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Original Article

An Examination of E-Sports Literacy Levels of Law Faculty Students

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Abstract

The aim of this study was to examine the e-sports literacy levels of law faculty students. The research is a descriptive study based on the survey model. The study group consists of 184 students (131 female, 53 male) studying at İnönü University Faculty of Law. Data were collected using a Personal Information Form and the E-sports Literacy Scale. Independent samples t-test and one-way analysis of variance (ANOVA) were used for data analysis. As a result of the study, the mean overall e-sports literacy score of the students was found to be 2.70. According to the gender variable, male students were found to have significantly higher e-sports literacy levels than female students ($p < .05$). Students who regularly engage in sports had significantly higher scores than those who do not ($p < .05$). Parental education level ($p > .05$) and social media usage duration ($p > .05$) were found to have no significant effect on e-sports literacy. In conclusion, it was determined that law faculty students have a moderate level of awareness regarding e-sports, that e-sports literacy is influenced by gender and sporting habits, but is shaped more by personal interest than by parental education. Accordingly, it is recommended that, in parallel with the rapid growth of the e-sports sector, this field should also be included in law education curricula.

Keywords: E-sports, E-sports literacy, Faculty of law, Gender, Sports.

Introduction

E-sports is defined as a new-generation sport in which digital games are played and organized in a competitive manner (Hamari & Sjöblom, 2017). This emerging form of sport has grown rapidly worldwide, reaching millions of viewers and a billion-dollar market (Kim, Nauright, & Suveatwatanakul, 2020). Alongside its market share, with the rapid increase in the number of people playing games and watching e-sports since the 2010s, e-sports has evolved beyond being merely a form of entertainment and has become a significant industry and cultural phenomenon (Tang et al., 2023).

This rise has attracted the attention of various disciplines, and studies on e-sports have begun to emerge in many fields ranging from sports sciences to sociology, and from economics to law (Tang et al., 2023). In a study conducted by Murathan and Atay (2025), the findings showed that e-sports has become a globally expanding and economically developing industry. Similarly, research carried out by Novák et al. (2025) examined the legal and economic dynamics of e-sports and revealed that the legal and economic

dominance exercised by game publishers is a determining factor in the transformation of this sector. However, it is noted that despite rapid practical developments, academic research has lagged somewhat behind (Tang et al., 2023). For instance, it has been reported that until 2018, the number of academic studies published on e-sports across different fields remained below 200 (Tang et al., 2023). Nevertheless, recent literature has begun to establish the scientific foundations of the e-sports phenomenon by addressing topics such as its similarities and differences with traditional sports (Jenny et al., 2017; Hallmann & Giel, 2018) and spectator motivations (Hamari & Sjöblom, 2017).

With the establishment of these foundations, e-sports, having become a global sector, has also started to grow rapidly in Türkiye, with a remarkable increase observed in both the number of e-athletes and spectators (Ünal & Hüseyinli, 2022). In addition, academic programs and courses related to e-sports have been introduced at some universities, and students' perceptions of these programs have generally been found to be positive (Hwang & Kim, 2022).

However, positive perceptions toward e-sports programs do not necessarily indicate a sufficient level of conceptual or technical knowledge. In fact, digital literacy research suggests that attitudes and competencies may develop at different rates (Ng, 2012). Similarly, Çolak et al. (2018) reported that students in faculties of sports sciences demonstrated low levels of knowledge regarding e-sports despite increasing social visibility. This apparent discrepancy indicates that awareness shaped by media exposure may not automatically translate into structured literacy. Therefore, examining e-sports literacy within different academic disciplines is theoretically meaningful, particularly in fields such as law, where professional competence requires systematic and analytical knowledge rather than general familiarity.

In line with these developments, the establishment of the Turkish E-Sports Federation in 2018 granted e-sports official status and initiated a process of institutionalization. Nevertheless, the rapid growth of the field has also brought various legal debates and regulatory needs to the forefront. In particular, uncertainties exist regarding the legal framework governing professional e-sports players' contractual relationships, working conditions, disciplinary processes, and rights. This situation has paved the way for the emergence of a new sub-discipline referred to in the literature as e-sports law, making it necessary to examine the subject from both theoretical and practical perspectives (Doğu, 2020; Ünal & Hüseyinli, 2022).

In this context, for legal regulations to be developed in a sound manner, for the applicability of relevant norms to be enhanced, and for the new legal relationships arising from e-sports to be interpreted correctly, it is critically important that legal professionals and law students possess sufficient knowledge and awareness of the e-sports phenomenon. Therefore, determining the e-sports literacy levels of law faculty students has become a necessity both for the improvement of educational programs and for training future legal professionals equipped with the competencies required by this emerging field.

From a theoretical perspective, gender differences in digital gaming participation and motivation have consistently been reported in the literature (Hamari & Sjöblom, 2017; Kovács et al., 2023). Social role theory and digital participation research suggest that males tend to engage more frequently in competitive gaming environments, which may foster higher levels of domain-specific knowledge. Accordingly, it is theoretically plausible to expect gender-based differences in e-sports literacy.

Similarly, studies examining the relationship between physical activity and e-sports participation indicate that individuals engaged in traditional sports may develop a stronger orientation toward competitive digital environments (Hallmann & Giel, 2018; Tang et al., 2024). Participation in sports may therefore function as a cultural and motivational bridge that enhances familiarity with e-sports structures and terminology.

On the other hand, although parental education level is often associated with general digital literacy (Wang et al., 2024), e-sports literacy may be more strongly influenced by individual interest and voluntary engagement due to its niche and interest-driven nature. Likewise, extended social media use does not necessarily imply exposure to e-sports-specific content, suggesting that time spent online may not automatically predict structured e-sports knowledge (Hamari & Sjöblom, 2017).

Based on these theoretical considerations, the aim of this study is to determine the e-sports literacy levels of law faculty students. Accordingly, the following hypotheses (H) were formulated:

H1: Law faculty students' e-sports literacy levels are at a moderate level.

H2: Law faculty students' e-sports literacy levels differ significantly according to gender.

H3: Law faculty students' e-sports literacy levels differ significantly according to regular participation in sports.

H4: Law faculty students' e-sports literacy levels differ significantly according to father's educational level.

H5: Law faculty students' e-sports literacy levels differ significantly according to mother's educational level.

H6: Law faculty students' e-sports literacy levels differ significantly according to daily social media usage duration.

Material and Methods

Research Model

This study employed a descriptive survey model. The survey model is a research approach that aims to describe an existing or past situation as it is (Karasar, 2007). Therefore, the survey model was considered appropriate for this study, which aims to determine the e-sports literacy levels of law faculty students. This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the İnönü University Health Sciences Non-Interventional Clinical Research Ethics Committee (Decision No: 22/55; Date: 20.11.2025). In addition, informed voluntary consent was obtained from all participants prior to data collection.

Participant Group

The research group of the study consists of undergraduate students enrolled in the Faculty of Law at İnönü University during the 2025–2026 academic year. A total of 184 students (131 female, 53 male), selected through convenience sampling, voluntarily participated in the study. The minimum required sample size was calculated using G*Power 3.1 software (Faul et al., 2009). Assuming a medium effect size (f = .25 for ANOVA; d = .50 for independent samples t-tests), a significance level of α = .05, and a statistical power of .80, the required total sample size was determined to be 180 participants for the ANOVA and 128 participants for the t-test analyses. Accordingly, the final sample of 184 students

was considered sufficient to ensure adequate statistical power for all planned analyses. Demographic information regarding the participants is presented in Table 1.

Table 1. The descriptive characteristics of the participants.

Variable	Category	N	%
Gender	Male	53	28.8
	Female	131	71.2
Participation in Sports	Yes	79	42.9
	No	105	57.1
Father's Education Level	Primary school	46	25.0
	Middle school	33	17.9
	High school	58	31.5
	Bachelor's degree	37	20.1
	Postgraduate	10	5.4
Mother's Education Level	Primary school	79	42.9
	Middle school	38	20.7
	High school	37	20.1
	Bachelor's degree	26	14.1
	Postgraduate	4	2.2
Daily Social Media Usage	1–2 hours	54	29.3
	3–4 hours	85	46.2
	5 hours or more	45	24.5
	Total	184	100.0

As shown in Table 1, the majority of the participating law faculty students were female (71.2%), while males constituted 28.8% of the sample. Regarding participation in sports, the proportion of students who did not engage in sports (57.1%) was higher than those who did (42.9%). In terms of daily social media usage, 85 participants (46.2%) reported using social media for 3–4 hours per day, followed by 54 participants (29.3%) who used it for 1–2 hours and 45 participants (24.5%) who used it for 5 hours or more. With respect to parental education level, high school graduates constituted the largest group among fathers (31.5%), whereas primary school graduates were the most common among mothers (42.9%).

Data Collection Instruments

In the study, a Personal Information Form was used to collect participants' demographic data, along with the E-sports Literacy Scale (ELS), which was developed in Turkish by Saraçoğlu (2024).

Personal Information Form

The Personal Information Form was prepared by the researchers and consisted of items designed to collect demographic and background information relevant to the study variables. The form included questions regarding gender, regular participation in sports, father's educational level, mother's educational level, and daily social media usage duration. These variables were selected based on the literature suggesting potential associations with digital literacy and e-sports engagement.

E-Sports Literacy Scale

The E-sports Literacy Scale developed by Saraçoğlu (2024) was used in this study. The scale consists of two subdimensions and a total of nine items. These subdimensions are Technical Knowledge (five items) and General Knowledge (four items). Responses are rated on a five-point Likert scale. The Cronbach's alpha reliability coefficients of the scale were reported as α = .806 for the Technical Knowledge subdimension, α = .746 for the General Knowledge subdimension, and α = .834 for the overall scale. In the present study, the Cronbach's alpha coefficient was recalculated and found to be α = .85.

Statistical Analysis

All statistical analyses were performed using IBM SPSS Statistics for Windows, Version 27.0 (IBM Corp., Armonk, NY, USA). First, the normality of the data distribution was examined based on whether skewness and kurtosis values fell within the ±2 range (Kim, 2013; Mishra et al., 2019; Tabachnick & Fidell, 2019). The results indicated that the data were normally distributed; therefore, parametric tests were employed. Independent samples t-tests were used to analyze the variables of gender and participation in sports, while one-way analysis of variance (ANOVA) was conducted for the variables of father's education level, mother's education level, and daily social media usage duration. The level of statistical significance was set at $p < .05$.

Results

In this section, the findings regarding participants' e-sports literacy levels and differences according to gender, participation in sports, father's education level, mother's education level, and social media usage duration are presented in tables. Accordingly, findings related to the e-sports literacy levels of the participants are presented in Table 2.

Table 2. Descriptive statistics of law faculty students' e-sports literacy levels.

Subdimensions	**N**	**Mean ($\bar{x}$)**	**SD**
Technical Knowledge	184	2.73	1.09
General Knowledge	184	2.68	1.06
Total	184	2.70	1.07

As shown in Table 2, the mean scores of law faculty students' e-sports literacy levels are close to each other across subdimensions. The mean score for the Technical Knowledge subdimension was calculated as 2.73 ± 1.09, indicating a moderate level of knowledge regarding the technical aspects of e-sports. In the General Knowledge subdimension, the mean score was 2.68 ± 1.06, similarly pointing to a moderate level of awareness. The overall mean e-sports literacy score was calculated as 2.70 ± 1.07. This finding suggests that law faculty students are not completely unfamiliar with e-sports; however, their overall level of knowledge in this field is not high.

Table 3. E-sports literacy levels of law faculty students by gender.

Subdimension	**Gender**	**N**	**$\bar{x}$**	**SD**	**p**	**Cohen's d**
Technical Knowledge	Male	53	3.52	1.10	.000	1.05
	Female	131	2.45	0.94		
General Knowledge	Male	53	3.28	1.07	.000	.77
	Female	131	2.48	1.01		

Total	Male	53	3.41	0.97	.000	.99
	Female	131	3.55	0.73		

Note. *p < .05; SD = Standard Deviation; Cohen's d effect size interpretation: 0.20 = small, 0.50 = medium, 0.80 = large.

As presented in Table 3, the mean score of male participants in the Technical Knowledge subdimension was 3.52 ± 1.10, while the mean score of female participants was 2.45 ± 0.94. Male students' scores were significantly higher than those of female students, and this difference was statistically significant (p < .001). In the General Knowledge subdimension, males had a mean score of 3.28 ± 1.07, whereas females had a mean score of 2.48 ± 1.01. Similarly, this difference was statistically significant (p < .001). Regarding overall e-sports literacy, the mean score of male students was 3.41 ± 0.97, while that of female students was 2.46 ± 0.95, indicating a statistically significant difference in favor of male students (p < .001).

Table 4. E-sports literacy levels of law faculty students by participation in sports.

Subdimension	Participation in Sports	N	$\bar{x}$	SD	p	Cohen's d
Technical Knowledge	Yes	79	3.05	1.14	.000	.48
	No	105	2.54	1.02		
General Knowledge	Yes	79	3.02	1.15	.000	.52
	No	105	2.47	0.99		
Total	Yes	79	3.03	1.04	.000	.53
	No	105	2.51	0.91		

Note. *p < .05; SD = Standard Deviation.

As shown in Table 4, the mean score in the Technical Knowledge subdimension was 3.05 ± 1.14 for students who engage in sports and 2.54 ± 1.02 for those who do not. This statistically significant difference (p < .001) indicates that students who participate in sports have higher levels of technical knowledge related to e-sports. Similarly, in the General Knowledge subdimension, the mean score of students who engage in sports was 3.02 ± 1.15, compared to 2.47 ± 0.99 for those who do not, and this difference was also statistically significant (p < .001).

Table 5. E-sports literacy levels of law faculty students by father's education level.

Subdimension	Father's Education Level	N	$\bar{x}$	SD	F	p
Technical Knowledge	Primary school	46	2.68	1.18	0.423	.792
	Middle school	33	2.87	0.98		
	High school	58	2.80	1.18		
	Bachelor's degree	37	2.61	0.98		
	Postgraduate	10	2.96	1.12		
General Knowledge	Primary school	46	2.68	1.06	0.703	.591
	Middle school	33	2.84	1.03		
	High school	58	2.76	1.12		
	Bachelor's degree	37	2.47	1.15		
	Postgraduate	10	2.92	1.13		
Total	Primary school	46	2.68	1.03	0.624	.646

	Middle school	33	2.86	0.98		
	High school	58	2.80	0.99		
	Bachelor's degree	37	2.61	0.99		
	Postgraduate	10	2.94	1.04		

As shown in Table 5, although differences were observed in mean scores according to father's education level across subdimensions, none of these differences were statistically significant ($p > .05$).

Table 6. E-sports literacy levels of law faculty students by mother's education level.

Subdimension	**Mother's Education Level**	**N**	$\bar{x}$	**SD**	**F**	**p**
Technical Knowledge	Primary school	79	2.64	1.18	0.710	.586
	Middle school	38	2.68	1.06		
	High school	37	2.96	1.09		
	Bachelor's degree	26	2.86	0.90		
	Postgraduate	4	3.00	0.91		
General Knowledge	Primary school	79	2.49	1.04	1.796	.131
	Middle school	38	2.94	1.12		
	High school	37	2.81	1.15		
	Bachelor's degree	26	2.93	1.06		
	Postgraduate	4	2.25	1.13		
Total	Primary school	79	2.57	1.02	0.957	.433
	Middle school	38	2.79	1.02		
	High school	37	2.90	1.09		
	Bachelor's degree	26	2.89	0.89		
	Postgraduate	4	2.67	0.86		

As indicated in Table 6, no statistically significant differences were found in e-sports literacy levels according to mother's education level across any subdimension ($p > .05$).

Table 7. E-sports literacy levels of law faculty students by daily social media usage duration.

Subdimension	**Social Media Usage**	**N**	$\bar{x}$	**SD**	**F**	**p**
Technical Knowledge	1–2 hours	54	2.82	1.14	0.244	.784
	3–4 hours	85	2.69	1.01		
	5 hours or more	45	2.78	1.09		
General Knowledge	1–2 hours	54	2.78	1.14	0.317	.728
	3–4 hours	85	2.71	0.98		
	5 hours or more	45	2.61	1.11		
Total	1–2 hours	54	2.80	1.04	0.205	.815
	3–4 hours	85	2.70	0.91		
	5 hours or more	45	2.70	0.91		

As shown in Table 7, no statistically significant differences were found in e-sports literacy levels according to daily social media usage duration across any subdimension or in total scores ($p > .05$).

Discussion

This study aimed to determine the e-sports literacy levels of law faculty students, and the findings revealed that participants demonstrated a moderate level of e-sports literacy. However, the literature includes studies suggesting that university students' knowledge of e-sports may be low. For instance, in a study conducted by Çolak et al. (2018) with students from faculties of sports sciences, it was reported that 63.5% of the participants had never heard of the term e-sports. This finding reflects how limited general awareness of e-sports was in 2018. In contrast, the present study conducted in 2025 indicates that law faculty students have a moderate level of e-sports literacy, confirming a notable increase in the social visibility of e-sports over the intervening seven years. Nevertheless, the fact that students' scores were not at a high level suggests that this increased social visibility has not yet been fully reflected in the academic domain. Although the e-sports sector has rapidly expanded and become mainstream in recent years (e.g., growth in global market size and audience), previous research has emphasized that academic knowledge accumulation and educational curricula have lagged behind this practice (Tang et al., 2023). Accordingly, the moderate level of e-sports literacy among law students may indicate that content related to the legal dimensions of e-sports has not yet been sufficiently integrated into legal education.

At this point, it is also important to critically consider the scope of the measurement instrument used in the present study. The E-sports Literacy Scale primarily assesses general and technical knowledge dimensions of e-sports; however, it does not explicitly include items addressing law-specific issues such as player contracts, intellectual property rights, licensing agreements, disciplinary procedures, regulatory frameworks, or dispute resolution mechanisms. Given that e-sports literacy may be conceptualized as a multidimensional construct, the adequacy of any measurement tool depends on how comprehensively it represents the relevant content domain (Messick, 1995; DeVellis & Thorpe, 2021). From this perspective, the moderate scores observed in this study may reflect students' general cultural and technical awareness rather than their knowledge of the legal structure of the e-sports ecosystem. Therefore, the findings should be interpreted with caution, particularly when drawing conclusions about the preparedness of law students in relation to e-sports law. Future research may benefit from developing and validating law-oriented subdimensions of e-sports literacy that specifically measure legal knowledge and analytical competencies relevant to the field. Such an approach would strengthen the conceptual alignment between measurement tools and the disciplinary context in which the construct is examined.

Another significant finding of the study is that e-sports literacy scores differed significantly by gender. Male students scored higher than female students in both the Technical Knowledge and General Knowledge subdimensions. The literature generally suggests that e-sports culture is more prevalent among males (Hamari & Sjöblom, 2017), and the results of this study are consistent with this trend. For example, a large-scale study conducted in Hungary by Kovács et al. (2023) examined participation and motivational characteristics in video games and e-sports and found that interest in and participation rates were statistically higher among males. In this context, the higher e-sports literacy

levels observed among male students in the present study can be interpreted as a reflection of the broader patterns of interest and participation in this field.

Another prominent finding is the relationship between regular participation in sports and e-sports literacy. The results showed that students who engage in sports had significantly higher average literacy scores than those who do not. This difference was particularly evident in the Technical Knowledge subdimension, where students involved in physical sports appeared to be more knowledgeable. Recent studies have suggested positive relationships between participation in physical sports and interest in digital games or e-sports. For instance, Trotter et al. (2020) found positive associations between physical activity and e-sports performance, particularly among elite players, and emphasized that this finding partially contradicts common player stereotypes. Similarly, Tang et al. (2024) suggested that there may be a mutually beneficial interaction between e-sports performance and traditional sports experience, with physically active e-athletes potentially possessing certain cognitive and physical advantages. Although the law faculty students in the present study are not professional e-athletes, the higher level of interest and knowledge about e-sports among those who engage in sports may be explained by the competitive culture acquired through sporting activities. Thus, this result supports views in the literature that physical and digital sports do not necessarily conflict with each other (Hallmann & Giel, 2018). It also suggests that e-sports may be seen as an extension of traditional sports culture and that individuals interested in various types of sports may naturally develop an interest in e-sports as well.

No statistically significant differences were found in e-sports literacy levels according to either mother's or father's education level. This finding indicates that law faculty students' knowledge of e-sports is relatively independent of their parents' educational backgrounds. While some studies in the literature have reported that young people from families with higher parental education levels may have higher levels of internet literacy (Wang et al., 2024), similar results were not observed in this study. This discrepancy may be attributed to the fact that e-sports knowledge is largely driven by personal interest and curiosity, limiting the influence of family background in this context.

Similarly, no significant differences were found in e-sports literacy levels according to daily social media usage duration. This finding suggests that spending more time on social media alone does not necessarily lead to higher e-sports literacy. One possible explanation is that e-sports news and broadcasts are typically followed through specialized platforms such as Twitch and YouTube or through e-sports-focused accounts. Spending extended time on social media may not enhance e-sports knowledge if individuals do not follow e-sports-related accounts or show interest in such content. Indeed, Hamari and Sjöblom (2017) emphasized that people primarily watch e-sports competitions on streaming platforms such as Twitch, where social interaction and information exchange take place. Therefore, even if a student spends a large portion of the day on social media, this time may not contribute to their e-sports literacy if they are not engaged with e-sports-related content.

The findings of this study should be evaluated in light of certain methodological limitations. First, the study was conducted with law faculty students from a single public university using convenience sampling; therefore, the representativeness of the sample is limited. This restricts the generalizability of the findings to all law faculty students in Türkiye. Second, all data were collected through self-report scales, which may involve the risk of social desirability and response bias, as participants might overestimate or

underestimate their competencies. Third, the cross-sectional design of the study does not allow for the examination of changes and developments in e-sports literacy over time, providing only a snapshot of a specific period.

Considering these limitations, future research is recommended to collect data from larger and more heterogeneous samples encompassing different types of universities (public and private), geographic regions, and faculty profiles. Mixed-methods studies that support quantitative findings with qualitative approaches such as in-depth interviews or focus group discussions could provide a more comprehensive understanding of law students' perceptions of e-sports and e-sports law, as well as their professional expectations and ethical evaluations. Furthermore, instead of relying solely on self-report scales, future studies could employ scenario-based case analyses or knowledge tests to examine potential discrepancies between perceived and actual e-sports literacy levels, thereby making significant contributions to the literature. From a practical perspective, offering elective courses on e-sports and gaming law in law faculties, as well as organizing joint seminars, workshops, and applied training programs in collaboration with bar associations, federations, and relevant industry stakeholders, are recommended as concrete steps toward creating learning environments in which students can understand the e-sports ecosystem not only as consumers but also as legal actors.

Conclusions

This study revealed that the e-sports literacy levels of law faculty students are moderate. The findings indicated that e-sports literacy differs according to gender and regular participation in sports, with male students and those who engage in sports having significantly higher scores. In contrast, the absence of a statistically significant effect of parental education level and daily social media usage duration on e-sports literacy suggests that knowledge and awareness in this field are shaped more by individual interest and voluntary engagement than by family-related socioeconomic capital. However, these findings should be interpreted in light of certain contextual and methodological limitations. The scale used in this study primarily measures general and technical dimensions of e-sports literacy and does not explicitly assess legal knowledge related to contracts, intellectual property rights, regulatory frameworks, or dispute resolution mechanisms within the e-sports ecosystem. Therefore, the moderate literacy scores reported in this study may not fully reflect law faculty students' competencies specific to e-sports law. In addition, since the data were collected from students at a single public university, the generalizability of the findings to law faculties across Türkiye remains limited. Accordingly, before these results are directly utilized by policymakers or curriculum developers, further comparative and interdisciplinary studies conducted across different universities are recommended to provide a more comprehensive evidence base.

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