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## Comparative study of kinesthetic perception of male and female basketball players

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### Abstract

The purpose of the study was to compare the kinesthetic perception among male and female Basketball players. Twenty male and twenty female Basketball players with ages ranging between 18 to 24 years of Lakshmibai National Institute of Physical Education, Gwalior were randomly selected as subjects for this study. All of them were participating in the regular activity classes in accordance with the requirement of the institute curriculum. All the subjects had Basketball as their match practice. To collect the data, kinesthetic perception test was administered to all the subjects and t-test was employed for analysis. The findings of the study revealed that there was no statistically significant difference in the kinesthetic perception among male and female Basketball players of Lakshmibai National Institute of Physical Education, Gwalior.

**Keywords:** kinesthetic perception, basketball, t-test, significant difference

### Introduction

Every human being has an inborn tendency to participate in physical activity, No matter how young one is one is involved directly or indirectly in some or other form of movements.

If a newly born child is analyzed, we find that out of 24 hours, either he is involved in movements or sleep. And with time, age and participation one develops rhythm and coordination in movements; Participation in physical activity makes full well-being and free all round development of all the members of the society. Also participation in physical activity gives the high level of health, comprehensive and harmonious development of all the forms and functions of the body, physical fitness and a healthy way of life, the ability to use effectively developed physical in social practices, enables man as does everything that is beautiful gives people energy which is required by society; by setting new records man proves that he is capable of great achievements.

To be good sports men one has to develop various qualities within him. A sports men should have a good perception ability; stability; speed; strength; suppleness; endurance and skill (personal skill; rhythm; handling object etc.). For a sports man it is extremely important to have information about what the muscles are doing and their position during movements. It is also successfully argued that this muscle sense called kinesthetic is equally necessary for the successful execution of well learned skills. Kinesthetic is keenly developed sense required for beginners and experts alike for proficiency in many motor skills.

The capacity for sensing voluntary movements of one's body and the position of its part was first brought to scientific attention in the early in the ninetieth century by Sir Gharles Bell. He called it the muscle sense; later it was known as the six senses; and we refer it as a kinesthetic or kinesthetic sensitivity, from Greek point, kinesis means movement.

An area of special concern to those interested in the experimental psychology of performance has been that of kinesthetic. Essentially, this involves the perception of the movements, the sensation of position, or the control of motor performance. It is the developmental phenomenon that is mostly lacking or undeveloped in infancy and quite after well developed in the adults. As they grow during child hood, they become better at proprioceptive adjustments and develop the awareness of partial relationship both with their own bodies and in relation to their external environment.

To perform competently in basketball an individual must have good kinesthetic sense; or body

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awareness. An individual must be able to control the position of the body, and to know where each body part is at all times, kinesthetic awareness enables an individual to jump to turn quickly or slowly, to change direction suddenly and to perform any other movement necessary for the smooth execution of the skill.

It is commonly seen that adults develop certain amount of awkwardness in their movement, which certainly affects their participation in various games and sport activities. Since it is known that there are differences in various physiological, physical and psychological parameters of male and female, this study was undertaken to compare how far both sex groups differ in kinesthetic perception, which is an essential element to perform any skill effectively.

**Methodology**

Twenty male and twenty female with ages ranging between 18 to 24 years of Lakshmbai National Institute of Physical Education, Gwalior were randomly selected as subjects for this study. All of them were participating in the regular activity classes in accordance with the requirement of the institute curriculum. All the subjects had basketball as their match practice or advanced course.

In order to measure the kinesthetic perception or the ability of the subject to predict the position during movements the kinesthetic obstacle test was administered. An area of 40 x 5 feet was marked on the floor and twelve chairs were arranged as obstacle in accordance with floor pattern as per requirement. Each subject was allowed one practice trial of walking through the course without being blindfolded. Then the subject walked through the course blindfolded for the test.

**Scoring**

The subjects scored 10 points for each station he successfully cleared, without touching the obstacles. There were 10 stations for a maximum score of 100 points.

There was a 10 points penalty for touching any part of the body against an object. After such penalty the subject was directed to the centre line and one step ahead of that particular station.

There was a 5 point penalty, for each occurrence of getting outside of the marked area. Upon such occurrences the subject was directed back into the centre of the line at the nearest point from which he went away.

The final score were recorded to represent the kinesthetic perception of the subject. In order to compare the kinesthetic perception of subjects of different sexes the statistical technique was employed.

**Results**

In order to compare the kinesthetic perception among male and female basketball players, the t-was computed. The statistical analysis of data collected on forty subjects revealed that the score of kinesthetic perception ability test was found no significant difference at 0.05 level of confidence between the subjects belonging to different sexes.

**Table 1:** Significance of Difference between the Mean of Selected Group

Group	N	Mean	Mean Difference	t-ratio
A	20	53.50	1.50	0.40
B	20	52.00		

Not significant at 0.05 level of confidence

Tabulated t.05 (38) =2.02

Group A- Female Basketball Players.

Group B- Male Basketball Players.

**Discussion**

It is observed from the findings that there exists no significant difference between the kinesthetic perceptions of both sexes.

This reason could be attributed to the following facts like-

1. The nature of the game Basketball is such that for sexes, court dimensions, height of the ring, size of the ball, the specificity of rule interpretation, trends of tactics playing system, player’s dependence on negative tactics etc. is the same.
2. Both the groups were undergoing a similar curriculum and had been adequately trained.
3. Apart from kinesthetic sense the visual and auditory senses play a very significant role in playing the game by both sexes.
4. Due to similar physiological make up of both groups.
5. The subjects were in the age group of 18-24 years. In this age group all the senses are well developed.

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