
ANALYSIS OF KINESTHETIC PERCEPTION AND INTELLIGENCE AMONG BASKETBALL AND FOOTBALL AS A FUNCTION OF GENDER



Devi Laishram Shila*



Phairembam Jiteshwar**



Balaji D. Prasanna***

*Research Scholar, Dept. Phy. Edu., National College, Tiruchirappalli, Chennai-INDIA.

**Research scholar, Dept. Phy. Edu., Manipur University, Manipur-INDIA.

***Head and Director, Dept. Phy. Edu., National College, Tiruchirappalli, Chennai-INDIA.

E. Mail: shilamdevi@gmail.com

Abstract:

The purpose of the study was to analyze of kinesthetic perception and intelligence among basketball and football players as a function of gender. To achieve the purpose of the study the investigator selected 80 students consisting of 40 men and 40 women. Out of which 40 men and 40 women, 20 subjects were basketball and 20 subjects were football for both gender randomly selected who participated in Inter Physical Tournament held in Anamalai University. The selected subjects' age groups were ranging from 18 to 25 years. To measure the kinesthetic perception, kinesthetic obstacle test was used. Intelligence was measured by Standard Progressive Matrices by J. C. Raven Questionnaire. The collected data were subjects to statistical treatment to find out any differences between the groups in the dependent variables selected using two-way ANOVA. Statistical package of social sciences (SPSS) were used to analyze the data in the computer. The level of significance was fixed as 0.05. The results of the study proved that there was no significant difference between men and women basketball and football players on kinesthetic perception. Further the results proved that there was exists a significant difference between men and women groups on intelligence in which men had better intelligence than women. But there was not found significant on interaction of basketball and football as a function of gender on intelligence.

Keywords: Kinesthetic Perception, Intelligence Test, Football & Basketball Players.

Introduction:

Applied sport and exercise psychology consists of instructing athletes, coaches, teams, exercisers, parents, fitness professionals, groups, and other performers on the psychological aspects of their sport or activity. the social-psychological approach focuses on the social environment and the individual's personality, and on how complex interactions between the two influence behavior. The psycho-physiological approach focuses on the processes of the brain and their influence on physical activity, and the cognitive-behavioral approach analyzes the ways in

which individual thoughts determine behavior. Generally, there are two different types of sport psychologists: educational and clinical.

Sports psychology is the study of how psychology influences sports, athletic performance, exercise, and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.

Intelligence is defined as general cognitive problem-solving skills. A mental ability involved in reasoning, perceiving relationships and analogies, calculating, learning quickly... etc. Earlier it was believed that there was one underlying general factor at the intelligence base (the g-factor), but later psychologists maintained that it is more complicated and could not be determined by such a simplistic method. Some psychologists have divided intelligence into subcategories. For example Howard Gardner maintained that it is comprised of seven components: musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, and intrapersonal. Other definitions are: "Intelligence is what you do when you don't know what to do." "Intelligence is a hypothetical idea which we have defined as being reflected by certain types of behavior."

Kinesthetic Perception: Kinesthetic perception is the ability to perceive distance in a jump, ability to perceive distance in pushing and ability to predict position during movement, **Berger, M. R. (1972).**

Intelligence: Intelligence is defined as general cognitive problem-solving skills. A mental ability involved in reasoning, perceiving relationships and analogies, calculating, learning quickly... etc. Earlier it was believed that there was one underlying general factor at the intelligence base (the g-factor), but later psychologists maintained that it is more complicated and could not be determined by such a simplistic method, **Sternberg, R. J. (1980).**

Objective of the Study:

The purpose of the study was to analyze of kinesthetic perception and intelligence among basketball and football players as a function of gender.

Methodology:

The purpose of the present study was to analyze of kinesthetic perception and intelligence among basketball and football players as a function of gender. To achieve the purpose of the study the investigator selected 80 students consisting of 40 men and 40 women. Out of which 40 men and 40 women, 20 subjects were basketball and 20 subjects were football for both gender randomly selected who participated in Inter Physical Tournament held in Anamalai University. The selected subjects' age groups were ranging from 18 to 25 years.

Selection of Variables:

Table – I
Psychological Variables

Sr. No.	Variables	Test
	Kinesthetic Perception	Kinesthetic Obstacle Test
	Intelligence	Standard Progressive Matrices by J. C. Raven Questionnaire

To analyze of kinesthetic perception and intelligence test among the basketball and football player as a function of gender, two-way ANOVA was used to test for the difference. Statistical package of social sciences (SPSS) were used to analyze the data in the computer. The level of significance was fixed as 0.05.

Results and Discussion:

To analyze of kinesthetic perception and intelligence test among the basketball and football player are given below

Table- II
Showing Descriptive Statistics, Number of Subjects, Mean and Standard Deviation on Selected Psychological Variables of College Students

Sr. No.	Variables	Subjects	Mean	Standard Deviation
Men Football Players				
	Kinesthetic Perception	20	58	14.36
	Intelligence	20	42.9	7.24
Men Basketball Players				
	Kinesthetic Perception	20	57.5	12.08
	Intelligence	20	42.4	8.34
Women Football Players				
	Kinesthetic Perception	20	62	9.51
	Intelligence	20	42	6.54
Women Basketball Players				
	Kinesthetic Perception	20	63.5	9.88
	Intelligence	20	37.9	6.7

Results on Two way ANOVA

The obtained two way ANOVA between criterion variables and psychological variables of the men and women basketball and football players are presented in table V.

Table- III
Showing Two Way Factorial ANOVA on Kinesthetic Perception of Men and Women Basketball and Football Players

Source	Sum of square	f	Mean Square	F
Factor A men and women(rows)	500.00		500.00	3.7
Factor B basketball and football(columns)	5.00		5.00	0.037
Interaction(AXB)	20.00		20.00	0.148
Error	10270.00	6		

Not significant

Table value required for significant at 0.05 level with df 1 and 76 is 3.96

From table III they obtained F ratio between men and women is 3.7, the obtained 'F' ratio on kinesthetic perception for men and women football and basketball player is 0.037, the obtained F ratio value of interaction (AXB) is 0.148 which are lesser than the table values with df 1 and 76 required for significant at 0.05 level of confidence. The results of the study indicates no significant difference between the groups on kinesthetic.

Table- IV
Showing Two Way Factorial ANOVA on Intelligence of Men and Women Basketball and Football players

Source	Sum of square	f	Mean Square	F
Factor A men and women(rows)	259.20		259.20	4.908*
Factor B basketball and football(columns)	39.20		39.20	0.74
Interaction(AXB)	16.20		16.20	0.307
Error	10270	9	1350.13	

*Significance at 0.05 level

Table value required for significant at 0.05 level with df 1 and 76 is 3.96

From table IV they obtained F ratio values between men and women was 4.908 which is higher than the table value of 3.96 with df 1 and 76 required for significant at 0.05 level of confidence. The result of the study indicates there was a significant difference between men and women on intelligence.

Table IV also shows that the obtained 'F' ratio values on intelligence for men and women football and basketball was 0.742 and obtained F ratio value of interaction (AXB) was 0.307 which are lesser than the table value of 3.96 with df 1 and 76 required for significant at 0.05 level of confidence. The result of the study indicates that there was no significant difference between the groups on intelligence.

Conclusion:

Within the limitations and delimitations of the study, the following conclusions were drawn:-

- It was concluded that there was no significant difference exists between basketball men and basketball women on kinaesthetic perception.
- It was concluded that there was no significant difference exists between football men and football women on kinaesthetic perception.
- It was concluded that there was no significant difference exists between basketball men and football men on kinaesthetic perception.
- It was concluded that there was no significant difference exists between basketball women and football women on kinaesthetic perception.
- It was concluded that there was a significant difference exists between men and women players on intelligence.
- It was concluded that there was no significant differences exists between basketball and football players on intelligence.

References:

- Barry L. Johnson, Jack K. Nelson, (1982) Practical Measurements for evaluation in physical Education, Third Edition, ,p. 338-342.
- Brayant J. Crathy, (1980) Psychology in contemporary Sport, 3rd Ed; Englewood Cliffs, N.J: Prentice Hall, Inc.
- Espenschade Anna,(1967), Perceptual- motor devolvment in children, pp.14-20, Philadelphia: academy press, 1.
- Felshin, (2001) More than Movement: An Introduction of Physical Education, p.19, Philadelphia: Fibiger and Lea.
- Hammel-slater a.t.(2005), "Measurement of kinaesthetic perception of muscular force with muscle potential changes", research quarterly, 28: may 2005, p.153-159.

- Kamlesh, M.L.,(1983) Psychology of Physical Education and Sports, (Metropolitan Book company: Pvt Ltd., p.38), New Delhi.
- Lewin J. Donald, (1968), Scientific principles of psychology, (NJ.: Prectice Hall Inc p.479), Englewood Cliffs.
- Sternberg, R. J. (1980). Reasoning, Problem Solving, and Intelligence (No. RR-3-80). YALE UNIV NEW HAVEN CT DEPT OF PSYCHOLOGY.
- Berger, M. R. (1972). Bodily experiences and expression of emotion. American Dance Therapy Association, 191-230.

I.R.J.P.E.S.S.-ONLINE