E-ISSN:2319-3050

Research Article

Sports Science

International Journal of Research Pedagogy and Technology in Education and Movement Sciences

2025 Volume 14 Number 02 APR-JUN

Publisher

www.theuniversityacademics.com

Comparative Study Of Selected Psychomotor Variables Between Different Levels Of Female Cricket Players

Sikhwal A[1*†]

DOI:https://doi.org/10.55968/ijems.v14i02.512

[1*†] Ashwini Sikhwal, Mped Student, Department of Physical Education, Pacific University, Udaipur, Rajasthan, India.

The purpose of this study was to compare selected psychomotor variables between different levels of female cricket players. Fifty female cricket players(25 inter university level +25 inter college level) were selected for this study. The age of the subjects was ranged between 18 to 25 years. Psychomotor variables:speed andagility were selected for this study. With regard to the purpose of this study,descriptive statistics andindependent t-test was applied to find out mean differences. The level of significance was set at 0.05. The results showed that there were significant differences for psychomotor variables: speed and agility between inter university level and inter college level femalecricket players.

Keywords: Cricket, Psychomotor Variables, Speed, Agility,

Corresponding Author

Ashwini Sikhwal, Mped Student, Department of Physical Education, Pacific University, Udaipur, Rajasthan, India.

Email: ashwinisikhwal@gmail.com

How to Cite this Article

Sikhwal A. Comparative Study Of Selected Psychomotor Variables Between Different Levels Of Female Cricket Players. ijems. 2025;14(02):26-31. Available From https://ijems.net/index.php/ijem/article/view/512/

To Browse

Manuscript Received	Review Round 1	Review Round 2	Review Round 3	Accepted
2025-02-14	2025-02-18	2025-03-03	2025-03-16	2025-03-29

Conflict of Interest	Funding	Ethical Approval	Plagiarism X-checker	Note
Authors state no conflict of interest.	Non Funded.	The conducted research is not related to either human or animals use.		All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Introduction

Exploring the possibilities of psychomotor abilities, the mystery of body and mind has long occupied researchers within fields such as phenomenology, psychology and cognitive science. The traditional psychological approach is that the relationship is dualistic. The faculty of reason is separate from and independent of what we do with our bodies. This means that reason must be independent of perception and bodily movements. Intelligence is here seen as the ability to think abstractly, combine and solve mental problems. The theory was put forth as a way of distinguishing humans from animals, before the emergence of the evolutionary theory, which showed that human capacities grow out of animal capacities.

Today it is becoming a well-known and generally accepted thesis that human beings perceive, learn and experience through bodily movement. George Lakoff and Mark Johnson states in the Philosophy, In the Flesh that "Our sense of what is real begins with and depends crucially upon our bodies, especially our sensorimotor apparatus, which enables us to perceive, move and manipulate". In that way our bodies are the foundation for the way we experience and interact with our surroundings. The theory of motor coordination is the basis for understanding the motor of coordination abilities. Motor coordination is part and parcel of actions regulation. Coordinative abilities or psychomotor abilities have also important and strong links with the motor skills as the motor coordination focus the basis of both. These abilities enable the sportsperson to do a group or set of movement with better quality and effect.

Cricket is defined as "a bat and a ball, a team game played during the summer in the British Isles and in several countries influenced by the British, such as Australia, New Zealand, India, Pakistan, South Africa and the nations of India. Western ". Cricket is played between two teams of 11 players in a field of grass, in the middle of which there are two windows. Cricket is the most popular sport in India; It is played by many people in open spaces throughout the country, although it is not the official national sport of the nation. Cricket requires a variety of skills that are commonly used in various sports (Mishra, 2015).

AIM OF THE STUDY

The aim of this study was to compare selected psychomotor characteristics among different levels of female cricket players.

METHODOLOGY

SELECTION OF SUBJECTS

The purpose of this study was to compare selected psychomotor variables between different levels of female cricket players and to fulfil the purpose of this study, total fifty (N=50) female cricket players (25 inter-university level + 25 inter-college level) were selected with random sampling technique from universities and colleges in Punjab (India). The age group of the subjects were ranging from 18-25 years.

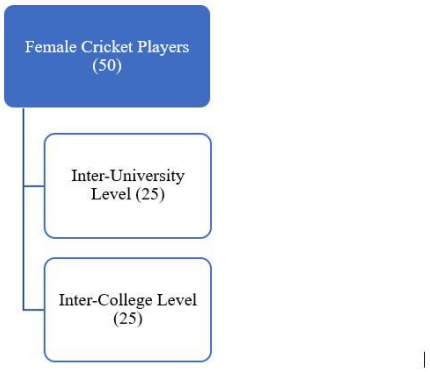

FIGURE NO. 1

DESCRIPTION OF SUBJECTS

SELECTION OF VARIABLES

The research scholar reviewed the available scientific literature pertaining to the problem from books, journals, periodicals, e-resources, unpublished thesis and dissertation. Keeping in mind the opinion of the experts, availability of equipment, acceptability of the subjects and the time to be derived the following variables were selected:

01. Speed

02. Agility

The selected variables were tested by using the following standardized tests and they are presented in Table no. I.

TABLE NO. I

CRITERION MEASURES

S. No.	Variable	Equipment	Unit
1.	Speed	50 Yard Dash	Second
2.	Agility	Shuttle Run	Second

COLLECTION OF DATA

The investigator explained the purpose of the study to the subjects and their part in the study. For the collection of the data, the investigator explained the procedure of testing for selected variables and gave instructions about the procedure to be adopted by them. The consent was taken from subjects before data collection.

STATISTICAL TECHNIQUE

Descriptive statistics i.e., mean and standard deviation were calculated. As per objective of the study, independent 't-test' was applied to find out the difference between inter-university and inter-college level female cricket players. All tests were employed with the help of SPSS-software version 23. Level of significance was set at 0.05.

RESULTS AND FINDINGS

Different types of descriptive statistic such as mean and standard deviation was computed to describe each variable statistically. Its results have been depicted in the following tables:

TABLE NO. II

DESCRIPTIVE STATISTICS AND T-VALUE FOR SPEED VARIABLE

Group	Mean	SD	t-value
Inter-University Cricket Players	7.05	0.15	-2.516
Inter-College Cricket Players	7.56	0.14	

Tabulated value at DF 48 = 2.021 *significant at 0.05 level

Table-II shows the mean and standard deviation values with regard to Inter-University level female cricket players is 7.05 ± 0.15 whereas in the case of inter-college level female cricket players is 7.56 ± 0.14 respectively. The calculated value of 't' (-2.516) which is more than the tabulated value of 't' (2.021) at .05 level. So, it demonstrates that there is significant difference for speed variable between inter-university and inter-college level female cricket players.

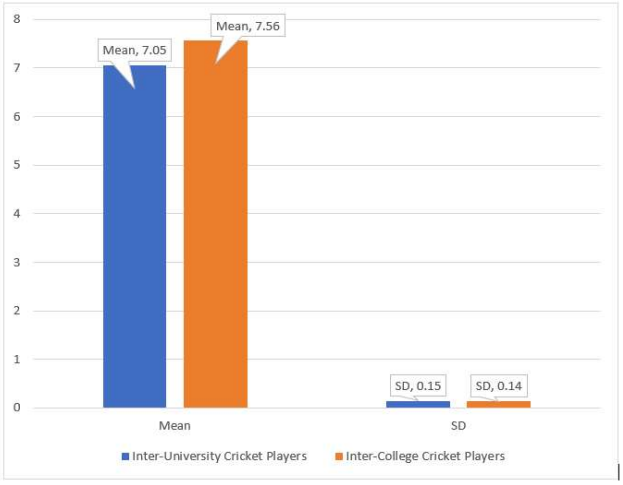

FIGURE-II GRAPHICAL REPRESNTATION OF DESCRIPTIVE STATISTICS FOR SPEED VARIABLE

TABLE NO. III

DESCRIPTIVE STATISTICS AND T-VALUE FOR AGILITY VARIABLE

Group	Mean	SD	t-value
Inter-University Cricket Players	15.94	0.77	-2.537
Inter-College Cricket Players	16.71	1.29	

Tabulated value at DF 48 = 2.021 *significant at 0.05 level

Table-III shows the mean and standard deviation values with regard to inter-university level female cricket players is 15.94 ± 0.77 whereas in the case of inter-college level female cricket players is 16.71 ± 1.29 respectively. The calculated value of 't' (-2.537) which is more than the tabulated value of 't' (2.021) at .05 level. So, it demonstrates that there is significant difference for agility variable between inter-university and inter-college level female cricket players.

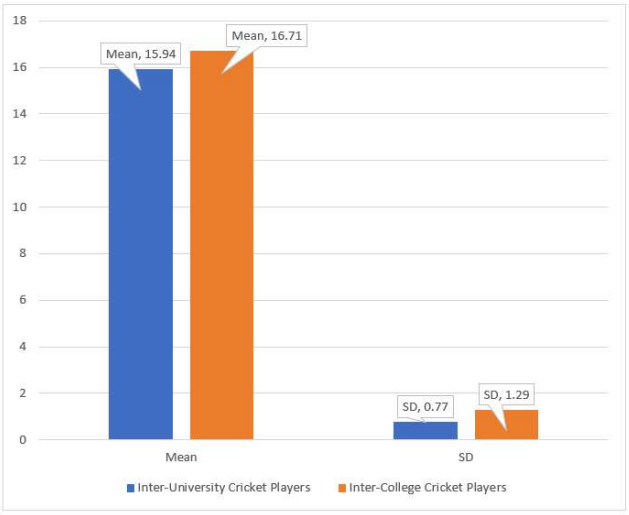

FIGURE-III GRAPHICAL REPRESNTATION OF DESCRIPTIVE STATISTICS FOR AGILITY VARIABLE

DISCUSSION

The results of the study showed that there were significant differences found between university level and college level female cricket players in their Speed. The results are supported by previous study conducted by Madhu and Siva (2014) on speed and agility among college players of various games. There was noteworthy distinction between football, Cricket and volleyball players in speed and agility factors.

The results of the study showed that there were significant differences found between university level and college level female cricket players in their Agility. The results are supported by previous study conducted by Madhu and Siva (2014) on speed and agility among college players of various games. There was noteworthy distinction between football, Cricket and volleyball players in speed and agility factors.

CONCLUSION

This study concludes that there exist significant differences between inter-university and inter-college level female cricket players for their selected psychomotor variables: speed and agility.

References

Akram and Venkatesh (2013) Relationship between Psychomotor Variables and Performance in Elite Female Cricket Players. European academic research, vol. 1, Issue 9/ p 2575-2585. . *[Crossref] [Google Scholar]*

Altinkök, M. (2016). The Effects of Coordination and Movement Education on Pre School Children's Basic Motor Skills Improvement. Universal Journal of Educational Research, 4(5), 1050-1058. *[Crossref] [Google Scholar]*

Annarino, Anthony A. (1977), Physical Education Objectives: Traditional vs. Developmental. JOPER p. *22 [Crossref][Google Scholar]*

Barnes, M. & Attaway, J. (1996). Agility and conditioning of the San Francisco 49ers. *Strength and Conditioning, 18(4), 10 – 16 [Crossref][Google Scholar]*

Biswaji and Kavita (2014) rhythmic ability of Cricket players at outstanding level of performance. Asian journal of multidisciplinary studies, volume 2,pp 34-36. . . *Strength and Conditioning, 18(4), 10 – 16 [Crossref][Google Scholar] [Crossref][Google Scholar]*

Borysiuk, Z. , & Sadowski, J. (2007). Time and Spatial Aspects of Movement Anticipation. *Biology of Sport, 24(3), 285-295 [Crossref][Google Scholar]*

Chelly, M. S. , and Elt (2011). Match analysis of elite adolescent team Cricket players. *Journal of Strength and Conditioning Research. 25(9), 2410-17 [Crossref][Google Scholar]*

Chetna Chaudhary (2014) study of psychomotor variables of basketball players at different levels of competitions. international journal of research pedagogy and technology in education and movement sciences (ijems), volume: 2, issue: 04, p70-. . Match analysis of elite adolescent team Cricket players. *Journal of Strength and Conditioning Research. 25(9), 2410-17 [Crossref] [Google Scholar] [Crossref][Google Scholar]*

Cioni, G. , &Sgandurra, G. (2013). Normal psychomotor development. *Handbook Of Clinical Neurology,3-15 [Crossref][Google Scholar]*

CogniFit. (2017). Hand-eye Coordination - Cognitive Skill. Retrieved 28 September 2017, from https://www. *cognifit.com/science/cognitive-skills/eye-hand-coordination [Crossref][Google Scholar]*

Deepak (2012) comparison of differentiation ability and rhythm ability of basketball and Cricket players. International journal of health, physical education and computer science in sports. volume no. 7, no. *1,pp 175-177 [Crossref][Google Scholar]*

Dr. Sandip and Sankar Ghosh (2014) A Study on Agility and Dynamic Balance of Kho-Kho Cricket and Basketball Players. International journal of scientific research Volume: 2, Page No. 442-444. *[Crossref] [Google Scholar]*

Evridiki and Kostas (2001) The Role of Rhythmic Ability on the Forehand Performance in Tennis European Journal of Physical education vol: 6 p. 117-126. . . *[Crossref][Google Scholar] [Crossref] [Google Scholar]*

Felshin, J. (1972). More than Movement,an Introduction to Physical Education, (Philadelphia Lea and Febiger), p. 37. *[Crossref][Google Scholar]*

Franken, R. E. (1998). Human Motivation. *Brooks/Cole Publishing Company, 511, Forest Lodge Road, Pcific Grove, CA 93950, USA [Crossref] [Google Scholar]*

Haywood, K. (1993). Life Span Motor Development (2nd edition). Human Kinetics: Champaign, IL. *[Article][Crossref][Google Scholar]*

Hughes, Bhundell, and Waken (1993), Visual and psychomotor performance of elite, intermediate and novice table tennis competitors. Clinical and Experimental Optometry, 76: 51–60. . . *[Article] [Crossref][Google Scholar] [Crossref][Google Scholar]*

Jaspal Singh (2014) Orientation Ability among Ball Game Players: A Comparative Analysis. Research Journal of Physical Education Sciences, Vol. 2, page No. 9-11. *[Crossref][Google Scholar]*

Kandel, Eric R. , Scwartz James H. , Jessel Thomas M. (2000). *Principles of Neural Science 4th Edition. McGraw-Hill. New York [Crossref][Google Scholar]*

Kapil (2016) a comparative study of balance, coordination and reaction ability of Cricket and basketball players. An international refereed research journal, volume:1, pp 1-3. . . *Principles of Neural Science 4th Edition. McGraw-Hill. New York [Crossref][Google Scholar] [Crossref][Google Scholar]*

Kuldeep and Mange (2013) Relationship between Playing Ability of Cricket Players and Motor Fitness Components. Global research analysis vol:2 p. 144-146. . *[Crossref][Google Scholar]*

Kumar, P. , Rao, S. , & Rao, B. (2015). *A comparative study of reaction time, dynamic balance and coordination among the players of hockey, volleyball, football and cricket players. International Journal of Physical Education, 8(1), 1-7. [Article][Crossref][Google Scholar]*

Madhu and Siva (2014) comparative analysis of speed and agility among university players of different disciplines. International journal of engineering Research and sports science, volume. 1, pp. 1-3. *[Crossref][Google Scholar]*

Mechling, H. H. (1999). Co-ordinative abilities. *In Y. Vanden Auweele, F Bakker,s. Biddle, M. Durand, Seiler R. (Fds.), Psychology For Physical Educators. Champaign, IL: Human Kinetics. 159-186 [Crossref] [Google Scholar]*

Muneer Ahmad Ganie (2016) A comparative study on selected psycho- motor parameters of players of certain sports. International Journal of Physical Education, Sports and Health, Volume 3, Page No: 274-276. . . *In Y. Vanden Auweele, F Bakker,s. Biddle, M. Durand, Seiler R. (Fds.), Psychology For Physical Educators. Champaign, IL: Human Kinetics. 159-186 [Crossref][Google Scholar] [Crossref] [Google Scholar]*

Pori, P. , Boni M. , Sibila, M. (2005). *Jump shot performance in team Cricket: A kinematic model evaluated on the basis of expert modelling. Kinesiology. 37(1), 40-49 [Crossref][Google Scholar]*

Rakesh and Rajeev(2016)Balance ability possessed by Cricket players pertaining to different playing positions. International journal of applied research. Volume No. 2(4),pp. *481-483 [Crossref][Google Scholar]*

Sanjiv (2014) comparative study of psychomotor abilities of athletes in relation to sex and area, Innovative thoughts international research journal vol (2) p. 26-30. . . *481-483 [Crossref][Google Scholar] [Crossref][Google Scholar]*

Sanjiv dutta and Agyajitsingh (2013)A comparative study of psychomotor abilities of school and university level athletes, International journal of behavioral social and movement sciences 2 : 4 p 94-97. . . . *481-483 [Crossref][Google Scholar] [Crossref][Google Scholar] [Crossref][Google Scholar]*

Shapie, M. , &Rohizam, R. (2018). A Case Study: The Effects of Speed, Agility and Quickness (SAQ) Training Program on Hand-Eye Coordination and Dynamic Balance among Children. *Journal of Physical Fitness, Medicine & Treatment In Sports, 2(4), 1-6. doi: 10.19080/jpfmts.2018.02.555591 [Crossref][Google Scholar]*

SHARMA, N. P. , & SINGH, M. (2014). *SENIOR AGE GROUP RELATIVE EXERCISES AND IMPACT ON THEIR LIFESTYLE. International Journal of Behavioral Social and Movement Sciences, 3(04), 78–82. Retrieved from [Article][Crossref][Google Scholar]*

Singh and Sandhu (2013), A Comparative Study on selected psychomotor abilities between male baseball pitcher and cricket fast bowler. International Journal of Physical Education, Fitness & Sports;2013, Vol. 2 Issue 4, p8. . *[Crossref] [Google Scholar]*

Singh, M. , Kour, R. , & Kour, A. ,. *A collaborative diversified investigation of respective responses of sports person coaches and organizations on criminalization of doping.International Journal of Health Sciences,6(S3), 11295–11310. [Article] [Crossref][Google Scholar]*

Singh, A. , & Singh , D. M. (2013). *PROMOTION OF RESEARCH CULTURE –ENHANCING QUALITY IN HIGHER EDUCATION. International Journal of Behavioral Social and Movement Sciences, 2(2), 202–208. Retrieved from [Article][Crossref][Google Scholar]*

SINGH, M. , & SINGH SIDHU, A. (2016). A COMPARATIVE STUDY OF BODY COMPOSITION AND RELATIVE HEALTH STATUS AMONG RESIDENT AND NON-RESIDENT STUDENTS IN DIFFERENT SCHOOLS OF J&K. *International Journal of Behavioral Social and Movement Sciences, 5(3), 08–13. Retrieved from [Article][Crossref][Google Scholar]*

Singh Nathial, D. M. (2012). ANALYZING THE CREDIT BASED SYSTEM IN PHYSICAL EDUCATION. *International Journal of Behavioral Social and Movement Sciences, 1(3), 172–176. Retrieved from [Article][Crossref][Google Scholar]*

Varalakshmy, Amuldoss and Premkumar (2013) Correlation Study of Psychomotor Profile and Sports Performance of University Volleyball, Basketball and Cricket Women Players in Tamilnadu. paripex - indian journal of research, volume:2, issue:3, p:301-302. . . *International Journal of Behavioral Social and Movement Sciences, 1(3), 172–176. Retrieved from [Article][Crossref][Google Scholar] [Crossref][Google Scholar]*