

## STUDY OF COORDINATIVE ABILITIES OF BASKETBALL PLAYERS AT DIFFERENT LEVELS OF COMPETITION

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### ABSTRACT

*The traditional psychological approach shows that the relationship is dualistic. The faculty of reason is separate from and independent of what we do with our bodies. The purpose of the study is to study the Coordinative Abilities of Basketball Players at different levels of Competition. For the purpose of the study 150 Basketball players were selected as subjects (50 All India interuniversity players, 50 inter college players and 50 under-19 school players). The subjects were thoroughly acquainted with the testing procedure as well as the purpose and significance of the study. The finding of the present study shows that there were significant differences between all the three levels of basketball players. The findings are in consonance with the study undertaken by Farrow (1975). The findings of the present investigation show that there exists a significant difference between all the three levels of basketball players for their orientation ability. The findings are supported with the study undertaken by Bakshi (1994) where differences were found between swimmers and track and field athletes for their Orientation ability.*

*Key words: Psychology Approach, Players and Competition.*

### INTRODUCTION:

Exploring the possibilities of Coordinative abilities the mystery of body and mind has long occupied researchers within fields such as phenomenology, psychology and cognitive science.. This means that reason must be independent of perception and bodily movements. Intelligence is here seen as the ability to think abstractly, combine and solve mental problems. The theory was put forth as a way of distinguishing humans from animals, before the emergence of the evolutionary theory, which showed that human capacities grow out of animal capacities. Today it is becoming a well-known and generally accepted thesis that human beings perceive, learn and experience through bodily movement. George Lakoff and Mark Johnson states in the Philosophy In The Flesh that “Our sense of what is real begins with and depends crucially upon our bodies, especially our sensorimotor apparatus, which enables us to perceive, move and manipulate”. In

that way our bodies are the foundation for the way we experience and interact with our surroundings. The theory of motor coordination is the basis for understanding the motor of coordination abilities. Motor coordination is part and parcel of actions regulation. Coordinative abilities have also important and strong links with the motor skills as the motor coordination focus the basis of both. These abilities enable the sportsperson to do a group or set of movement with better quality and effect. Many studies had been done in the field of physiology, body composition and psychomotor abilities, but they had not been done by taking all the three together. So, the researcher had decided to do research by opting this problem.

#### STATEMENT OF THE PROBLEM:

“Study of Coordinative Abilities of Basketball Players at different levels of Competition”.

#### DELIMITATIONS:

1. The research was delimited to male basketball players.
2. Only those male basketball players were taken who had represented their universities, colleges and schools.
3. The study was delimited to male basketball players ranging between 17 to 25 years of age.
4. The study was delimited to one hundred fifty male basketball players (50 All India Interuniversity, 50 Inter College and 50 Under-19 School Basketball Players).
5. Only Coordinative Abilities were taken. These abilities were:
  - a) Differentiation Ability
  - b) Orientation Ability

#### HYPOTHESIS:

It was hypothesized that there would be significant differences for Coordinative Abilities between All India Interuniversity, Inter College and Under-19 School Basketball Players.

#### OBJECTIVES:

To find out the differences in Coordinative Abilities of All India Interuniversity, Inter College and Under-19 School Basketball Players.

#### METHODOLOGY:

##### SELECTION OF SUBJECTS:

For the purpose of the study 150 Basketball players were selected as subjects (50 All India interuniversity players, 50 inter college players and 50 under-19 school players). The subjects were thoroughly acquainted with the testing procedure as well as the purpose and significance of the study.

##### SELECTION OF VARIABLES:

The following Coordinative Abilities were selected for this study.

- i. Differentiation Ability: It was determined by using backward medicine ball throw test and will be recorded in points.
- ii. Orientation Ability: It was assessed by using medicine ball run test and will be recorded in 1/ 100<sup>th</sup> of second.

#### STATISTICAL ANALYSIS OF DATA:

Technique of One-Way Analysis of Variance (ANOVA) was used to study the significance of difference in selected Coordinative Abilities between three different competition levels. Scheffe Post-hoc test was applied to find out Mean Differences among different levels. In order to check the significance, level of significance was set at 0.05.

## RESULTS AND FINDINGS:

## i. DIFFERENTIATION ABILITY

TABLE-1  
SHOWING F VALUES OF SELECTED DIFFERENTIATION ABILITY OF ALL INDIA  
INTER UNIVERSITY, INTER COLLEGE AND UNDER-19 SCHOOL BASKETBALL  
PLAYERS

GROUP	MEAN	STANDARD DEVIATION	ANOVA F-ratio
ALL INDIA INTERUNIVERSITY BASKETBALL PLAYERS	11.12	2.677	92.089
INTER COLLEGE BASKETBALL PLAYERS	14.88	2.876	
UNDER-19 SCHOOL BASKETBALL PLAYERS	18.26	2.311	

Level of Significance .05

df=147

Tabulated 'F' value 2.99

Table-1 shows the value of F-ratio of All India Interuniversity, Inter College and Under-19 School Basketball Players with regard to their Differentiation Ability. It shows that F-ratio of three different groups for their Differentiation Ability were significant at .05 level. The calculated value of F-ratio is 92.089 whereas the tabulated value of F-ratio is 2.99. So it can be affirmed that there are significant differences between all the three groups for their Differentiation Ability.

## ii. ORIENTATION ABILITY

TABLE-2

SHOWING F VALUE OF SELECTED ORIENTATION ABILITY OF ALL INDIA INTER UNIVERSITY, INTER COLLEGE AND UNDER-19 SCHOOL BASKETBALL PLAYERS

GROUP	MEAN	STANDARD DEVIATION	ANOVA F-ratio
ALL INDIA INTERUNIVERSITY BASKETBALL PLAYERS	7.884	0.8049	182.831
INTER COLLEGE BASKETBALL PLAYERS	9.477	1.0022	
UNDER-19 SCHOOL BASKETBALL PLAYERS	11.804	1.2400	

Level of Significance .05

df=147

Tabulated 'F' value 2.99

Table-2 shows that the value of F-ratio of All India Interuniversity, Inter College and Under-19 School Basketball Players with regard to their Orientation ability. It shows that F-ratio of three different groups for their Orientation Ability were significant at .05 level. The calculated value of F-ratio is 182.831 whereas the tabulated value of F-ratio is 2.99. It can be stated that there are significant differences among all the three groups for their Orientation Ability.

TABLE-4  
SHOWING MULTIPLE COMPARISONS OF COORDINATIVE ABILITIES OF  
BASKETBALL PLAYERS AT DIFFERENT LEVELS OF COMPETITIONS

Scheffe							
Variables	(I) Grp	(J) Gr p	Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
DIFFERENTIATION ABILITY	AI	IC	-3.760*	.526	.000	-5.06	-2.46
		Sc	-7.140*	.526	.000	-8.44	-5.84
	IC	AI	3.760*	.526	.000	2.46	5.06
		Sc	-3.380*	.526	.000	-4.68	-2.08
	Sc	AI	7.140*	.526	.000	5.84	8.44
		IC	3.380*	.526	.000	2.08	4.68
ORIENTATION	AI	IC	-1.5938*	.2062	.000	-2.104	-1.084
		Sc	-3.9208*	.2062	.000	-4.431	-3.411
	IC	AI	1.5938*	.2062	.000	1.084	2.104
		Sc	-2.3270*	.2062	.000	-2.837	-1.817
	Sc	AI	3.9208*	.2062	.000	3.411	4.431
		IC	2.3270*	.2062	.000	1.817	2.837

## DISCUSSION:

### i. Differentiation Ability:

Differentiation ability has a direct bearing on the performance in basketball game. In as much as the game of basketball it have forty minutes duration of play; the players have to ensure that they possess high degree of accuracy and economy of separate body movements and movement phases so that the energy is preserved till the game finishes. The finding of the present study shows that there were significant differences between all the three levels of basketball players. The findings are in consonance with the study undertaken by Farrow (1975).

ii. Orientation Ability:

The findings of the present investigation show that there exists a significant difference between all the three levels of basketball players for their orientation ability. The findings are supported with the study undertaken by Bakshi (1994) where differences were found between swimmers and track and field athletes for their Orientation ability.

CONCLUSION:

1. There were significant differences between All India Inter University, Inter College and Under-19 School Junior Basketball Players for their Differentiation Ability.
2. It was found that there were significant differences between All India Inter University, Inter College and Under-19 School Junior Basketball Players for their Orientation ability.

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