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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 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.

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 from Bharati Vidyapeeth College of Engineering Kolhapur.

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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

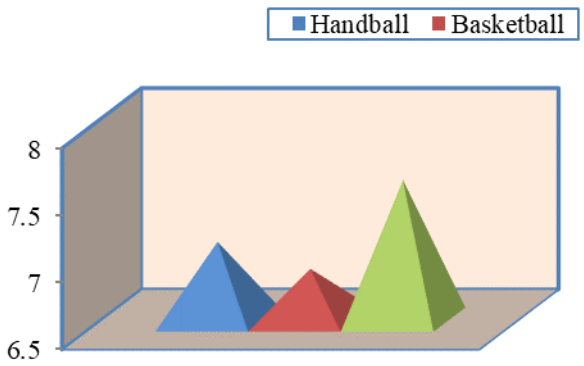
Variables	Groups	Handball	Basketball	Softball
Speed	Count	10	10	10
	Sum	70.79	68.78	75.38
	Average	7.08	6.88	7.54
	Variance	0.48	0.22	0.49
Agility	Count	10	10	10
	Sum	91.25	90.11	95.76
	Average	9.13	9.01	9.58
	Variance	0.57	0.22	0.65

Table 2: Analysis of Variance (ANOVA) of the means of different game players with compare to speed

Source of Variation	*SS*	*df*	*MS*	*F*
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.



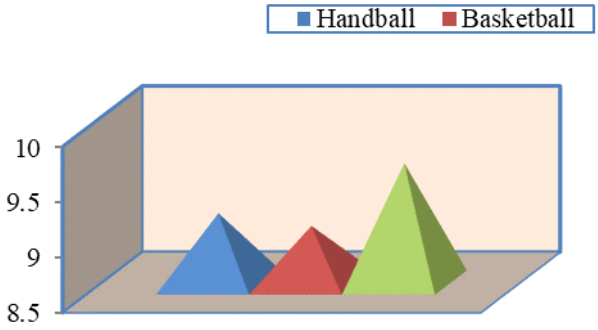
Graph-1: showing mean difference of all groups in speed

Table 3: Analysis of Variance (ANOVA) of the means of different game players with compare to agility

Source of Variation	*SS*	*df*	*MS*	*F*
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 soughed 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.

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