

Esports vs. Physical Sports: A Comparative Study on Training

Kathrine Cayle Filosopo¹, Mark Joshua Ado², Jamie Cyril Del Poso³

¹Polytechnic University of the Philippines

Abstract	Article Info
<p>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.</p>	<p>Keywords: Esports, competitive physical sports, frequency of training, physical training, mental training</p>

Co-Author Affiliation

^{2,3}Polytechnic University of the Philippines

Date of Submission: 06-06-2024

Date of Acceptance: 13-06-2024

Date of Publication: 24-06-2024

Ijmeet/Volume2, Issue2 (Jun-Sept)2024

INTRODUCTION

The article must necessarily be divided between the sections present in this template. For the writing and presentation of the text, its adequacy to the norms of the American Psychological Association (APA) is required.

Citation example: According Ali, Almagtome & Hameedi (2019), the....

The text must be written in Times New Roman font, size 12, single spaced and justified. In paragraphs, the special indentation of the first line is 1.25 cm and there is no spacing between them. The page layout must be made on A4 paper (29.7 x 21 cm), with margins: top (3 cm), left (3 cm), bottom (2 cm) and right (2 cm). Articles must have a minimum of 05 and a maximum of 15 pages, including tables, notes and references. The article must necessarily be divided between the sections present in this template. For the writing and presentation of the text, its adequacy to the norms of the American Psychological Association (APA) is required.

Citation example: According Ali, Almagtome & Hameedi (2019), the....

The text must be written in Times New Roman font, size 12, single spaced and justified. In paragraphs, the special indentation of the first line is 1.25 cm and there is no spacing between them. The page layout must be made on A4 paper (29.7 x 21 cm), with margins: top (3 cm), left (3 cm), bottom (2 cm) and right (2 cm). Articles must have a minimum of 05 and a maximum of 15 pages, including tables, notes and references.

LITERATURE REVIEW

Title of article sections should be written in capital letters. It is not allowed to include a subtitle immediately after a title or a subtitle, at least one paragraph separating them is required.

Subtitle

Charts, tables, graphs and illustrations must be included in the main document, in the sequence in which they appear in the text, and written in 10-point font (figures must be inserted in the text, preferably in JPEG or PNG). Bolds should only be used in titles and subtitles. Foreign words must be written in italics, while neologisms or unusual meanings are enclosed in "quotes". Notes should be avoided, when used they should serve to explain or clarify, in a succinct manner, and not be confused with reference to the source; should come at the end of the text, with sequential numbering in Arabic numerals.

The article must be written correctly in grammatical terms, problems of this nature will lead to the rejection of the text by the editor.

Table 1 – Cronbach's Alpha and KMO

Test	Value
Alpha de Cronbach	0,900
KMO	0,872

*<0,001

Source: Prepared by the authors (2022)



Figure 1. Orion

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:

Scale:	Descriptive Rating:
3	Almost Always
2	Often
1	Sometimes
0	Almost Never

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.

REFERENCES

Bayrakdar, A. et al. (2020). Do E-Athletes Move? A Study on Physical Activity Level and Body Composition in Elite E-Sports. Retrieved from

https://www.researchgate.net/publication/344079172_Do_e-athletes_move_A_study_on_physical_activity_level_and_body_composition_in_elite_e-sports

Carrani, L., et al. (2022). Are Esports Players Comparable to Traditional Athletes? A Cross-Sectional Study. Retrieved from doi: 10.51698/aloma.2022.40.2.83-92

Chang, Z. (2019). What's the Hype About Esports? A Qualitative Study About Esports Consumer Motivation. Retrieved from <http://www.diva-portal.org/smash/get/diva2:1328029/FULLTEXT01.pdf> Hamari, J. &

Sjöblom, M. (2017). What is Esports and Why do People Watch It? Retrieved from

https://www.researchgate.net/publication/306286205_What_is_Esports_and_why_do_people_watch_it

Jenny, S. (2016). Virtual(ly) Athletes: Where Esports Fit Within the Definition of “Sport.” Retrieved from

https://www.researchgate.net/publication/297891315_Virtually_Athletes_Where_Esports_Fit_Within

[_the_Definition_of_Sport](#)

Kane, D. and Spradley, B. (2017). Recognizing ESports as a Sport. Retrieved from

https://www.researchgate.net/publication/317929457_Recognizing_ESports_as_a_Sport

Parry, J. (2018). E-sports are Not Sports. Retrieved from

https://www.researchgate.net/publication/326372787_E-sports_are_Not_Sports

Pu, H., et al (2021). Can Esports Substitute Traditional Sports? The Convergence of Sports and Video Gaming during the Pandemic and Beyond. Retrieved from <https://doi.org/10.3390/soc11040129>