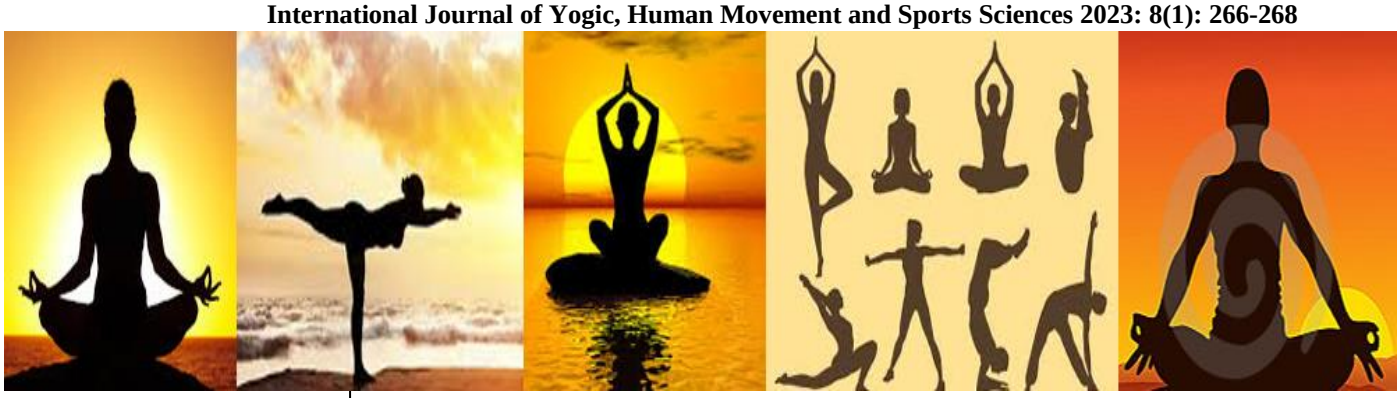
International Journal of Yogic, Human Movement and Sports Sciences 2023: 8(1): 266-268



ISSN: 2456-4419
Impact Factor: (RJIF): 5.18
Yoga 2023; 8(1): 266-268

www.theyogicjournal.com
Received: 05-02-2023
Accepted: 13-03-2023

Mohd Sameer Khan
Research Scholar,
School of Physical Education
D.A.V.V., Indore, Madhya Pradesh, India

Dr. Deepak Mehta
Professor,
School of Physical Education,
D.A.V.V., Indore, Madhya Pradesh, India

Corresponding Author:
Mohd Sameer Khan
Research Scholar,
School of Physical Education
D.A.V.V., Indore, Madhya Pradesh, India

Investigation of psychomotor abilities of different group of male cricket players of Madhya Pradesh

Mohd Sameer Khan and Dr. Deepak Mehta

Abstract
Introduction: Psychomotor ability is synonymous with neuromuscular ability and relates to one's general sports skill ability. It is ones present ability or status of neuromuscular components of motor performance. Objectives of the study: 1) First objective of the study was to characterize the group of psychomotor abilities of different group of male cricket players of Madhya Pradesh. 2) Second objective of the study was to compare the psychomotor abilities of different group of male cricket players of Madhya Pradesh.
Materials and Methods: To serve the purpose of the investigation 30 male cricketers were selected from the M.P.C.A. (Madhya Pradesh Cricket Association), Indore. Bowlers (30) of under-19 and above -19 cricket players who had participated at national level. Age group of players was 14-35 years in different categories.
Results: calculated t-value from kinesthetic perception (-2.89), speed of movement (0.25), and balance (-0.33) and finger dexterity (-0.33), was less than the tabulated t-value (2.048), so there was no significant difference between the mean scores of under-19 and above-19 groups of bowler and there was significant difference between the mean scores of under-19 and above - 19 groups of bowler, the calculated t- value from reaction time audio (4.96*) and reaction time video (5.16*), was more than the tabulated t-value (2.048), of psychomoter ability from selected bowler of MPCA (Madhya Pradesh Cricket association), Indore.
Conclusions: 1) The calculated t value of kinesthetic perception (-2.89), speed of movement (0.25), balance (-0.33) and finger dexterity (-0.33) is smaller than tabulated t value (2.048) because both groups performance similar to each other. 2) Reaction time audio and video calculated t value (4.96) and (5.16) is greater than tabulated t value (2.048) because above-19 bowler and under-19 bowler were better performance in reaction time audio and video.

Keywords: Psychology abilities, different group, male cricket and national level

Introduction

Psychomotor variables act as the medium for the realization of cognitive and affective domains of learning and motor behavior. All these domains of learning are inseparable identities and work in perfect harmony and unison with one another. The psychomotor variables are primarily concerned with muscular contraction. Performance of motor skills involves neural, physiological and psychological aspects and is a range that runs the extent from physical to cognitive and there is always integration between these aspects of human behavior. Psychomotor fitness of an individual is a perfect combination of physical as well as motor fitness and goes a long way in fielding the excellent outcomes. The nations exhibiting excellence in the international sports do attach great significance to the total fitness level of their players. Different sports activities call for different levels of fitness. The level of fitness varies depending upon the level of competition as well. Psychomotor ability is the relationship between cognitive functions and physical movement. Psychomotor learning is demonstrated by physical skills such as movement, coordination, manipulation, motor skill, grace, strength, speed; actions which demonstrate the fine motor skills such as use of accurate instruments or tools, or actions which evidence gross motor skills such as the use of the body in dance, musical or athletic performance. Psychomotor components have very important association with long jump performance. The important components like reaction time, speed of movement, kinaesthetic perception, depth perception etc. has a vital role in achieving high level of performance in long jump.

The player having such qualities like reaction time, speed of movement and kinaesthetic perception can help the athlete in better performance or in performance enhancement [8].

Cricket requires a variety of skills that are commonly used in a number of sports. Hand-eye coordination, throwing or catching a ball, balance and intense, long-term concentration are just a few. Through consistent practice and by applying these skills to the elements of cricket, such as a batsman watching the ball at all times, you will see a dramatic improvement in your game. Cricket is a bat-and-ball game played between two teams of eleven players on a field at the center of which is a 20-metre (22-yard) pitch with a wicket at each end, each comprising two bails balanced on three stumps. The batting side scores runs by striking the ball bowled at the wicket with the bat, while the bowling and fielding side tries to prevent this and dismiss each player (so they are "out").Means of dismissal include being bowled, when the ball hits the stumps and dislodges the bails, and by the fielding side catching the ball after it is hit by the bat, but before it hits the ground. When ten players have been dismissed, the innings ends and the teams swap roles. The game is adjudicated by two umpires, aided by a third umpire and match referee in international matches. They communicate with two off-field scorers who record the match's statistical information [9].

Objectives of the study

1. First objective of the study was to characterize the group of Psychomotor Abilities of Different Group of Male Cricket Players of Madhya Pradesh.
2. Second objective of the study was to compare the Psychomotor Abilities of Different Group of Male Cricket Players of Madhya Pradesh.

Methodology

To serve the purpose of the investigation 30 male cricketers were selected from the M.P.C.A. (Madhya Pradesh Cricket Association), Indore. Bowlers (30) of U-19 and above -19 cricket players who had participated at national level. Age group of players was 14-35 years in different categories. Essential instructions would be given to the subjects before the administration of the tests of selected Psychomotor abilities. For the purpose and as the suitably of the game, following variables are selected for the study. Psychomotor Abilities; Kinesthetic Perception, Reaction Time, Speed of Movement, Balance, Finger Dexterity. Essential instructions was given to the subjects before the administration of the tests of selected Psychomotor abilities.

The necessary data would be collected by administering the test for chosen variables. The entire test would be administered in Madhya Pradesh Cricket Association (M.P.C.A.), Indore under the supervision of expert.

Criterion Measures

Table 1: Variables, Tools used and Criterion Measures Psychomotor Abilities

S. No.	Variables	Tools Used	Criterion Measures (Nearest to)
1	Kinesthetic Perception	Horizontal Space Test	Centimeter
2	Reaction Time	Electronic Cronoscope Test	Nearest 1/100th seconds
3	Speed of Movement	Nelson Speed of Movement Test	Millisecond
4	Balance	Modified Bass Test of Dynamic Balance test	Point
5	Finger Dexterity	O'Connor Finger Dexterity Test	Point

Results, Discussion and Conclusions

The analysis and collected of the data for this study the purpose of the investigation 30 male cricketers was elected from the M.P.C.A. (Madhya Pradesh Cricket Association), Indore. Bowlers (30) of U-19 and above-19 cricket players who had participated at national level. Age group of players was 14-35 years in different categories. To characterize and compare of psychomotor abilities of different group under-19 and above-19 bowler, cricket players of Madhya Pradesh. Descriptive and t-test was used. Data pertaining to that have been presented in table-2.

Table 2: Independent - t test table Mean, Standard Deviation, Calculated -t and Tabulated -t Value of Psychomotor Abilities from the Different Groups of Under-19 and Above-19 Bowler Cricketers Was Selected from the MPCA (Madhya Pradesh Cricket Association), Indore.

S. N.	Variables	Groups	Mean	S D	Cal.-t	Tab. -t	M D
1	Kinesthetic Perception	U-19	26.8	3.12	-2.89	2.048	0.14
		AB-19	26.6	2.75			0.20
2	Reaction Time Audio	U-19	2.0	0.51	4.96*	2.048	0.20
		AB-19	2.5	0.45			-0.51
3	Reaction Time Vedio	U-19	2.7	0.41	5.16*	2.048	-0.51
		AB-19	2.1	0.22			0.60
4	Speed of Movement	U-19	131.4	4.69	0.25	2.048	0.60
		AB-19	122.4	4.91			9.05
5	Balance	U-19	96.1	3.94	-0.33	2.048	9.05
		AB-19	95.7	4.88			0.40
6	Finger Dexterity	U-19	1.7	0.28	-0.33	2.048	0.40
		AB-19	1.7	0.32			-0.04

*Significant at 0.05 level of confidence (2, 28) = 2.048

Table 2-Reveal that the calculated t-value from Kinesthetic Perception (-2.89), Speed of Movement (0.25), and Balance (-0.33) and Finger Dexterity (-0.33), was less than the tabulated t-value (2.048), so there was no significant difference between the mean scores of Under-19 and Above-19 groups of Bowler and there was significant difference between the mean scores of Under-19 and Above - 19 groups of Bowler, the calculated t- value from Reaction Time Audio (4.96*) and Reaction Time Video (5.16*), was more than the tabulated t-value (2.048), of Psychomoter Ability from selected Bowler of MPCA (Madhya Pradesh Cricket association), Indore.

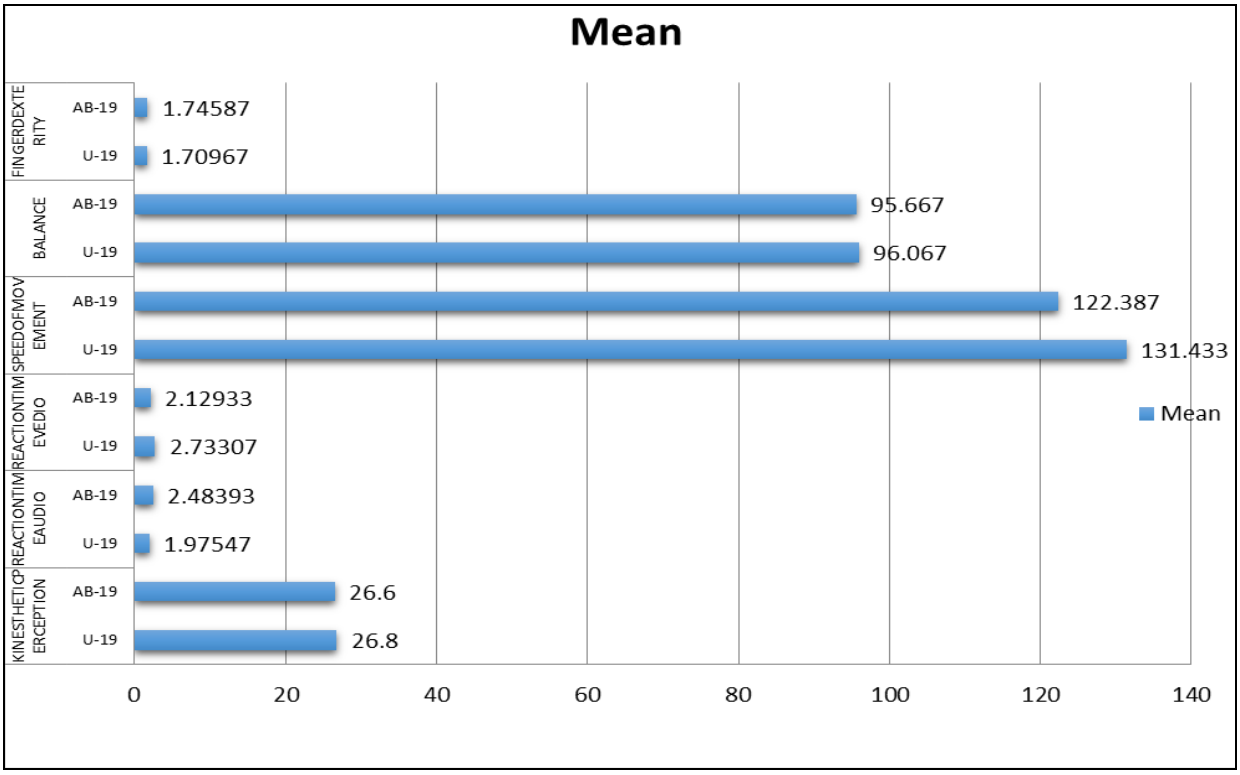


Fig 1: Means Score of Psychomotor Abilities from the Different Groups of Under-19 and Above-19 Bowler Cricketers from MPCA (Madhya Pradesh Cricket Association), Indore.

Discussion of Findings

There was significant difference between reaction time audio and video of under-19 and above-19 group of bowler. There was no significant difference found in kinesthetic perception, speed of movement, balance and finger dexterity of under-19 and above-19group of bowler.

Conclusion

1. The calculated t value of kinesthetic perception (-2.89), speed of movement (0.25), balance (-0.33) and finger dexterity (-0.33) is smaller than tabulated t value (2.048) because both groups performance similar to each other.
2. Reaction time audio and video calculated t value (4.96) and (5.16) is greater than tabulated t value (2.048) because above-19 bowler and under-19 bowler were better performance in reaction time audio and video.

References

1. Johnson Barry L, Nelson Jack K. Practical Measurement for Evaluation in Physical Education (Delhi; Surjeet Publication); c1988.
2. Kalber Lother. Introduction to General Theory and Methods of Training (Leipzing; DHER Publication); c1989.
3. Kansal Devinder K. A Practical approach to Test Measurement and Evaluation. (New Delhi; SSS Publication); c2012.
4. Singh A. Sports Psychology: A Study of Indian Sportsmen (New Delhi: Friends Publication); c1992.
5. Sodhi HS. Sports Anthropometry a Kinanthropometric Approach (Mohali; ANOVA Publication); c1991.
6. Verma JP. A Text Book on sports statistics, Venus publication. Gwalior (M.P.) India; c2000.
7. https://en.wikipedia.org/wiki/Cricket.
8. Lother Kalber. Introduction to General Theory and Methods of Training. (Leipzing; DHER Publication); c1989.
9. https://en.wikipedia.org/wiki/Cricket.