ORIGINAL RESEARCH PAPER

Sports Science

COMPARATIVE STUDY OF KINESTHETIC PERCEPTION BETWEEN NORMAL AND ORTHOPEDICALLY CHALLENGED PERSONS

KEY WORDS: Kinesthetic perception, Normal and Orthopedically Challenged Persons.

Lakshman Kumar Mondal Asst. Professor, Department of Physical Education, Panskura Banamali College, Panskura, East Medinipur, W.B.

Dr. Amit Banerjee Dr. Amit Banerjee Asst. Professor, PGGITE, Banipur, North 24 Pragana, W.B.

Sakti Ranjan Mishra Prof. Department of Physical Education, Panskura Banamali College, Panskura, East Medinipur, W.B

ABSTRACT

Kinesthetic perception is defined as the ability to perceive the position, effort and movement of the parts of the body or the entire body during muscular action. This study was considered to those individuals having orthopedically defects in Upper limbs and a group of normal person having no physical defects. One hundred twenty normal students and one hundred twenty orthopedically challenged studentsin the age range of 14-18 years were considered in the different schools of West Bengal. Comparison between normal and physically challenged persons in respect of creative motor response was done through the technique of mean difference by employing the statistic of 't' ratio. The results shows that normal subjects were superior to physically challenged subjects in respect of Kinesthetic perception.

INTRODUCTION:

Kinesthetic perception, the ability to perceive the position, effort and movement of the parts of the body or the entire body during muscular is sometimes refers to as the 'Sixth Sense'. In reality, we have more than just sixth sense- in fact, kinesthetic sense could be considered as several senses within itself.

Physical Educators have long recognized the importance of kinesthetic. They declared that our muscles see more than our eyes. Individuals who can observe a demonstration and perceive the significance of the sequence of movements are able to develop a physical empathy which enables them to learn a movement much faster than others whose kinesthetic ability is not as highly developed.

The present study was an attempt on the part of the investigator to determine the kinesthetic perception of physically challenged persons and compare it with normal people, so that effort can be made in the right direction to integrate them with other people of the society.

PROCEDURE:

Selection of Subjects: For the present study, sixty boys and sixty girl students having disability in upper limb and sixty normal boys and sixty normal girls, within the age range of 14 to 18 years, were selected.

Criterion Measures: Kinesthetic Perception was measured by Distance Perception Jump Test.

Statistical Analysis: Comparison between normal and orthope dically challenged persons in respect of Kinesthetic Perception were obtained through the technique of mean difference by employing the statistic of 't' ratio.

Presentation and Analysis of Data

Table – 1: Mean and Standard Deviation of Kinesthetic Perception between Normal and Orthopedically Challenged Students

Variables	Normal Students		Orthopedically Challenged Students	
	Mean	S.D.	Mean	S.D.
Kinesthetic Perception	5.608	1.610	7.583	1.637

From Table -1 it was evident that normal subjects were superior to orthopedically challenged subjects in respect of kinesthetic perception score.

Table – 2: Mean Difference of Kinesthetic Perception between Normal and Orthopedically Challenged Students

Variables	Population	Mean	S.D.	't' value
Kinesthetic Perception	NS	5.608	1.610	9.541*
	OCS	7.583	1.637	

NS = Normal Students, OCS = Orthopedically Challenged Students
* Significant at 0.05 level of Confidence , t.05 (238) = 1.960
From Table – 2 it was evident that orthopedically challenged subjects were significantly different from that of the normal subjects in respect of kinesthetic perception.

Table – 3: Mean and Standard Deviation Of Kinesthetic Perception Between Normal and Orthopedically Challenged Boys and Girls.

Variables	Normal Students		Orthopedically Challenged Students	
	Mean	S.D.	Mean	S.D.
Kinesthetic Perceptionof Boys Students	4.983	1.443	6.983	1.455
Kinesthetic Perceptionof Girls Students	6.233	1.533	8.183	1.599

From table -3 it was evident that normal boys and girls were superior to orthopedically challenge boys and girls in respect of kinesthetic perception score

Table – 4: Mean Difference of Kinesthetic Perception Normal and Orthopedically Challenged Boys and Girls

Variables	Population	Mean	S.D.	't' value
Kinesthetic Perception	NS-boys	4.983	1.443	7.633*
	OCS-boys	6.983	1.455	
	NS-girls	6.233	1.533	6.866*
	OCS-girls	8.183	1.599	

NS = Normal Students, OCS = Orthopedically Challenged Students
* Significant at 0.05 level of Confidence , t.05 (118) = 1.980

Table – 4 indicated that orthopedically challenged boys subjects were significantly different from that of the normal boys subjects in respect of kinesthetic perception and the orthopedically challenged girl subjects were significantly different from normal girl subjects in respect of kinesthetic perception score.

Table – 5: Mean and Standard Deviation of Kinesthetic Perception of Normal and Orthopedically Challenged Students during Early and Late Adolescents Period

Variables	Status	Normal Students		Orthopedically Challenged Students	
		Early Adolescents	Late Adolescents	Early Adolescents	Late Adolescents
Kinesthetic Perception	Mean	4.800	6.416	6.700	8.466
	S.D.	1.375	1.417	1.109	1.609

From Table- 5 it was observed that normal subjects of early adolescent and late adolescent period were superior to orthopedically challenged subjects in respect of kinesthetic perception score.

Table – 6: Mean Difference of Kinesthetic Perception between Normal and Orthopedically Challenged Students during Early Adolescents Period and Late Adolescents Period

Variables	Population	Mean	S.D.	't' value
Kinesthetic Perception	NS-EAP	4.800	1.375	8.444*
	OCS-EAP	6.700	1.109	
	NS-LAP	6.416	1.417	7.454*
	OCS-LAP	8.466	1.609	

NS = Normal Students, OCS = Orthopedically Challenged Students
EAP= Early Adolescents Period, LAP= Late Adolescents Period

* Significant at 0.05 level of Confidence $t_{.05}$ (118) = 1.980

From Table – 6 it was found that orthopedically challenged subjects falling in early adolescent group differed significantly from that of the normal subjects of the same age group in respect of kinesthetic perception.

It was also evident that orthopedically challenged subjects of late adolescent period differed than normal subjects of late adolescent period in variables of kinesthetic perception.

DISCUSSION OF THE FINDINGS

The obtained data on the subjects through application of statistical technique revealed that normal subjects, irrespective of age and were for superior to orthopedically challenged (defect in upper portion) subjects in relation to kinesthetic perception.

It is the perception of the position, effort and movement of the parts of the body or the entire body during muscular activity. Normal subjects can perceive the body movement with most superb neuro-muscular co-ordination than orthopedically challenged students. So, normal subjects were superior to orthopedically challenged subjects in respect of kinesthetic perception.

REFERENCES

1. Barry L. Johnson and Jack K. Nelson, Practical Measurement for Evaluation in Physical Education, (Third Edition), Surjeet Publication, Delhi, 1994.
2. Clarke, H. Harison and Clarke Devid,, H. Development and Adapted Physical Education.(2nd Edition), New Jersy : Prentice Hall Inc; 1978.
3. Dehlavi, NahidSanei. "Relationship between Creativity and Personality Characteristics in an Iranian Sample".Perceptual and motor skills.No. 50.June, (1980).
4. Johnson, Barry, L. and Nelson, Jack K. Practical Measurements for Evaluation in Physical Education (3rd Edition), Delhi : Surjeet Publication. (1982).
5. Krischef, C. H. &DiNitto, D. M. AlkoholAbusen among Mentally Retarded Individuals. Mental Retardation, (1981).
6. Mahanta, Dibakardas. "Bernreuter personality Inventory – A Short From in Bengali".SouvenirAlumin Association, Department of Education, University of Calcutta, (1966).
7. Mangal S. K. Educational Psychology. (New Edfition), Ludhiana :Prakash Brothers educational Publishers, (1988).
8. Oliver, G. Physical Education for Handicapped Persons, New Edition, Book Depot, M.P. (1994).