



ANALYSIS OF SELECTED PSYCHOMOTOR VARIABLE AMONG INTERCOLLEGIATE CRICKET HOCKEY AND VOLLEYBALL PLAYERS

Physical Education

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ABSTRACT

Coordination defined as the ability of fast and exact control and regulation of movements. The players in Cricket, Hockey and Volleyball do require eye-hand co-ordination when they exhibit their skills for successful performance. Based on above references the present study aims to analysis of selected psychomotor variable (eye hand co-ordination) among intercollegiate cricket hockey and volleyball players. To achieve the purpose forty five (45) college men students, 15 male players from each game namely Cricket, Hockey and Volleyball in Kulgam district Jammu and Kashmir, were selected as the subjects for this study. The selected subjects were in the age group between 18 and 25 years; there, maximum status of participation was Inter-College level. The criterion measures by using Eye-Hand Co-ordination test and the score was recorded in seconds. To collect data for this study appropriate test on Eye-Hand Co-ordination was administrated on the selected Cricket, Hockey and Volleyball players. Simple random sampling procedure was adopted for the selection of 15 players from each game for the present study. One way analysis of variance statistical technique (F-ratio) was employed to determine the difference among the players of three selected games for each variable independently. Further, the scheffe's post hoc test was applied to know the paired mean difference if the obtained 'f' ratio found significant. The level of confidence was fixed at 0.05. The result of the study revived that the Hockey players were significantly superior in terms of Eye-Hand Co-ordination than Volleyball and Cricket players.

KEYWORDS:

Hockey, Volleyball, Cricket, Co-Ordination.

INTRODUCTION

Exploring the possibilities of psychomotor abilities, the mystery of body and mind has long occupied researchers within fields such as phenomenology, psychology and cognitive science. The traditional psychological approach is that the relationship is dualistic. The faculty of reason is separate from and independent of what we do with our bodies. This means that reason must be independent of perception and bodily movements. Intelligence is here seen as the ability to think abstractly, combine and solve mental problems. The theory of motor coordination is the basis for understanding the motor of coordination abilities. Motor coordination is part and parcel of actions regulation. Coordinative abilities have also important and strong links with the motor skills as the motor coordination focus the basis of both. These abilities enable the sportsperson to do a group or set of movement with better quality and effect.

Coordination can be defined as the ability of fast and exact control and regulation of movements, it denotes body mind relationship. Participation in physical activities is very important to increase the coordinative abilities. Coordination is often used as an indicator of objective motor behaviour, since it contributes strongly to the explanation of total motor performance (Mechling, 1999). "Co-ordination is the ability to integrate muscles movements into an efficient pattern of movement". Co-ordination makes the difference between good performance and poor performance. The efficiency of skill patterns depends upon the interrelation of speed, agility, balance and muscle movements into as well co-ordinate pattern (Felshin, 1972).

The players in Cricket, Hockey and Volleyball do require eye-hand co-ordination when they exhibit their skills for successful performance. As there is lack of research available on importance of eye-hand co-ordination for games. Where accuracy is more needed, the research worker was interested to conduct the study on Cricket, Hockey and Volleyball players.

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.

Activities for developing such co-ordination, therefore, should be considered (Clarke, 1967). Hence, the present study will analysis of co-ordination on dextrous among cricket, hockey and volley ball college level players.

METHODOLOGY

To achieve the purpose forty five (45) college men students, 15 male players from each game namely Cricket, Hockey and Volleyball in Kulgam district Jammu and Kashmir, were selected as the subjects for this study. The selected subjects were in the age group between 18 and 25 years; there, maximum status of participation was Inter-College level. The criterion measures by using Eye-Hand Co-ordination test and the score was recorded in seconds. To collect data for this study appropriate test on Eye-Hand Co-ordination was administrated on the selected Cricket, Hockey and Volleyball players. Simple random sampling procedure was adopted for the selection of 15 players from each game for the present study. One way analysis of variance statistical technique (F-ratio) was employed to determine the difference among the players of three selected games for each variable independently. Further, the scheffe's post hoc test was applied to know the paired mean difference if the obtained 'f' ratio found significant. The level of confidence was fixed at 0.05.

RESULTS

Table - I One-way analysis of variance for the data on eye-hand co-ordination Among Cricket Hockey and Volleyball Players

Sources of Variance	Degree of Freedom	Sum of Square	Mean sum of Square	F-ratio
Between Group	2	15.19	7.60	9.74*
Within Group	42	32.68	0.78	

*Significant at 0.05 level

Tabulated F - 0.05 (2,42) = 3.23

An analysis of table-I reveals that Eye-Hand co-ordination differs significantly among the players of three selected team games namely Cricket, Hockey and Volleyball, because the calculated F value of 9.74 is higher than of tabulated F valued of 3.23 at 0.05 level.

Since the F-test was found to be significant through one way analysis of variance, the LSD Post Hoc Test was adopted to assess the paired

mean difference between the groups for Eye-Hand Co-ordination, the difference are shown in table-II.

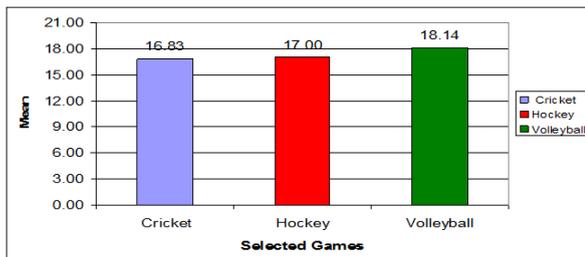
Table - II Difference between the Paired Means of Eye-Hand Co-ordination among Cricket, Hockey and Volleyball College Level Players

Mean of			Mean Difference	Critical Difference
Cricket	Hockey	Volleyball		
16.83	17.00	-	0.17	0.65
16.83	-	18.14	1.31*	
-	17.00	18.14	1.14*	

Significant at 0.05 level.

The findings of Table-II reveals that the mean of Eye-Hand Co-ordination significantly differs in between Cricket, and Volleyball (MD = 1.31) and Hockey and Volleyball players (MD = 1.14) as the obtained mean difference values are higher than the critical difference value of 0.65 at 0.05 level of confidence. It is also learnt from the above table that the mean difference for Cricket and Hockey players (MD = 0.17) is less than the critical difference value of 0.65, hence the mean difference is not statistically significant. The mean difference is picturesquely shown in fig. 2.

Figure Showing Means Score of Eye-Hand Co-ordination among Cricket, Hockey and Volleyball players



DISCUSSION

The findings of the study revealed that there were significant mean difference in Eye-Hand co-ordination among the Cricket and Volleyball. It may be due to the nature of games as Volleyball is played within small area by using hands whereas Cricket also played by hands, but in a big area where a batsman plays against 11 players. The result also showed significant difference in Eye-Hand co-ordination among Hockey and Volleyball players. The reason may be attributed to the fact that Volleyball is played by using hands in a small area whereas Hockey played with sticks is a quite large area. In Volleyball, it is to be ensuring that Volleyball does not touch the ground but Hockey is played by biting the ball with sticks all along the ground. The result also showed in significant difference in Eye-Hand Co-ordination among Cricket and Hockey players. It may be because both the game are played in large area by using hands.

CONCLUSION

Based on the result of present study the following conclusions were drawn.

1. There is significant difference in Eye-Hand Co-ordination among Cricket, Hockey and Volleyball players.
2. The Cricket players were superior in terms of Eye-Hand Co-ordination than that of Volleyball players.
3. Hockey players were significantly superior in terms of Eye-Hand Co-ordination than Volleyball players.
4. Insignificant difference was found in between Cricket and Hockey players on co-ordination.

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