

**COMPARATIVE ANALYSES ON SELECTED SKILL PERFORMANCE
VARIABLES, BETWEEN COLLEGE LEVEL RIGHT ARM OFF SPINNER,
RIGHT ARM FINGER LEG SPIN AND RIGHT ARM WRIST LEG SPINNER
OF CRICKET PLAYERS**

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Abstract

The purpose of the study was conducting to determine possible cause and Comparative analyse on selected skill performance variables, between college level Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of cricket players. To achieve the purpose of the study, thirty male college level cricket players were randomly selected as subjects. Their age, range from 18 to 25 years respectively. They were divided into three groups namely Right arm off spinner group (N=10), Right arm finger leg spinner group (N=10) and Right are wrist leg spinner group (N=10). The study is formulated as a true purposive random group design. All the participants were tested on skill performance abilities namely Angle of Release, Spot Accuracy and Angle of Turn. The test is conducted and the readings are carefully recorded as a test score. It was considered as the most appropriate statistical technique for the study. One way ANOVA was applied to find out the significant difference among the groups' selected Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of Cricket players if obtained 'F' ratio significant scheffi's post hoc tests used.

INTRODUCTION

Cricket, the second most popular sport in the world, has emerged as one of the most widely played international mainstream sports in the world. My research focuses on the emerging sport of batting in India, where right-arm spin bowlers are becoming increasingly prominent. Right-arm spin bowlers use three main types of spinning techniques: right arm finger off-spin, right arm finger leg-spin, and right arm wrist leg-spin. This research aims to analyze the movements of these bowlers, specifically their

release angle, turn angle, and spot accuracy. By examining these aspects, we can identify which type of bowler performs most effectively, demonstrating superior spin, ball control, and precision in hitting the target area. This research will contribute to the future development of spin bowlers.

METHODOLOGY

The procedure adopted for selection of the subject, selection of the variables, selection of test, the test administration test collection of data and statistical technique were presented.

SELECTION OF SUBJECTS

The study aimed to conduct a comparative analysis of selected skill performance variables, between college level Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of Cricket players. The age group of the participants ranged from 18 to 25 years. The study involved a total of 30 cricket players from the Coimbatore district, comprising 10 right-arm off-spinners, 10 right-arm leg spinners, and 10 right-arm wrist leg spinners from various institutions. The subjects were randomly selected for the study.

SELECTION OF VARIABLES

❖ Skill Performances Variables

- Angle of Release
- Spot Accuracy
- Angle of Turn

SELECTION OF TESTS

As per the available literatures, the following tests were used to collect relevant data on the selected dependent variables and they were presented in the table I.

Table –1

Selected Variables and their Standardized Test Items

S.No	VARIABLES	TEST ITEMS	UNITS OF MEASURES
Skill Performances			
1.	Angle of Release	Release Angle Test	Angle of Degree
2.	Spot Accuracy	Line and Length Test	In Points
3.	Angle of Turn	Angle Turn Test	Angle of Degree

EXPERIMENTAL DESIGN

The study was conducting to determine possible cause and Comparative analyse on selected skill performance variables, between college level Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of Cricket players. The study is formulating as a true random group design, consisting of a test. Right arm off spinner group (N=10), Right arm finger leg spinner group (N=10) and Right are wrist leg spinner group (N=10). All the participants will be tested skill performance abilities. The test is conducted and the readings are carefully recorded as a test score.

STATISTICAL TECHNIQUE

The purpose of the study was found out the comparative analysis on selected skill performance variables, between college level Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of Cricket players. To achieve this is the collected data on criterion measures of selected skill performance variables (Angle of Release, Sport Accuracy and Angle of Turn). It was considered as the most appropriate statistical technique for the study. One way ANOVA was applied to find out the significant difference among the groups' selected Right arm off spinner, Right arm finger Leg spin and Right arm wrist leg spinner of Cricket players if obtained F ratio significant scheffi's post hoc tests used.

RESULTS OF THE STUDY**Table-2****ANALYSIS OF VARIANCE ON ANGLE OF RELEASE AMONG MEN INTERCOLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER**

Group	Mean	S.D ±	Source of Variance	Sum of Squares	Df	Mean Square	' F'
RAFOS	71.60	±8.00	Between	1138.53	2	569.27	19.79*
RAFLS	85.36	±3.23					
RAWLS	83.83	±3.43	Within	776.61	27	28.76	

* Significant Level was fixed at 0.05 level. Table value 3.35 with df 2&27

Table – 2 shows that Angle of Release mean values and standard deviation of right arm off spinner, right arm finger leg spinner and right arm wrist leg spinner men cricket players were 71.60 ± 8.00 and 85.36 ± 3.23 and 83.8 ± 3.43 respectively. The obtained 'F' value 19.79 which were as greater than tabulated value 3.35 in the level 0.05. So that researcher's hypothesis accepted and null hypothesis rejected.

Table -3**SCHEFFE'S POST HOC TEST DIFFERENCE BETWEEN THE PAIRED MEANS ON ANGLE OF RELEASE OF MEN COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER**

RAFOS	RAFLS	RAWLS	Mean difference	C.I
71.60	85.36		13.76*	5.76
71.60		83.83	12.23*	
	85.36	83.83	1.53	

*Significant

Table-3 shows that the mean differences between right arm finger off spinners and right arm finger leg spinners were 13.76, right arm finger off spinners and right arm wrist leg spinners were 12.23, right arm finger leg spinners and right arm wrist leg spinners were 1.53, which were greater than the required Scheffe's confidence interval value of 5.76; hence, the difference between the groups was significant at 0.05 level of confidence. Hence the null hypothesis was rejected at 0.05 level of confidence. The mean differences between right arm finger leg spinners and right arm wrist leg spinners were 1.53, which were lesser than required Scheffe's confidence interval value of 5.76. Hence, there was no evidence to reject the null hypothesis. The mean values of angle of release among right arm finger off spinners, right arm finger leg spinners and right arm wrist leg spinners were presented in fig.1 with the bar diagram for better understanding of the results of this study

Figure - 1

THE BAR DIAGRAM SHOWS THAT ANGLE OF RELEASE OF MEN COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER

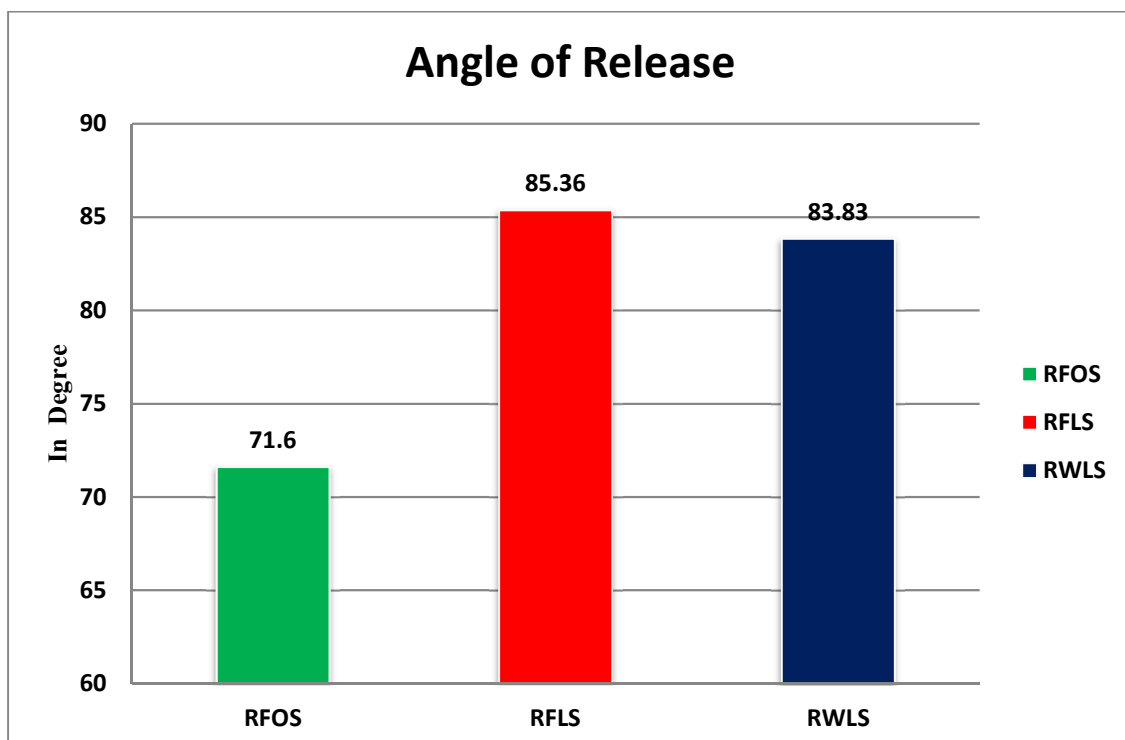


Table-4

ANALYSIS OF VARIANCE ON SPOT ACCURACY AMONG MEN COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER

Group	Mean	S.D ±	Source of Variance	Sum of Squares	Df	Mean Square	' F'
RAFOS	4.40	±0.16	Between	6.979	2	3.489	37.68*
RAFLS	3.76	±0.34					
RAWLS	3.22	±0.36	Within	2.500	27	0.093	

* Significant Level was fixed at 0.05 level. Table value 3.35 with df 2&27

Table – 4 shows that Spot Accuracy mean values and standard deviation of right arm off spinner, right arm finger leg spinner and right arm wrist leg spinner men cricket players were 4.40 ± 0.16 and 3.76 ± 0.34 and 3.22 ± 0.36 respectively. The obtained 'F' value 37.68 which were greater than tabulated value 3.35 in the level 0.05. So that researcher's hypothesis accepted and null hypothesis rejected.

Table -5

SCHEFFE'S POST HOC TEST DIFFERENCE BETWEEN THE PAIRED MEANS ON SPOT ACCURACY

RAFOS	RAFLS	RAWLS	Mean difference	C.I
4.40	3.22		1.18*	0.91
4.40		3.76	0.64	
	3.22	3.76	0.54	

*Significant

Table-5 shows that the mean differences between right arm finger off spinners and right arm finger leg spinners were 1.18, right arm finger off spinners and right arm wrist leg spinners were 0.64, right arm finger leg spinners and right arm wrist leg spinners were 0.54, which were greater than the required Scheffe's confidence interval value of 0.91; hence, the difference between the groups was significant at 0.05 level of confidence. Hence the null hypothesis was rejected at 0.05 level of confidence.

The mean differences between right arm finger off spinners and right arm finger leg spinners were 0.64, right arm finger leg spinners and right arm wrist leg spinners were 0.54, which were lesser than required Scheffe's confidence interval value of 0.91. Hence, there was no evidence to reject the null hypothesis.

The mean values of spot accuracy among right arm finger off spinners, right arm finger leg spinners and right arm wrist leg spinners were presented in fig.2 with the bar diagram for better understanding of the results of this study.

Figure - 2

THE BAR DIAGRAM SHOWS THAT SPOT ACCURACY OF MEN COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER

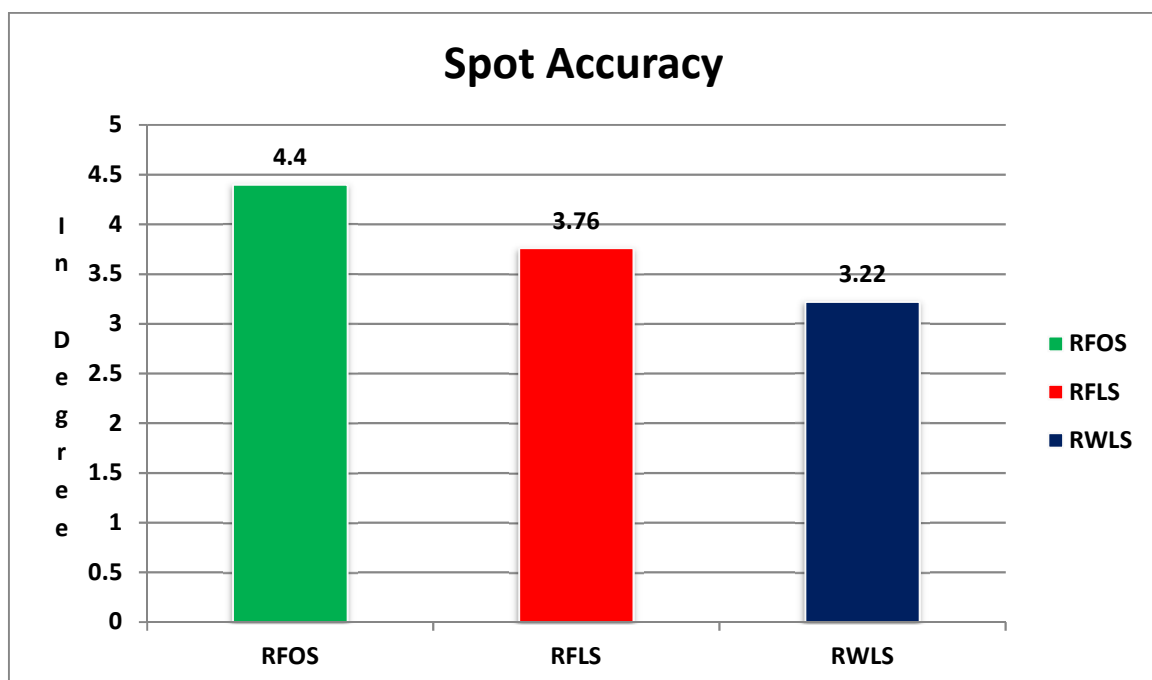


Table-6

**ANALYSIS OF VARIANCE ON ANGLE OF TURN AMONG MEN
COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM
FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER**

Group	Mean	S.D ±	Source of Variance	Sum of Squares	Df	Mean Square	' F'
RAFOS	25.56	±4.73	Between	145.640	2	72.820	6.43*
RAFLS	22.03	±1.55					
RAWLS	27.33	±3.01	Within	305.561	27	11.317	

* Significant Level was fixed at 0.05 level. Table value 3.35 with df 2&27

Table – 6 shows that Angle of Turn of mean values and standard deviation of right arm off spinner, right arm finger leg spinner and right arm wrist leg spinner men cricket players were 25.56 ± 4.73 and 22.03 ± 1.55 and 27.33 ± 3.01 respectively. The obtained 'F' value 6.43 which were greater than tabulated value 3.35 in the level 0.05. So that researcher's hypothesis accepted and null hypothesis rejected.

Table -7

**SCHEFFE'S POST HOC TEST DIFFERENCE BETWEEN THE PAIRED
MEANS ON ANGLE OF TURN**

RAFOS	RAFLS	RAWLS	Mean difference	C.I
25.56	27.33		1.77	3.17
25.56		22.03	3.53*	
	27.33	22.03	5.30*	

*Significant

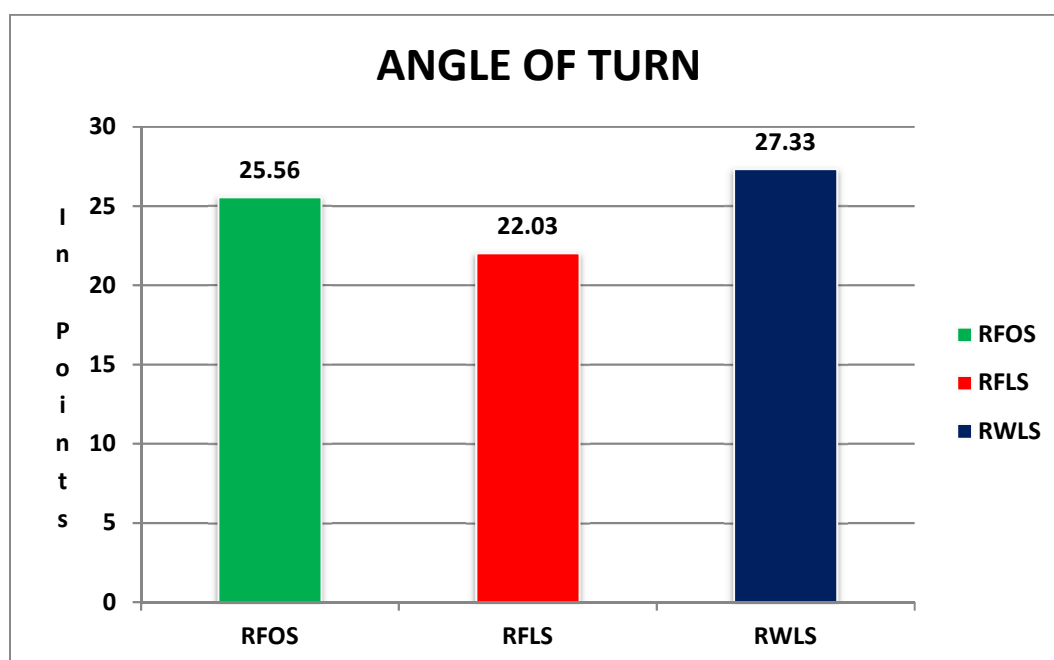
Table-7 shows that the mean differences between right arm finger off spinners and right arm finger leg spinners were 1.77, right arm finger off spinners and right arm wrist leg spinners were 3.53, right arm finger leg spinners and right arm wrist leg spinners were 5.30, which were greater than the required Scheffe's confidence interval value of 3.17; hence, the difference between the groups was significant at 0.05 level of confidence. Hence the null hypothesis was rejected at 0.05 level of confidence.

The mean differences between right arm finger off spinners and right arm finger leg spinners were 0.64, which were lesser than required Scheffe's confidence interval value of 3.17. Hence, there was no evidence to reject the null hypothesis.

The mean values of angle of turn among right arm finger off spinners, right arm finger leg spinners and right arm wrist leg spinners were presented in fig.2 with the bar diagram for better understanding of the results of this study.

Figure - 3

THE BAR DIAGRAM SHOWS THAT ANGLE OF TURN OF MEN COLLEGIATE CRICKET RIGHT ARM OFF SPINNER, RIGHT ARM FINGER LEG SPINNER AND RIGHT ARM WRIST LEG SPINNER



DISCUSSION ON FINDINGS

The purpose of the study was comparing the selected skill performance variables (Angle of Release, Sport Accuracy and Angle of Turn) compare among intercollegiate men right arm wrist leg spinners right arm finger leg spinners and right arm finger off spinners.

Angle of Release

Right Arm Finger Leg Spinners better angle of release quality comparing than Right Arm Wrist Leg Spinners and Right Arm Finger Off Spinners.

The result of the study was in line with the finding of the study conducted by **Singh (2023)** this study was to find out the Cricket is an unique international sport where environmental and task constraints have shown to have a significant impact on batting and bowling performance

Sport Accuracy

Right Arm Finger off Spinners better Spot accuracy comparing than Right Arm Finger Leg Spinners and Right Arm Wrist Leg Spinners.

The result of the study was in line with the finding of the study conducted by **Freeston J (2014)** conducted a study on Throwing speed and accuracy in baseball and cricket players

Angle of Turn

Right Arm Wrist Leg Spinners better Angle of Turn comparing than Right Arm Finger Leg Spinners and Right Arm Finger Off Spinners.

The result of the study was in line with the finding of the study conducted by **Jeffrey Low (2013)** purpose of this study was to Practice plays an important role in skill acquisition, although not all practice is of equal quality

CONCLUSIONS

Based on the data analysis, the following conclusions were drawn:

- There was a significant difference between angle of release variable of college level right arm finger off-spin, right arm finger leg-spin, and right arm wrist leg-spin of cricket players.
- There was a significant difference between spot accuracy variable of college level right arm finger off-spin, right arm finger leg-spin, and right arm wrist leg-spin of cricket players.
- There was a significant difference between angle of turn variable of college level right arm finger off-spin, right arm finger leg-spin, and right arm wrist leg-spin of cricket players.

Reference:

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