DIAGNOSTIC STUDY OF PERCEPTUAL MOTOR COORDINATION BETWEEN CHILDREN WITH MILD INTELLECTUAL DISABILITY AND INTELLECTUAL CHILDREN

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ABSTRACT

The purpose of the study was to determine comparison between perceptual motor abilities of intellectual children and children with mild intellectual disability. 30 intellectual children from D. A. V. Public School, Patiala and 30 children with mild intellectual disability from Patiala school for the Deaf, Saifdipur were selected randomly as the subjects for this study. The necessary data was collected by carrying the measurements. In order to analyze the scores of the selected dimension of intellectual children and children with mild intellectual disability, the decrypted analysis technique was used. Further to find our significant comparison between the scores of subjects on selected dimension of intellectual children and children with mild intellectual disability. The 't' test was employed for testing of the hypothesis the level of significance was set at 0.05 level.

KEYWORDS: Motor Ability, Intellectual and Children.

INTRODUCTION:

Human coordinative abilities have always been the subject of many research projects. The theory of coordinative abilities is still in the stage of infancy. Though there is rapidly increasing acceptance of the term coordinative abilities yet there is no agreement regarding the number of coordinative abilities important for sports. The methodology of improving different coordinative abilities is also yet not available in full detail. But in the future it is expected that there will be a clear cut system of improving means and methods of each and every coordinative ability. Coordinative abilities are primarily dependant on the motor control and regulation process of CNS. Coordinative abilities have also important and strong links with the motor skill

as motor coordination forms the basis of both coordinative abilities and motor skills. Coordinative abilities become effective in movement only through the motor abilities and activity determined drives and cognitive processes.

Coordinative abilities are understood as relatively stabilized and generalized pattern of motor control and regulation process. These enable the sportsman to do a group of movements with better quality and effect.

Coordinative abilities should not be equated with motor skills, though both are interrelated and interdependent. Both are determined by motor coordination process. The difference lies in the degree of generality of the coordinative processes. In a motor skill processes are largely automatized for the execution of a particular movement. In coordinative abilities these processes are just stabilized and perfected for the execution of a wide number of movements similar to each other. The learning of movements, however, has a positive on the coordinative abilities and vice-versa.

Coordinative abilities are also needed for the maximal utilization of conditional abilities, technical skills and tactical skills. Without the adequately developed coordinative abilities, a sportsman cannot make maximum use of his psycho-biological capacities and reserves. Coordinative abilities also determine the maximum limits to which a sports performance can be improved.

OBJECTIVES OF THE STUDY

1. To evaluate the dynamic balance of children with mild intellectual disability and intellectual children.
2. To test the agility of children with mild intellectual disability and intellectual children.

MATERIAL & METHODS

Total 60 boys were taken as a sample. 30 boys were intellectual and 30 with mild intellectual disability. Intellectual boys were taken from D. A. V. Public School, Patiala and boys with mild intellectual disability were taken from Patiala school for the Deaf,

Saifdipur. Age of all the boys was ranging between 12 to 18 years. Different tests were applied to measure the different components of perceptual motor coordination. For assessing the dynamic balance modified bass test was applied on both the groups. To evaluate the agility of both the groups Illinois agility test was applied.

Statistical Analysis

After the collection of relevant data, it was processed and analyzed with descriptive Statistics.

Table 1

Mean and standard deviation of Agility of intellectual children and children with mild intellectual disability

Sr. No.	Group	N	Mean	Standard Deviation	df	t-value
1	Intellectual	30	19.2213	1.62613	58	-4.224*
2	Intellectually Disable	30	21.0347	1.69834		

*Significance at 0.05 level Tabulated 't' value 3.342 (58)

Perusal of table 1 and figure 1 showed that the mean and standard deviation values of intellectual children on the Agility variable were recorded as 19.2213 and 1.62613 respectively where as in case of children with mild intellectual disability, the same were recorded as 21.0347 and 1.69834 respectively. There has been significant difference between intellectual children and children with mild intellectual disability at 0.05 level where calculated 't' value -4.224* is more than tabulated 't'-value 3.342.

Fig. 1. Comparative analysis of Agility of intellectual children and children with mild intellectual disability

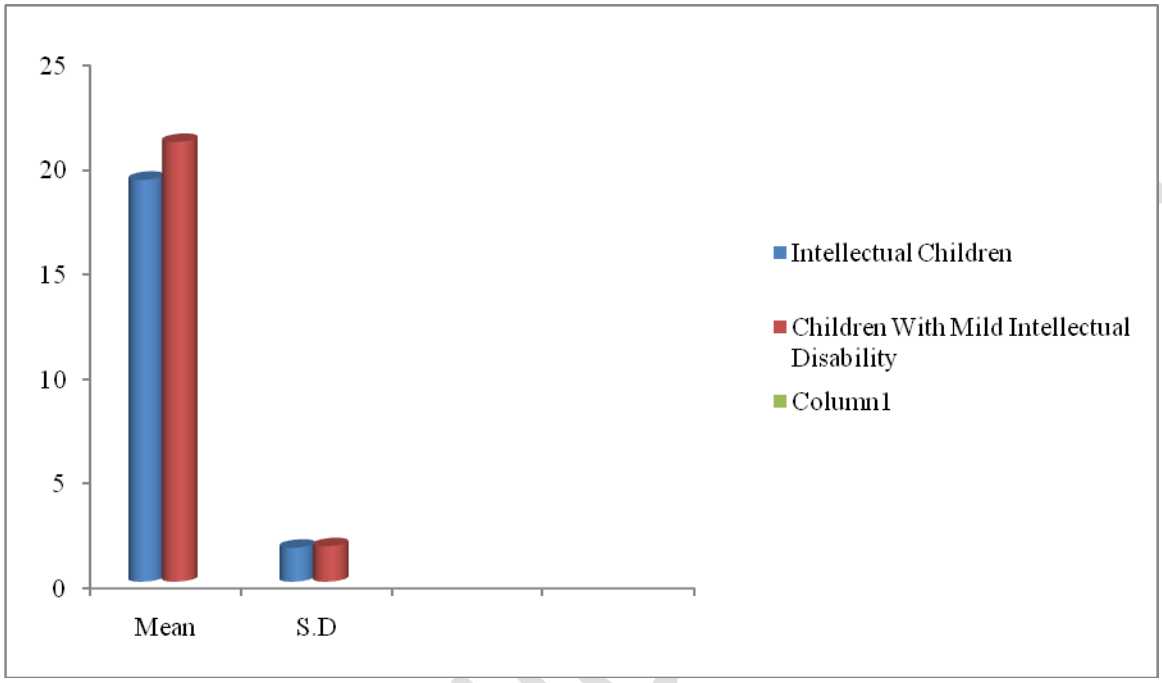

Table 2

Mean and standard deviation of Balance Ability (Left Leg) of intellectual children and children with mild intellectual disability

Sr. No.	Group	N	Mean	Standard Deviation	df	t-value
1	Intellectual	30	3.0247	1.91965	58	1.825
2	Intellectually Disable	30	2.1840	1.63663		

*Significance at 0.05 level Tabulated 't' value 3.342 (58)

Table 2 and fig. 2 presents the data pertaining to mean and standard deviation values with regard to balance ability (left leg) of intellectual children which were recorded 3.0247and 1.91965 respectively, whereas in the case of children with mild intellectual disability were

recorded 2.1840 and 1.63663 respectively and were not found to be statistically significant results, because calculated t-value 1.825 was less than tabulated t-value (3.342) at 0.05 level. But mean value of intellectual children is more than children with mild intellectual disability which shows that intellectual children were better as compared to children with mild intellectual disability.

Fig. 2. Comparative analysis of Balance Ability (Left Leg) of intellectual children and children with mild intellectual disability

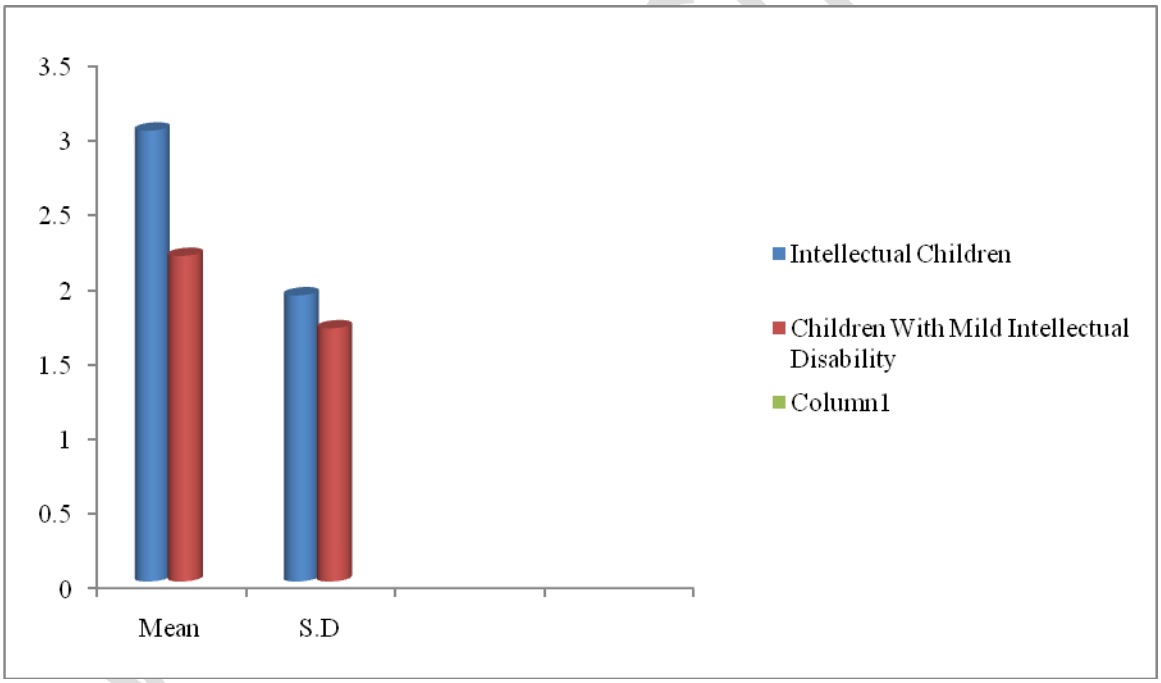

Table 3

Mean and standard deviation of Balance Ability (Right Leg) of intellectual children and children with mild intellectual disability

Sr. No.	Group	N	Mean	Standard Deviation	df	t-value
1	Intellectual	30	2.8580	2.33339	58	1.094
2	Intellectually Disable	30	2.2703	1.79188		

*Significance at 0.05 level Tabulated 't' value 3.342 (58)

Table 3 and fig. 3 presents the data pertaining to mean and standard deviation values with regard to balance ability (right leg) of intellectual children which were recorded 2.8580 and 2.33339 respectively, whereas in the case of children with mild intellectual disability were recorded 2.2703 and 1.79188 respectively and were not found to be statistically significant results, because calculated t-value 1.094 was less than tabulated t-value (3.342) at 0.05 level. But mean value of intellectual children is more than children with mild intellectual disability which shows that intellectual children were better as compared to children with mild intellectual disability.

DISCUSSION AND FINDINGS

The present study was designed to diagnose the perceptual motor coordination between children with mild intellectual disability and intellectual children. To fulfill these purpose total 60 boys were taken as a sample. 30 boys were intellectual and 30 with mild intellectual disability. Intellectual boys were taken from D. A. V. Public School, Patiala and boys with mild intellectual disability were taken from Patiala school for the Deaf, Saifdipur. Age of all the boys was ranging between 12 to 18 years. Different tests were applied to measure the different components of perceptual motor coordination.

The present data shows that the perceptual motor performance of intellectual children and children with mild intellectual disability was found statistically significant with regards to Agility. Whereas insignificant difference was found in Balance Ability. The mean value of each variable reveals that intellectual children performed better than children with mild intellectual disability in every test item. If we look into the psychological state of both categories, both have almost similar profiles and requirements as per the age.

CONCLUSION

On the basis of findings of present study, the following conclusions were drawn:

1. Intellectual children are superior to Children with mild intellectual disability in Agility.
2. Intellectual children are superior to Children with mild intellectual disability in Balance Ability

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