

A Comparative Study of Mental and Motor Ability between the Players of Individual Sports and Combative Sports

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Abstract

The aim of the study was to compare the selected mental and motor variables between the player of individual sports and combative sports players. For the purpose of the study, 120 participants (60 individual sports and 60 combative sports) of age 17-24 years were selected from practice group of department of physical education in Awadhesh Pratap Singh University, Rewa (M.P). The purposive sampling technique was used to attain the objectives of the study. Parameters examined in Ruler Drop test and Illinois Agility Test (A leading psychological and motor ability assessment tool was used for measuring reaction ability, Endurance, Agility, Speed, Explosive Strength, Arm Strength, Aggression, Emotional intelligence, and sports achievement Motivation of inter university Individual sports player and combative sports players. Independent sample 'T' test was applied as statistical technique.

The alpha level was set as 0.05. The statistical analysis of the result and comparison of the two groups showed a statistically significant difference in mean reaction time, sum correct and determination test as the t value found significant ($p < 0.05$). There were insignificant difference between mean motor time, mean time correct as the value found insignificant ($p > 0.05$). The result showed that the differences between those variables either because of specific physical exercises, specific training of technical or tactical ability of the inter-university individual and combative sports team who possess more desirable characteristics for selection in both team plays a significant role in the preparation of interuniversity individual sports and combative sports team.

KEYWORDS: Anxiety, Emotional intelligence, Aggression, Arm Strength, Explosive Strength, Ability, Speed, Endurance, Ruler Drop Test.

INTRODUCTION

Individual sports and combative sports which is very popular in the world. It brings with it many psychological challenges and demands that players must deal with to be successful. On the other hand it is a individual games like Athletics, Swimming, Badminton and Combative sports like Boxing, Judo and Wrestling. Physical and psychological preparation are important for top class performances but it is often what happens inside a player's mind that is the difference between success and failure.

significance and importance as a result various mental and motor ability components used in individual games and combative games like Athletics, Swimming, Badminton, Boxing, Judo and Wrestling, Mental ability (Motivation, Anxiety, Emotional intelligence, Aggression) motor ability (Agility, Balance, Speed, Explosive Strength, Endurance, reaction time) other psychological attributes. Therefore, the study was undertaken to compare the selected psychological variables between individual and combative participants in the games.

METHODOLOGY

120 male participants (60 individual sports and 60 combative sports) were purposively selected from Department of Physical Education in A.P.S.U., Rewa (M.P.), India. The age of the subjects was between 17 to 24 yrs. The subjects were approximately undergone through a similar kind of schedule off the ground in terms of diet, lifestyle, studies, daily activities like sleeping hours etc. All tests were administered on each player individually with the help of Ruler Drop test and psychological assessment tool. All the subjects were tested for following mental ability namely reaction time, Motivation, Anxiety, Emotional intelligence, Aggression and motor abilities, Agility, Balance, Speed, Explosive Strength, Endurance and Ruler Drop Test.

ADMINISTER OF TEST

Mental Ability Test: The Mental ability test is a leading psychological assessment tool. Mental ability ensures the highest possible level of objectivity and precision, including aspects that cannot be measured by traditional Ruler Drop tests. The scoring of test results is fast and accurate.

REACTION TIME:

Purpose: To measure the reaction time.

Test Form: S6: Choice reaction green/tone, green/red.

Testing Duration: 5 Minutes

Administration: The Response Panel was used as the input device. An animated instruction phase and an error-sensitive practice phase lead on to the task itself. The respondent was instructed to press the reaction key only when green/red and green/tone blows simultaneously by pressing the key, to return his finger immediately to the rest key.

50 YARD DASH:

Purpose: To measure the speed of players.

Test Form: S3: This is the clinical form.

Testing Duration: 1 Minutes

Administration: Will mark in the ground at the distance of 50 yard players have to wait for signal ready and start running as soon as signal go is called. The running time of all the players are taken on the stop watch and these speed is tested.

STATISTICAL TECHNIQUE : Independent sample 'T' test was applied as statistical technique. The alpha level was set as 0.05

RESULTS

The students 'T' test was employed by the researcher for the comparison of means of selected group's as depicted in Table 1.

	Group	N	Mean	Mean Difference	Sig.
Athle.	Indi.	10	490.60	-56.7000	.003
	Comb.	10	547.30		
Swim.	Indi.	10	152.90	-30.9000	.077
	Comb.	10	183.80		
Bad.	Indi.	10	118.30	-3.3000	.003

	Comb.	10	115.20		
Speed	Indi.	10	.7616	.08840	.115
	Comb.	10	.6732		
Endu.	Indi.	10	529.30	80.4000	.002
	Comb.	10	448.90		
RDT	Indi.	10	525.20	77.1000	.001
	Comb.	10	442.70		

***Significant at 0.05 level of significance; $t_{.05}(18) = 2.101$**

Above table reveals that there was a significant difference between individual and combative players in relation to reaction time, speed, endurance, rural drop test as calculated value was greater than tabulated value while insignificant in case of sub variable of reaction time and sustained attention as calculated value was lesser than that of tabulated value at .05 level of significant with 18 degree of freedom.

DISCUSSION AND CONCLUSION:

There were significant difference between individual and combative players in sub variables of reaction time, athletics, sub variable of sustained attention badminton and determination ability. This result might be because of regular training of individual university players to participate in the inter university tournament that's why their performance in reaction time, sustained attention and motor ability have been developed. Whereas there is no significant in Sub variable of reaction time, swimming and mental and motor ability because of low sample size and the level of the game. From given information come nearer to the ball is a difficult problem for the players, because of his reaction time. It takes about 600 ms for even an expert players to adjust his mental ability on the basis of novel visual information¹. Motor ability (a movement or series of moves of an element to a pre-set goal) and the reactive coordinative ability (ability to react effectively and quickly to any signal or action).

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