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ASSESSMENT OF DESIGNATED COORDINATIVE ABILITIES BETWEEN HOCKEY AND FOOTBALL MALE PLAYERS

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ABSTRACT:

The main aim of the study was to compare selected coordinative abilities among male hockey and football players. To achieve the purpose of this study eighteen male hockey players and eighteen male football players from those who have represented Annamalai University in the south zone inter university tournaments in the year 2018-19. Their age ranged between 18 and 25 years. The coordinative abilities namely kinesthetic differentiation ability of upper limbs, complex reaction ability and dynamic balancing ability were selected as comparison variables. For this static group comparison design was used. The correlated 't' ratio was used to compare the University hockey and football players. At all-time the level of confidence was fixed at .05 level which was considered as appropriate. The result proved that the kinesthetic differentiation ability of upper limbs were better for university football players as compared with university hockey players. Further, the results shows that the complex reaction ability and dynamic balancing ability are better for hockey players.

KEYWORDS*: Coordinative Abilities, Kinaesthetic Differentiation Ability, Complex Reaction Ability, Dynamic Balancing Ability, Hockey and Football.*

INTRODUCTION:

Today's world is a world of competitions and this is very true in sports and games. It has become a prestige issue to win medals at the international level. This has resulted in countries putting too much effort to achieve the goal, spending millions of dollars on research projects to invent new techniques and technology to achieve excellence. Coordination is a very complex bio-motor ability, closely interrelated with conditional abilities namely speed, strength, endurance and flexibility. It is of determinant importance, not only for the acquisition, perfection of technique and tactics, but also for their application in unfamiliar circumstances, like the alteration of terrain, equipment, climatic conditions and opponents. Coordination is also solicited in space orientation when the athlete's body is in unfamiliar conditions like in vaulting as well as in circumstances when the athlete loses balance such as slippery conditions, quick stops and sudden impact from an opponent *(Tudor O. Bompa, 1983)*.

Coordinative abilities differ from one another in their directional dynamics and never present in isolation but always as prerequisites for several athletic activities. Coordinative abilities differ from technical skills in that they exist as prerequisites for motor actions while technical skills are always the only solution to a single mechanical task. Coordinative abilities of a particular group of players can be at a higher level than other groups of players. On the other hand some other groups of sports persons have lower level of these abilities than some other groups. And there is difference between men and women

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players *(Dietrich Harre, 1982)*. Coordination is important for the formation of athletic performance. Learning of complex motor skills will be easy if a sports person has developed general coordination in the beginning. This applies more to the technical sports disciplines. An optimum level of development of coordinative abilities help to improve the ever growing problem of technique mastery. A more objective assessment of the individual levels of well-defined coordinative abilities makes an essential contribution to better selection of talented sports persons *(Dietrich Harre, 1982*). Hence, the study was to compare selected coordinative abilities (kinesthetic differentiation ability of upper limbs, complex reaction ability and dynamic balancing ability) of Annamalai University represented men hockey and football players.

METHODOLOGY
          The purpose of the study was to compare selected coordinative abilities namely kinesthetic differentiation ability of upper limbs, complex reaction ability and dynamic balancing ability of Annamalai University represented male hockey and football players.

Subjects
          To achieve the purpose of this study eighteen hockey players and eighteen football players from those who have represented Annamalai University in the south zone inter university tournaments in the year 2017-18. Their age ranged between 18 and 25 years.

Variables
          The excellent performance level of players depends on the wide range of motor fitness and coordinative abilities. It is not to be better in motor qualities alone but in addition players have to develop coordinative abilities also to attain peak performance in games. Hence the selected dependent variables and their respective tests were given below in the table-1.

TABLE I
SELECTION OF VARIABLES AND THEIR RESPECTIVE TESTS

Sl.No.	variables	Tests
	sthetic Differentiation Ability of Upper Limbs	Backward Ball Throw (BBT)
	Complex Reaction Ability	Ball Reaction Exercise (BRE)
	Dynamic Balancing Ability.	Balancing with Long Nose (BLN)

Statistical Analysis
          For this static group comparison design was used. The correlated 't' ratio was used to compare the kinesthetic differentiation ability of upper limbs, complex reaction ability and dynamic balancing ability between Annamalai University hockey and football players. At all-time the level of confidence was fixed at .05 level which was considered as appropriate.

Results of the Study
          The data collected from university hockey and football player on kinesthetic differentiation ability of upper limbs, complex reaction ability and dynamic balancing ability have been analysed statistically and the results are shown in table-2.

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TABLE - II

MEAN, STANDARD DEVIATION AND 't' RATIO VALUES OF KINESTHETIC DIFFERENTIATION ABILITY OF UPPER LIMBS, COMPLEX REACTION ABILITY AND DYNAMIC BALANCING ABILITY OF UNIVERSITY MALE HOCKEY AND FOOTBALL PLAYERS

| Sl.No.	Group	Mean	Standard Deviation	't' Ratio
1.	KINESTHETIC DIFFERENTIATION ABILITY OF UPPER LIMBS			
University Hockey Players		9.39	1.42	4.27*
University Football Players		11.44	1.50	
2.	COMPLEX REACTION ABILITY			
University Hockey Players		87.20	5.06	3.11*
University Football Players		92.40	4.98	
3.	DYNAMIC BALANCING ABILITY			
University Hockey Players		6.52	0.52	2.41*
University Football Players		6.93	0.49	

* Significant at 0.05 level
(Table value required for significance was 2.32 at 0.05 level of confidence with df 34).

Kinesthetic Differentiation Ability of Upper Limbs

Table-2 shows the mean and slandered deviation values of university hockey and football players kinesthetic differentiation ability of upper limbs were 9.39 and 11.44 respectively. The obtained 't' ratio 4.27 was significant at 0.05 level with degree of freedom (df) 34 which is more than the required table value of 2.32. Hence the University footballers are better in kinesthetic differentiate ability of upper limbs than university hockey players.

The mean values of university hockey and football players' kinesthetic differentiate ability of upper limbs were graphically represented in Figure-I.

FIGURE I: THE MEAN VALUES OF UNIVERSITY HOCKEY AND FOOTBALL PLAYERS ON KINESTHETIC DIFFERENTIATION ABILITY OF UPPER LIMBS
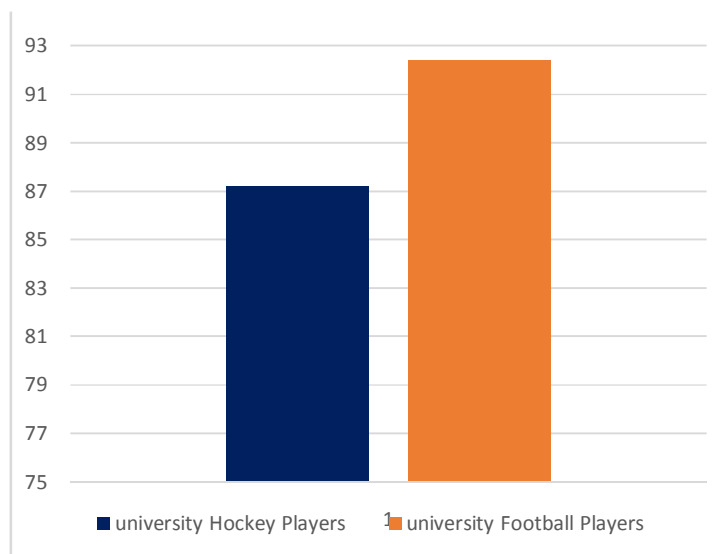

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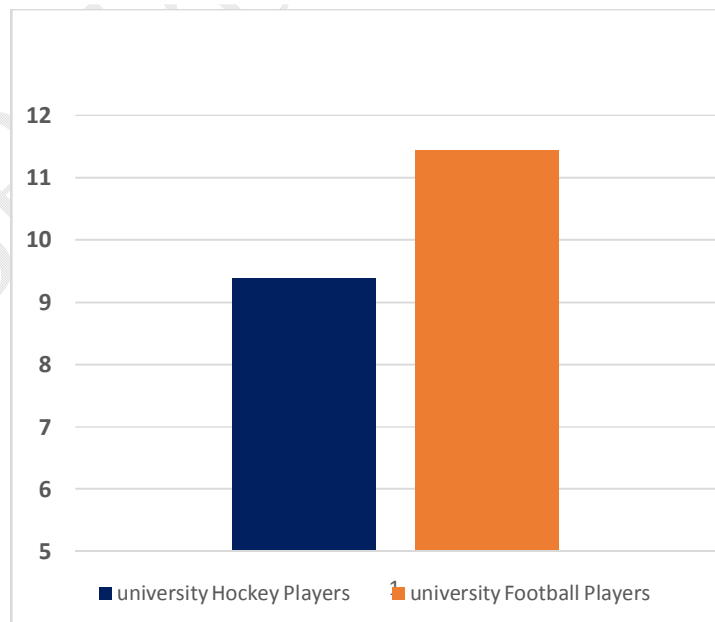
Complex Reaction Ability

Table-2 further shows the complex reaction ability mean and slandered deviation values of university hockey and football players were 87.2 and 92.4 respectively. The obtained 't' ratio 3.11 was significant at 0.05 level with degree of freedom (df) 34 which is more than the required table value of 2.32. Hence the university hockey players have better complex reaction ability than university football players.

The mean values of university hockey and football players' complex reaction ability were graphically represented in Figure-II.

FIGURE II: THE MEAN VALUES OF UNIVERSITY HOCKEY AND FOOTBALL PLAYERS ON COMPLEX REACTION ABILITY


Dynamic Balancing Ability

Table-2 further shows the dynamic balancing ability mean and slandered deviation values of university hockey and football players were 6.52 and 6.93 respectively. The obtained 't' ratio 2.41 was significant at 0.05 level with degree of freedom (df) 34 which is more than the required table value of 2.32. Hence the university hockey players have better dynamic balancing ability than university football players.

The mean values of university hockey and football players' dynamic balancing ability were graphically represented in Figure-III.

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FIGURE III: THE MEAN VALUES OF UNIVERSITY HOCKEY AND FOOTBALL PLAYERS ON DYNAMIC BALANCING ABILITY
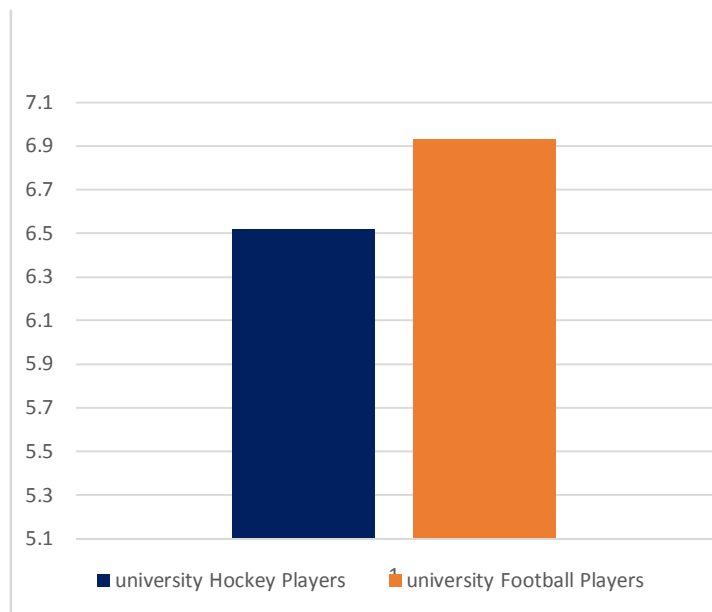
DISCUSSIONS

The analysis of data it was evidence there was variation between university hockey and football players.

The result proved that the kinesthetic differentiation ability of upper limbs were better for university football players as compared with university hockey players. It was assessed by a test of throwing baseball backward. The test is similar to the skills involved in football. Hence the University football players were better than hockey players.

The results shows that the complex reaction ability and dynamic balancing ability are better for hockey players. Hockey players have to use sticks during 70 minutes of play. In addition the size of the ball is small compared to football. Further goal has to be scored only from the shooting circle. All these restriction might have contributed for better complex reaction ability and dynamic balancing ability.

The findings of various coordinative abilities of this study was in agreement to the findings of *(Bisht R. and Mardikar M.A., 2017), (Bressel etal., 2007), (Davlin., 2004), (Reena Rani., 2018), (Gribble and Hertel., 2003), (Hertel. etall., 2000), (Hrysomallis. etal., 2006), (Kinzey and Armstrong., 1998), (Matsuda., 2008), (Sebastian and Srinivasan., 2016)* and *(Thorpe and Ebersole., 2008).*

CONCLUSIONS

The following conclusions are made from the study.
- ❖ Significant variations were found between university hockey and football players in kinesthetic differentiation ability of upper limbs in favor of football players.
- ❖ Significant variations were found between university hockey and football players in complex reaction ability and dynamic balancing ability in favor of hockey players.

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