

# Comparative Study of Motor Ability in National Players of Hockey and Football

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## 1. Introduction

Football is a game requiring high levels of physical fitness. It is one of those rare games which demands not only speed but agility, strength, power and endurance. Players at top levels can run over 14 km in a game whilst not forgetting the frequent accelerations, decelerations, changes of direction and jumps they must undertake. Fitness is important at all levels of the game, whilst being essential for top level players. It is beneficial for beginners who will improve both their effectiveness and enjoyment through good standards of fitness. The aim of fitness training in football is to enable a player to cope with the physical demands of the game as well as allowing the efficient use of his various technical and tactical competencies throughout the match.

A motor skill is a learned sequence of movements that combine to produce a smooth, efficient action in order to master a particular task. The development of motor skill occurs in the motor, the region of the cerebral cortex that controls voluntary muscle groups. Due to the immaturity of the human nervous system at the time of birth, children grow continually throughout their childhood years. Many factors contribute to the ability and the rate that children develop their motor skills. Uncontrollable factors include: genetic or inherited traits and children with learning disorders. Controllable factors include: the environment/society and culture they are born to. A child born in the city is much less likely to have the same opportunities to explore, hike, or trek the outdoors than one born in the rural area. For a child to successfully develop motor skills, he or she must receive many opportunities to physically explore the surroundings.

## 2. Statement of the problem

The purpose of this study was a Comparative study of motor ability of national players of hockey and football.

## 3. Delimitations

1. This study was delimited to 12 Football players and 12 Hockey players selected for National level tournament for School Games.
2. The study was delimited to age limit 15 to 18 years.
3. In this study was further delimited to Sit-Ups, Side Stepping, Standing Broad Jump, Modified Pull -Ups and Squat Thrust test to test Motor Components like Muscular Strength, Agility, Explosive Strength, Speed and Flexibility of the players.

## 4. Limitations

1. In this study, the difference regarding the diet was not taken into consideration.
2. In this study, the Caste related difference was not taken into consideration.

## 5. Hypothesis

It was hypothesis that there was positive difference between Football players and Hockey players selected for National level tournament at School Games.

## 6. Statistical Procedure

Statistical analysis was done on scores received from various test conducted and Mean, Mean Difference and Standard Deviation was found using 't' - test.

## 7. Results and discussion

**Table – I**  
**Mean and t - ratio of Football and Hockey Players Selected for National Level at School Games**

No.	Variables	Mean		Mean Difference	Standard Deviation	't' ratio
		Football Players	Hockey Players			
1.	Sit-Ups	28.50	39.00	10.50	3.12	1.96*
2.	Side Stepping	23.57	33.00	09.43	2.52	1.22*
3.	Standing Broad Jump	27.05	31.20	04.15	2.56	2.19*
4.	Modified Pull-Ups	24.00	30.00	06.00	2.93	1.82*
5.	Squat Thrust	23.50	31.25	07.75	2.87	2.14*

Level of Significance at 't' 0.05 (22) = 1.96

## 8. Discussion of finding

### 1. Sit –Ups Test:

Football Players mean was 28.50 and Hockey Players mean was 39.00, Mean difference was 10.50 and "t" ratio was 1.96.

### 2. Side Stepping Test:

Football Players mean was 23.57 and Hockey Players mean was 33.00, Mean difference was 09.43 and "t" ratio was 1.22.

**3. Standing Broad Jump Test:**

Football Players mean was 27.05 and Hockey Players mean was 31.20, Mean difference was 04.15 and "t" ratio was 2.19.

**4. Pull-Ups Test:**

Football Players mean was 24.00 and Hockey Players mean was 30.00, Mean difference was 06.00 and "t" ratio was 1.82.

**5. Squat Thrust Test:**

Football Players mean was 23.50 and Hockey Players mean was 31.75, Mean difference was 07.75 and "t" ratio was 2.14.

**9. Conclusion**

1. Hockey player's Sit-Ups, Modified Pull-Ups, Standing Broad Jump Side Stepping and Squat thrust efficiency was found more than the Football Players.

**10. Discussion of hypothesis**

Thus, the hypothesis which was stated earlier was found not significant.

**References**

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