they face and enhances their flow. It is also believed that the superior gaming equipment of professional athletes compared to amateur athletes may have contributed to their improved flow.

73.5% of participants stated that they were not members of any esports community. It was determined that participants who were members of an esports community had more streams and motivation compared to the other group. This is thought to be because community members play with friends or in groups rather than alone, resulting in more streams and greater motivation.

Zhou's 2012 research, based on streaming theory, aimed to identify factors influencing user adoption of mobile games. The research results showed that perceived ease of use, connection quality, and content quality influenced streaming. Among these, content quality had the greatest impact. The research sample consisted of 231 individuals, 62.8% of whom were male and 37.2% female. In terms of age, the majority of respondents (69.7%) were between 20 and 29 years old, and more than half (55.8%) held a bachelor's degree or higher. These results suggest a possible correlation between improved connection quality and enhanced streaming experience, and the fact that higher-income players in the study had a greater streaming experience.

Weibel et al.'s 2008 study, which examined the relationship between online gaming and streaming experience, investigated whether playing online games against other users led to different experiences compared to playing against computer-controlled opponents. The findings showed that the type of opponent influenced the gaming experience: participants who played against a human-controlled opponent reported a greater sense of presence, streaming, and entertainment. A total of 83 students from a public university participated in the study.

Another study examining the relationship between games and the flow experience, Liu's 2017 paper expanding on flow theory, aimed to investigate how interaction (human-to-human interaction and human-to-machine interaction) and personal beliefs (perceived attraction,

personal engagement, and perceived uncertainty) influence the flow experience; this study also explored how the flow experience relates to repeat intention. The findings revealed that the flow experience is a significant predictor of repeat intention. Based on this result, it is thought that there may be a relationship between increased flow and increased game duration among participants in the current research.

In another study examining the streaming experience with games, a total of 14 young adults played 6 different BMCVG (Body Motion Controlled Video Games) for 6 minutes each and performed traditional cycling exercise in a random order. Participants completed the Flow State Scale-2 questionnaire. The results showed that video games were rated as more enjoyable than traditional cycling exercise, with streaming dimensions scoring significantly higher (Thin, et al., 2011). Based on these results, it can be assumed that esports may be more attractive than traditional sports and therefore achieve high daily playtimes. The high streaming experience that players have while playing video games is similar to that in the current study.

Voiskounsky's 2004 study, which examined the flow experience in games, aimed to determine whether players experience flow and to identify a set of dimensions that define flow during multiplayer gaming, possibly distinct from those characterizing behaviors other than playing MUDs (Multi-User Dungeons). The sample consisted of 347 Russian MUD game players who responded to a survey. The study found that the set of dimensions defining flow during MUD games consisted of three subsets, and that players experienced a high level of flow.

In their 2008 study on the relationship between games and motivation, Jeng and Teng aimed to investigate the relationship between personality and motivation for playing online games using a five-factor personality model and a previously theorized motivation typology. The results showed that openness was positively correlated with exploration and role-playing motivation, and conscientiousness was positively correlated with escapism motivation. The study sample consisted of 92 undergraduate students from North Taiwan University with online gaming experience, as research indicates that university students constitute a large proportion of online gamers. Sixty percent of the participants were male, and all were between 18 and 27 years old.

As a study on the diversity of player motivations, Fuster et al.'s 2012 study examined the motivations of players in World of Warcraft, a massively multiplayer online role-playing game (MMORPG), one of the most popular game genres. The aim of this study was to evaluate the

psychological motivations of World of Warcraft (WoW) players and to relate them to socio-demographic variables and gaming styles. The sample consisted of 253 Spanish WoW players, all young males. Factor analysis of survey scores revealed the presence of four motivations for playing the game: socialization, exploration, achievement, and dissociation. The results showed that socialization was one of the main motivational factors, and players preferred the player-to-player environment. This result can be explained by the fact that participants experience more flow when playing against another human rather than a computer. Following this research, another study by Fuster et al. in 2012 analyzed the relationship between gaming styles and motivations. An online survey asking about socio-demographic details, play style, characteristics of the game played, and motivations for playing was administered to 430 Spanish-speaking MMORPG players. Regarding motivations, establishing relationships with other players through the game (Socialization), exploring the game's possibilities and enhancing adventures (Exploration), and to a lesser extent leadership and prestige (Achievement) were prominent motives. Furthermore, while escape or stress relief was a primary reason for participating in the game, the most significant was socialization. This finding is considered similar to existing research findings indicating that participants who are members of a community have higher motivation.

Similar to the studies mentioned above, the aim of Pizzo et al.'s 2018 study was to measure commonly used sports consumption motivations to examine their effects on esports viewership and game participation frequency. In South Korea, viewer motifs were measured in three contexts: one traditional sport (football) and two esports (FIFA Online 3 and StarCraft II). MANOVA results revealed similar patterns for 11 out of 15 motifs across all three disciplines. Multiple regression analysis results showed that viewers had different motifs influencing game participation across the contexts. This study demonstrated that traditional sports and esports are consumed similarly, suggesting that sports industry professionals can manage and market esports events in a manner similar to traditional sports events.

According to existing research findings, Kolçak's 2020 study aimed to measure whether the motivation of middle school students to play digital games affects their motivation to participate in physical activity, although the results differed depending on the age variable. The research sample consisted of 335 students studying in middle schools in Kars city center, 182 of whom were female and 153 male. According to the research findings, while no significant difference was found between age and participation in digital games and participation in physical activity, a significant difference was found between motivation to play digital games

and gender. The conclusions drawn from the research findings indicate that as the duration of playing games increases, the motivation to participate in physical activity decreases among the participants. In this context, the age variable does not show parallelism with the current research, while the results for gender variables are similar.

In their 2020 study, Banyai et al. investigated the determinants of career plans to become a professional esports player, with a specific focus on gaming motivation. The study sample consisted of 190 Hungarian players. The results showed that competitive gaming motivation, skill development, and social motivation predicted career planning as a professional esports player. Additionally, the results indicated that younger players sought career opportunities as professional esports players more than older players. This finding suggests a possible correlation with the higher motivation levels observed in previous research.

Buil et al.'s 2017 study aimed to investigate the role of flow when using business simulation games. Based on a survey of 167 undergraduate students using a classroom-based business simulation game, the findings showed that the challenge provided by the game, the students' ability to cope with challenges, and the immediate feedback positively influenced student flow. Flow was found to positively impact overall skill development, perceived learning, and satisfaction.

In his 2013 study, Chang investigated the effects of web-based gaming (SNG) on the streaming experience. The results highlight the importance of SNGs for the streaming experience. The sample consisted of 358 participants from a university in eastern Taiwan. The surveyed group ranged in age from 18 to 27, and 58% of the participants were male. This study demonstrates that both human-computer interaction and social interaction contribute to user satisfaction and the streaming experience. The results also show that people play SNGs to form a shared interest. These findings are similar to those obtained in the current research, where players who are members of a community are more motivated and achieve more streaming.

According to the research findings, a high correlation has been determined between the streaming experience and motivation to participate in e-sports. Hsu and Lu reported a positive relationship between streaming, an experiential motivation, and online gaming in their 2004 study. This finding supports the current research findings.

According to the results of the study conducted by Uzunbacak et al. in 2019, which included a sample of 309 academics and addressed the topic of career flow, significant positive relationships were found among all measured variables. Job Passion Experience (JP) has a

significant relationship with dimensions of flow experience such as immersion, enjoyment of work, and intrinsic motivation. Job Passion Seeking (JP) was also found to have a significant relationship with immersion, enjoyment of work, and intrinsic motivation. A significant relationship was found between flow and motivation. These results are consistent with the findings of the current research. Similarly, a study conducted on employees found no significant relationship between life satisfaction and organizational identification levels among individuals working in the IT sector; however, a significant relationship and effect was found between flow experience and organizational identification (Fidanboy, 2019).

Akyol and İmamoğlu's 2019 study concluded that students who have received sports training have an influence on their motivation levels and on their flow states, or vice versa. It is thought that studies that increase the flow states of students who have received sports training can increase their motivation levels, and conversely, studies that increase flow states can also increase students' motivation levels.

In İşigüzel's 2020 study on the flow and motivation of foreign language course participants, significant differences were identified in terms of motivation and flow experience in drama-based German language lessons. Accordingly, it was determined that students had positive feelings towards the drama-based German language course, achieved high motivation, and experienced flow. A positive correlation was also found between motivation and flow in this study.

According to the results of Öz's 2019 study, a significant negative correlation was found between chronic anxiety and flow. The research results indicate that experiencing chronic anxiety prevents the experience of flow. Furthermore, no significant relationship was found between anxiety sensitivity and flow. According to current research data, it appears that as anxiety increases, the experience of flow decreases.

Volk's 2017 study examining students' flow experience and intrinsic motivation revealed, through correlation and factor analysis, significant relationships between most "flow" elements and learning motivation (especially intrinsic motivation). The results of the current research also indicate that motivation increases as flow increases.

Yang and Quadir's 2015 study, which investigated the flow and motivation of students in an English learning classroom, showed that the experience of game flow significantly predicted learning motivation; students with a high game flow experience were six times more likely to have high learning motivation than those with a low game flow experience. Subsequent

analyses showed that female students had significantly higher game flow than male students, but male and female students showed similar learning motivation. This study parallels the current study except for the gender parameter.

Gomes et al.'s 2012 study examining the flow and motivation of volleyball players found that the average flow of the athletes was low. The second phase of the study revealed a negative correlation between extrinsic motivation and motivation components, and flow and self-efficacy. A positive correlation was also found between flow and perceived ability in the second and third phases.

The results of Hektner and Csikszentmihalyi's 1996 study showed that those who experienced increased flow also had increased intrinsic motivation, self-esteem, time spent on schoolwork, and the alignment of their activities with future career goals.

According to the results of the research conducted by Kelecek, Aşçı, and Altıntaş in 2010 to determine the motivations of elite volleyball players, it was determined that the perceived motivational climate was a determinant of different sub-dimensions of motivational orientation and optimal performance emotional state for elite male and female volleyball players.

In their 2015 study, Hung, Sun, and Yu, building on findings from a pilot study, categorized the game's 18 difficulty levels into "challenging" (experimental group) and "matching" (control group) games. Their aim was to investigate whether challenging games were more suitable than matching games for enhancing students' motivation, flow experiences, self-efficacy for technology, self-efficacy for science, feelings about the TPC game, and satisfaction with the learning approach. The findings showed that students in the experimental group achieved better flow experiences, learning performance, and satisfaction.

The results of Mills and Fullagar's 2008 study showed a significant relationship between flow experiences in academic activities and self-determined forms of intrinsic motivation, but no relationship for extrinsic motivation.

Seifer and Hederson's 2010 study on the flow and motivation of skateboarders showed that motivation can be a rich, subjective experience characterized by a sense of freedom, exhilaration and effectiveness, challenge and satisfaction. Similarly, it showed that flow is a rich, subjective experience characterized by peak performance, increased concentration, positive impact and superiority.

In a study by Özhan and Kocadere from 2019, which examined an online learning program, it was found that the experience of flow and emotional engagement in a gamified learning environment had a highly significant impact on motivation. Furthermore, it was concluded that this flow and increased motivation led to improved academic performance, and that motivation had a positive effect on academic success.

In their 2018 study, Watson et al. found personal motivation to be significant in determining the level of flow and, consequently, employee engagement. Using multiple group analysis, the results revealed that the relationship between personal motivation, flow, and engagement played a superior role for older employees. Furthermore, no significant difference was found between male and female personnel. Similarly, Moneta's 2012 study on workflow found that intrinsic motivation was associated with workflow for high-opportunity and not for low-opportunity. These findings also support the hypotheses and suggest that person-environment matching promotes workflow.

The results of Carroasco Beltran's 2018 study showed that the program had positive effects on internal regulation, introspective regulation, motivation, perceived challenge-skill balance, time distortion, and autotelic experience. These data suggest that extracurricular sports participation can have a positive impact on self-determined motivation and flow, and can enhance the experience of physical-sports practice within the school context.

In Ljubin-Golub, Rijavec, and Olcar's 2020 study examining the relationship between student flow and burnout, the results of structural equation modeling showed that students who perceived their teachers as providing greater autonomy support experienced greater motivation for autonomous learning, resulting in more frequent flow experiences in learning and subsequently less burnout.

In their 2013 research on digital media streaming and motivations, Khang, Kim, and Kim found that self-control significantly influenced both user streaming and addiction associated with internet, video game, and mobile phone use. Additionally, two dimensions of trending media use motivations—entertainment and self-preservation—showed significant correlations with streaming and addiction related to users consuming all two or three media types. As expected, time spent using media was found to be significantly correlated with streaming and addiction associated with overall digital media use.

This study aims to reveal the motivation for participation in esports among individuals who engage in esports professionally and recreationally, their flow experience through esports,

the relationship between esports participation motivation and flow experience, and how certain variables differentiate these levels.

In conclusion, the study found that men are more involved in esports than women, esports is mostly preferred by individuals aged 18-25, participants are mostly graduates of high school or lower, users with a middle income level are in the majority in esports, FIFA is the most preferred game among popular games, most players started esports in the last 1-2 years, most participants spend more than 3 hours a day on esports, only 10% of participants are professional esports players, and very few esports players in our country participate in international tournaments.

The study found that men achieved higher flow and motivation levels than women in the gender parameter; although there was no significant difference in the findings, flow and motivation decreased with age; education level, employment status, and income level did not create a significant change in e-sports participation and flow; those who preferred CS:GO had higher e-sports participation motivation compared to other groups; on the other hand, in the taxonomic domain, participants who preferred FIFA and other games in the competition and success sub-dimensions had higher e-sports participation motivation compared to other game groups; flow experience and motivation increased with the number of years spent playing e-sports; participants with high daily playing time had higher flow and motivation; participation in tournaments increased flow and motivation; and professional athletes had higher flow and motivation scores than recreational participants.

The research results revealed the profile of esports players in Türkiye, their streaming experiences, and their motivations. It is believed that these results are representative of the universe and will encompass all esports players in Türkiye.

A literature review revealed no other studies measuring the recreational flow experience of esports players. Furthermore, studies on esports within the context of sports science are quite limited. Considering the size of the esports sector, the existing research is considered insufficient. In addition, studies in our country are also quite scarce. Given the rapid growth of esports, an increase in research is expected. It is believed that existing research contributes to the development of the esports sector and that more research is needed. While most motivation studies in the literature are in the field of psychology, studies in the field of sports science are quite limited.

It is believed that the findings of the current research will guide future studies and contribute to the development of the esports sector. Esports are considered to share similarities with traditional sports and are now a branch of sports science, therefore requiring further study by sports scientists. The results of this study are thought to guide not only sports scientists but also game developers and other esports stakeholders in their new research. Furthermore, it is believed that this study will contribute to the formation of an academic esports literature in Türkiye.

In addition, considering the low participation in international tournaments, developing a structure specifically for esports in Türkiye, similar to those in developed countries, is important for having a greater say in this field and is thought to be beneficial in bringing our esports players to the world stage. Furthermore, it is believed that the sooner action is taken in this field, the greater the chance of becoming a leader.

Recommendations

The current research has a quantitative design. Future research is recommended to utilize qualitative (in-depth interviews, focus groups) or mixed-methods research designs to gain a deeper understanding of the reasons behind the findings of this study (e.g., gender differences in motivation or higher anxiety levels among women).

This study is a cross-sectional design based on a survey model. Future studies examining the changes in esports players' motivation and flow experiences over time (e.g., during the transition from amateur to professional or as the number of years they play increases) should be designed as longitudinal studies to contribute to a better understanding of the causal relationship between these variables.

The study discusses the possibility that higher income levels may enhance flow and motivation through access to better equipment. To test this hypothesis, it is proposed to design experimental research designs that measure the direct impact of equipment quality (latency, ergonomics, etc.) on player performance, motivation, and flow experience.

Instead of the snowball sampling technique used in this study, employing probabilistic sampling methods (e.g., stratified sampling) that include participants from different game genres and demographic strata (e.g., working esports players over 25) in future studies to better represent the Turkish esports population will increase the generalizability of the findings.

Current findings have shown motivational differences between CS:GO and FIFA players. Future research is recommended to examine the comparative effects of different esports genres

(MOBA, FPS, Sports Simulation, Strategy, etc.) on players' motivational profiles and the factors that trigger their streaming experience.

Professional players were found to have significantly higher levels of flow and motivation compared to amateurs. Based on this finding, it is recommended that more in-depth studies be conducted to examine the psychological factors (commitment, coping strategies in stress, self-efficacy, etc.) that influence the transition from amateur to professional.

Participants who were members of an esports community were found to have higher flow and motivation. Future studies are suggested to investigate the differentiating effects of the nature of these social structures (formal team, online 'guild', or group of friends) and perceived social support on flow and motivation.

The study found that "anxiety," a sub-dimension of flow, showed a negative correlation with motivation and other dimensions of flow. Future research is recommended to examine in detail the role of anxiety (performance anxiety, fear of failure, etc.) and strategies for managing this anxiety (especially considering the finding of high anxiety in female participants) for an "optimum" flow experience in esports.

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CONTRIBUTION RATE	EXPLANATION	CONTRIBUTORS
<i>Idea or Notion</i>	<i>Form the research hypothesis or idea</i>	Volkan GÖKÖREN
<i>Design</i>	<i>To design the method and research design.</i>	Volkan GÖKÖREN, Beyza Merve AKGÜL
<i>Literature Review</i>	<i>Review the literature required for the study</i>	Volkan GÖKÖREN
<i>Data Collecting and Processing</i>	<i>Collecting, organizing and reporting data</i>	Volkan GÖKÖREN
<i>Discussion and Commentary</i>	<i>Evaluation of the obtained finding</i>	Volkan GÖKÖREN, Beyza Merve AKGÜL
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<i>Researchers do not have any personal or financial conflicts of interest with other people and institutions related to the research.</i>		
Statement of Ethics Committee		
<i>This research was conducted with the decision of Gazi University Ethics Committee numbered E-88583-91610558-302.08.01</i>		



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