

A Study of E-Sports Infrastructure in Universities

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Abstract

Today, many universities worldwide, including recently in our country, have taken on an important role in supporting and developing electronic sports to provide leisure opportunities for students. However, one of the important issues currently under discussion regarding e-sports in universities is the type of impact it has on students, which needs to be examined. Therefore, in this study, we aimed to investigate and analyze the infrastructure of e-sports in universities from the perspective of students. The research method is framed within a qualitative approach and employs the grounded theory methodology, using the systematic approach of Strauss and Corbin. The research population consists of students who have previous experience participating in e-sports. Additionally, purposive sampling was used to select interviewees. The interviews were conducted in a semi-structured format, and after 25 interviews, theoretical saturation was achieved. The interviews were coded through open, axial, and selective coding stages. According to the research findings, e-sports face challenges such as organizational and credibility constraints, academic, physical, and social issues for students. However, they can also have positive outcomes in terms of leisure activities, the development of individual and social skills. Overcoming limitations and addressing consequences require the implementation of useful strategies.

Keywords: Electronic sports, university, student.

Introduction

Electronic sports, as entertaining and recreational activities for young people, attract many interests. Playing and competing in these sports category keeps youth away from everyday stresses and allows them to experience joyful and creative moments (Weiss, 2020). Additionally, electronic sports can create a dynamic social and communicative space for young people, enabling them to play with friends and individuals with shared interests, strengthening social relationships. Furthermore, competition and collaboration in multiplayer teams encourage young people to strive for better teamwork and communication skills (Hong, 2023). Therefore, electronic sports or eSports, defined as competitions where players compete in video games, have grown significantly worldwide in recent years (Yin et al., 2020). This sector has evolved into a booming industry and is considered a new and profitable industry (Dallo et al., 2021). In fact, electronic sports are not only defined as an art and entertainment but also recognized as a formal competition and sport (Walton et al., 2020). With the growth and development of electronic sports, much discussion and debate have taken place regarding its role in universities (Ningning & Wangwang, 2023).



Currently, many universities worldwide, including recently in our country, have taken on an important role in supporting and developing electronic sports to provide leisure opportunities for students. However, there are still many issues and challenges in this area that need to be examined and discussed.

Therefore, one of the important issues currently under discussion regarding e-sports in universities is the type of impact it has on students. Some believe that electronic sports can serve as an effective educational and training tool for students, while others do not endorse this view and support the traditional approach to sports in universities (Ramirez et al., 2020). In addition, there are organizational and structural issues related to supporting electronic sports in universities (Kaoluwa, 2022). Therefore, in this study, we aim to investigate and analyze the infrastructure of electronic sports in universities. Overall, the main objective of this research is to provide students' perspectives on the role of electronic sports for students in universities.

Methodology

The present study was conducted within a qualitative framework, employing the grounded theory methodology. In this research, a systematic approach (Strauss and Corbin) was utilized. After preparing the research design and studying and collecting its theoretical foundations, interviews were conducted with students who had prior experience participating in electronic sports. Along with data collection, coding relevant to the interviews was carried out. The interviews were conducted face-to-face, and the interview process continued until theoretical saturation was reached. The elements received from the interviews were identified, coded into components, and presented separately. The central components obtained were then linked together through selective coding and a synthesis process using techniques such as storyline linking, ultimately yielding the constructed pattern in the grounded theory process.

The statistical population of this research includes all students who had prior participation experience in electronic sports and could provide valuable information to the researcher. Purposive sampling and referral sampling techniques (available samples) were used for sampling. Interviews were conducted with students who were available and met the desired criteria for entry into the interview process, and sampling continued until theoretical saturation was achieved. In this study, 25 students participated in the interviews, approximately 68% of whom were undergraduate students and 32% were graduate students. Additionally, a semi-structured format was used for conducting interviews. The interviews were coded through three stages: open coding, axial coding, and selective coding, followed by organization. The confirmation of professors' opinions and obtaining confirmation from two theoretical field experts regarding the research process were conducted to increase the research's credibility. All research steps were documented and recorded in all stages to enhance the research's credibility. Furthermore, for scientific accuracy confirmation, coding reviews (reliability test) and peer validation were employed in this research.

Findings

Considering the qualitative nature of the research and the use of the grounded theory approach, coding has been formulated in three areas: open, axial, and selective coding. The findings regarding the coding of the infrastructures of electronic sports in universities are presented in the form of a research paradigm pattern. The research findings indicate that the increase in university attractiveness, job opportunities, personal skill development, creation of social interaction and



collaboration spaces, and leisure time spending as consequences; organizational credibility and constraints, physical problems, academic issues, and excessive virtual interactions as challenges. Moreover, the establishment of electronic sports clubs or associations and infrastructure facilitation for group gaming, budget allocation, provision of technical facilities and appropriate venues, organizing events and tournaments, providing necessary training and courses, and promoting a healthy culture of electronic sports utilization have been identified as strategies.

Discussion and Conclusion

Electronic sports in universities can expand as a new and engaging activity. However, according to the research findings, these sports face specific challenges. Firstly, there is currently insufficient understanding and acceptance of these sports in the university community. Secondly, physical fitness issues, poor time management, decreased academic performance, increased virtual social interactions, and detrimental competition are challenges that may hinder students from effectively and optimally benefiting from electronic sports and may undermine the positive outcomes of these sports.

Therefore, the infrastructure for electronic sports in universities faces challenges that require the adoption of appropriate solutions and procedures. To address these challenges, raising awareness and promoting electronic sports, proper time management between study and sports, encouragement and support for these sports by university organizations, establishment of constructive structures and regulations, development of social interactions, and attention to students' physical fitness are among the important solutions.

On the other hand, it should be noted that the existence of electronic sports at the university level can be a healthy option for spending leisure time during students' free time and provide a suitable place for student gatherings and increasing social interactions for healthy recreation, which in turn can contribute to the development of some personal skills in students. Furthermore, creating such spaces in our country can be recognized as a distinguishing feature for universities and, in a way, promote universities and increase their attractiveness. However, ultimately, it should be noted that achieving the positive outcomes of electronic sports at the university level is contingent upon overcoming the challenges and limitations associated with them.



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