International Journal on Management Education & Emerging Technology
ISSN: 2583-9438

Esports vs. Physical Sports: A Comparative Study on Training

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Abstract

Esports refers to competitive computer gaming, online athletics, and virtual gaming. In recent years, the prevalence of Esports has increased dramatically. As a result of the introduction of distinct competitive categories, electronic games are now regarded as sports, or esports for short. However, many continue to believe that esports should not be regarded as a sport due to their lack of physicality. The objective of this quantitative study was to determine if there is a difference in training between Esports and Competitive Physical Sports athletes. One hundred thirteen (113) Competitive Physical Sports players and eighty-three (83) Esports players from the Polytechnic University of the Philippines were selected at random using simple random sampling to participate in this study. The questionnaire was subdivided into two subcategories: physical training created by the researchers and mental training derived from the study of Carrani, et al (2021). The results of the study revealed that athletes in esports "often" improve both their physical and mental capabilities. Meanwhile, data indicates that athletes who compete in competitive physical sports "almost always" train physically and mentally. In conclusion, the findings of this study show that there is a significant difference between Esports and Competitive Physical Sports athletes in terms of their training.

Article Info

Keywords:
Esports, Competitive Physical Sports, Frequency Of Training, Physical Training, Mental Training

Date of Submission: 13/03/2024
Date of Review: 25/04/2024
Date of Acceptance: 13/05/2024
IJMEET / Volume 2, Issue 2, 2024

INTRODUCTION

According to Bayrakdar (2020), Esports is described as a sport played online with multiple players, where they can meet and compete against each other at a professional level. It primarily relies on electronic systems, such as computers, with players and teams controlling their actions through human-computer interfaces (Hamari, 2016; Kuusisto, 2021). Over the last decade, there has been a significant surge of interest in the gaming industry, which further escalated during the pandemic (Chang, 2019; Pu, et al. 2021). The rapid advancements in modern technologies have allowed video game enthusiasts to elevate their gaming experiences and actively participate in competitive gaming, popularly known as Esports (electronic sports). However, for most people, the perception of a sports athlete does not include spending all day in front of a computer, playing video games (Kane and Spradley, 2017).

People also argue, especially avid fans of "traditional" sports, that Esports cannot be termed a sport as Esports players appear to be merely sitting riveted in their chairs (Hamari, 2017). Due to the lack of physicality in the game and its close connection to the business community, recognizing Esports as a sport in the traditional sense is still being questioned (Parry, 2018). However, some have pointed out that in an officially accepted mind sport like chess, although not comparable with other physical sports, the physical performance of moving a chess piece is still necessary as it determines the success of a move. Similarly, rapidly moving a mouse and successfully directing an avatar through computer mechanisms or handheld controllers requires precise physical competence (Jenny, et al., 2016).

Despite its rapidly growing popularity, Esports is still relatively new, particularly to the older generation, and thus, not universally acknowledged as a sport (Chang, 2019). The debate about whether Esports should be regarded as an actual sport in a traditional sense remains unresolved. Many still believe that Esports players are no different from video game enthusiasts who play games solely for recreational and leisure purposes, dismissing them as mere addicts to gaming in general (Kang, et al., 2020; Carrani, et al., 2022).

This study was conducted to discuss and determine the similarities and differences between the training practices used by competitive physical athletes and Esports athletes. The data from the survey questionnaire were gathered from the athletes of the Polytechnic University of the Philippines (PUP) who took part in their respective sports training. The researchers focused mainly on the respondents studying at the Polytechnic University of the Philippines (PUP) since it was accessible to them. The researchers selected all team sports from Competitive Physical sports and Esports. The same survey questions were presented to each group of respondents. The researchers faced the challenge of limited existing studies on training, and their respondents were amateurs rather than professionals.

The results of this study will serve as baseline information and literature for future researchers interested in studying topics related to Esports, such as the effects of Esports on athlete performance. The research will provide valuable data that can serve as a foundation for their future studies.

So far, only one research has been published comparing the training and competition routines of both Esports and physical sports; however, the study was only able to survey elite Esports athletes and compared them with available research on the training of physical sports. This study aims to contribute further knowledge to this research gap regarding Esports training. Specifically, this paper aims to determine the similarities and differences in training between Esports and physical sports, providing more credible data regarding their training.

LITERATURE REVIEW

Esports is competitive video gaming that takes place in the virtual environment with the assistance of electronic devices, such as computers or video game consoles (Candela and Jakee, 2018). This emerging sport has grown rapidly in recent years, to the point that it is beginning to pose a threat to physical sports (Choi, 2019; Warman, 2015).

The pandemic also created an unprecedented challenge, not only to public health but even in the field of sports; all athletic activities, such as sporting leagues and events, were unable to take place (Pu, et al., 2021). According to Agrawal, et al. (2022), people enjoy watching and engaging in eSports because competitions are streamed online, allowing the viewers to interact with one another and giving them a channel to connect with people.

Parry (2018) argues that esports are not sports. He believed that it is inadequately "human", they lack direct physicality, they fail to employ decisive whole-body control and whole body and thus cannot contribute to the development of the whole human; and their patterns of creation, production, ownership, and promotion place severe constraints for the emergence of the kind of stable and persistent institutions characteristic of sports governance.

Contrary to what Parry argues, Pizzo, et al. (2018), stated that depending solely on physicality cannot be a requirement for an activity to be classified as a sport. Moreover, controlling and managing the game requires human-computer interaction, which can be physically strenuous for players (Hamari, et al., 2017).

The study of Nagorsky and Wiemeyer (2020), discussed the structure of performance and training in Esports. "Considering the lack of theory and empirical studies, this paper aims to create a basic framework for future training research in esports and to provide a perspective on esports performance that integrates sports science and (digital) game science" (Nagrosky and Wiemeyer, 2020).
The Study of Carrani, et al. is relatively close to the aim of this research. The aim of their study was to analyze elite eSports players' characteristics and their training and competition routines, and of comparing them with data on their counterparts in traditional sports.

DATA AND METHODOLOGY

Participants

This research was conducted at the Polytechnic University of the Philippines in Sta. Mesa Manila, with participants from team sports, including Esports and competitive physical sports. The total population of the study consisted of 159 physical sports players and 104 Esports players. The respondents from physical sports were Baseball, Softball, Basketball, Volleyball, Beach Volleyball, Football, Futsal, and Sepaktakraw. On the other hand, the participants in Esports were Valorant, CODM, MLBB, LOL, DOTA2, Tekken, TFT, and Wildrift. A comparison was made between the two sports. Based on the computed sample size, the respondents to the study were 113 from physical sports and 83 from Esports who were currently enrolled in the A.Y. 2022-2023.

Instrument

A research instrument, according to Sugiyono (2012), is used to quantify and observe natural or social events. The findings for this quantitative study were gathered using a questionnaire designed and administered by the researchers, which used a four-point Likert scale. This questionnaire was helpful in gathering insights and knowledge about the similarities and differences between Esports and Competitive Physical athletes' training. A checklist created by the researcher served as the study's primary tool. For the respondents, the survey questionnaire was divided into two sub-categories—Physical and Mental training. The questionnaire underwent validation and feedback from the research adviser and validators before use in the study.
The second part of the survey tackled the players' mental training. This part of the survey questionnaire was adopted from another study. Each statement was provided four options to choose from where the answers correspond to the following scale:

Data Collection

The proposed title was examined, revised, and rechecked by the researcher's adviser to ensure consistency on the research topic. A questionnaire checklist was developed in order to elicit accurate responses to the study's objectives. This questionnaire was divided into two parts. The first part of the questionnaire checklist was developed by the researchers for assessing Physical training. It was then submitted to the research adviser and validators for examination and verification to ensure the reliability of the data. The second part of the questionnaire (mental training) was adopted by the researchers from another study. A letter requesting

permission from the coaches of the College of Human Kinetics to conduct research and study on Esports and Competitive Physical Sports players at the Polytechnic University of the Philippines.
The data that has been collected by the researchers from the survey questionnaire has been validated, categorized, tabulated, and analyzed in accordance with the research design that was described in the methodology.

RESULTS AND DISCUSSION

The frequency of training in Esports is 5-7 times per week (32.53%), and they train either once a day or three or more times per day (40.96%). Their training session typically lasts for 1-2 hours with a percentage of 45.78. One to two weeks before the competition, the respondents train a lot more frequently than usual with the percentage of 53.01. Esports players responded that they always attend every training session with a frequency of 38 and a percentage of 45.78. On the other hand, in competitive physical sports, the frequency of training per week is 3-4 times with a percentage of 63.72, and they train once a day with 49.56% that normally lasts for around 3-4 hours with a percentage of 53.98. Players in competitive physical sports practice much more frequently than usual, one to two weeks before the competition, with a percentage of 69.03. Lastly, the respondents often attend their training sessions with 81.42%.

Based on the accumulated answers of the Esports respondents regarding their physical training, the statements “The training includes playing with other competing teams from other schools for practice” and “The training helps assess the strengths and weaknesses of our plays after the tune-up game” both gained the highest weighted mean of 3.28 and were interpreted as “Almost Always”. However, the statement “The training requires any type of physical workout” has the lowest weighted mean of 1.65 and was interpreted as “Almost Never”. In the end, the researchers found out that Esports players “Often” do physical training with a general weighted mean of 2.75. Meanwhile, in terms of Esports players' mental training, the statement “I improve my skills by listening carefully to the advice and instruction from coaches and managers” has the highest weighted mean of 3.43 and is interpreted as “Almost Always”. However, the statement “When a coach or manager tells me how to correct a mistake I've made, I tend to take it personally and feel upset” gained the lowest weighted mean of 1.92 and was interpreted as “Sometimes”. Final results showed that Esports players "Often" undergo mental training, with a general weighted mean of 2.99.

Based on the data acquired from Competitive physical sports respondents on their physical training, the statement “The training starts off with warm-ups and stretching before each training session. (i.e., stretching, cardio, etc.)” has the highest weighted mean of 3.88 and is interpreted as “Almost Always”. Although it received the lowest weighted mean of 3.43, the statement “The training includes playing with other competing teams from other schools for practice” is still interpreted as “Almost Always”. Finally, the study discovered that competitive physical sports players "Almost Always" practice physical training, with a general weighted mean of 3.75. Responses from Competitive physical sports players' mental training, The statement “I improve my skills by listening carefully to the advice and instruction from coaches and managers” has the highest weighted mean of 3.63 and is interpreted as “Almost Always”. However, the statement “
When a coach or manager criticizes me, I become upset rather than feel helped.” gained the lowest weighted mean of 2.38 and was interpreted as “Sometimes”. At the end of the study, the researchers discovered that competitive physical sports players "Almost Always" engage in mental training, with a general weighted mean of 3.28.

T-tests showed a significant difference between Esports and competitive physical sports in mental training and physical preparation, rejecting the null hypothesis and indicating significant differences.

CONCLUSION

The study indicates that the frequency of training for esports players is fairly similar to the practice of athletes in competitive physical sports. Esports athletes train almost as frequently as their non-electronic counterparts and use similar tactics to increase their performance (training per day, the number of hours of training, and preparation before the actual game).

The survey reveals clear differences between e-sports and competitive physical sports regarding physical competence. Esports athletes are generally less physically active than players in competitive physical sports. However, some esports athletes still engage in warm-up or stretching routines voluntarily, even if not required to do so. They also frequently compete against teams from other colleges and universities because it helps them understand their team's strengths and weaknesses.

The researchers concluded that physical sports players excel more in physical training compared to esports as they are required to be physically fit, compete against teams from other colleges, and be present on the same field or court. Regarding mental training, the study found that physical sports players receive more mental training compared to esports athletes. In conclusion, there is a significant difference between physical sports and esports in terms of both mental and physical training approaches.

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