



## **Comparative Study on Speed and Agility among the Different Games**

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### **Abstract:**

The main purpose of the study is to find the comparison of speed and agility among the different games. To achieve the objective of this study, the investigator randomly selected thirty male of district-level handball, basketball, and softball players from age 14 to 15 years. In that, each game consists of ten (10) players who were chosen as subjects for study. Two tests are mainly used for this study. 50 yard dash and shuttle run for three groups respectively. Speed and agility data obtained from subjects were statistically used by analysis of variance. For the hypothesis, the level of significance was set at the level of .05. There was no significant difference in handball, basketball and softball players in speed and agility. As mean value is less than speed and agility is more and vice versa. Basketball players mean score have comparatively more speed and agility than other two groups.

**Keywords: Speed, Agility**

### **Introduction:**

Generally, speed is considered agile. Speed is a skill of performing the movements of the limbs. Speed is the skill of performing the movements of the limbs at a rapid rate. Speed is said to be a fundamental component of physical fitness. Moving the organs or muscles as soon as possible is a very complex process, which is controlled by the brain and nervous system. Quick explosive power movements in different directions agility of a person. It is said that performing any cutting movement or game drill with the application of a power component exposes the agility of the component. Agility is the ability to perform a series of explosive power movements in rapid

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succession in various directions. The movements made in the opposite direction sequentially are actually to increase the agility of that artist. Zigzag activity is specific to the development of agility. It is the ability of a person to quickly change directions while walking. Agility is the ability of a person to quickly change the position of his body with well-balanced movements. Ability to quickly start and stop movement and change body position.[1]

**Methodology:**

To achieve the objective of this study, the investigator randomly selected thirty male of district-level handball, basketball, and softball players from age 14 to 15 years. In that, each game consists of ten (10) players who were chosen as subjects for study. Two tests are mainly used for this study. 50 yard dash and shuttle run for three groups respectively.

**Table-1: Selected games, age range and player numbers**

| Games      | Age Range | Players Number |
|------------|-----------|----------------|
| Handball   | 14-15     | 10             |
| Basketball | 14-15     | 10             |
| Softball   | 14-15     | 10             |

**Results and Discussion:**

Speed and agility data obtained from subjects were statistically used by analysis of variance. The post-hoc test was applied and the F-ratio was found to be significant. For the hypothesis, the level of significance was set at the level of .05.

**Table 1:** Descriptive statistics of different game players

| Variables | Groups   | Handball | Basketball | Softball |
|-----------|----------|----------|------------|----------|
| Speed     | Count    | 10       | 10         | 10       |
|           | Sum      | 70.79    | 68.78      | 75.38    |
|           | Average  | 7.08     | 6.88       | 7.54     |
|           | Variance | 0.48     | 0.22       | 0.49     |
| Agility   | Count    | 10       | 10         | 10       |
|           | Sum      | 91.25    | 90.11      | 95.76    |
|           | Average  | 9.13     | 9.01       | 9.58     |
|           | Variance | 0.57     | 0.22       | 0.65     |

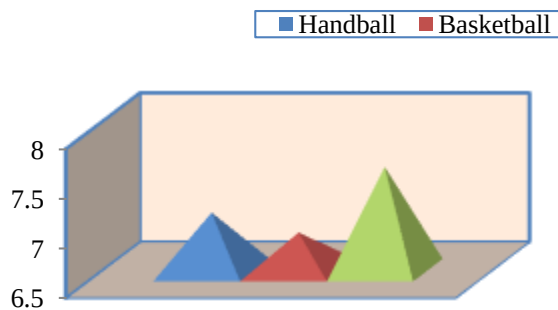
**Speed and Agility among the Different Games****Table 2:** Analysis of Variance (ANOVA) of the means of different game players with compare to speed

| <i>Source of Variation</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> |
|----------------------------|-----------|-----------|-----------|----------|
| Between Groups             | 2.289     | 2         | 1.144     | 2.887    |
| Within Groups              | 10.704    | 27        | 0.396     |          |
| Total                      | 12.9926   | 29        |           |          |

\*significant at 0.05 level

F0.05 (2, 27) = 3.354

Table-2 reveals that there was insignificant difference between the means of handball, basketball, and softball players of speed. The calculated 'F' was 2.887 where as tabulated 'F' was 3.354. Calculated 'F' lower than the tabulated 'F', which shows insignificance in handball, basketball, and softball players of speed. Therefore, there is no need of post hoc test.

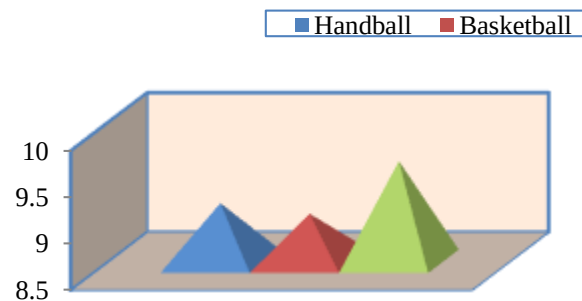
**Graph-1:** showing mean difference of all groups in speed**Table 3:** Analysis of Variance (ANOVA) of the means of different game players with compare to agility

| <i>Source of Variation</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> |
|----------------------------|-----------|-----------|-----------|----------|
| Between Groups             | 1.788     | 2         | 0.894     | 1.862    |
| Within Groups              | 12.962    | 27        | 0.480     |          |
| Total                      | 14.750    | 29        |           |          |

\*significant at 0.05 level

F0.05 (2, 27) = 3.354

Table-3 reveals that there was insignificant difference between the means of handball, basketball, and softball players of agility. The calculated 'F' was 1.862 where as tabulated 'F' was 3.354. Calculated 'F' lower than the tabulated 'F', which shows insignificance in handball, basketball, and softball players of agility. Therefore, there is no need of post hoc test.



**Graph-2: showing mean difference of all groups in agility**

### **Conclusion:**

Based on the result drawn with the mentioned methodology, the following conclusion was sougheed out. There was no significant difference in handball, basketball and softball players in speed and agility. As mean value is less than speed and agility is more and vice versa. Basketball players mean score have comparatively more speed and agility than other two groups.

### **References:**

- Nathial, Mandeep Singh. (2008). Basics of Health and Physical Education. New Delhi: Khel Sahitya Kendra, 234.
- Vishaw, G., Singh, A. & Singh, S. (2011). Comparison of physical fitness variables between individual games and team games athletes. Indian Journal of Science and Technology, 4(5), 547-549. Available online at <http://www.indjst.org>.
- Vishaw, Gaurav et. al. (2015). Comparison of Selected Physical Fitness Components Among Male Football Players of Different Playing Positions, Turkish Journal of Sport and Exercise, 17 (2), 661-584.

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Volbekienė, Vida (2015). Health-related physical fitness among schoolchildren in Lithuania: A comparison from 1992 to 2002, <http://sjp.sagepub.com/content/35/3/235.abstract>

Whitehead, N. (1975). Conditioning for Sports, West Yorkshire: E. P. Publishing Ltd, 12.

Wolde, Bezabih. (2013). Comparison of physical fitness components of rural and urban secondary school female students in hadiya zone, Thesis - Physical Education & Sports,

<http://hdl.handle.net/123456789/6771>

Woldeyes, E. T. (2013). Comparative study of health related physical fitness components of urban and rural female students of guder secondary and preparatory school, Ethiopia, Master Thesis, Haramaya University.