

## **Study of coordinative abilities between all India Inter University and Inter College female basketball players**

**Varinder Singh**

Assistant Professor, University College Ghanaur, Punjab, India.

### **Abstract**

The purpose of the study was to compare the Coordinative abilities between All India Inter University and Inter College Female Basketball Players. Total Hundred (100) female Basketball players (50 All India Inter University and 50 Inter College Female Players) were selected as subjects. The Coordinative abilities selected for the study were Differentiation ability, Orientation ability, Balance ability and Reaction ability. The data was analyzed to find out the significant difference between the groups. 't'-test statistical technique was used to analyze the significant difference and the level of significance was set at 0.05 level. The results showed that there was significant difference between All India Interuniversity and Inter College Female Basketball Players for their Coordinative abilities.

**Keywords:** Coordinative ability, Differentiation ability, Orientation ability, Balance ability, Reaction ability

### **1. Introduction**

Physical activity is an inherent trait of a human being. It becomes all the way imperative to identify the nature and the degree of this natural talent and to nurture, modifies and refines it to get the cherished outcomes. The children perform a lot of activities such as running, jumping, throwing, catching, kicking and striking etc. The activities are known as natural or universal skills.

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. The traditional psychological approach is that the relationship is dualistic. The faculty of reason is separate from and independent of what we do with our bodies. 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. Ehab Mostafa Kamel and Mahmoud Houssain Mahmoud (2011) [3], the process of defining the level of dynamic performance of

basketball juniors is a very important process because it is difficult to define such a level through observing the performance of the player during the sports competitions. This because of the interference of many effective factors affecting this performance such as the nature of the competition, the level of the competitors and the reactions of the partners, competitors and referees, so it is necessary to follow the correct scientific ways to identify the coordination abilities of beginners. This research aims at identifying the working force structure of the coordination abilities of female basketball beginners, so it designs a sort of testing battery as an index of measuring and evaluating these abilities, The two researchers used a descriptive methodology (surveying study) on a sample of 70 basketball beginners under the age of 14 in some Cairo and Giza clubs in the sports season 2009/2010, Within the limits of the research and through the statistical analysis and discussion of the tables, we can reach the following conclusion Designing a testing battery as an index to measure and evaluate the direct abilities which are found in female basketball beginners, including 8 tests to measure 2 strong factors (the ability's for balance, orientation and dynamic organization and the ability's for distinction and rhythmic response. Archita Koley (1999) [1] conducted a study on relationship of coordinative abilities to sprinting performance in sprinters. The result of the study shows that, the reaction ability, orientation ability and balance ability had significant relationship to sprinting performance. Gouranga Saskar (1999) [5] tested the relationship of coordinative abilities to shooting performance in soccer on 25 male football players. The findings reveal that there were no significant relationships of the coordinative abilities to shooting performance in soccer. The findings were, there is no significant relationship between shooting performance and coordinative abilities of footballer.

**Objective**

The objective of the study was to compare the coordinative abilities between all India inter university and inter college female basketball players.

**Hypothesis**

There will be insignificant difference of coordinative abilities between all India inter university and inter college female basketball players.

**Material & Methods**

**Selection of Subjects**

Total Hundred (100) Female Basketball players (50 All India interuniversity and 50 inter college female basketball players) were selected as subjects.

**Selection of variables**

The following four coordinative abilities were selected for the purpose of this research.

1. Differentiation ability: - It was determined by using backward medicine ball throw test and will be recorded in points.
2. Orientation ability: - It was assessed by using medicine ball run test and will be recorded in 1/ 100<sup>th</sup> of second.
3. Balance ability: - This variable was assessed by using ‘Stork Stand Test’ and will record in 1/100<sup>th</sup> seconds.
4. Reaction ability: - This variable was evaluated by using ‘Visual Reaction Timer’ and will record in 1/100<sup>th</sup> seconds.

**Statistical Procedure**

After the collection of relevant data, to compare the selected coordinative abilities between all India interuniversity and inter college female basketball players, ‘t’-test was employed. The level of significance was set at 0.05.

**Analysis of Data and Results:-**

**Table 1:** Mean and Standard Deviation of selected Differentiation ability of all India inter university and inter college female basketball players

Group	Mean	Standard Deviation	Standard Error Mean	t-value
All India Interuniversity Basketball Players	11.12	2.677	0.379	6.766*
Inter College Basket ball Players	14.88	2.876	0.407	

Level of Significance .05 df=98 Table ‘t’-value at .05(1.980)

**Table 2:** Mean and Standard Deviation of selected Orientation ability of all India Inter University and Inter College Female Basketball Players

Group	Mean	Standard Deviation	Standard Error Mean	t-value
All India Interuniversity Basketball Players	7.884	0.8049	0.1138	8.768*
Inter College Basket ball Players	9.477	1.0022	0.1417	

Level of Significance .05 df=98 Table ‘t’-value at .05(1.980)

**Table 3:** Mean and Standard Deviation of selected Balance ability of all India Inter University and Inter College Female Basketball Players

Group	Mean	Standard Deviation	Standard Error Mean	t-value
All India Interuniversity Basketball Players	9.826	1.1234	0.1589	4.01*
Inter College Basketball Players	8.818	1.3759	0.1946	

Level of Significance .05 df=98 Table ‘t’-value at .05(1.980)

**Table 4:** Mean and Standard Deviation of selected Reaction Ability of all India Inter University and Inter College Basketball Players

Group	Mean	Standard Deviation	Standard Error Mean	t-value
All India Interuniversity Basketball Players	1.547	0.2076	0.0294	6.846*
Inter College Basket ball Players	1.832	0.2087	0.0295	

Level of Significance .05 df=98 Table ‘t’-value at .05(1.980)

**Discussion and Findings**

The statistical analysis of data shows that there were significant differences for coordinative abilities i.e. Differentiation Ability, Orientation Ability, Balance and Reaction Ability between All India Inter University and Inter College female Basketball Players.

On the basis of the results of the study, the hypothesis that there will be insignificant difference of coordinative abilities was rejected. The findings were in consonance with the study undertaken by Farrow (1975) [4], Bakshi (1994) [2].

**References**

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