STUDY OF KINESTHETIC PERCEPTION CONCERNING WICKET-KEEPER, BOWLER AND BATSMAN

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Abstract
Purpose of this study was to find out the difference of Kinesthetic perception between Wicket-Keeper, Bowler and Batsman. The sample (viz., N=36) for the current study is branded into the succeeding groups: Group-A: Wicket-Keeper (n_1=12); Group-B: Bowler (n_2=12) and Group-C: Batsman (n_3=12). The Nelson Kinesthetic Perception Test was used to measure Kinesthetic perception. Convenience sampling were utilized for the purpose of this study. To compare the sample on the basis of "Kinesthetic perception", Analysis of Variance (ANOVA) was employed. The results states that the f-ratio value is 11.94876. The p-value is 0.000125. The result is significant at p < .05.

Keywords: *Wicket-Keeper, Bowler, Batsman, Kinesthetic perception.*

INTRODUCTION

Cricket is an intermittent sport, characterized by prolonged low-intensity activity, interspersed by periods of high-intensity movements such as bowling and batting [1, 2]. The physical demands of cricket depend on the match format (i.e., T20, one-day or multi-day cricket) and players on field position (i.e., bowler or batter) [3, 4]. Successful performance in cricket requires a variety of physical and technical abilities [5, 6, 7, 8, 9]. There are similar traits between bowlers and batters, such as performing maximal sprints whilst approaching a bowling delivery and sprinting between the wickets to score runs [10].

Sample:

The sample (viz., N=36) for the current study is branded into the subsequent groups:

- Group-A: Wicket-Keeper (n_1=12)
- Group-B: Bowler (n_2=12)
- Group-C: Batsman (n_3=12)

MATERIAL AND METHODS

Kinesthetic perception (Horizontal Space Test)

The yard stick placed on the wall so that it will approximately at eye level while the subjects were in the sitting position. The subject was asked to sit on the chair facing the yard stick and attempted to establish in the mid a sense of its position. Then while blindfolded and without a practice trail, pointed the Index finger of the right hand to the point indicated by the tester. The score was the deviation from the desired mark measured to the nearest centimeters. The final score was the total of the deviation on the three trails.

STATISTICS

To compare the sample (viz., N=36; Group-A: Wicket-Keeper (n_1=12); Group-B: Bowler (n_2=12) and Group-C: Batsman (n_3=12) on the basis of "Kinesthetic perception", Analysis of Variance (ANOVA) was employed.

RESULTS

Table-1: Summary of Data and Result Details of One-Way ANOVA with respect to factor "Kinesthetic Perception" between "Wicket-Keeper", "Bowler" and "Batsman".

	WICKET-KEEPER	BOWLER	BATSMAN	TOTAL
N	12	12	12	36
$\sum X$	231	236	152.6	619.6
Mean	19.25	19.6667	12.7167	17.211
$\sum X^2$	4583	4666	2283.18	11532.18
Std. Dev.	3.5194	1.4975	5.5809	4.9805

Source	SS	df	MS	
Between-treatments	364.6422	2	182.3211	F = 11.94876
Within-treatments	503.5333	33	15.2586	
Total	868.1756	35		

The Summary of Data and Result Details of One-Way ANOVA with respect to factor "Kinesthetic Perception" Wicket-Keeper", "Bowler" and "Batsman" are cited above. Further, the results states that the f-ratio value is 11.94876. The p-value is 0.000125. The result is significant at $p < .05$.

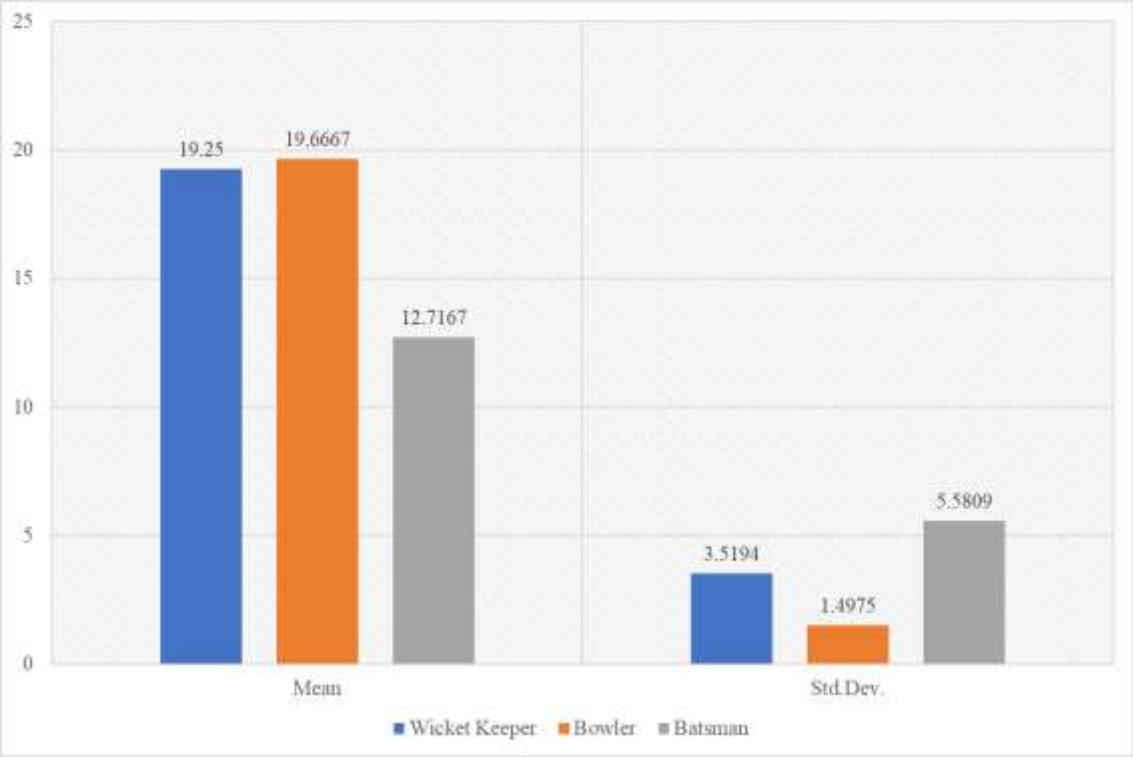

Figure-1: The comparison of "Wicket-Keeper", "Bowler" and "Batsman" with respect to factor "Kinesthetic Perception".

Table-2: Summary of Data and Result Details of The Tukey's HSD (honestly significant difference) with respect to factor "Kinesthetic Perception" between "Wicket-Keeper", "Bowler" and "Batsman".

PAIRWISE COMPARISONS		**$HSD_{.05}$ = 3.9131 $HSD_{.01}$ = 4.9872**	**$Q_{.05}$ = 3.4702 $Q_{.01}$ = 4.4227**
T_1:T_2	M_1 = 19.25 M_2 = 19.67	0.42	**T_1:T_2**
T_1:T_3	M_1 = 19.25 M_3 = 12.72	6.53	**T_1:T_3**
T_2:T_3	M_2 = 19.67 M_3 = 12.72	6.95	**T_2:T_3**

CONCLUSIONS

- **Kinesthetic Perception:** The f-ratio value is 11.94876. The p-value is 0.000125. The result is significant at $p < .05$.

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