International Journal of Yoga, Physiotherapy and Physical Education
www.sportsjournal.in
ISSN: 2456-5067
Received: 29-06-2025, Accepted: 30-07-2025, Published: 14-08-2025
Volume 10, Issue 3, 2025, Page No. 33-34

A prospective measured study of agility of university and school badminton players

Bipin Yadav[1], Mahesh Yadav[2]
[1] Research Scholar, Department of Physical Education, M.G.P.G. College, Gorakhpur, Uttar Pradesh, India
[2] HOD, Department of Physical Education, M.G.P.G. College, Gorakhpur, Uttar Pradesh, India

Abstract
The purpose of this investigation was to determine the difference of Agility between University and Schools badminton players. For the purpose of the present study, forty (N=40) subjects between the age group of 16-25 years were selected. The subjects were purposively assigned into two groups: Group-A: university players (N1=20) and Group-B: school players (N2=20). All the subjects were informed about the objective and protocol of the study. This is an exploratory study that has employed method of data collection and analysis quantitatively. The purpose of the study was to find out the difference of Physical, Physiological and Anthropometric Characteristics of university and school players. The purposive sampling technique was used to attain the objectives of the study. The Statistical Package for the Social Sciences (SPSS) version 17.0 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by t-test. In all the analyses, the 5% critical level (p.05). But while comparing the mean values of both the groups, it has been observed that university players have demonstrated better Agility than the school players.

Keywords: Indian Badminton players, Agility, University and School

Introduction

In modern times, there has been increasing recognition of the role of Sports in Development. The International Charter of Physical Education and Sport, UNESCO, 1978 states that "Every human being has a fundamental right of access to physical education and sport, which are essential for the full development of his personality. The freedom to develop physical, intellectual and moral powers through physical education and sport must be guaranteed both within the educational system and in other aspects of social life." Badminton is a game played throughout the world. The history of the sports game seems to be more interesting and the participation of people get increased day by day. It is a pre-historic game which founds its origin in ancient England. Generally, badminton is played by two numbers of players where people play by racquet, knocks shuttle on proper techniques. Few studies have been reported in the literature about the cardiovascular and metabolic demands of badminton (Khanna et al., 1992, 1995 Ghosh et al., 1995) [2, 3, 4]. Previous studies on Indian badminton concentrated mainly on body composition, muscle strength, aerobic capacity, and anaerobic power of Indian Badminton (Ghosh et al., 1995; Khanna et al 1992, 1995; Singh et al., 2003) [2, 3, 4]. Few investigations into the biochemical parameters of Indian badminton (Garg et al 1985) [1] have been conducted.

Procedure and Methodology

Selection of Subjects

For the purpose of the present study, Fourty (N=40) subjects between the age group of 16-25 years were selected. The subjects were purposively assigned into two groups: Group-A: University players (N1=20) and Group-B: School players (N2=20). All the subjects were informed about the objective and protocol of the study.

Selection of Variables

The subsequent variable was selected for the present study: Agility Administration of Test Agility (Illinois Agility Test)

Purpose: To test running agility.

Equipment required: Flat non-slip surface, marking cones, stopwatch, measuring tape, timing gates (optional)

Procedure: The length of the course is 10 meters and the width (distance between the start and finish points) is 5 meters. Four cones are used to mark the start, finish and the two turning points. Another four cones are placed down the center an equal distance apart. Each cone in the center is spaced 3.3 meters apart. Subjects should lie on their front (head to the start line) and hands by their shoulders. On the 'Go' command the stopwatch is started, and the athlete gets up as quickly as possible and runs around the course in the direction indicated, without knocking the cones over, to the finish line, at which the timing is stopped.

Scoring: Two or more trails may be performed, and the quickest time is recorded.

Design of the Study

This is an exploratory study that has employed method of data collection and analysis quantitatively. The purpose of the study was to find out the difference of Physical, Physiological and Anthropometric Characteristics of University and School players. The purposive sampling technique was used to attain the objectives of the study.

Statistical Technique Employed

The Statistical Package for the Social Sciences (SPSS) version 17.0 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by t-test.

Table 1: Mean Values (±SD), Standard Error of the Mean and Test Statistic t of Agility in University (N = 20) and School (N = 20).

	University Players	School Players
Sample size	20	20
Arithmetic mean	7.08	7.00
95% CI for the mean	6.99 to 7.14	6.96 to 7.04
variance	0.13	0.032
Standard deviation	0.37	0.18
Standard error of the mean	0.041	0.02
difference		0.07

Standard error	0.04
95% CI of difference	7.14 to 7.04
Test statistic t	1.072
Degrees of freedom	79
Two tailed probability	P>0.07

*Significant at 0.05 level

Table-1 presents the results of university and school players with regard to the variable Agility. The descriptive statistics shows the Mean and SD values of university players on the sub-variable Agility as 7.08 and 0.37 respectively. However, school players had Mean and SD values as 7.00 and 0.18 respectively. The Mean Difference and Standard Error Difference of Mean were 0.041 and 0.02 respectively. The 't'-value 1.712 as shown in the table above was found statistically insignificant (P>.05). But while comparing the mean values of both the groups, it has been observed that university players have demonstrated better Agility than the school players. The comparison of mean scores of both the groups has been presented graphically in figure-1.

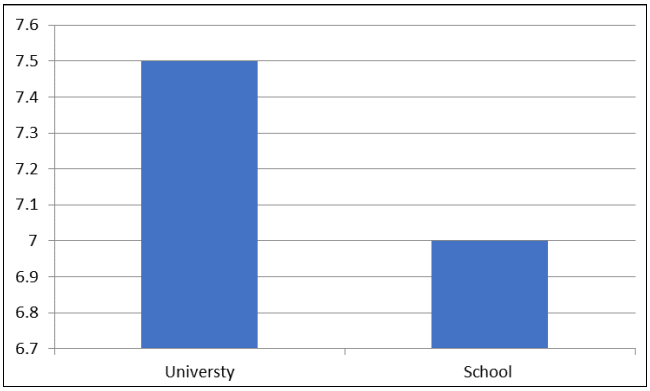

Fig 1: Graphical representation of mean scores University players (N = 20) and School players (N = 20) with regard to Physical Fitness Components on the sub-variable Agility.

Conclusion

The Mean and SD values of University players on the sub-variable Agility as 7.08 and 0.37 respectively. However, School players had Mean and SD values as 7.00 and 0.18 respectively. The Mean Difference and Standard Error Difference of Mean were 0.41 and 0.02 respectively. The 't'-value 1.072 as shown in the table above was found statistically insignificant (P>.05). But while comparing the mean values of both the groups, it has been observed that University players have demonstrated better Agility than School players.

References

1. Garg S, Khanna GL, Ghosh AK. Relationship between uric acid and maximum aerobic power in Indian National Boxers. Snipes Journal,1985:8:55-61.
2. Khanna GL, Dey SK, Batra M, Saha M. Applied physiology of sports; Indian National Sports persons. Pb Sports Authority of India Netaji Subhas Southern Centre; Bangalore India 13.9 14.0 14.1 14.2 Punjab Boxers Haryana Boxers Scientific Culture in Physical Education Sports, 1992.
3. Khanna GL, Majumdar P, Saha M. A comparative study of physiological profile of Indian Cuban Boxers. Journal of Physical Education and Sports Science,1995:94:13-21
4. Ghosh AK, Goswami A, Ahuja A. Heart rate blood lactate response in amateur competitive boxing. Indian Journal of Medical Research,1995:102:179-183.