IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

A Study of Psychomotor Abilities of Hearing Impaired Children

Mukhtar Ahmad Shah[1], *Anwar Aziz Dar*[2]

Research Scholar, Department of Physical Education, Choudary Charan Singh University Meeruth, U.P.India
Research Scholar, Dept. of . Physical Education, Dr.C.V. Raman University, Bilaspur, Chhattisgarh, India

Email:ahmadmukthar16@gmail.com

Keywords:
Psychomotor, Hearing, Balance, Visual perception, Differentiation ability, Reaction ability, Kinesthetic Perception,

ABSTRACT

Present study has been aimed to see the status of psychomotor abilities and psychological variable of hearing impaired children of National capital region.100 school students from the age group of 14-18 years were selected. To measure psychomotor abilities and psychological variables like Static balance, dynamic balance, kinesthetic perception, visual perception, reaction time and differentiation ability following equipments were used. Static balance with Strok Stand Test, Dynamic Balance with Bass, Balance Test, Reaction time with Nelson Hand Reaction Timer, Kinesthetic Perception with Kinesthetic Obstacle Test, Visual perception with Muller Lyer Visual Perception apparatus, differentiation Ability with Backward Basketball Throw Test were measured respectively and to measure psychological variable Anxiety with Questionnaire developed by Dr. Anil Kumar was adopted.

Citation: *Mukhtar Ahmad Shah , Anwar Aziz Dar (2019). A Study of Psychomotor Abilities of Hearing Impaired Children. International Journal of Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281, 2 (1), January, 2019, # Art.1120, pp 65-71*

IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

Introduction

Psychomotor ability is the ability to perform body motor movements (movement of fingers, hands, legs, etc.) with precision, coordination, or strength. Psychomotor is related to movement or muscular activity associated with mental processes and ability that influence the capacity to manipulate and control objects. Challenged have lack of physical or sensorial ability to adjust to the environment. But still they are fighting with their disabilities and trying their best to come into the mainstream of society. They are proving* themselves in every field whether that is a field of sports, education, service or business. E.g, Hearing loss is a full or partial decrease in the ability to detect or understand sound, Caused by a wide range of biological and environmental factors can happen to any organism that perceives sound. A loss of more than 71db is considered severely and profoundly hearing Impaired.

Statement of Problem

The title of the study was stated as "Psychomotor abilities of hearing impaired children".

Objective of The Study

a) The purpose of this study was to know the psychomotor abilities of hearing impaired children.

b) The purpose of this study was to determine the Psychomotor abilities of hearing impaired children.

Delimitation

i. The study was delimited to the following selected variables**:**

a) Visual Perception (b) Static Balance ability (c) Dynamic balance ability (d) Differentiation ability (e) Kinesthetic Perception (f) Reaction time

ii. The study was further delimited to Anxiety as psychological variable.

iii. The study was also delimited to the hearing impaired children.

iv. The age of the subjects ranged from 14-18 years.

v. Total 100 hearing impaired children were selected from the national capital region (NCR).

Limitation

Factors, which could not be controlled in the study, were as follows:

a. Environmental factors.

b. Difference regarding subject's daily routine, diet, habits, facilities etc.

c. Non availability of sophisticated tools were accepted as a limitation of the study.

Hypothesis

Before setting the hypothesis the researcher undergone the related studies in the area of particular subjects and consulted experts in this regards. On the basis of their advice and suggestions and the experience of the research scholar it was hypothesized that:

There will be a significant relationship between psychomotor ability (Static Balance, Dynamic Balance, Reaction Time, Kinesthetic Perception, Differentiation Ability, and Visual Perception) and Anxiety of hearing impaired.

Methodology:

To find out the status of psychomotor abilities and psychological variables following methodological steps were taken:

Selection of Subjects

To achieve the purpose of the study One hundred hearing impaired children were selected by purposive sampling method from the national capital region (NCR). The ages of the subjects were ranged between 14 to18 years.

Selection of Variables

The study was taken in identifying the psychomotor abilities of hearing impaired children. On the basis of literature, evidence, expert's opinion and researchers' own understanding the following variables were selected for the purpose of this study.

Psychomotor abilities:

a) Visual perception
b) Balance ability
c) Differentiation ability
d) kinesthetic perception
e) Reaction time

Psychological variables:

a) Anxiety

IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

Statistical Procedure:

Data was collected with the help of questionnaires and apparatus for measuring all psychomotor abilities. To find out the psychomotor abilities of hearing impaired children, descriptive statistics were used. The product moment correlation was used to determine the relationship between Psychomotor abilities and Anxiety of hearing impaired children. The level of significance to check the relationship obtains by Pearson's Product Moment Correlation was set at 0.05.

Table-1 Psychomotor Abilities of Hearing Impaired Children

Static Balance	
Mean	13.49258
Standard Error	1.202212
Median	9.97
Mode	8.47
Standard Deviation	9.466227
Sample Variance	89.60945
Kurtosis	1.972575
Skewness	1.338883
Range	41
Minimum	3.62
Maximum	44.62
Sum	836.54
Count	100

Table – 2 Descriptive Statistics of Dynamic Balance of hearing impaired boys

Dynamic Balance	
Mean	66.56452
Standard Error	1.208033
Median	66
Mode	66
Standard Deviation	9.512065
Sample Variance	90.47938
Kurtosis	-0.33364
Skewness	-0.3629
Range	37
Minimum	45
Maximum	82
Sum	4127
Count	100

Table -3: Descriptive Statistics Of Reaction Time Of Hearing Impaired Boys

Reaction time	
Mean	0.063206
Standard Error	0.003279
Median	0.061563
Mode	0.0875
Standard Deviation	0.025817
Sample Variance	0.000667
Kurtosis	-0.9306
Skewness	-0.28229
Range	0.100567
Minimum	0.001246
Maximum	0.101813
Sum	3.918754
Count	100

IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

Table -4: Descriptive Statistics of Differentiation Ability of Hearing Impaired Boys

Differentiation Ability	
Mean	17.12903
Standard Error	0.219951
Median	18
Mode	18
Standard Deviation	1.731898
Sample Variance	2.999471
Kurtosis	1.175352
Skewness	-1.18359
Range	8
Minimum	12
Maximum	20
Sum	1062
Count	100

Table – 5 Descriptive Statistics Of Kinesthetic Perception Of Hearing Impaired Boys

Kinesthetic Perception	
Mean	30.08065
Standard Error	2.035811
Median	25
Mode	15
Standard Deviation	16.02999
Sample Variance	256.9606
Kurtosis	-0.59136
Skewness	0.688164
Range	55
Minimum	10
Maximum	65
Sum	1865
Count	100

Table -6: Descriptive Statistics of Visual Perception of Hearing Impaired Boys

Visual Perception	
Mean	0.533629
Standard Error	0.043346
Median	0.39
Mode	0.28
Standard Deviation	0.341308
Sample Variance	0.116491
Kurtosis	0.402758
Skewness	1.085541
Range	1.315
Minimum	0.12
Maximum	1.435
Sum	33.085
Count	100

Table -7: Descriptive Statistics Of Anxiety Of Hearing Impaired Boys

Anxiety	
Mean	28.27419
Standard Error	0.722154
Median	30
Mode	33
Standard Deviation	5.686248
Sample Variance	32.33342
Kurtosis	-0.56699
Skewness	-0.63065
Range	22
Minimum	16
Maximum	38
Sum	1753
Count	100

Table No. – 7 evident that total sum of anxiety

IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

Table – 8: Relationship Of Selected Psychomotor Abilities To Anxiety

psychomotor abilities	Correlation coefficient
static balance	0.005877
dynamic balance	0.084987
reaction time	0.256694 *
differentiation ability	0.054611
kinesthetic perception	0.228163
visual perception	-0.02983

On the basis of results following conclusion has been drawn.

Table No. – 1 evident that the total sum of Static Balance of hearing impaired boys was 836.54, and the population was 100, therefore Mean was 13.49258, Median was 9.97, Mode was 8.47, Maximum value was 44.62, Minimum value was 3.62, so Range was 41, Standard deviation was 9.466227, Standard error was 1.202212, Sample Variance was 89.60945, Skewness was 1.33883 and Kurtosis was 1.972575.

Table No. – 2 evident that the total sum of Dynamic Balance of hearing impaired boys was 4127 and the population was 100, therefore Mean was 66.56452, Median was 66, Mode was 66, Maximum value was 82, Minimum value was 45, so Range was 37, Standard deviation was 9.512065, Standard error was 1.208033, Sample Variance was 90.47938, Skewness was -0.3629 and Kurtosis was -0.33364.

Table No. – 3 evident that the total sum of Reaction time of hearing impaired boys was 3.918754, and the population was 100, therefore Mean was 0.063206, Median was 0.061563, Mode was 0.0875, Maximum value was 0.101813, Minimum value was 0.001246, so Range was 0.100567, Standard deviation was 0.025817, Standard error was 0.003279, Sample Variance was 0.000667, Skewness was -0.28229 and Kurtosis was -0.28229.

Table No. – 4 evident that the total sum of the Differentiation Ability of hearing impaired boys was 1062 and the population was 100, therefore Mean was 17.12903, Median was 18, Mode was 18, Maximum value was 20, Minimum value was 12, so Range was 8, Standard deviation was 1.731898, Standard Error was 0.219951, Sample Variance was 2.999471, Skewness was -1.18359 and Kurtosis was 1.175352.

Table No. – 5 evident that the total sum of kinesthetic perception of hearing impaired boys was 1865, and the population was 100, therefore Mean was 30.08065, Median was 25, Mode was 15, Maximum value was 65, Minimum value was 10, so Range was 55, Standard deviation was 16.02999, Standard Error was 2.035811, Sample Variance was 256.9606, Skewness was 0.688164 and Kurtosis was -0.59136.

IJAMSR 2 (1) www.ijamsr.com CrossRef: https://doi.org/10.31426/ijamsr.2019.2.1.1120

International Journal of
Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281

Table No. – 6 evident that the total sum of visual perception of hearing impaired boys was 33.085 and the population was 100, therefore Mean was 0.533629, Median was 0.39, Mode was.28, Maximum value was 1.435, Minimum value was 0.12, so Range was 1.315, Standard deviation was 0.341308, Standard Error was 0.043346, Sample Variance was 0.116491, Skewness was 1.085541 and Kurtosis was 0.402758.

Table No. – 7 evident that the total sum of anxiety of hearing impaired boys was 1753 and the population was 100, therefore Mean was 28.27419, Median was 30, Mode was 33, Maximum value was 38, Minimum value was 16, so Range was 22, Standard deviation was 5.686248, Standard Error was 0.722154, Sample Variance was 32.33342, Skewness was -0.63065 and Kurtosis was -0.56699.

r" needed for significant at 0.05 level with df 61= .25 (for two tailed test)

Table No 8, evident that calculated value is 0.005877 for static balance,0.084987 for dynamic balance, 0.054611 for differentiation ability, 0.228163 for kinesthetic perception, -0.02983 for visual perception which was less than tabulated value .25, So it was clearly indicated that there were no significance relationship between psychomotor ability(static balance, dynamic balance, differentiation ability, kinesthetic perception, visual perception) and anxiety but calculated value of reaction time was 0.256694 , which was greater than tabulated value .25 , it was clearly indicated that there was significance relationship between reaction time and anxiety of hearing impaired boys.

References

1) *Agrawal J. C., "Teacher and Education in Developing Society", Dehli Vikas publishing house, 1998.*
2) *Bucher Charles. A, "Foundation of Physical Education and Sports", London: The C.V. Mos Company, 1986.*
3) *Carle Will. Goose , "The Curriculam in Physical Education" , Vikash publisher, New delhi, 1979.*
4) *D.P. Hallahn and J.M. Kauffmen, "Exceptional Children" (5th ed.), Boston; Allyn and bacon, 1991.*
5) *David A., Jean P.,Carol H., "Principal and Methods of Adopted Physical Education", McGraw-Hill, 2001.*
6) *David H. Clarke, "Research Processes in Physical Education", Prentice-Hall, Inc.,Englewood Cliffs,1984.*
7) *Devender K.Kensal ,"Applied Measurement Education and Sports Selection" , D.V.S. Publication, 1996.*
8) *Hardyal Singh , "Science of Sports Training" ,D.V.S. Publication , 1993. D.V.S. Publication.1993.*
9) *Joseph P. Winnick, "Adopted Physical Education and Sports", New York: Macmillan publishing co, 2006.*