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A comparative study between amateur athletes and amateur esports players on personality

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Abstract
The purpose of the study was to measure and compare the personality between amateur athletes and amateur esports players. A total of 200 subjects were selected through purposive sampling consisting of 100 subjects from amateur athletes and 100 subjects from amateur esports players. Big Five Inventory, a 44-item inventory created by John and Martinez in 1998 was used for collecting data. Descriptive statistics and an independent t-test were applied to analyze and compare the degree of difference in personality between amateur athletes and amateur esports players and the level of significance was set at 0.05. Results indicated that the calculated 't' value for Extraversion 2.99>1.96, Agreeableness -2.84>1.96, and Openness 5.01>1.96 showed a significant difference between amateur athletes and amateur esports players at alpha 0.05. While there were no significant differences in Conscientiousness -0.334<1.96 and Neuroticism -0.420<1.96 at alpha 0.05.

Keywords: Amateur, esports, extraversion, agreeableness, openness, conscientiousness, neuroticism

Introduction

Electronic sports or Esports is a competitive sport through video games and is gaining popularity over the last decade. [1] It involves a gaming organization that organized video games competition in the form of online multiplayer or through LAN, for amateur and professional players either individually or as a team in accordance with the genre of video game. [2] Asia became the hub of esports in the early days of video game competition, and South Korea and China were the first to license professional players in esports. [3] Some popular video game genres include MOBA, battle royale, and FPS. The early 2010s showed a rise in viewership, accounting for almost 85% male and about 15% female; most viewers were aged between 18 and 34. [4] The late 2010s estimated that esports viewers would grow to about 454 million, and rapidly increase to more than USD 1 billion in revenue with China having the most viewers and revenue at 35% of the global revenue in esports. [5, 6]

Stanford University organized the first-ever video game competition for the game of 'Spacewar' on 19 October 1972. [7] In 1948, Track & Field arcade game competition was held internationally by Konami and Centuri that drew players from across Japan and North America in terms of millions of players. [8] Esports in India has its origin back in the early 2000s, and the late 2020s embrace the rise of esports through certain genres of video games like MOBA and battle royale. It was also a landmark for esports in India where professionalism in esports starts to rise and also has the highest audience in terms of viewers for battleground mobile India. [9]

Esports also makes its way into the Olympics and the setting up of Olympic esports series involving an Olympic game style esports event which is planned to be held annually. The series will be featuring multiple video and virtual games and is run by the International Olympic Committee. [10] Although medals are not awarded at the Olympic esports series, the top 3 are awarded with trophies, unlike the Olympic games. [11] Esports also will make its debut at the Asian Games as announced by the Olympic Council of Asia and will feature 8 medal games namely FIFA 23, PUBG mobile, AOV, DOTA 2, LOL, Dream Three Kingdoms 2, Hearthstone, and Street Fighter 5. [12]

Statement of the problem

The purpose of the study was a comparative study between amateur athletes and amateur esports players on personality.

Methodology

To carry out the study, amateur athletes and amateur esports players across India were selected through purposive sampling. The final sample consists of 100 amateur athletes and 100 amateur esports players. The purpose of the study was made clear to the subjects with a detailed explanation in order to avoid ambiguity regarding their efforts.

Independent variables include Amateur athletes and amateur esports players, and dependent variable includes extraversion, agreeableness, conscientiousness, neuroticism, and openness. Big Five Inventory, a 44-item inventory created by John and Martinez in 1998 was used for collecting data.

Statistical design

The survey method was used to investigate the personality between amateur athletes and amateur esports players, and a comparative study was carried out. The mean for both amateur esports players and amateur athletes was calculated through descriptive statistics and the 't-test was used to determine the significance. Jamovi 2.2.5 was used to carry

out descriptive statistics and the independent 't-test, where the significance value was fixed at 0.05.

Statistical analysis

In order to fulfil the objectives of the study and to arrive at a certain conclusion, a systematic treatment of data was carried out consisting of three stages: Tabulation of data, testing of hypothesis using appropriate statistical techniques, and discussion of the results. The processing of the data consists of computing the mean which is presented in Tables 1.1, 2.1, 3.1, 4.1, and 5.1 and graphically in Figures 1 to 5, and descriptive statistics to estimate the difference between the two groups using the independent t-test which is presented in Tables 1.1 to 5.2. The level of significance was fixed at 0.05. The hypothesis set forth was tested and the results obtained are discussed in detail.

Result

The data obtained concerning the present study were examined by using an independent 't-test to determine if there is a significant difference between amateur athletes and amateur esports players in their personalities. The statistical analysis was done and the results are presented in the following tables. The critical value at alpha 0.05 = 1.96 for all the concerned 't' test tables.

Table 1.1

Descriptive Statistics for Extraversion						
	Group	**N**	**Mean**	**Median**	**SD**	**SE**
Extraversion	Amateur Athletes	100	26.3	24.0	4.25	0.425
	Amateur Esports Players	100	24.5	24.0	4.27	0.427

Table 1.2

Independent T-Test for Extraversion			
	Statistic	**df**	**p**
Extraversion	2.99	198	0.003

Table 1.2 revealed that the calculated 't' value of Extraversion between amateur athletes and amateur esports players is 2.99, which is greater than the critical value at alpha 0.05 = 1.96. Therefore, there is a significant difference in Extraversion between amateur athletes and amateur esports players.

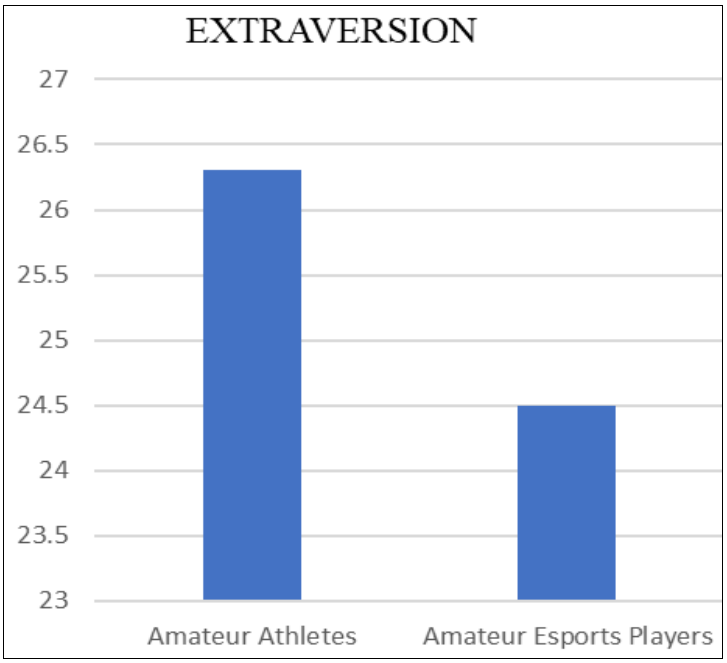

Fig 1: Mean score of Extraversion between amateur athletes and amateur esports players.

Table 2.1

Descriptive Statistics for Agreeableness						
	Group	**N**	**Mean**	**Median**	**SD**	**SE**
Agreeableness	Amateur Athletes	100	26.4	26.0	4.22	0.422
	Amateur Esports Players	100	28.6	29.0	4.98	0.498

Table 2.2

Independent T-Test for Agreeableness			
	Statistic	**df**	**p**
Agreeableness	-2.84	198	0.005

Table 2.2 revealed that the calculated 't' value of Agreeableness between amateur athletes and amateur esports players is -2.84, which is greater than the critical value at alpha 0.05 = 1.96. Therefore, there is a significant difference in Agreeableness between amateur athletes and amateur esports players.

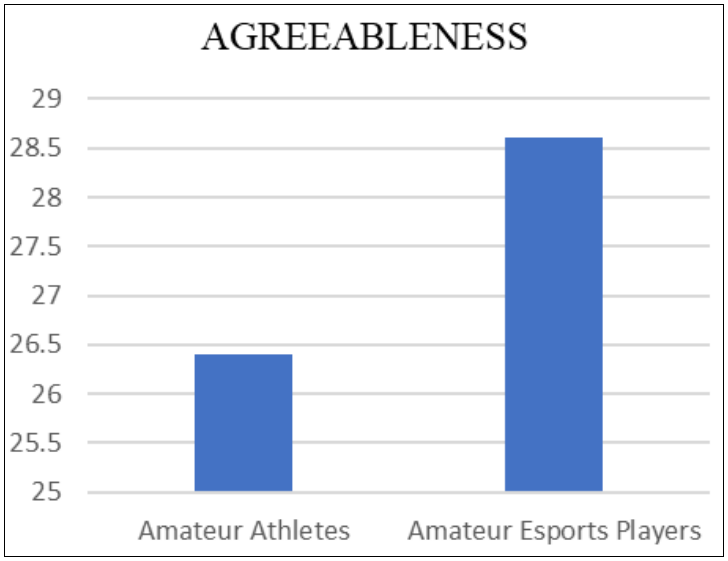

Fig 2: Mean score of Agreeableness between amateur athletes and amateur esports players.

Table 3.1

Descriptive Statistics for Conscientiousness						
Conscientiousness	**Group**	**N**	**Mean**	**Median**	**SD**	**SE**
	Amateur Athletes	100	27.1	27.0	4.52	0.452
	Amateur Esports Players	100	27.3	27.0	4.79	0.479

Table 3.2

Independent T-Test for Conscientiousness			
Conscientiousness	**Statistic**	**df**	**p**
	-0.334	198	0.739

Table 3.2 revealed that the calculated 't' value of Conscientiousness between amateur athletes and amateur esports players is -0.334, which is smaller than the critical value at alpha 0.05 = 1.96. Therefore, there is no significant difference in Conscientiousness between amateur athletes and amateur esports players.

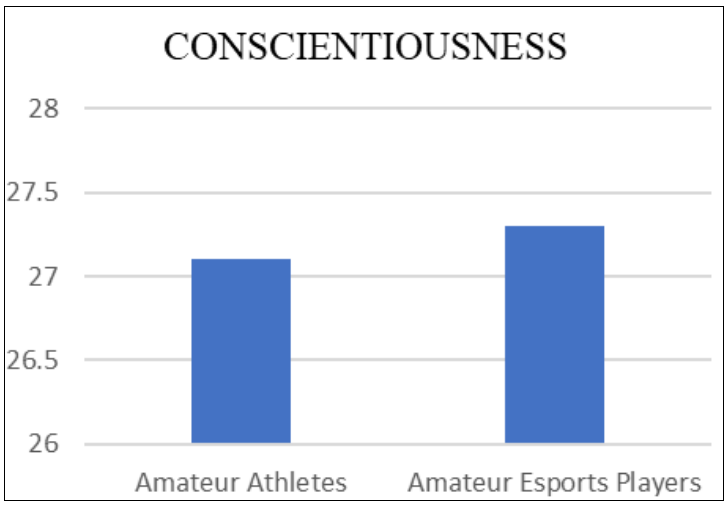

Fig 3: Mean score of Conscientiousness between amateur athletes and amateur esports players.

Table 4.1

Descriptive Statistics for Neuroticism						
Neuroticism	**Group**	**N**	**Mean**	**Median**	**SD**	**SE**
	Amateur Athletes	100	23.7	25.0	4.23	0.423
	Amateur Esports Players	100	24.0	24.0	5.45	0.545

Table 4.2

Independent T-Test for Neuroticism			
Neuroticism	**Statistic**	**df**	**p**
	-0.420	198	0.675

Table 4.2 revealed that the calculated 't' value of Neuroticism between amateur athletes and amateur esports players is -0.420, which is smaller than the critical value at alpha 0.05 = 1.96. Therefore, there is no significant difference in Neuroticism between amateur athletes and amateur esports players.

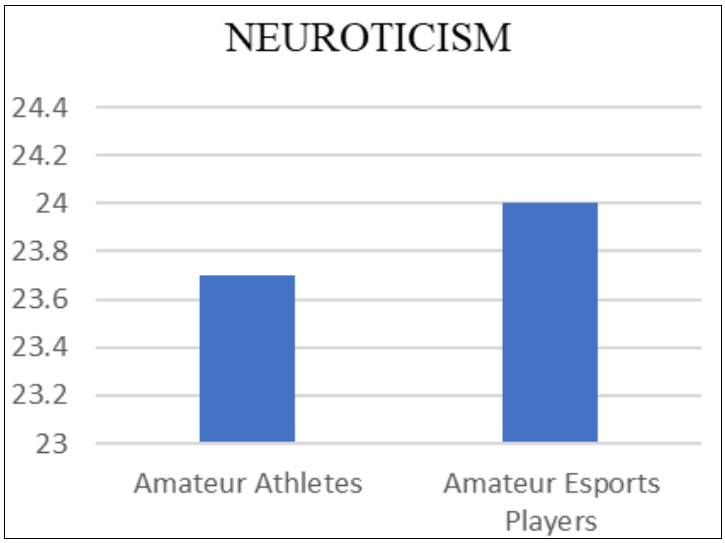

Fig 4: Mean score of Neuroticism between amateur athletes and amateur esports players.

Table 5.1

Descriptive Statistics for Openness						
Openness	**Group**	**N**	**Mean**	**Median**	**SD**	**SE**
	Amateur Athletes	100	34.0	33.0	4.64	0.464
	Amateur Esports Players	100	30.3	29.0	5.61	0.561

Table 5.2

Independent T-Test for Openness			
Openness	**Statistic**	**df**	**p**
	5.01	198	<.001

Table 5.2 revealed that the calculated 't' value of Openness between amateur athletes and amateur esports players is 5.01, which is greater than the critical value at alpha 0.05 = 1.96. Therefore, there is a significant difference in Openness between amateur athletes and amateur esports players.

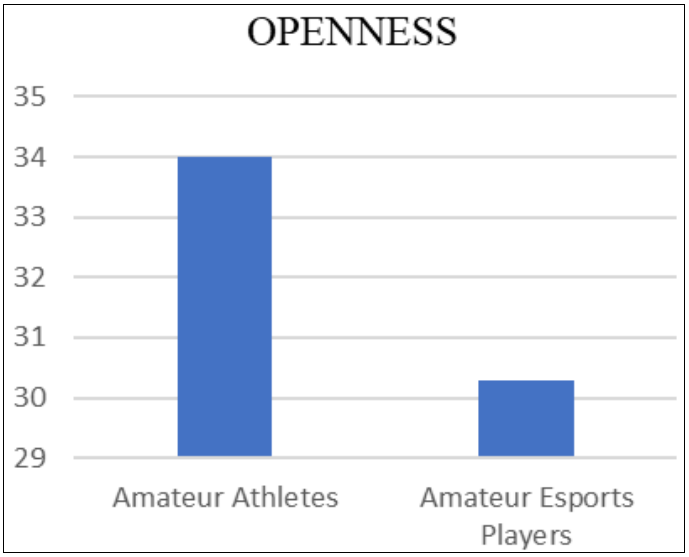

Fig 5: Mean score of Openness between amateur athletes and amateur esports players.

Conclusion

The conclusions of the study are drawn within its limitations and are discussed below:

The finding of Tables 1.2, 2.2, and 5.2 showed significant differences between amateur athletes and amateur esports players. It is concluded that Extraversion and Openness level is significantly different and showed higher level in amateur athletes. The reason could be amateur athletes are engaged physically with other athletes which made them more socialized and adventurous towards other players while amateur esports players connect and engage with other players virtually and are less socialized and adventurous. It can also be seen from the result that the Agreeableness level is significantly different and showed a higher level in amateur esports players which shows how easily amateur esports players put trust in their fellow or other amateur esports players. This could be because they need to trust their teammates while being together as a team in a game virtually and may or may not meet their teammates physically.

The finding of Tables 3.2 and 4.2 showed no significant differences between amateur athletes and amateur esports players. It is concluded that Conscientiousness and Neuroticism level is nearly similar, and as they are competing with other players they might have a similar tendency towards anxiety, depression, and other negative feelings. They may also be diligent and careful as they are always engaged or in a competitive mood with other athletes or players.

References

1. Hamari J, Sjöblom M. "What is eSports and why do people watch it?," Internet Research,2016:27(2):211-232.
2. Werder K. "Esports," Business & Information Systems Engineering,2022:64(3):393-399.
3. Groen A. "article," 14 May 2013. [Online]. Available: https://www.pcworld.com/article/451594/why-gamers-in-asia-are-the-worlds-best-esport-athletes.html.
4. Gamespot Staff. "major-league-gaming-reports-334-percent-growth-in-live-video," 14 November 2012. [Online]. Available: https://www.gamespot.com/articles/major-league-gaming-reports-334-percent-growth-in-live-video/1100-6400010/.
5. Takahashi D. "newzoo-global-esports-will-top-1-billion-in-2020-with-china-as-the-top-market," 2020. [Online]. Available: https://venturebeat.com/business/newzoo-global-esports-will-top-1-billion-in-2020-with-china-as-the-top-market/.
6. Russ H. "article," 2019. [Online]. Available: https://www.reuters.com/article/us-videogames-outlook-idUSKCN1Q11XY.
7. Good O. "today-is-the-40th-anniversary-of-the-worlds-first-known-5953371," 2012. [Online]. Available: https://kotaku.com/today-is-the-40th-anniversary-of-the-worlds-first-known-5953371.
8. Sharpe RC. "1984-Every Which Way But Up," Play Meter,1984:10(23):39-51.
9. Pawn, "history-india-esports," 2023. [Online]. Available: https://www.esportsportal.com/history-india-esports/#:~:text=History%20of%20Esports%20in%20India%201%20The%20beginnings,to%20make%20Esports%20really%20big%20in%20India.%20.
10. Lloyd O. "paris-olympic-esports-week," 2013. [Online]. Available: https://www.insidethegames.biz/articles/1138747/paris-olympic-esports-week.
11. Reuters. "olympic-esports-week-singapore-spt-intl," 22 june 2023. [Online]. Available: https://edition.cnn.com/2023/06/22/sport/olympic-esports-week-singapore-spt-intl/index.html.
12. Venkat R. "fifa-pubg-dota-2-esports-medal-events-asian-games-2022," 2023. [Online]. Available: https://olympics.com/en/news/fifa-pubg-dota-2-esports-medal-events-asian-games-2022.