THE STUDY OF RESPONSE TIME AMONGST WICKET-KEEPER, BOWLER AND BATSMAN

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Abstract

The study aim was to compare response time amongst Wicket-Keeper, bowler and batsman. The sample (viz., N=30) for the contemporary study is categorized into the following groups: Group A: Wicket-Keeper (n_1=10), Group-B: Bowler (n_2=10) and Group-C: Batsman (n_3=10). Four-Way alternate Test was used to measure Response Time. To compare the sample on the basis of "Response Time", Analysis of Variance (ANOVA) was employed. The results states that the f-ratio value is 10.21024. The p-value is .000499. The result is significant at p < .05.

Keywords: *Wicket-Keeper, Bowler, Batsman, Response Time.*

INTRODUCTION

Although other classifications of abilities no doubt are involved in skilled motor performance, the motor-abilities category is the one most usually associated with motor behaviours. Different approaches in the attempt to formulate basic abilities have demonstrated alternative ways of thinking about them, resulting in lively debates among scholars. The consequence for the practitioner has been one of confusion. Thus: An ability could be looked at as a behavioural variable with parameters defined by the particular methods used in its measurement. An ability could reflect individual differences in training conditions and experiences as well as the state of the organism as induced by the experimenter. An ability could be viewed as a hypothetical construct, in which case a skill is defined as a behavioral variable, as in item 1. 4. An ability could be an artificial (observed) or constructed statistical variable, whereby a primary ability is derived from the hypothetical elements that are combined to form the ability. Many secondary effects of sport also bring health benefits, such as psychosocial development of both young [1] and old [2], personal development [3], later onset, and less consumption of alcohol [4,5]. Finally, those who play sports have a higher level of physical activity later in life [6], and through sport, knowledge of nutrition, exercise, and health can be developed [7]. Negative effects include the risk of failure leading to poor mental health [8,9], risk of injury [10,11], eating disorders [12], burnout [13], and exercise-induced gastrointestinal tract discomfort [14]. In sport, there are unfortunately also reports of physical and psychological abuse [15].

Sample:

The sample (viz., N=30) for the contemporary study is categorized into the following groups: -

- ⊗ Group-A: Wicket-Keeper (n_1=10)
- ⊗ Group-B: Bowler (n_2=10)
- ⊗ Group-C: Batsman (n_3=10)

MATERIAL AND METHODS

Response Time (Four-Way alternate Test)

The subject stood at a point × on the floor as indicated in the figure: at point 'Y' on the floor. After a preparatory command 'ready' was given, the tester made an obvious movement with his hand in one of the four directions. One receiving the signal, the subject moved in the designated direction as rapidly as possible and crossed over the line 5 yards away from the point. If the test moved his hand up, the subject ran forward across the line if he moved his hand down, the subject moved backward. If he moved his hand to either side, i.e., right or left, the subject was given 3 trails in all, five in each direction. The trails in each direction were given in the order decided by tester. The tester held a stopwatch which he started at the beginning of each

hand movement. He/ She stopped the watch as soon as the subject crossed the correct line and recorded the time to the nearest $1/10^{th}$ seconds. The score was the total of the times on all 3 trails.

STATISTICS

To compare the sample (viz., N=30; Group-A: Wicket-Keeper (n_1=10); Group-B: Bowler (n_2=10) and Group-C: Batsman (n_3=10) on the basis of "Response Time", Analysis of Variance (ANOVA) was employed.

RESULTS

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

	Wicket-Keeper	**Bowler**	**Batsman**	**Total**
N	10	10	10	30
∑X	96.4	99.3	68.3	264
Mean	9.64	9.93	6.83	8.8
$\sum X^2$	949.46	1006.29	503.61	2459.36
Std.Dev.	1.4968	1.4997	2.0309	2.1668

Source	**SS**	**df**	**MS**	
Between-treatments	58.634	2	29.317	*F* = 10.21024
Within-treatments	77.526	27	2.8713	
Total	58.634	2	29.317	*F* = 10.21024

The Summary of Data and Result Details of One-Way ANOVA with respect to factor "**Response Time"** Wicket-Keeper", "Bowler" and "Batsman" are cited above. Further, the results states that the f-ratio value is 10.21024. The p-value is .000499. The result is significant at $p < .05$.

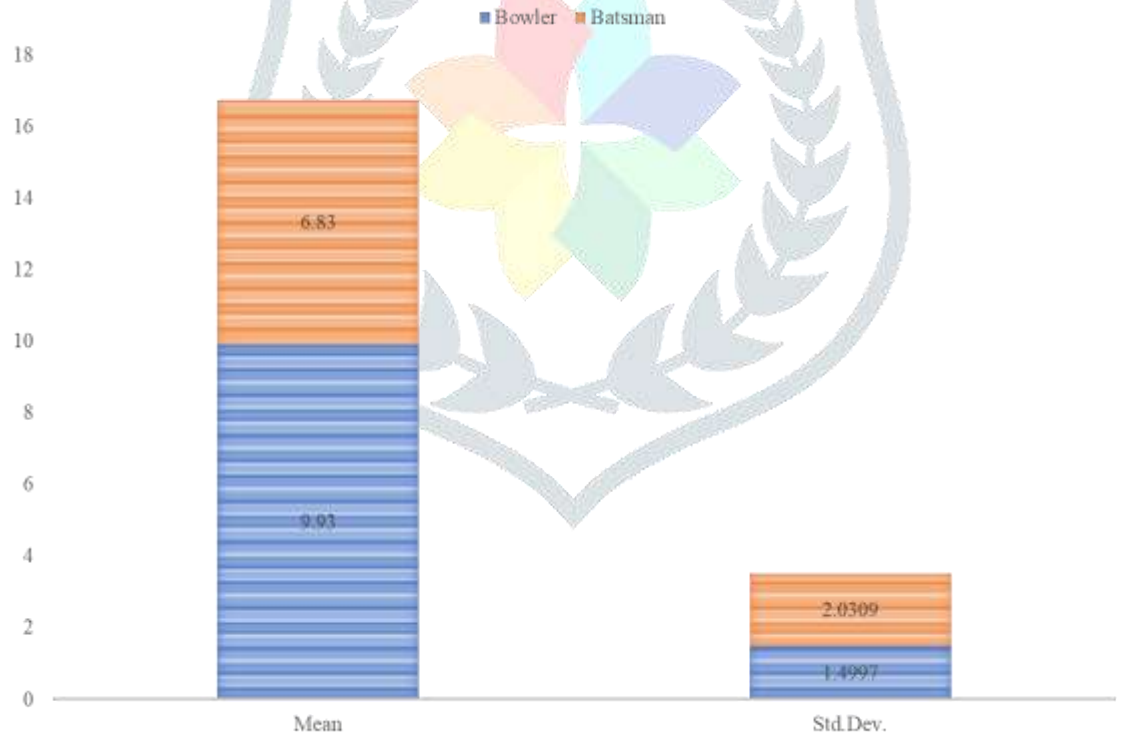

Figure-1: The comparison of "Wicket-Keeper", "Bowler" and "Batsman" of Number, Mean and Standard Deviation with respect to factor "Response Time".

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

Pairwise Comparisons		$HSD_{.05} = 1.8789$ $HSD_{.01} = 2.4085$	$Q_{.05} = 3.5064$ $Q_{.01} = 4.4948$
T_1:T_2	$M_1 = 9.64$ $M_2 = 9.93$	0.29	**T_1:T_2**
T_1:T_3	$M_1 = 9.64$ $M_3 = 6.83$	2.81	**T_1:T_3**
T_2:T_3	$M_2 = 9.93$ $M_3 = 6.83$	3.10	**T_2:T_3**

CONCLUSIONS

- **Response Time:** The f-ratio value is 10.21024. The p-value is .000499. The result is significant at $p < .05$.

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