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## Analysis of kinesthetic sense young football players, physical education and science students

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### Abstract

The purpose of the study was to analyze the kinesthetic sense among football players, physical education and science students. 10 male students each from the football players, physical education and science students of SGGS Khalsa College, Mahilpur were selected as a subjects at random group. Their age group was 18-24 years. Distance perception jump test scale was used to collect the data. One way analysis of variance was used. The obtained F ratio was significant at 0.05 level of confidence; scheffe test was used as a post hoc test to find out the mean difference. The results showed that there was significant difference between Football players and Science students and Physical Education students and Science students and there was no significant difference between Football players and Physical Education students.

**Keywords:** Kinesthetic Sense

### Introduction

The ability to know accurately the positions and movements of one's skeletal joints. Postural and movement information are communicated via sensory systems by tension and compression of muscles in the body. Even when the body remains stationary, the kinesthetic sense can monitor its position. Kinesthesia refers to sensory input that occurs within the body. Postural and movement information are communicated via sensory systems by tension and compression of muscles in the body. Even when the body remains stationary, the kinesthetic sense can monitor its position. Humans possess three specialized types of neurons responsive to touch and stretching that help keep track of body movement and position. The first class, called Pacinian corpuscles, lies in the deep subcutaneous fatty tissue and responds to pressure. The second class of neurons surrounds the internal organs, and the third class is associated with muscles, tendons, and joints. These neurons work in concert with one another and with cortical neurons as the body moves.

The ability to assess the weight of an object is another function of kinesthesia. When an individual picks up an object, the tension in his/her muscles generates signals that are used to adjust posture. This sense does not operate in isolation from other senses. For example, the size-weight illusion results in a mismatch between how heavy an object looks and how heavy the muscles "think" it should be. In general, larger objects are judged as being heavier than smaller objects of the same weight. The kinesthetic sense does not mediate equilibrium, or sense of balance. Balance involves different sensory pathways and originates in large part within the inner ear.

### Methods and Materials

10 male students each from the Football players, Physical Education and Science students of SGGS Khalsa College, Mahilpur were selected as subjects for this study at random. They were in 18-24 years age group. The variable selected for this study was distance perception jump test. The obtained data from the variables were statistically analyzed with one way analysis of variance. Whenever the F ratio for mean was found to be significant, sheffe's test was applied as post hoc test to determine the mean differences. The level of confidence was fixed at 0.05 levels for all the cases to find out the significance.

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## Results and Discussion

The analysis of various on distance perception jump test of

Football players, Physical Education and Science students have been analyzed.

**Table 1:** Analysis of variance of distance perception jump test of Football player, Physical Education and Science Students (Inches)

Mean			Source of Variance	Sum of Squares	df	Mean Squares	F ratio
Football Players	Physical Education Students	Science Students					
3.08	3.15	4.77	Between	18.93	2	9.50	7.92*
			Within	32.20	27	1.21	

\*Significant at 0.05 level of confidence

From the table 1 the mean value of distance perception jump test of Football players, Physical education and Science students were 3.08, 3.15 and 4.77 respectively. The obtained F ratio of 7.92 is more than the table value of 2.51 for df 2 and 27 required for significance at 0.05 levels of confidence. The results of the study indicate that there is significant

difference among the mean of Football players, Physical education and Science students on the perception jump test. To determine which of the mean had a significant difference; Scheffe's test was applied as post hoc test and the result are presented in the table 2.

**Table 2:** Scheffe's Test for the difference between the mean on distance perception jump test.

Mean			Mean Difference	Confidence Interval
Football Players	Physical Education	Science		
3.08	3.13		0.07	
3.08		4.79	1.71*	1.10
	3.13	4.79	1.64*	

\*Significant at 0.05 level of confidence

Table 2 shows the mean difference on distance perception jump test between Football players; Physical Education and Science students are 1.71 and 1.64 respectively. These values are greater than the required confidence interval value 1.10, which shows significant different at 0.05 level of confidence.

## Conclusions

From the analysis of data it may be concluded that there was a significant difference in distance perception jump test between Football players; Physical Education and Science students, there was no significant difference in distance perception jump test between Football players and Physical Education students and the football players is better than the physical education and science students in Kinesthetic sense.

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