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Comparative study of eye hand coordination and depth perception among hockey and Volleyball players

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Abstract
The purpose of the study was to compare the Eye –hand Coordination and Depth Perception of Volleyball and Hockey players. The study was restricted to 30 Volleyball (N=15) and Hockey (N=15) players of D.C.P.E, Amravati that they were selected randomly. The research literature reviewed in this study was based on the relevant references, available in the library of Degree College of Physical Education, Amravati. The data pertaining to this study were collected on the selected subjects by using Depth Perception box to measure Depth Perception, Alternate Hand -Wall Toss test for Eye-Hand Coordination. The collected data were analyzed by employing t-test statistical techniques to find out the significant differences between the selected two groups i.e. Volleyball and Hockey players in Depth perception and Eye- hand coordination. The findings of the study revealed that table no.1 there is no significant differences in Depth perception among the selected games Volleyball and Hockey. Similarly, the finding also reveals that there was no significant difference in Eye-hand coordination between the players of both games.

Keywords: depth perception, eye hand coordination, hockey, volleyball, collegiate players

1. Introduction
Sports is one of the striking features of twentieth century life, as evidence by the variety and popularity of the sporting events in the most diverse parts of the world. The new phenomenon in the society has attracted the interest of researchers in many fields. Sports provides us with some of the most stirring moments of our life, whether we are participating ourselves or thrilling to the deeds of other. In a world where "No News in Good News", the sports news provides us with and escape, we can enjoy the exploits of finely trained athletes as they strive to come out on top or to push back the barriers of achievement a little future. Sports by their very nature are enjoyable challenging all absorbing and require certain amount of skills and physical conditions. In the order of human values and conquest in the field of sports holds an unique place. It is success, victory, triumph and domination of some over others team mates and friends because sports and friendship in competitions lies.

The neuro-muscular co-ordination of the individual which includes his ability to learn new skill and finally achieve competency in physical activities as essential to all phases of physical education. It is the good advice to the performer and is necessary for judging such variables factor as speed, distance, direction, and size. Countless skills involve co-ordination of the eyes with hands. The perceptual systems of the brain enable individuals to see the world around them as stable, even though the sensory information is typically incomplete and rapidly varying. Human and animal brains are structured in a modular way, with different areas processing different kinds of sensory information. Some of these modules take the form of sensory maps, mapping some aspect of the world across part of the brain's surface. These different modules are interconnected and influence each other. For instance, taste is strongly influenced by smell.

2. Methodology
2.1 Selection of Subjects
The data pertaining to the study was collected on 30 male players of Degree College of Physical Education, Amravati, from Hockey (N=15) and Volleyball (N=15) games. The subject were those who participated in Inter Collegiate competition. The average age of the subjects was 21 years ranged from 18 to 25 years, there maximum status of participation was Inter-College level.

2.2 Selection of Test
To collect data for this study, appropriate tests on Eye-Hand Co-ordination and depth perception test were administrated on the selected Hockey and Volleyball players.

2.3 Description of Test
Co-ordination was measured by using Eye-Hand Co-ordination test and the score was recorded in seconds. Depth perception was measured by using electronic depth perception box & the nearest distance of center rod to two side will be recorded or score.

2.4 Statistical Analysis
To assess the Eye-Hand Co-ordination and depth perception of Hockey and Volleyball players, mean, SD and Independent t-test were calculated. The level of significance was set at .05 level.

3. Results
To find out the significance of difference between hockey

and Volleyball players in their Eye-Hand Co-ordination and depth perception, Mean, SD and t-ratio were computed and data pertaining to this, has been presented in Table 1 and 2.

Table 1: Description of Mean, Standard Deviation and T- Test for the Data on Depth Perception of Volleyball and Hockey Players

Group	Mean	S.D	M.D	σ DM	t- ratio
Volleyball	.2873	.4663	.0866	.12041	.432*
Hockey	.2007	.6392			

*Insignificant at 0.05 level
t .05 (28)=2.048

It is evident from Table 1, that the calculated t-value of 0.432 is quite less than that of required t-value of 2.048 to be significant at 0.05 level from the 28 degree of freedom. Hence, there is no significant difference between the mean scores of Volleyball and Hockey players on depth perception.

Table 2: Description of Mean, Standard Deviation and T- Ratio for the Data on Eye Hand Coordination of Volleyball and Hockey Players

GROUP	MEAN	S.D	M.D	σ DM	t- ratio
Volleyball	2873	46633	.7334	1.99691	0.367*
Hockey	2007	5.9745			

*Insignificant at 0.05 level
t .05 (28)=2.048

It is evident from Table 2 that the calculated t-value of 0.367 is quite less than that of required t-value of 2.048 to be significant at 0.05 level from the 28 degree of freedom. Hence, there is no significant difference between the means of Volleyball and Hockey players on Eye hand co-ordination.

4. Discussion

The finding of table I reveals that there was no significant difference among the means of volleyball and hockey players in the variables of Depth perception. It may be because both games are same in nature. In the both games passes are made through which Depth perception is developed among players of all two games. Also during passing they have to move here and there like in the same manner that is why there was no significant in Depth perception and eye hand coordination among the players of selected ball games. The finding of table II reveals that no significant difference is found in the variable of eye hand coordination between volleyball and hockey players. The reason for this insignificant difference may be because both the games are very alike in both the players require sufficient eye hand coordination ability.

5. Conclusion

The collected data were analyzed by employing t-test statistical techniques to find out the significant differences between the selected two groups i.e. Volleyball and Hockey players in Depth perception and Eye- hand coordination. The findings of the study revealed that there was no significant differences in Depth perception among the selected games Volleyball and Hockey. Similarly, the finding also revealed that there was no significant difference in Eye-hand coordination among the players.

6. References

1. Abernethy B. Training the visual-perceptual skills of athletes. Insights from the Study of Motor Expertise. The American journal of sports medicine. 1996; 24(6Suppl):S89-92.
2. Cross ES, Stadler W, Parkinson J, Schutz-Bosbach S, Prinz W. The influence of visual training on predicting complex action sequences. Human brain mapping. 2013; 34(2):467-86.
3. Kluka D. Visual skills: Considerations in learning motor skills for sport. ASAHPERD Journal. 1991; 14(1):41-3.
4. Kluka D, Love P, Kuhlman J, Hammach G, Wesson M. The effect of a visual skills training program on selected collegiate volleyball athletes. International Journal of Sports Vision. 1996; 3(1):23-34.
5. Pizzera A, Raab M. Perceptual Judgments of Sports Officials are Influenced by their Motor and Visual Experience. Journal of Applied Sport Psychology. 2012; 24(1):59-72.
6. Atkins DL. The Eye and Sense of Vision 1998 [cited 2015]. Available from: http://lecerveau.mcgill.ca/flash/capsules/articles_pdf/sense_vision.pdf.
7. Abernethy B, Wood JM. Do generalized visual training programmes for sport really work? An experimental investigation. J Sports Sci. 2001; 19(3):203-22.
8. Mcleod B. Effects of Eyerobics Visual Skills Training Onselected Performance Measures of Female Varsity Soccer Players. Perceptual and motor skills. 1991; 72:863-6.