



ATTENTION SPAN IN NORMAL AND STUDENTS WITH SPECIFIC LEARNING DISABILITY : A STUDY

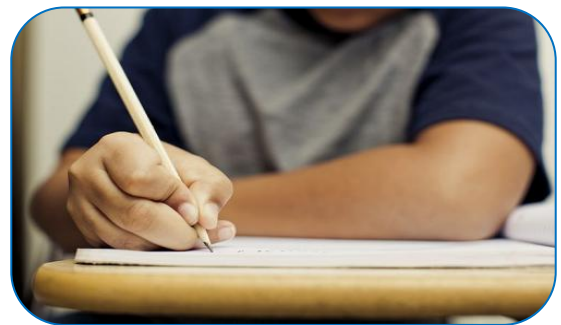
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ABSTRACT :

The objectives of the study were i) to identify the primary school students with specific learning disability, ii) to assess the attention span of normal students and students having specific learning disability, and iii) to compare the attention span of normal students and students having specific learning disability. The study was conducted on 980 children from CBSE and Maharashtra State Board schools from 4th, 5th and 6th standard in the age group of 9 to 11 years. The students were initially assessed on the basis of their previous academic records followed by various screening tools such as behavioural checklist for screening the learning disability (BCSLD), Raven's standard progressive matrices, diagnostic test for learning disability (DTLD), Bender Visual-Motor Gestalt test (BVMGT), and Attention span test. It was found that, out of total 980 children, 25 children were diagnosed to have specific learning disability. All these learning disabled children were otherwise found to be healthy and of normal intelligence without economic disadvantage. It was also observed that the mean scores of the attention span of learning-disabled students was 10.12 and normal students was 17.72. The results indicate that students with specific learning disability have attention span deficits as compared to normal students. Therefore, from the results of the study it can be concluded that there was a significant difference between mean attention scores of children with and without specific learning disability, studying in 4th, 5th and 6th standards.



KEYWORDS : Specific Learning disability, BCSLD, DTLD, Bender Visual-Motor Gestalt Test, Raven's SPM, and Attention span test.

INTRODUCTION

There are many different neuropsychological or neurobiological impairments or difficulties, which are collectively described as "learning disabilities". These processing problems not only can interfere with learning basic skills such as reading, writing, and/or math but also with higher-level skills such as organization, time planning, abstract reasoning, long- or short-term memory, and attention. Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2013) defines, "Specific Learning Disorder (SLD) is a neurodevelopmental disorder of biological origin manifested in learning difficulty and problems in acquiring academic skills noticeably below age level and manifested in the early school years, lasting for at least 6 months; not attributed to intellectual disabilities, developmental disorders, or neurological or motor disorders. The types of SLD are impairment in reading, written expression, and mathematics. The condition varies in its manifestations and in degree of severity-mild, moderate or severe. Learning disabilities or

difficulties fall into broad categories based on the four stages of information processing used in learning: input, integration, storage, and output.”

Attention: Refers to the ability to selectively focus on some activities while ignoring others, to sustain concentration, to resist distraction and to shift attention among tasks. Attention is a complex and non-unitary activity. Attention may be passive (reflexive, non-voluntary and effortless) or active and voluntary. It is a necessary but not sufficient condition for any kind of learning activity. Smith et al (2004) defined attention as “The ability to select some information for more detailed inspection, while ignoring other information”. Therefore, attention can be defined as a process which brings individual’s focus on a specific stimulus among various stimuli in the environment. The following conclusions were drawn based on the previous reviewed studies:

- Children with LDs display more distractibility than controls on tasks involving figure-ground perception tasks and on tests of incidental vs. central learning.
- Children with LDs are more impulsive, i.e. less reflective, than controls.
- Children with LDs are deficient in their ability to maintain attention over prolonged periods of time.

Depending on the processes involved, attentional impairment can lead to a wide range of problems such as problem in focusing attention on selective stimuli, difficulty in sustaining attention for required period of time, impaired capacity to shift attention, difficulty in dividing attention between two stimuli etc. Thus, an important feature of executive functions is the ability to focus attention over time and to shift attention according to a behavioural programme. Thus, attention is a basic feature of executive functions.

The present study was conducted on 980 children from 4th, 5th, and 6th standards from CBSE and Maharashtra State Board primary schools. In this study, screening and certain diagnostic tests helped in identification and testing of attention span of students with and without specific learning disability.

OBJECTIVES OF THE STUDY:

- ❖ To identify the primary school students with specific learning disability.
- ❖ To study the attention span of primary school students with and without specific learning disability, studying in 4th, 5th and 6th standards.
- ❖ To compare the attention span of primary school students with and without specific learning disability, studying in 4th, 5th and 6th standards.

HYPOTHESIS:

- ❖ There will be no significant difference between mean attention scores of children with and without specific learning disability, studying in 4th, 5th and 6th standards.

MATERIALS AND METHOD:

The present study is aimed to study the attention span of among primary school going children. The Survey method was adopted for the present study in which the investigation was conducted in selected CBSE and Maharashtra State Board schools of Nagpur city with respect to identification and attention deficits among primary school going children from 4th, 5th and 6th standards. The present study investigated the attention span of school students with and without specific learning disability. The participants included 50 children consisting of two groups. Group- 1 consisting of 25 children identified as SLD and group- 2 comprising of 25 Non-LD children. The participants were in the age range of 9-11 years. These students attended regular school in standards IV, V and VI and belonged to middle socioeconomic strata.

TOOLS:

In the present study following tools were used:

- General Information Schedule.
- School records.
- Raven’s standard progressive matrices.

- BCSDL.
- BVMGT- Bender Visual-Motor Gestalt Test.
- DTLT.
- Attention span test.

RESULTS:

The obtained mean scores of attention span of specific learning disability students were 10.12 and Non-LD students were 17.72 i.e. the students with Non-LD had performed better in attention span test as compared to learning disability students. It was apparent from the table means that there was a significant difference between the attention span of Children with and without specific learning disability. Same results were obtained by Wolfe (1996) suggested that, as a group, the learning-disabled children scored lower on tasks with a high demand for selective attention, ability to inhibit interference, sequential reasoning, and integration and organization of new information, cognitive functions commonly attributed to the frontal lobes. Similar findings were reported by Zhu, Xu, and Kong (2000) who studied attention, behaviour characteristics and peer relations in children with learning disabilities (LDS) of 4th, 5th, and 6th grade students (aged 9-12 years) The results of parent and teacher evaluation and peer review were also compared. The results show that subjects with LDS had more problem of attention and behaviour, hyperactivity impulsivity and poor relationship with peers.

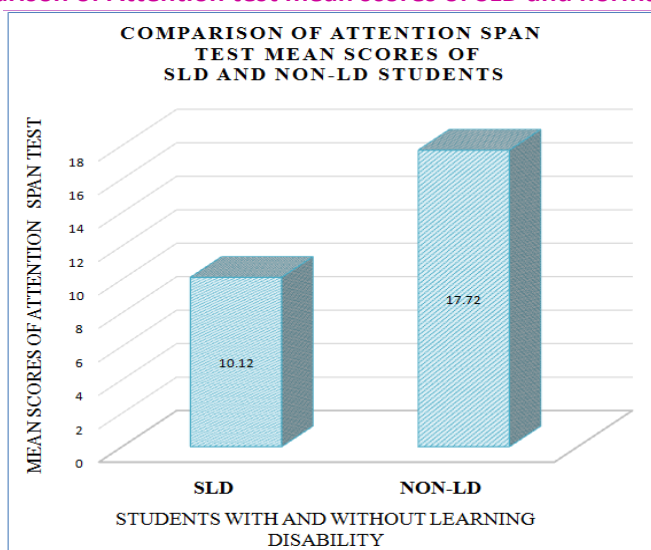
Thus, the hypothesis that there will be no significant difference between mean attention span scores of children with and without specific learning disability, studying in 4th, 5th and 6th standards was rejected.

Table:1
Comparison of Mean, SD, And t value of Attention span between students with and without specific learning disability:

Sr. No.	Group	N	Mean	S. D	t-value (d.f.=48)	L.O.S (0.01)
1	SLD	25	10.12	1.56	13.81	**
2	NON-LD	25	17.72	2.31		

Graph: 1

Graph showing comparison of Attention test mean scores of SLD and normal i.e., Non-LD students.



RECOMMENDATIONS:

- Children who shows signs of learning disability should be referred early for complete diagnostic assessment.
- Children with learning disability should be given proper support and Individualized based educational interventions.

CONCLUSION:

It was found that there exists a significant difference between the mean attention scores of children with and without learning disability studying in 4th, 5th and 6th standards. Hence, the null hypothesis was rejected here as there was a significant difference in the mean attention scores of children with and without specific learning disability students studying in 4th, 5th and 6th standards. Learning Disabled children were found to be deficient in area of attentionspan in comparison to Non-LD students.

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