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Comparison of sports specific personality traits among invasion, target, striking/fielding and net/wall games

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Abstract

The aim of the study was to compare personality traits among different categories of sports. Data was collected from eighty participants where twenty participants from each group (Invasion games, Target games, Net/Wall games, Striking/Fielding games) were randomly selected. Sports specific personality test by Agya Jit Singh and H.S Cheema was used to assess seven dimensions of Sports Specific Personality Traits such as Sociability, Dominance, Extroversion, Conventionality, Self-Concept, Mental Toughness and Emotional Stability. One Way ANOVA found no significant difference in Sociability, Dominance, Extroversion, Self Concept and Emotional Stability but significant difference was found in Conventionality and Mental Toughness. LSD Post Hoc test revealed that Conventionality in Invasion Games was significantly lower than both Target games ($p=.000$) and Striking/Fielding games ($p=.012$). Mental toughness of Striking/ Fielding Games was significantly higher than Net/Wall games ($p=.004$).

Keywords: Sociability, dominance, extroversion, conventionality, self-concept, mental toughness

Introduction

Personality traits have been an area of interest of researchers in Physical Education and sports for long time. Popular research areas regarding personality and sport were the role of personality in sport (Allen & Laborde, 2014) [1], personality factors among different levels of sportspersons (Bowe, 1994; Kumar, 2016) [3, 6], personality profiling (Freixanet, 1991; Vashishtha *et al.* 2017) [5, 14]. Studies were conducted to compare personality traits among different sports (Neal, 2003) [8] and different group of sports (Rhea & Martin, 2010; Kuravatti & Malipatil, 2017) [11, 7].

Teaching Games for Understanding (TGfU) is a games based pedagogical model that aims at conceptual understanding of games. The focus of the TGfU model is placing the student or athlete in a game situation where tactics, decision making and problem solving is critical. It also focuses on maintaining physical activity levels, engagement, motivation and enjoyment in physical education class. (Forrest, Webb and Pearson, 2006) [4].

According to Bunker and Thorpe (1982) some groups of games share key characteristics determined by their rules and tactics. In TGfU model they categorized games into four types such as Invasion, Target, Striking/Fielding and Net/Wall Games. Invasion games such as basketball, soccer, and hockey have common tactical characteristics such as invading territory to make space in attack, use of a goal or similar target for scoring, defending own territory and resist opponents to score. Net/wall games such as tennis, table tennis, and volleyball share characteristics such as playing the shot so opponents cannot return it, serving and receiving the ball, target for scoring is on the playing surface etc. In Striking/fielding games like cricket, baseball scoring is done by striking ball into open spaces and fielding placement to prevent runs. Target Games (Golf, archery) uses similar strategies as planning path to target and blocking path of an object. TGfU model proposes the above mentioned games classification according to tactics and strategy. The study aims at comparing personality factors of sportspersons against the classification of games based upon tactics/ strategy rather than technique. In this study four groups of games according to classification provided by TGfU model were compared on sports specific personality traits.

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Methods

Twenty participants from each group (Target games, Net/Wall games, Striking/Fielding games, Invasion games) and total eighty were randomly selected for the study. Sportspersons having minimum four years of training experience in own sport was set as inclusion criteria for the study. Participants for Invasion games were Basketball players selected from Rakhi Sangha, Kolkata. Archers from Calcutta Archery Association and Barakhagri AJK Vidyalaya participated in the study as Target Sport players. Table Tennis players from Milan Samiti, Shrirampur from Hooghly district responded as Net/wall games players. Cricket players from Vivekananda

Park Academy Women’s Coaching Centre participated in Striking / Fielding games category.

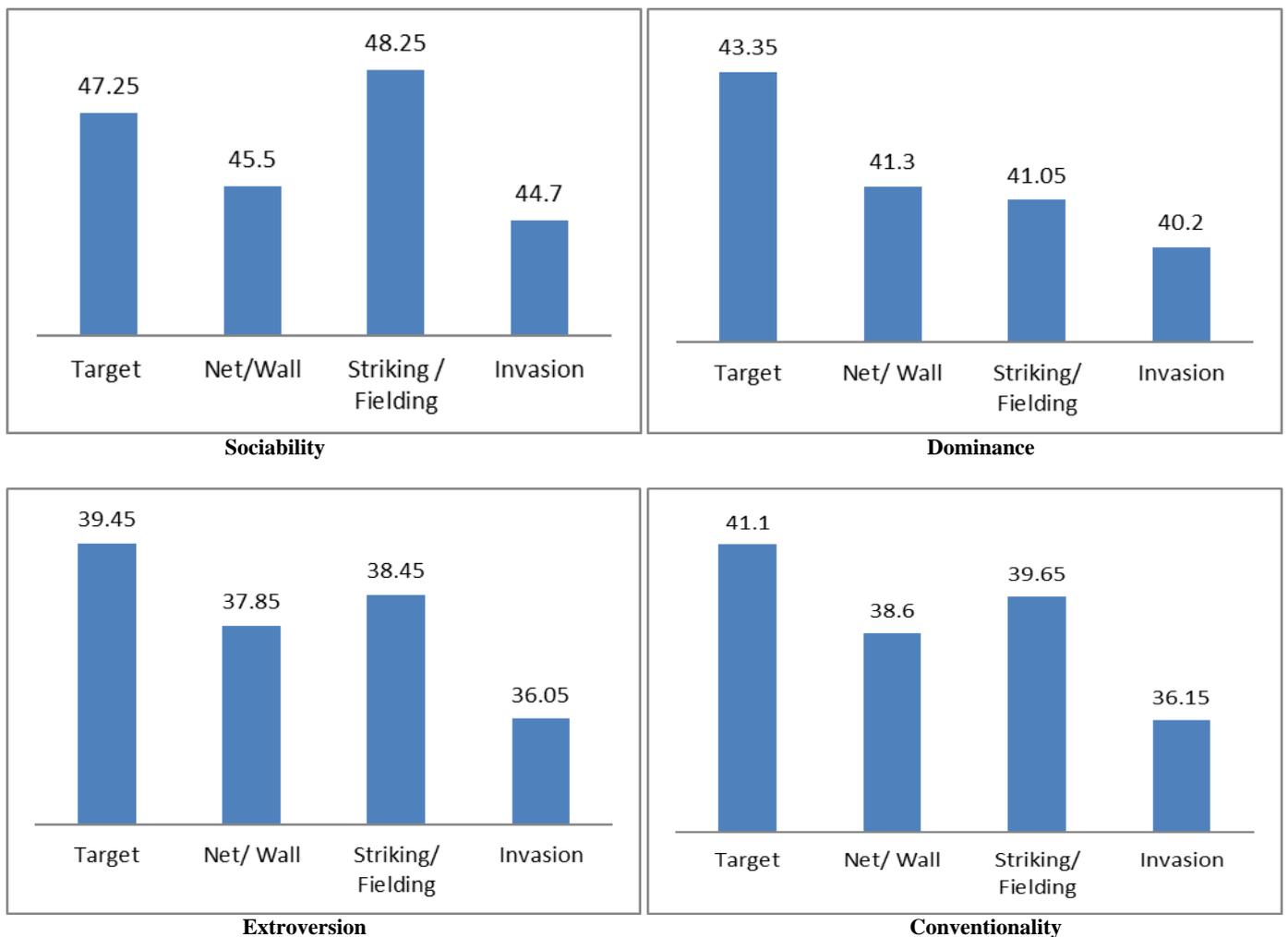
Sports Specific Personality Traits was the variable of the study which was evaluated through Sports specific personality test by Agya Jit Singh and H.S Cheema. Seven dimensions such as Sociability, Dominance, Extroversion, Conventinality, Self-Concept, Mental Toughness and Emotional Stability were assessed with 100 statements in the questionnaire. Questionnaire was standardized on sports persons Individual games & team games.

Results

Table 1: Descriptive statistics of sports specific personality traits

	Target Games		Net/Wall Games		Striking/ Fielding Games		Invasion Games	
	Mean	S. D	Mean	S. D	Mean	S. D	Mean	S. D
Sociability	47.3	4.3	45.5	5.5	48.3	5.5	44.7	4.4
Dominance	43.4	3.9	41.3	5.6	41.1	5.2	40.2	4.3
Extroversion	39.5	3.3	37.9	4.9	38.5	4.1	36.1	4.3
Conventinality	41.1	3.7	38.6	4.6	39.7	4.5	36.2	4.4
Self Concept	42.6	3.9	40.9	4.9	42.3	4.7	39.3	3.6
Mental Toughness	42.8	3.4	40.2	4.6	44.7	5.3	43.0	5.8
Emotional Stability	43.7	4.1	44.1	4.4	42.5	4.9	42.5	4.2

Mean and standard deviation of all the seven factors were calculated and presented in table 1 above. Graphical Representation of all the seven factors is shown in figure 1.



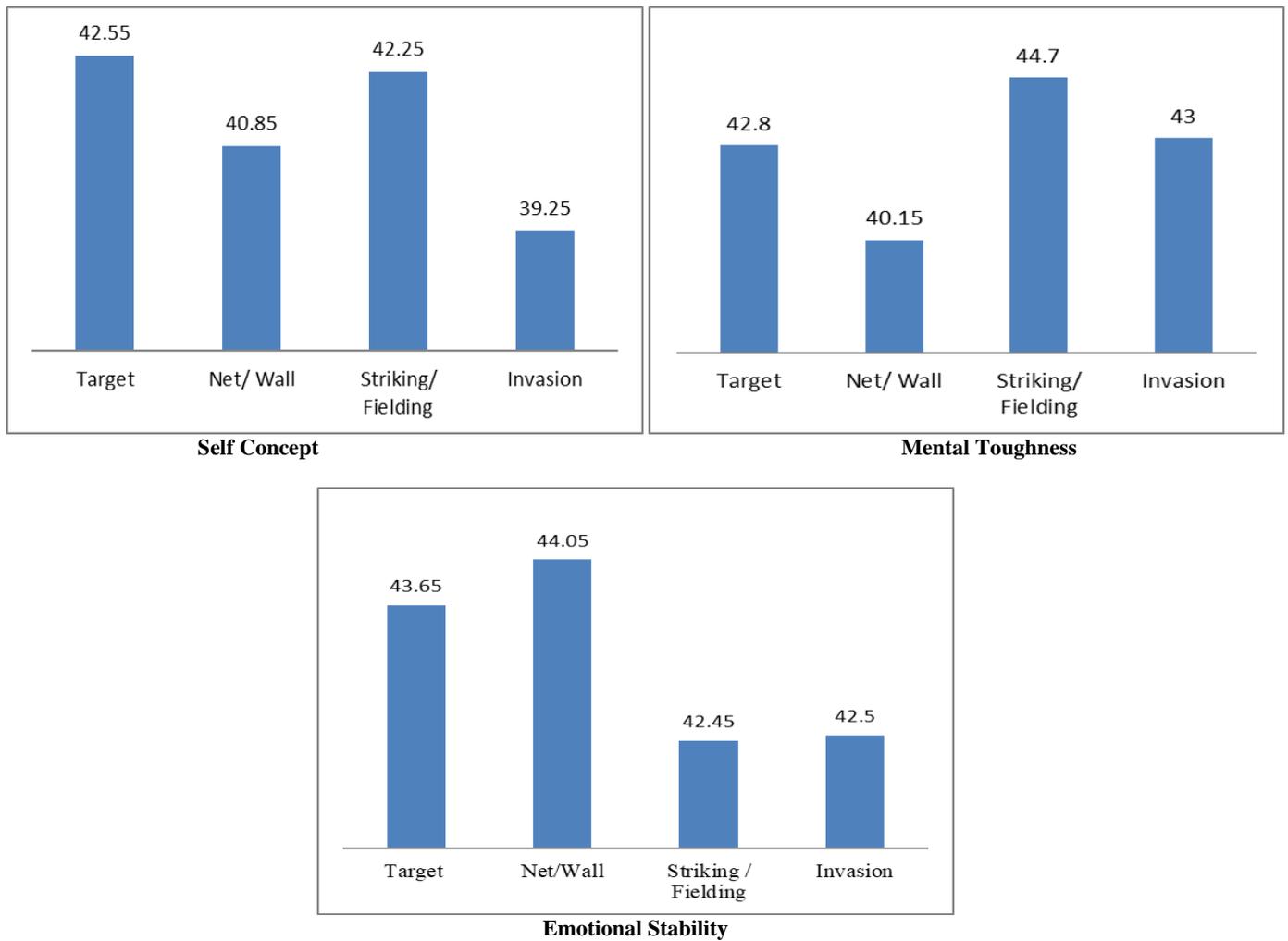


Fig 1: Graphical representation of sports specific personality traits

To identify the significance in difference among Invasion games, Target games, Net/Wall games and Striking/Fielding

games one way analysis of variance (ANOVA) was applied. Results are presented in table 2.

Table 2: One way ANOVA of sports specific personality traits

Variable		Sum of Squares	df	Mean Square	F	p-value
Sociability	Between Groups	156.85	3	52.28	2.11	0.11
	Within Groups	1886.7	76	24.83		
Dominance	Between Groups	107.05	3	35.68	1.56	0.21
	Within Groups	1738.9	76	22.88		
Extroversion	Between Groups	122.4	3	40.8	2.31	0.08
	Within Groups	1343.4	76	17.68		
Conventionality	Between Groups	2.61	3	87.02	4.72	0.005
	Within Groups	14.02	76	18.44		
Self-Concept	Between Groups	136.95	3	45.65	2.46	0.069
	Within Groups	1407	76	18.51		
Mental Toughness	Between Groups	211.9	3	70.65	2.99	0.036
	Within Groups	1793.95	76	23.61		
Emotional Stability	Between Groups	39.44	3	13.15	0.7	0.564
	Within Groups	1459.45	76	19.2		

No significant difference was found among sports groups in case of Sociability, Dominance, Extroversion, Self Concept and Emotional Stability. But significant difference was found at .05 level in case of Conventionality and Mental Toughness. This indicates that four categories of sports were different from each other in case of Conventionality and Mental

Toughness but was not different in case of other variables. Since, the analysis of variance for Conventionality and mental-toughness in Different sports groups was found significant, LSD post hoc test was conducted to compare means of groups for Conventionality and mental-toughness. The results of post hoc test are shown in table 3.

Table 3: Post hoc tests (LSD) of sports specific personality traits

	(I) Games	(J) Games	Mean Difference (I-J)	Std. Error	p-value
Conventionality	Target	Net/Wall	2.5	1.35	0.007
		Striking/Fielding	1.45	1.35	0.289
		Invasion	4.95*	1.35	0.000
	Net/ wall	Striking/Fielding	-1.05	1.35	0.442
		Invasion	2.45	1.35	0.075
		Striking/Fielding	3.50*	1.35	0.012
Mental Toughness	Target	Net/Wall	2.65	1.54	0.089
		Striking/Fielding	-1.9	1.54	0.22
		Invasion	-0.2	1.54	0.897
	Net/ wall	Striking/Fielding	-4.55*	1.54	0.004
		Invasion	-2.85	1.54	0.067
		Striking/Fielding	1.7	1.54	0.272

Above Table indicates that in case of Conventionality there is significant difference between Target games with Invasion games ($p=.000$) and Striking/Fielding games with Invasion games ($p=.012$). In Mental Toughness there is significant difference between Net/wall games with Striking/Fielding Games ($p=.004$).

Discussion

Sociability is a personality trait, it is the quality of liking to meet and spend time with other people. Kuravatti & Malipatil (2017) [7] compared personality traits of individual and group games. They found the difference was significant and group game sportsperson have possessed the high sociability personality traits comparing to their counterpart. In this study sociability level was not significant different among different categories of sports. The reason behind insignificant difference in this study may be due to small sample size.

Dominance is characterized by desire to influence and control ones environment and other people and is linked with ability for directing and controlling other people through subduing, persuading, seducing or commanding them. There was limited number of literature available in dominance. Dominance level of Target games was greater than Striking/ Fielding Games followed by Net/Wall Games and Invasion games. But significant difference was not found between different categories of sports.

Outgoing, sociable, friendly nature of an individual is attributed to Extroversion as a personality trait. One way ANOVA among the difference categories of sports show that there is no significant difference between different categories of sport in Extroversion.

Conventionality is the quality or characteristic of being practical, realistic, dependable and concerned. One way ANOVA found significant difference among the different categories of sports. LSD Post Hoc test revealed that Conventionality in Target games was significantly higher than Invasion Games ($p=0.000$). Similarly Invasion Games was significantly lower than Striking/Fielding games ($p=0.012$) in Conventionality.

Self concept is an understanding someone has of himself/ herself that's based on their personal experiences, body image. One way ANOVA was conducted to compare Self concept among the different categories of sports where no significant difference was found among different categories.

Mental toughness indicates that mentally tough athletes can take rough handling; they are not easily upset about losing, playing badly or being spoken to harshly, can accept strong criticism without being hurt. It was found that there was significant difference between Striking/ Fielding Games and Net/Wall Games. Mental toughness level of Striking/ Fielding Games was greater than Target games, Net/Wall Games, and Invasion Games.

Emotional stability is characterized by maturity, stability quite realism, and absence of neurotic fatigue, placidness, unaffectedness, optimism and self- discipline. One way

ANOVA found no significant difference in Emotional stability among difference categories of sports.

References

- Allen MS, Laborde S. The role of personality in sport and physical activity. *Current directions in psychological science*. 2014; 23(6):460-465.
- Barman P, Mridha S. A comparative study on achievement motivation of early teen students of two different category schools. *International Journal of Physical Education Sports Management and Yogic Sciences*. 2014; 4(3):4-6.
- Bowe Jr WG. A comparison of six personality factors between professional, college, and high school basketball players, 1994.
- Forrest G, Webb P, Pearson P. Teaching games for understanding; A model for pre service teachers. Paper presented at ICHPERSD International Conference for Health, Physical Education, Recreation, Sport and Dance, 1st Oceanic Congress Wellington, New Zealand, 2006
- Freixanet MG. Personality profile of subjects engaged in high physical risk sports. *Personality and individual differences*. 1991; 12(10):1087-1093.
- Kumar KS. Comparative study of sports specific personality and will to win among state, aiu and district basketball players of Punjab. *International research journal of physical education and sports sciences*. 2016; 11(11)
- Kuravatti KPB, Malipatil RP. A comparative study of personality traits between individual and group game. *International Journal of Physical Education, Sports and Health*, 2017; 4(1):13-15
- Neal Gari. Personality and Psychological Assessment in Athletes: A comparison of four varsity sports. *Education undergraduate theses*, 2003. 11. https://scholars.carroll.edu/education_theses/11
- Parveen G. A comparative study of personality traits of male sports person and non sports person at Manav Rachna University. *Review of research journal*. 2015; 4(5).
- Pill S. A review on the effect of small-sided and modified games in sport teaching and coaching: Informing TGfU Pedagogy. *Research quarterly for exercise and sport*. 2016; 87(s1):s80.
- Rhea DJ, Martin S. Personality trait differences of traditional sport athletes, bullriders, and other alternative sport athletes. *International Journal of Sports Science & Coaching*. 2010; 5(1):75-85.

12. Roberts SJ. Teaching games for understanding: The difficulties and challenges experienced by participation cricket coaches. *Physical Education and Sport Pedagogy*. 2011; 16(1):33-48.
13. Stoyanova S, Ivantchev N, Petrova K. Connectivity of athletes' personality traits and career period as their predictor. *Baltic Journal of Career Education and Management*. 2016; 4(1):41-50.
14. Vashishtha R, Saroha R, Vanaik AK, Uppal AK. Personality characteristics of elite male and female gymnasts. *International Journal of Physical Education, Sports and Health*. 2017; 4(6):26-28.