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INVESTIGATION OF MOTIVATION LEVELS OF UNIVERSITY STUDENTS STUDYING IN TURKEY TO PLAY DIGITAL SPORTS GAMES

TÜRKİYE'DE ÖĞRENİM GÖREN ÜNİVERSİTE ÖĞRENCİLERİNİN DİJİTAL SPOR OYUNLARI OYNAMA MOTİVASYON DÜZEYLERİNİN ARAŞTIRILMASI

Orçun KEÇECİ[1], Eylül DUTKİN[2], Erkan ATALMIŞ[3], Sinan SEYHAN[4]

ÖZ: Dijital oyunlardaki teknolojik gelişmeler dikkate alındığında, sanal gerçeklik ve artırılmış gerçeklik temelli oyunlara yönelik güdülenmenin artık geleneksel olarak kabul edilebilecek dijital oyunlara yönelik motivasyon kaynaklarından hangi noktalarda farklılaştığının öğrenilmesi önemli bir kazanım olabilir. Bu araştırmanın amacı, Türkiye'de öğrenim gören e-sporcu ve rekreasyonel olarak dijital spor video oyunları oynayan üniversite öğrencilerinin dijital spor video oyunlarındaki motivasyon düzeylerini incelemektir. Araştırmaya 18-24 yaşları arasında, 72 e-sporcu ve 81 rekreasyonel olarak dijital spor video oyunları oynayan gönüllü bireyler katılmıştır. Araştırmada veri toplama aracı olarak Kilci (2022) tarafından Türkçeye uyarlama, geçerlik ve güvenirlik çalışması yapılmış Dijital Spor Oyunları Motivasyon Ölçeği (DSOMÖ) kullanılmıştır. Ölçek yanıtları, üniversite öğrencilerinin dijital spor oyunları oynama motivasyonunun cinsiyete ve oyuncu tipolojisine göre farklılaşabildiğini göstermektedir. Özellikle e-sporcuların rekreasyonel dijital oyunculara göre daha yüksek motivasyona sahip olmasına yönelik bulgular dikkat çekmektedir. Sonuç olarak, üniversite öğrencileri bakımından dijital spor oyunları oynama motivasyonunun çeşitli demografik özelliklere göre değişkenlik gösterebildiği anlaşılmaktadır. Geleneksel farklı spor branşlarının dijital spor oyunları oynamada nasıl bir motivasyon kaynağı olabileceğinin de araştırılması bu çalışmadan sonra yapılması gereken diğer bir konu olarak önerilebilir.

Anahtar Kelimeler: Üniversite Öğrencileri, Dijital Oyun, E-spor, Motivasyon

ABSTRACT: Considering the technological developments in digital games, it may be an important gain to learn at which points the motivation for virtual reality and augmented reality based games differs from the motivation sources for digital games that can now be considered traditional. The purpose of this study is to examine the motivation levels of Turkish university students studying who are e-athletes and recreationally play digital sports video games in digital sports video games. A total of 72 e-athletes and 81 recreational digital sports video game players aged between 18-24 years participated in the study. The Digital Sports Games Motivation Scale (DSGMS), which was adapted into Turkish by Kilci (2022), validity and reliability study, was used as a data collection tool in the study. Scale responses show that university students' motivation to play digital sports games can differ according to gender and player typology. In particular, the findings that e-athletes have higher motivation than recreational digital players are noteworthy. As a result, it is understood that the motivation to play digital sports games in terms of university students can vary according to various demographic characteristics. Investigating how different traditional sports branches can be a source of motivation in playing digital sports games can be suggested as another issue that should be done after this study.

Keywords: University Students, Digital Game, E-sports, Motivation

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TÜRKÇE GENİŞLETİLMİŞ ÖZET

Giriş

Yapılan araştırmalara göre son zamanlarda spor video oyunu oynamak dünya çapında giderek daha popüler olan boş zaman etkinliği olarak insanların hayatında önemli bir yer edinmiştir. Bununla birlikte spor video oyunları oynamak sadece eğlence amaçlı olarak değil oyuncuların bir kısmının artık saatlerce ve profesyonel olarak oynadığı her gün beceri ve oyunlarında ustalaşmak istediği görülmektedir. Rekreatif amaçlı dijital oyun oynayan katılımcılar, dijital oyunları boş zamanı değerlendirmek için oynayan bireyleri ifade etmektedir. Sportif amaçlı dijital oyun oynayan katılımcılar ise dijital oyunları bir kariyer yolu olarak değerlendirip mesleki vasıfla icra eden ve bu aktiviteden maddi kazanç sağlayabilen bireyleri ifade etmektedir. Profesyonel yani e-spor oyuncusu olarak e-spor 2000'li yıllarda insanların hayatında önemli bir yer kazanmaya başlamıştır. Üniversite çağındaki gençler gerek sosyalleşme isteği gerekse ek gelir elde etme ihtiyacı ve daha da ötesi teknolojiyi daha iyi benimsemiş olmaları sebebiyle E-spor alanına daha yatkın ve bu alanda daha yaygın oldukları sonucunu çıkartılabilir. Bu nedenle bu araştırmanın amacı, Türkiye'de öğrenim gören e-sporcu ve rekreasyonel olarak dijital spor video oyunları oynayan üniversite öğrencilerinin dijital spor video oyunlarındaki motivasyon düzeylerini incelemektir.

Günümüzün hızla dijitalleşen dünyasında, teknoloji ve bilgisayar oyunları gençler arasında giderek artan bir ilgi çekmektedir. Özellikle üniversite öğrencileri arasında, dijital spor oyunları (e-spor), geleneksel spor dallarına olan ilginin yanı sıra dikkat çeken bir alternatif eğlence ve rekabet platformu olarak öne çıkmaktadır. Bu bağlamda, Türkiye'de üniversite öğrencilerinin dijital spor oyunlarına yönelik motivasyon düzeylerinin anlaşılması, gençlerin teknolojiye olan yaklaşımını ve bu oyun türlerine olan tutumlarını anlamak için önem arz etmektedir. Bu makale, Türkiyede üniversite öğrenimi gören üniversite öğrencilerinin dijital spor oyunlarına olan ilgi ve motivasyon düzeylerini incelemeyi amaçlamaktadır. Araştırmanın odak noktası, gençlerin bu oyunları neden tercih ettikleri, hangi motivasyon faktörlerinin etkili olduğu ve bu oyunları oynama sıklıkları üzerine yoğunlaşacaktır. Elde edilecek bulgular hem eğitim kurumlarına hem de dijital oyun endüstrisine bu alandaki potansiyel etkileri açısından önemli ipuçları sunabilir. Ayrıca, bu çalışma gençlerin teknoloji kullanım alışkanlıkları ve dijital oyun kültürüne olan katkıları hakkında geniş bir perspektif sunarak, gelecekteki araştırmalar ve stratejiler için temel oluşturabilecek nitelikte olacaktır. Sonuç olarak, Türkiye'deki üniversite öğrencilerinin dijital spor oyunlarıyla olan ilişkisini anlamak, gençlerin dijitalleşen dünyada nasıl konumlandıklarını kavramak ve bu alanda yapılabilecek destekleyici çalışmalar için önemli bir adım olarak değerlendirilebilir.

Yöntem

Araştırmanın veri toplama aşaması 2023-2024 tarihleri arasında bir anket formu aracılığıyla gerçekleştirilmiştir. Anket formu, Kişisel Bilgiler ve Dijital Spor Oyunları Motivasyon Ölçeği olmak üzere iki bölümden oluşmaktadır.

Anketin ilk bölümünde katılımcıların demografik özelliklerini belirlemek için araştırmacılar tarafından düzenlenen Kişisel Bilgiler Formu yer almaktadır. Bu form içerisinde katılımcılardan elde edilmek istenen veriler yaş, cinsiyet ve oyuncu tipolojisi olarak belirlenmiştir. Yaş ile ilgili soru ilk etapta yıl bazında açık uçlu bir şekilde sorulmuştur. Yaş frekanslarının hesaplanması neticesinde katılımcıların üç gruba bölünmesi, veri toplama aşaması tamamlandıktan sonra gerçekleştirilmiştir. Cinsiyet ile ilgili soruda biyolojik cinsiyet dikkate alınıp erkek ve kadın olarak iki cevap seçeneği sunulmuştur. Oyuncu tipolojisini belirleyebilmek için ise katılımcıların dijital spor oyunlarını rekreatif amaçla mı yoksa sportif amaçla mı oynadığına yönelik olarak iki cevap seçeneği barındıran bir soru yer almaktadır. Kişisel Bilgiler Formu'nda yer alan demografik özellikler, araştırmada bağımsız değişken olarak ele alınmaktadır.

Anketin ikinci bölümünde Dijital Spor Oyunları Motivasyon Ölçeği yer almaktadır. Ölçek ilk olarak Kim ve Ross (2006) tarafından geliştirilmiştir. Ölçeğin ilk halinde toplam 20 madde ve 7 alt boyut yer almaktadır. Daha sonra bu madde ve alt boyutlara Cianfrone et al., (2011) tarafından 5 yeni madde ve 1 alt boyut daha eklenmiş ve toplamda 25 madde ve 8 alt boyuta sahip bir ölçek oluşturulmuştur. Ölçeğin Türkçe geçerlik ve güvenirlik çalışması ise Kilci (2020) tarafından gerçekleştirilmiştir. Türkçe'ye uyarlama aşamasındaki faktör analizleri sonucunda ölçek, 15 madde ve 5 alt boyuttan oluşan haliyle geçerli ve güvenilir olarak kabul edilmektedir. Ölçeğin alt boyutları; Takıma Bağlılık (1, 2, 3), Eğlence (4, 5, 6), Sosyalleşme (7, 8, 9), Fantezi (10, 11, 12) ve Rekabet (13, 14, 15) olarak sıralanmaktadır. Ölçüm modeli olarak beşli Likert tipinde bir yanıtlama seçeneğine sahip olan ölçeğin soruları "1-kesinlikle katılmıyorum,

..., 5-kesinlikle katılıyorum" şeklinde yanıtlanabilmektedir. Ölçek alt boyutları, araştırmada bağımlı değişken olarak ele alınmaktadır.

Araştırma verilerinin depolanması ve analizlerin gerçekleştirilmesi IBM SPSS programı aracılığıyla gerçekleştirilmiştir. İlk olarak katılımcı sayısının dağılımını ve yüzdelik oranlarını belirleyebilmek amacıyla frekans analizi gerçekleştirilmiştir. Sonrasında ortalama, standart sapma, mod, medyan, minimum ve maksimum değerler incelenerek bu tanımlayıcı istatistikler aracılığıyla demografik özelliklere verilen yanıtların ve ölçek maddelerinin kontrolü sağlanmıştır. Güvenilir olarak kabul edilen ölçek alt boyutlarının öncelikle ortalamalarına bakılmıştır. İki gruplu bağımsız değişkenlerde (cinsiyet, oyuncu tipolojisi) ölçek yanıtlarının katılımcıların demografik özelliklerine göre değişkenlik gösterip göstermediğini belirleyebilmek amacıyla Bağımsız Örneklem T Testi (Independent-Samples T Test) gerçekleştirilmiştir. Üç gruplu bağımsız değişkende (yaş) ölçek yanıtlarının katılımcıların demografik özelliklerine göre değişkenlik gösterip göstermediğini belirleyebilmek amacıyla Tek Yönlü Varyans Analizi (One-Way ANOVA) gerçekleştirilmiştir. Gruplar arasındaki farkın anlamlılık değeri ≤,05 olarak ele alınmıştır.

Bulgular

Katılımcılardan 69 kişinin (%45.1) 20 yaş ve altında, 45 kişinin (%29.4) 21-22 yaş aralığında ve 39 kişinin (%25.5) 23 yaş ve üstünde olduğu görülmektedir. Cinsiyete göre dağılıma göz atıldığında 111 erkek (%72.5) ve 42 kadın (%27.5) olarak bir dağılım sağlanmaktadır. Katılımcıların oyuncu tipolojisine göre dağılımına bakıldığında ise 81 rekreatif amaçlı dijital oyuncunun (%52.9) ve 72 sportif amaçlı dijital oyuncunun (%47.1) araştırmaya katılım gösterdiği görülmektedir. Ölçek alt boyutlarına bakıldığında Cronbach Alpha iç tutarlılık katsayılarının .77 ile .87 arasında değişkenlik gösterdiği görülmektedir. Bu değerler, ölçeğin tüm alt boyutlarının güvenilir olarak kabul edilebileceğini göstermektedir. Alt boyut ortalamaları incelendiğinde, 3.44±1.27 ile 4.20±.92 arasında değişkenlik gösterdiği görülmektedir. 4.20 ortalamaya sahip olan alt boyutun Eğlence olduğu göze çarpmaktadır. Bu durum, katılımcıların dijital spor oyunlarını çoğunlukla eğlenmek ve keyifli bir şekilde zaman geçirmek için oynadıkları anlamına gelmektedir. Çalışmamızda katılımcı yanıtlarının yaş demografik özelliğine göre değişkenlik göstermediği anlaşılmaktadır. Katılımcıların ölçek alt boyutlarına ilişkin tutumlarında yaş grupları arasında istatistiksel olarak anlamlı bir fark yoktur. Öte yandan Katılımcıların; Eğlence, Sosyalleşme ve Fantezi alt boyutlarına ilişkin tutumlarında erkek ve kadın katılımcılar arasında istatistiksel olarak anlamlı bir fark vardır. Fark bulunan tüm alt boyutlarda ortalamalar erkek katılımcılar lehinedir. Son olarak katılımcıların tüm alt boyutlara ilişkin tutumlarında rekreatif ve sportif katılımcılar arasında istatistiksel olarak anlamlı bir fark vardır. Anlamlı farkların tamamında ortalamalar, dijital spor oyunlarını sportif amaçla oynayan bireyler lehinedir. Bu durum, sportif amaçlı katılımcıların dijital spor oyunlarında profesyonelleşmesi ve bu aktiviteyi e-spor boyutunda gerçekleştirmesinin doğal sonucu olarak açıklanabilir. Dolayısıyla; desteklediklerı takıma bağlı olma, eğlenme, sosyalleşme, fantezi kurma ve rekabet etme güdüleri rekreatif amaçlı oyunculara kıyasla dijital spor oyunlarına yönelik daha fazla motivasyon sağlamaktadır.

Sonuç ve Öneriler

Dijital oyunlardaki teknolojik gelişmeler dikkate alındığında, sanal gerçeklik ve artırılmış gerçeklik temelli oyunlara yönelik güdülenmenin artık geleneksel olarak kabul edilebilecek dijital oyunlara yönelik motivasyon kaynaklarından hangi noktalarda farklılaştığının öğrenilmesi önemli bir kazanım olabilir. Nitel bir ön araştırma ile dijital spor oyunlarından simülasyon seviyesinde olanlar belirlenip simülasyon olabilmenin koşullarına yönelik çıkarımlarda bulunulabilir. Bu çıkarımlar, nicel bir ölçüm aracına dönüştürülebilirse spor oyunlarındaki gerçekçiliğin oyunları oynamaya yönelik güdüler üzerinde ne kadar etkili olduğunu tespit etmek mümkün olacaktır. Geleneksel spor branşlarının dijital spor oyunları oynamada nasıl bir motivasyon kaynağı olabileceği de araştırılması gereken diğer bir konudur. Futbolun küresel düzeydeki popülaritesinin dijital ortamlarda da geçerli olup olmadığını belirleyebilmek dijital spor oyunlarına yönelik evrenlerin yapısal özelliklerinin daha net öğrenilmesine ve tanımlanabilmesine yardımcı olabilir.

INTRODUCTION

According to the researches, playing sports video games has recently gained an important place in people's lives as an increasingly popular leisure time activity worldwide. However, it is seen that playing sports video games is not only for entertainment purposes, but some of the players now want to master their skills and games every day, where they play for hours and professionally. As a professional e-sports player,

e-sports started to gain an important place in people's lives in the 2000s (Bányai et al., 2019). It is thought that e-sports should be accepted as a branch of sport due to its sportive reaction performance feature, the players' mental and physical interaction with each other, and the desire to compete among them (Argan et al., 2006).

According to a recent online survey, it has been observed that those who play e-sports professionally and see it as a career option are mostly adolescents and young adults under the age of 24, and 92% of the total number of players interested in e-sports are men compared to women. They concluded that university-age young people are more prone and more common in this field due to their desire to socialise, the need to earn additional income and their better adoption of technology (eNet, 2017). Significant differences were found between playing sports video games as a leisure time evaluation or professionally. People turn to digital sports video games to get away from the stress and chaos of daily life, to seek entertainment, to taste and maintain the pleasure of competition. While the person can move away from that digital environment at will, turn off the computer or technological device, it has been observed that this is not the case for e-athletes. Since the purpose of digital sports video games played as an e-athlete is to earn an income, individual career and team career are in question, differences have emerged between these two player profiles (Özenç & Yörük, 2019).

Motivation is an important factor that determines the intensity of human behaviour and the speed of achieving the behavioural goal. While playing digital sports video games, the purpose, time and frequency of the players are related to their motivation status. The passion experienced while playing the game, the restlessness experienced when it is not played and the addiction it brings with it are among the factors affecting the motivation status. The chance of earning an income that may vary according to the players' abilities and potentials is considered as the motivation of the players to play games. In addition, it is seen that playing sports video games differs in game motivation models for players who play for e-sports and entertainment, and that e-sports mediates between leisure time and work for players. In this way, the idea that the player is guided by personal and social motivations, and that they satisfy their sense of competition needs with these games has emerged (Bányai et al., 2019; Griffiths, 2017).

Digital games have a unique structure. For example, some digital games involve individual competition, while others are played as a team. While there are digital games where real-time moves can be made, there are also turn-based games. As another example, individuals in the digital game universe have a terminology that is only used to communicate about that universe (Kendirli, 2019). Many features such as these examples have led to the necessity of classifying digital games within themselves. In this regard, according to Kilci (2019), digital games are classified as adventure, action, simulation, role-playing, strategy and sports games. The classification made by the Turkish E-Sports Federation (TESFED) is as follows (TESFED, 2024):

- *MOBA (Online multiplayer battle arena):* A type of real-time strategic war game. Two different teams, usually consisting of five people, aim to destroy the opposing team's energy source on a map consisting of several main paths.
- *FPS (First person shooter):* A type of game played through the eyes of the player character and is a sub-genre of shooter video games. Like all shooter games, it is characterised by "an adventure, one or more long-range weapons, and a varying number of enemies".
- *RTS (Real Time Strategy):* Strategy games in which players continue to play continuously in a mutual manner without the need to wait for a turn. In turn-based strategy games, players have to wait for the opponent's move in order to make a move.
- *Battle Royale (Survival):* There are a certain number of enemies in an area and the main goal is to try to survive. Attacking when necessary, hiding when necessary and being ready to do anything to survive constitute the content of this game type. The aim is to be the last person alive on the map.
- *Sport:* Traditional sports branches adapted to the virtual environment. Automobile races are also included in this category as they are considered as motor sports.
- *MMORPG (Multi-participant online role-playing game):* Role-playing games played by connecting to any server. They are usually called "free roam" or "open world" games where it is possible to move freely on the game map.
- *Fighter:* The player attempts to overcome other players' chosen virtual characters with their chosen virtual characters representing a specific fighting discipline. It is commonly played as one player against one player.

- *Hado:* It is a type of game based on offensive and defensive strategies on a real-life field through sensor equipment worn on the head and arms within the scope of augmented reality experiences. It is included as a sub-branch in the grouping made by TESFED.

Individuals who are engaged in digital games have different levels of interest in this activity. Individuals may differ in terms of the level of difficulty they set for themselves and the time they devote to the game. This situation has made it necessary to analyse digital gamers in two types: casual gamers and continuous gamers. Both types are divided into subcategories within themselves (Argan, 2007).

The subcategories of incidental players are listed as follows (Argan, 2007):

- *Beginners:* Players who are new to the digital game experience. It is a heterogeneous typology where individuals with different characteristics can be together.
- *Time killers:* Individuals in this group are those who prefer to play digital games in the time left over from their other jobs and obligations in life.
- *Stress relievers:* Players in this category play digital games to distract themselves from the intensity and pressure of other daily responsibilities.
- *Social gamers:* Individuals in this group see digital games as a means of social activity and prefer to play with people who are physically in the same environment.

The subcategories of continuous players are listed as follows (Argan, 2007):

- *Enthusiasts:* This is the group that tends to spend both time and money on different types of games.
- *Addicts:* It consists of individuals who spend a lot of time for digital games, are deeply involved in the games and position themselves in the universe of the game.
- *Professionals:* This is the group of e-sportsmen who usually practice digital gaming within a team and as a profession.

METHOD

This research is a descriptive study designed on quantitative methods. A scale was used to determine the participants' motivations for playing digital sports games. It is aimed to determine how the responses to the scale vary according to demographic characteristics. Information about the population, sample, data collection tools and data analysis are given below.

Universe and Sample

A total of 153 university students between the ages of 18-24 (male-female), 72 e-athletes and 81 recreational digital sports video game players, 72 e-athletes and 81 recreational digital sports video game players, who were studying in Turkey, participated in the study. Participants who play digital games for recreational purposes refer to individuals who play digital games to utilise their free time. Participants who play digital games for sporting purposes refer to individuals who consider digital games as a career path and perform them with professional qualifications and can earn money from this activity. In order to reach the participants in this universe, convenience sampling method, one of the non-probability based sampling methods, was preferred. Thus, it was ensured that all digital sports players who could be reached within the universe and who volunteered to participate in the research were participants.

Data Collection

The data collection phase of the research was carried out through a questionnaire form between 2023-2024. The questionnaire consists of two parts: Personal Information and Digital Sports Games Motivation Scale (DSGMS).

The first part of the questionnaire includes the Personal Information Form organised by the researchers to determine the demographic characteristics of the participants. In this form, the data to be obtained from the participants were determined as age, gender and player typology. The question about age was initially asked in an open-ended way on the basis of year. As a result of the calculation of age frequencies, the participants were divided into three groups after the datacollection phase was completed. In the question about gender, biological gender was taken into consideration and two answer options were presented as male and female. In order to determine the player typology, there is a question with two answer options regarding whether the participants play digital sports games for recreational or sportive purposes. The demographic characteristics in the Personal Information Form are considered as independent variables in the study.

The second part of the questionnaire includes the DSGMS. The scale was first developed by Kim & Ross (2006). In the first version of the scale, there were a total of 20 items and 7 sub-dimensions. Later,

5 new items and 1 sub-dimension were added to these items and sub-dimensions by Cianfrone et al. (2011) and a scale with a total of 25 items and 8 sub-dimensions was created. The Turkish validity and reliability study of the scale was carried out by Kilci (2020). As a result of the factor analyses in the Turkish adaptation phase, the scale is accepted as valid and reliable with 15 items and 5 sub-dimensions. The sub-dimensions of the scale are; Team Commitment (1, 2, 3), Fun (4, 5, 6), Socialisation (7, 8, 9), Fantasy (10, 11, 12) and Competition (13, 14, 15). The questions of the scale, which has a five-point Likert-type response option as a measurement model, can be answered as "1-strictly disagree, ..., 5-strictly agree". Scale sub-dimensions are considered as dependent variables in the study.

Data Analyses

The research data were stored and analyses were carried out using IBM SPSS software. Firstly, frequency analysis was performed in order to determine the distribution and percentages of the number of participants. Afterwards, mean, standard deviation, mode, median, minimum and maximum values were analysed and the responses to demographic characteristics and scale items were checked through these descriptive statistics. In order to determine the suitability of the data in the scale items for the analyses in the other stages, skewness and kurtosis values were checked to determine whether the data showed normal distribution. The acceptable normality level of the data distribution was taken as ± 1.5 as stated by Tabachnick and Fidell (2013). In order to determine the reliability rates of the scale sub-dimensions, Cronbach Alpha internal consistency coefficients were determined. In order for the sub-dimensions to be accepted as reliable, ≥.60 and ≥.80 criteria were taken into consideration. Kayış (2005) states that sub-dimensions with coefficients greater than .60 are reliable and sub-dimensions with coefficients greater than ,80 are highly reliable.

Firstly, the averages of the scale sub-dimensions that were accepted as reliable were analysed. Independent-Samples T Test was performed to determine whether the scale responses varied according to the demographic characteristics of the participants in two-group independent variables (gender, player typology). One-Way Analysis of Variance (One-Way ANOVA) was performed to determine whether the scale responses varied according to the demographic characteristics of the participants in the three-group independent variable (age). The significance value of the difference between the groups was taken as ≤.05.

In case it is subject to ethics committee approval: This study was carried out with the approval decision of Çankırı Karatekin University Health Sciences Ethics Committee (Protocol No. 2024/14) at the 2024/14 meeting dated 25.06.2024.

RESULTS

Table 1 shows the numerical values for the sample group of the study. When these values are analysed, it is seen that 69 (45.1%) of the participants are 20 years of age or younger, 45 (29.4%) are between 21-22 years of age and 39 (25.5%) are 23 years of age or older. When the distribution according to gender is analysed, 111 males (72.5%) and 42 females (27.5%). Looking at the distribution of participants according to the player typology, it is seen that 81 recreational digital players (52.9%) and 72 sportive digital players (47.1%) participated in the research.

Table 1.
Distribution of Research Participants According to Demographic Characteristics

Demographic Characteristics	Groups	Frequency	%
Age	20 and below	69	45.1
	21-22	45	29.4
	23 and above	39	25.5
Gender	Male	111	72.5
	Woman	42	27.5
Player Typology	Recreational	81	52.9
	Sportive	72	47.1
Total		153	100

In this section, the reliability coefficients of the scale sub-dimensions, mean values and the results of the analyses conducted for the analysis of the research problem are shared. In this context, Independent Sample T Test and One-Way Analysis of Variance results are presented. Before proceeding to these analyses, skewness and kurtosis values were examined to determine whether the data were normally distributed or not, and it was seen that all values varied within ±1.5. These values are within the acceptable range for other analyses.

Table 2.
Internal Consistency Coefficients and Averages of Scale Sub-Dimensions

Sub-dimension	Cronbach Alpha	Average	Standard Deviation
Commitment to the Team	.87	3.44	1.27
Entertainment	.86	4.20	.92
Socialisation	.77	3.51	1.06
Fantasy	.85	3.68	1.17
Competition	.85	3.70	1.19

In this table the mean values of the scale items vary between 3.03±1.55 and 4.22±.96. When the scale sub-dimensions are analysed, it is seen that Cronbach Alpha internal consistency coefficients vary between .77 and .87. These values show that all sub-dimensions of the scale can be accepted as reliable. When the sub-dimension averages are analysed, it is seen that they vary between 3.44±1.27 and 4.20±.92. It is noticeable that the sub-dimension with a mean of 4.20 is Entertainment. This means that the participants mostly play digital sports games to have fun and spend time in a pleasant way.

Table 3.
One-Way Analysis of Variance Results According to Age Variable

Sub-dimension	Groups	Average	Standard Deviation	F	P
Commitment to the Team	20 and below	3.55	1.28	1.01	.36
	21 - 22	3.22	1.16		
	23 and above	3.52	1.36		
Entertainment	20 and below	4.33	.76	1.38	.25
	21 - 22	4.04	1.12		
	23 and above	4.17	.90		
Socialisation	20 and below	3.59	1.05	.65	.52
	21 - 22	3.36	1.10		
	23 and above	3.53	1.05		
Fantasy	20 and below	3.89	1.13	2.86	.06
	21 - 22	3.36	1.22		
	23 and above	3.69	1.12		
Competition	20 and below	3.75	1.31	.15	.85
	21 - 22	3.67	.99		
	23 and above	3.63	.09		

$p<0.05$

When Table 3 is analysed, it is understood that participant responses do not vary according to age demographic characteristics. There is no statistically significant difference between the age groups in the attitudes of the participants towards the sub-dimensions of the scale.

Table 4.
Independent Sample T Test Results According to Gender Variable

Sub-dimension	Groups	Average	Standard Deviation	T	P
Commitment to team	Male	3.53	1.28	1.35	.17
	Woman	3.22	1.23		
Entertainment	Male	4.37	.73	3.11	.00**
	Woman	3.76	1.19		
Socialisation	Male	3.63	.94	1.96	.05*
	Woman	3.19	1.30		
Fantasy	Male	3.79	1.13	1.94	.05*
	Woman	3.38	1.21		
Competition	Male	3.80	1.15	1.79	.07
	Woman	3.42	1.27		

*p≤.05 **p≤.01

When Table 4 is analysed, it is understood that participant responses vary according to gender demographic characteristics. There is a statistically significant difference between male and female participants in their attitudes towards Entertainment, Socialisation and Fantasy sub-dimensions. In all sub-dimensions where there is a difference, the averages are in favour of male participants. This means that the motivation of male participants towards digital sports games is higher than that of female participants with the effect of entertainment, socialisation and fantasy motives.

Table 5.
Independent Sample T Test Results According to Player Typology Variable

Sub-dimension	Groups	Average	Standard Deviation	T	P
Commitment to the Team	Recreational	2.95	1.17	-5.57	.00**
	Sportive	4.00	1.14		
Entertainment	Recreational	3.92	1.05	-4.32	.00**
	Sportive	4.52	.62		
Socialisation	Recreational	3.27	1.05	-3.03	.00**
	Sportive	3.78	1.01		
Fantasy	Recreational	3.22	1.12	-5.74	.00**
	Sportive	4.20	.99		
Competition	Recreational	3.22	1.14	-5.78	.00**
	Sportive	4.24	1.02		

**p≤.01

When Table 5 is analysed, it is understood that participant responses vary according to player typology demographic characteristics. There is a statistically significant difference between recreational and sportive participants in participants' attitudes towards all sub-dimensions. In all of the significant differences, the averages are in favour of individuals who play digital sports games for sportive purposes. This situation can be explained as a natural result of the professionalisation of sportive participants in digital sports games and performing this activity in the e-sports dimension. Therefore, the motives of being connected to the team they support, having fun, socialising, fantasising and competing provide more motivation for digital sports games compared to recreational players.

DISCUSSION, CONCLUSION AND SUGGESTIONS

In this study, it is aimed to measure individuals' motivation to play digital sports games and to determine whether motivation levels vary according to various demographic characteristics. Research findings show that motivation levels do not differ according to age variable, but there are significant differences according to gender and player typology.

Kim & Kim (2013), in their study in which the sub-dimensions of motivation to play digital sports games were considered as social interaction, information utilisation, fantasy, competition, fun, distraction and love of sport, revealed that age and gender factors affect the motivation to play digital sports games, similar to the findings of this study. In addition to these independent variables, marital status, education level, income level and employment status may also affect motivation levels. The findings of this study also support the findings of Çetinkayalı et al. (2023) in terms of age and gender factors. In the aforementioned study, it is stated that the time allocated to games can be effective on motivation levels if it is considered as an independent variable. It is understood that the sub-dimensions that make up the motivation to play digital sports games can be considered as "achievement" and "relaxation" in Pasch et al. (2009)'s study, and "cognitive", "affective", "social", "psychomotor" and "well-being" in Cihan & Araç-Ilgar (2019) study.

When the studies that do not discriminate in terms of game type and cover all game types are examined, similar findings are found in this study according to the gender variable (Tekkurşun-Demir & Hazar, 2018; Demirel et al., 2019; Hazar, 2019; Özcan & Sengir, 2020; Erdoğan & Yıldırım, 2023; Sural et. al.2023; Beltekin & Kuyulu, 2020). In addition to these, Tekkurşun-Demir and Cicioğlu's (2019) study contains similar findings in terms of both gender and age variables. However, in the studies of Hazar (2019), Özcan & Sengir (2020), different findings were found from this study in terms of age variable. This is thought to be due to the different categorisation of age groups in each study. In these studies covering all game types, the sub-dimensions of motivation to play digital games are considered as "success and revitalisation", "curiosity and social acceptance" and "uncertainty in game desire". At the same time, it is also stated that besides age and gender factors, whether there is another member of the family who plays digital games, time allocated to digital games, academic achievement, income level, number of siblings and physical activity level factors may also be effective on the variability of these sub-dimensions. In terms of player typology, Westwood & Griffiths (2010) reveal that individuals' motivation to play digital games may vary according to the type of player.

In the literature, there are also studies in which the sub-dimensions of digital game playing motivation are considered as "taxonomic domain", "competence", "relational self", "competition and success", "leisure time evaluation" and only professional e-athletes participate (Öz & Üstün, 2019; Yıldız et al., 2020; Metin et. al. 2023; Giakoni-Ramirez et al., 2022). Among these studies, Yıldız et al. (2020) found that there were significant differences according to the gender variable. Thus, it is understood that this study supports the studies in the literature in terms of gender variable. In these studies, it is stated that the factors of game platform, employment status, physical activity level, body mass index, game type and duration of professionalism may also be determinant in terms of motivation levels.

When the literature on motivation to play digital games is examined; there are studies that address the concepts of competence, autonomy, achievement, socialisation, immersion, relational self, escape from the realities of life, competition, stimulation and habit as motivation factors (Paw et al., 2008; Przybylski et al., 2010, Kiraly et al., 2022, Mechelin & Liu-Lasters, 2023). As a result, it is understood that sports games in the digital environment do not require a different motivation than other types of games and can vary relatively consistently according to various demographic characteristics. However, due to the effects of population structures on attitudes and behaviours, the current level is not yet sufficient to generalise the information in the literature.

The results of the research reveal that all motivation values according to gender variable are in favour of male participants. This is a phenomenon that needs to be analysed by game producing companies

and federations. While the e-sports federations of the countries aim to ensure that the distribution of the number of licensed e-athletes by gender is homogeneous, the distribution at the recreational level should be reviewed first. At the same time, by taking advantage of the findings of such studies, directing individuals who play games with the motive of success and competition from recreational digital players to professional e-sports can also increase the number of licensed athletes. An important conclusion about digital sports games is related to the extent to which these games can serve the representation of reality. If individuals who play digital sports games are also active in a traditional sports branch, being able to determine the level of skill transfer between real life and digital environment will serve to popularise the use of digital games for educational purposes.

Within the scope of the limitations and results of the research, there are some suggestions for future research. Considering the technological developments in digital games, it may be an important achievement to determine at which points the motivation for virtual reality and augmented reality-based games differs from the motivation sources for digital games that can now be considered traditional. With a qualitative preliminary research, the simulation level of digital sports games can be determined and inferences can be made about the conditions of being a simulation. If these inferences can be transformed into a quantitative measurement tool, it will be possible to determine how effective the realism in sports games is on the motives for playing the games. Another issue that needs to be investigated is how traditional sports branches can be a source of motivation for playing digital sports games. Determining whether the global popularity of football is also valid in digital environments can help to define the universes for digital sports games more clearly.

Limitations

The participants of this study were limited according to the number of e-athletes active in digital sports games in the geographical region where data were collected. In order to ensure frequency homogeneity between groups in terms of player typology, it was ensured that the number of participants from recreational players was close to e-sports players. Since a quantitative material was used as a measurement method in the research, the responses from the participants are limited to the contents of the scale from which data were collected.

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