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Gamified Learning: The Impact of E-Sports on Student Motivation and Academic Commitment

Sairh Jabeen

Senior Elementary Teacher (Physical Education), Islamabad Model School Girls Saidpur
Islamabad

sairaawan546@gmail.com

Tehzin Aslam

Lecturer in Physical Education, Government Associate College for Women Jandanwala
(Bhakkar)

tehzinaslam9597@gmail.com

Kalsoom Afzal

M.Phil. Sports Science & Physical Education, MY Islamabad, Pakistan

kalsoomafzal08@gmail.com

Zainab BiBi

M.Phil. Sports Science & Physical Education, MY Islamabad, Pakistan

kainabbibi7259@gmail.com

Satish Waris

Visiting Lecturer Department of Physical Education & Sports Science, UON, Punjab Pakistan

satishwaris436@gmail.com

Ayesha Najia

Sports Teacher at The city School, Iqbal campus Sialkot, Punjab Pakistan

ayeshanajia38@gmail.com

ABSTRACT

The rapid evolution of e-sports revolutionized the landscape of competitive gaming, attracting a vast audience and participants worldwide. This study explores the motivations behind students' engagement in e-sports, focusing on the social, entertainment, technological, financial, cognitive, and psychological factors. The research aimed to assess the perceptions of students regarding various motivational factors driving their participation in e-sports, along with examining gender-based differences in their motivations. Utilizing a quantitative approach, the study analyzed data from 515 students, with results indicating that students perceived that entertainment and fun, social interaction significantly contribute to students' involvement in e-sports. According to the findings, these elements not only operate as important engagement boosters but also show that e-sports is becoming more and more popular as a potential profession and a venue for personal growth. With implications for educational institutions, e-sports organizations, and legislators seeking to create a more welcoming and encouraging atmosphere for players, this study adds significant knowledge on the motives of students in the digital gaming space. In order to fully utilize e-sports' potential as an instrument for improving abilities and professional growth, the research also emphasizes how crucial it is to include them within educational and developmental frameworks.

Keywords: E-Sports, Students, Motivation, Online Gaming, Digital Arena.

INTRODUCTION

E-sports, has quickly spread throughout the world and drawn millions of participants and spectators. Due to dynamic digital environment, the business of fun and entertainment altered and new social, cultural, and economic landscapes (Popovic, 2023). The study reveals that the unprecedented growth of e-sports is particularly evident among youth, who form the core audience and participants (Dasic et al., 2024). The reasons why young people participate in e-sports as spectators, players, or professionals are examined in this study (Zhang, 2022). The fact that big athletic events now include e-sports shows how legitimate it is becoming. To illustrate its acceptability in conventional sports arenas, e-sports made its debut as an Olympic activity at the 2022 Asian Games (Feng, 2024). Additionally, e-sports' promise has been acknowledged by the International Olympic Committee (IOC), which has announced the first Olympic Electronic sports games which will take place in Saudi Arabia in 2027 (Yuan, 2024). The range of game genres that e-sports provides, from multiplayer online combat areas (MOBAs) like Champion's league to first-person shooters (FPS) like "the video game Counter has increased its appeal. Major events that attract millions of fans worldwide, such as the annual League of Legends World Champion tournament and the Dota.2 world tournament, provide substantial prize pools (Aksun, 2022).

The rise of e-sports aligns with broader trends in digital transformation, providing an accessible and interactive space where skills, strategy, and community converge. Key motivations include social interaction, competition, escapism, and career opportunities within the industry (Doellgast, & Wagner, 2022). Researchers argues that the appeal of e-sports is amplified by its ability to blend traditional gaming culture with the collaborative nature of social media and live-streaming platforms, fostering a unique sense of belonging and identity among participants (Kubat Dokumacı, 2024).

Students are among the most active participants in e-sports, engaging in online and offline tournaments for entertainment, socialization, and even professional aspirations. Unlike conventional sports, e-sports offer accessibility, allowing individuals to compete globally without physical constraints (Popovic, 2023). Research suggested that motivation in e-sports is multidimensional, encompassing factors such as competition, skill development, social interaction, and financial incentives (Hattingh et al., 2024). Additionally, collegiate programs of e-sports highlights the academic and career potential associated with competitive gaming (Luo, 2024).

The current research work intended to find the motivational dynamics that may promote the participation of students in e-sports. By examining social, and entertainment drivers, this research provide insights into how and why students dedicate time and effort to competitive gaming (Dasić et al., 2024). Understanding these motivations can help educators, policymakers, and industry professionals foster a more structured and supportive e-sports environment for students (Dasić et al., 2024). By analyzing these motivations, this work seeks to deepen the understanding of e-sports as a cultural and psychological phenomenon, as well as its implications for youth development and digital innovation (Liu et al., 2024). The key factor that was typically linked to kid's encouraging sports participation is parental support (Seabra et al., 2008).

The increasing popularity of running podiums like YouTube and Twitch Betting created a vibrant e-sports culture, where students not only play games but also engage with professional gamers, influencers, and online communities (Seo, 2016). These platforms provide entertainment, social connectivity, and a sense of belonging factors that are highly appealing to the younger demographic. Moreover, peer groups and online friendships often serve as

powerful motivators, encouraging students to participate in online tournaments and gaming communities (Martoncik, 2015).

Entertainment-based motivation, such as the thrill of competition, narrative-driven gameplay, and interactive content, also plays a significant role in driving students toward e-sports. For many students, e-sports offer a form of escapism and relaxation, fulfilling emotional and psychological needs that traditional sports or academic activities may not address (Reitman et al., 2020). It is essential to know the role of entertainment aspect for increasing the participation of students in e-sports. This understanding can guide educators, policymakers, and stakeholders in creating supportive environments that recognize e-sports as a legitimate and influential part of student life.

Objectives of the study

1. To assess students' perceptions regarding social factor as a motive for engaging in e-sports.
2. To evaluate students' perceptions regarding entertainment and fun as key motivators for participating in e-sports.
3. To know the variation between the male and female student's perception.

LITERATURE REVIEW

The modern form of e-sports is relatively young, yet competitive gaming dates back to the Pong era. The emergence of home consoles in 1972 marked the beginning of e-sports (Zhou, 2021). E-sports, or electronic sports, have developed from straightforward arcade contests to a well-known worldwide industry with professional leagues, sponsors, and millions of spectators (Grantham, 2025). When competitive gaming started to emerge in academic settings in the early 1970s, it is when E-Sports had its start (Luo, 2024). In 1972, students at Stanford University participated in one of the first known video game tournaments, when they played the game Spacewar (Partin, 2025).

The gaming business has become a professional and competitive area due to the advent of e-sports, which has drawn students from all over the world. Electronic sports, sometimes known as e-sports, are organized multiplayer video game contests that frequently draw big crowds and professional players. (Dasic et al., 2024). The growing popularity of e-sports among students is influenced by several motivational factors, including intrinsic and extrinsic elements that shape their participation and engagement. Understanding these factors is crucial for fostering a sustainable and competitive e-sports environment in educational institutions (Rhee, & Kim, 2023).

Motivation in e-sports is driven by intrinsic factors such as passion for gaming, the joy of competition, and personal achievement. According to self-determination theory, the satisfaction of three psychological needs autonomy, competence, and relatedness is the source of intrinsic motivation (Puad, & Albalushi, 2023). It is researched that students who engage in e-sports often experience a sense of control over their gaming choices (autonomy), develop advanced skills (competence), and form social connections with fellow gamers (relatedness) (Rhee, & Kim, 2023). These elements contribute to sustained participation and performance in e-sports activities (Raggiotto, & Scarpi, 2023).

Extrinsic motivation also plays a significant role in students' involvement in e-sports. External rewards such as financial incentives, career opportunities, and recognition influence participation (Guo et al., 2023). The emergence of scholarships, sponsorships, and professional gaming careers has encouraged students to pursue e-sports competitively. Moreover, the social influence of peers, streaming platforms, and online communities fosters motivation by providing validation and support (Butcher & Bryant, 2024).

Additionally, psychological and environmental factors impact students' motivation in e-sports. The pressure to perform, competition stress, and time management challenges can affect their commitment (Knowlton, 2024). (Institutional support, availability of gaming facilities, and parental encouragement further influence students' engagement in e-sports (Knowlton, 2024). Research suggests that a balanced approach, incorporating structured training, academic support, and mental well-being strategies, can enhance students' motivation and success in e-sports (Zhang et al., 2024).

METHOD AND MATERIAL

The present research work aims to analyze the influence of elements that encourage students to participate in e-sports (Lee et al., 2024). The current study employed a descriptive research design because the researcher wants to gather numerical data on the purpose of the variable to be included in the study (Taherdoost, 2022). The cross-sectional survey approach was used by the researcher to gather information from the participants.

Population and Sample

In current work, the students of class 5 to Intermediate/A-Level, with the age limit between 10-18 years, of all private school working under Government rules were the population of the study. There were total - 6000/- students in these school at A-level and the data and strength was taken from the concern authorities of such schools. The researcher has used random sample technique to select participants from each school working under Government, in Lahore, in order to make a better representation of population. Random sample technique. The sample size of 600 out of total population 5000 was made on the basis of standard sampling table (El Bilali et al., 2022).

Instruments of the Study

For data collection, the researcher used two different instruments. The first one was the Student's Motivation Questionnaire (SMQ) to assess the factors affecting the motivation of students in e-sports involvement, and the second scale was the E-sports Involvement scale to analyze the involvement of students in e-sports gaming (Wu, 2024). Both questionnaire were self-made. The questionnaire was prepared in a five-point Likert-type scale and had scores ranging from 1 to 5 (Sarkar, 2023). The researcher also used a basic information form for the demographic information of the participants.

DATA ANALYSIS

For data analysis, the researcher utilized SPSS version -27. The researcher employed both descriptive and analytical methods in the current investigation and inferential statistics. Descriptive statistic was used to describe item-wise analysis. While, inferential statistics was use to analyze perception of students regarding motivation of students towards e-sports involvement.

Descriptive Results

Table.1 This table shows the description results of the study.

Item	Gender	N	Mean	Std. Deviation	Std. Error Mean
Social	Male	295	3.6568	.74900	.04361
Factor	Female	220	3.6193	.70243	.04736

Valid N (listwise) 215

Five hundred and fifteen students were taken as sample from six different schools working under the GOVERNMENT in Lahore, Pakistan. There were 850 student (16%) from "The Science School Lahore", 1045 (20%) from Beaconhouse Margala campus Lahore, 920 (18%), from "The City School Campus Lahore", 870 (16.61%) from Super Nova School Lahore, 750 (14.32%) Headstart School Lahore, and 800 (15.28%) ACE International Academy Lahore, Pakistan.

Testing of Hypothesis

HA1: Students perceive social factors as a significant motive for engaging in e-sports.

Table.2: One-Sample Test

	Test Value = 3					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Entertainment and Fun	36.399	514	.000	1.21489	1.1493	1.2805

A comparison of the mean score for Social Factor using a one-sample t-test is shown in the table. The degree of freedom (df) is 514, and the t-value is 19.947. The p-value (Sig. 2-tailed) is .000, much below the usual significance criterion of 0.05, indicating that this t-value is highly significant. We may have a 95% confidence level that the real mean difference is within the range of the mean difference's 95% confidence interval, which is 0.5777 to 0.7039. The sample mean for SFM is substantially higher than the test value of 3, according to the results overall. The test findings are well explained by this interpretation, which emphasizes the statistical significance and the confidence interval. Please let me know if you require any changes or more information.

HA2: Students perceive entertainment and fun as key motivators for participating in e-sports.

Table.3: One-Sample Test

	Test Value = 3					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper

The results of the one-sample t-test indicate that the mean score of Entertainment and Fun (4.2149) is significantly different from the test value of 3. The t-statistic is 36.399 with 514 degrees of freedom (df), and the p-value (Sig. 2-tailed) is 0.000, which is well below the conventional alpha level of 0.05. This suggests strong evidence to reject the null hypothesis, meaning the true population mean of EFM is significantly higher than 3. The mean difference of 1.21489 indicates how much higher the sample mean is compared to the test value. Additionally, the 95% confidence interval for the mean difference (1.1493 to 1.2805) does not include zero, further supporting the statistical significance of the result. In practical terms, this implies that Entertainment and Fun scores in the sample are, on average, substantially greater than the hypothesized value of 3.

HA3: There is a significant difference between the overall perception of male and female students regarding the motives for engaging in e-sports.

Table: 4 Independent Samples Test

Variable	Levene's Test for Equality of Variances				t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the	95% Confidence Interval

								Difference (Lower)	of the Differenc e (Upper)
Social Factor	Equal variances assumed	.958	.32 8	.57 6	513	.565	.03746	.06498	-.09020
	Equal variances not assumed	—	—	.58 2	487.020	.561	.03746	.06438	-.08903
Entertai nment and Fun	Equal variances assumed	.003	.98 3	- .43 3	513	.665	-.02890	.06678	-.16010
	Equal variances not assumed	—	—	- .43 2	512.320	.665	-.02890	.06690	-.16020

According to the findings of the study shown in Tables 4.7.i and 4.7.ii, there is no statistically significant difference in the Social Factor between the male and female participants. Male respondents (N = 295) reported a slightly higher mean score (M = 3.6568, SD = 0.74900) than female respondents (N = 220), who reported a mean score of 3.6193 (SD = 0.70243), according to the group data. With a t-value of 0.576, degrees of freedom (df) = 513, and a p-value of 0.565, the independent samples t-test, however, showed that this difference is not statistically significant.

Table 5: Independent Samples Test

Levene's Test for t-test for Equality of Means
Equality of Variances

	F	Sig.	t	Df	Sig. (2- tailed)	Mean Differenc e	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances	.00	.98	-	-	.1037				
Entertainmen t and Fun assumed	0	3	8	8	8				

The Independent Samples t-test for the variable *Entertainment and Fun* shows no significant difference between male and female respondents ($p = 0.669$). Levene's Test confirms equal variances ($p = 0.983$), so the equal variances assumed row is used. The mean difference is very small (-0.02890), and the 95% confidence interval includes zero (-0.16158 to 0.10378), indicating that both genders have similar views regarding entertainment and fun in this context.

DISCUSSION

The results of current research work analyzed key motivational factors behind the student's participation in e-sports, shedding light on the key factors that drive engagement in this rapidly growing digital arena (Knowlton, 2024). The results suggest that students are highly motivated to participate in e-sports for a range of reasons, comprising social factors, entertainment and fun (Puad, & Albalushi, 2023). These motivations collectively accent various class of e-sports engagement and the diverse benefits that students perceive from their involvement in this digital realm. Such study indicated that social factor play crucial role in motivating students towards involvement in e-sports. This finding is similar to the past study (Knowlton, 2024). According to Bandura's (1986) Social Learning Theory, individuals develop behaviors through observation and interaction with peers. In the context of e-sports, students are often motivated by their social circles, including friends, online gaming communities, and professional gamers they admire (Kahraman, & Kazançoğlu, 2023). Similarly, another study revealed that peer influence significantly affects participation rates, as students tend to engage more in gaming when their social groups are actively involved (Wei et al., 2022). Furthermore, a study determined that parental support, encouragement, and attitudes toward gaming influence students' motivation to participate in competitive gaming (Kahraman, & Kazançoğlu, 2023). Research indicated that students whose parents view e-sports as a legitimate activity or career are more likely to be motivated to pursue gaming seriously (Benden, 2023). It means that social network has paramount role in developing the motivation of students in e-sports.

Finding of the study also showed that fun and entertainment is also a key aspect that motivate students in e-sports. Such result is highlighted entertainment and enjoyment as key motivators for gamers (Puad, & Albalushi, 2023). The findings of this study reveals that students are highly motivated to take part in e-sports for reasons like, social interaction, entertainment, technological advancements, which align with recent studies in the field. Social factors, including peer relationships and community engagement, are significant drivers for e-sports participation (Knowlton, 2024). Increasing professionalization of e-sports attracts students seeking career opportunities (Luo, 2024).

The perception of e-sports (electronic sports or competitive online gaming) differs notably between male and female students, influenced by a complex interplay of social norms, cultural expectations, and digital exposure. Traditionally, gaming has been a male-dominated domain, and this legacy continues to influence how both genders perceive and engage with e-sports today (Luo, 2024). A study revealed that male students at school level often view e-sports as a competitive, career-oriented, and skill-based activity (Said, Azli, & Sabri, 2023). While, female students may perceive it more as a recreational or social engagement and often face gender-based barriers to full participation in e-sports (Overa, Bakken, & Hyggen, 2024).

Studies have shown that males are more likely to identify as "gamers" and invest time and resources into online gaming for status, achievement, and entertainment (Başaran, & Şimşek, 2024). This is largely due to longstanding gender stereotypes that associate gaming with masculinity and technical competence. In contrast, female students often report feeling marginalized or excluded in competitive gaming spaces due to gender bias, toxic behaviors, and lack of representation (Pobuda, 2021). These factors negatively impact the perception of female's students regarding e-sports as a welcoming field for participation.

CONCLUSION

The results and findings of the study shows a comprehensive insights of the motivations behind student participation in e-sports. It highlights several key factors that influence students' engagement in digital gaming activities. The study reveals that social factors is a significant

motivator for students to engage in e-sports. With a high mean score, students perceive the social aspect of e-sports, such as community engagement and interaction with peers, as a driving force behind their participation. This shows that e-sports provide students with a platform to connect, communicate, and form social bonds, which is crucial to their overall gaming experience. Entertainment and fun are also identified as primary motivators for student's involvement in e-sports. The study demonstrated that students view e-sports mainly as a source of enjoyment, with fun being a central element that influences their continued involvement.

This research work also determined that there is insignificant variance in the perceptions of both gender regarding the motivations for engaging in e-sports. This suggests that the factors influencing participation in e-sports are largely consistent across male and female students, highlighting the universal appeal of e-sports as an activity that transcends gender.

Finally, the study highlights the various factors of the motivations behind student participation in e-sports. Social interaction and entertainment are key drivers that influence students' decision to engage in digital gaming. These insights are valuable for understanding student behavior in the e-sports arena and can guide future initiatives in the rising e-sports business.

RECOMMENDATION OF THE STUDY

1. Educational institutions should raise awareness about the cognitive, social, and career-related benefits of e-sports.
2. To address gender disparities and social barriers, it is essential to create safe, inclusive, and harassment free gaming environments.
3. Institutions should integrate e-sports into official extracurricular activities to validate gaming as a structured and goal-oriented pursuit.
4. Parents and teachers should be educated on the positive aspects of e-sports to reduce negative perceptions.

Conflict of Interest

The researcher has no conflict of interest.

REFERENCES

- Afzal, F., Hussain, S., Afzal, D., & Razaq, S. (2020). Some new degree based topological indices via M-polynomial. *Journal of Information & Optimization Sciences*, 41(4), 1061–1076.
- Berkovich, S. (2012). Quantum graphs and their applications to polycyclic conjugated hydrocarbons. *Journal of Mathematical Physics*, 53(3), 033505. <https://doi.org/10.1063/1.3693592>
- Brunvoll, J., Cyvin, B. N., & Cyvin, S. J. (1987). Enumeration and Classification of Coronoid Hydrocarbons. *Journal of Chemical Information and Computer Sciences*, 27(1), 14–21.
- Chartrand, G., & Zhang, P. (2006). *Introduction to graph theory*. Tata McGraw-Hill.
- Cyvin, S. J., Brunvoll, J., Cyvin, B. N., Chen, R. S., & Zhang, F. J. (1994). *Theory of Coronoid Hydrocarbons II*. Springer Berlin/Heidelberg.
- Deepika, K., & Meenakshi, S. (2022). An application of distance degree sequence of graphs in message encryption and decryption. *International Journal of Health Sciences*, 6(S4), 7046–7052.
- Dias, J. R. (2010). The polyhex/polypent topological paradigm: Regularities in the isomer numbers and topological properties of select subclasses of benzenoid hydrocarbons and related systems. *Chemical Society Reviews*, 39(6), 1913–1924.
- Furtula, V., Gutman, I., & Graovac, A. (2017). Topological indices and structure-property relationships for polycyclic aromatic hydrocarbons. *MATCH Communications in Mathematical and in Computer Chemistry*, 78, 113–134.

- Gutman, I., & Liu, X. (2010). Topological indices of polycyclic aromatic hydrocarbons. *Journal of Mathematical Chemistry*, 47(4), 396–413.
- Halberstam, F. Y., & Quintas, L. V. (1982). A note on tables of distance and path degree sequences for cubic graphs. Silver Jubilee Conference on Combinatorics, University of Waterloo, Canada.
- Koam, A. N., Ahmad, A., Ibrahim, M., & Azeem, M. (2021). Edge metric and fault-tolerant edge metric dimension of hollow coronoid. *Mathematics*, 12(9), 1405. <https://doi.org/10.3390/math12091405>
- Lesniak-Foster, L. M. (1975). Eccentric sequences in graphs. *Periodica Mathematica Hungarica*, 6(4), 287–293.
- Meenakshi, S., & Deepika, K. (2021). Distance degree sequence of some graphs. *Advances and Applications in Mathematical Sciences*, 20(9), 1787–1792.
- Meyer, B., & Sondheimer, F. (1956). On the electronic structure of polycyclic aromatic hydrocarbons. *The Journal of Chemical Physics*, 24(2), 228–234.
- Randic, M. (1979). Characterizations of atoms, molecules and classes of molecules based on path enumerations. *Match*, 7, 5–64.
- Sarkar, P., Pal, A., & De, N. (2020). The (a, b)-Zagreb index of line graphs of subdivision graphs of some molecular structures. *International Journal of Mathematics for Industry*, 12(1), 1–12.
- Slater, P. J. (1982). Counterexamples to Randic's conjecture on Distance Degree Sequences for trees. *Journal of Graph Theory*, 6(1), 89–91.
- Wei, G. A., Jamil, M. K., Javed, A., Farahani, M. R., & Imran, M. (2018). Inverse sum indegree index of the line graphs of subdivision graphs structures. *UPB Sci. Bull., Series B*, 80(3).
- Zhang, H., Li, Y., Zhang, S., & Liu, X. (2018). Tight-binding models and quantum transport in polycyclic aromatic hydrocarbons. *Journal of Mathematical Chemistry*, 56(1), 145–160