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## Comparative study on coordinative ability of different positional volleyball players

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### Abstract

A sport is as old as human society and it has achieved a universal following in the modern times. It now enjoys a popularity which outstrips any other form of social activity. It has become an integral part of the educational process. The purpose of the study was to investigate the differences on coordinative ability among different positional volleyball players. For the purpose of the study 20 district level Spiker, 20 district level Setter and 20 district level Libero volleyball players were selected from Baksara Anusilan Chakra (Howrah), Naihati Athletic Club and Bolpur Young Town Club, Town Club (Bolpur) in West Bengal were randomly selected for this study. The age of the subjects was 14-18 years. Coordinative ability was considered as the variables of the study. ANOVA was applied to calculate the collected data at 0.05 level of significance and to identify the significance differences among the means critical difference was used as a Post-hoc test. The result showed that there was no significant difference on Coordinative ability among spiker, setter, and libero in Volleyball but spiker was better than setter and libero and setter was also higher Coordinative ability than libero.

**Keywords:** Coordinative ability, spiker, setter, and Libero

### Introduction

Since the early age of human civilization the human beings are involved in different types of physical activities or physical movement. Due to the cause of survival on this earth and to fulfill their basic needs they gradually learn running, throwing, jumping to search their food by hunting as well as to claws of wild beasts and natural calamities? Gradually they learnt build their own society; they know how to use fire. Development of mass sports and its place in modern society is a topical issue of great importance. Speaking about the role of sport in modern society, it can be argued that sport is a continuous social experiment, in which mankind show its potential, accumulating and improving human capital, expanding its potential.

Today there are so many different individual games and team games in the world. These games have come from different countries and from different religions and cultures and some of these games were accepted as International games.

In modern times volleyball has become a very popular game in all around the world. Volleyball is a sport played by two teams on a playing court divided by a net. Volleyball players also expose to a variety of movements such as speeding jumps and leaps, forearm pass, overhead pass, spike, block, dig, dink and serve. A good coordination is essential to make a pass, after an attack or block and return to the floor. Coordinative ability is an important aspect for volleyball players to better performance.

### Statement of the problem

The purpose of the study was to compare the coordinative ability among spiker, setter and libero in District level volleyball players.

### Methods and Materials

The objective of the study was to investigate the coordinative ability among district level male volleyball players.

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Total 60 male volleyball players, out of which 20 (twenty) spiker, 20 (twenty) setter and 20 (twenty) libero district level volleyball players from Baksara anusilan Chakra (Baksara, Howrah), Naihati Athletic club(Naihati,North24pgs)and Bolpur Young town Club, Town Club (Bolpur,) in West Bengal were randomly selected for this study. The age of the subjects was 14-18 years.

- Eye hand coordination Test (Ball Transfer) was administered to measure coordinative ability and the results were recorder in Seconds.

**Table 1:** Analysis of Variance Among spiket, setter, libero District level male volleyball players

Variables	Sources of variance	df	SS	MSS	'F'
Coordinative ability	Between Group	r-1= 2	11.01	5.505	1.189
	Within Group	N-r= 57	263.96	4.630	

Tab  $F_{0.05}(2, 57) = 3.19$ , \* = Significant.

From the above table-1 it is clearly evidence that the calculated 'F' value 1.189 which was lower than the table value at 0.05 level of Significance confirming the no significant difference among spikier, setter, and libero in respect of coordinative ability.

### Discussion

From the finding it was observe that in comparison to Spiker, Setterand Liberoon co coordinative ability there was no Significant but Spiker was higher coordinative ability than Setterand Libero. Setter was also higher than libro. This happen may be due to the Spiker trained in such a way that they shall give and receive passes keeping in mind the ambient position of the opponent and teammates during course of game. The muscles vary considerably in size, shape and arrangement of fibers. (Eichorn D-1978) indicated that the white blood cells help to move faster in any of the physical activity, the more number and bigger the size of the WBC in the muscle fibers create the efficient movement in any of the sports activity like Spiking needs to have good WBC to move better in the game situation. The nervous system communicates with muscle via neuromuscular (also called myoneural) junctions. These junctions work very much like a synapse between neurons. On other hand Setter get much of the time in comparison to Spiker to perform the movement in a given space and time. A difference was found between the Spiker and Setter because of the nature of the training. The movements performed by the Spiker are more rapidly in a small space and less time. The coordinative ability needs to react on a signal, to change the movement exactly and accuracy in a given time, also to react on a stimulus given to the particular muscles. The perception of position and movement and motor action to change the body should be understood as a unity for the ability for space and time oriented movement regulation.

### Conclusions

- No significant difference was found in case of coordinative ability between Spiker and Libero of District level male Volleyball players.
- No Significant difference was found in case of coordinative ability between Spiker and Setter of District level male Volleyball players.
- No Significant difference was found in case of coordinative ability between Setter and Libero of District level male Volleyball players.

'ANOVA' was applied to calculate the collected data at 0.05 level of significant and to indentify the significance differences among the means critical difference was used as a Post-hoc test.

### Findings

### References

1. Verma J Prakash. A text book on sports statistics
2. Kansal Devinder K. Test and measurement in sports and physical education second edition, 1996.
3. Singh Hardayal. Science of sports training (New Delhi D.V.S. publications,), 1991, 165.
4. Barry L, Johnson J, Nelson K. Practical Measurements for Evaluation in Physical Education. New Delhi: Surjeet Publication, 1988.
5. Jacobson GP, Newman CW, Kartush. Handbook of balance Function testing, New York, 1992.
6. Ilona H. Analysis of Some Athletic Events Results and their Correlations, Acta Kinesiologica. 2009; 3(2):73-79.
7. Kamenk A. Changes in Some of the Motor Abilities of Preschool Children (Age Four), Physical Education and Sport. 2008; 6(1):41-50.
8. Singh H. Science of Sports Training. DVS. Publication, New Delhi. 1991, 166.
9. Kent M. Oxford Dictionary of Sports and Medicine. Oxford University Press Inc, New York, 2005, 390.
10. Hirtz P. Coordinative Fahigkeiten in Schulsport, Volks and Wissen Volkseiger Verlag, Berlin, 1985, 105-107.
11. Eichorn D, Eckert H. Orientation and Eye hand Coordination Tasks, Perceptual and Motor Skills. 1978; 47:259-60.
12. Slater H, Hammel K. Compression of Reaction Time Measures to Visual Stimulation and Arm Movement, Research Quarterly. 1995; 26(2):470-71.
13. Paish W. The Complete Manual of Sports Science, A and C Black, London. 1998; 75-78.