

Concept development in learning disabled children



Education

KEYWORDS :

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ABSTRACT

Learning disability is a classification including several areas of functioning in which a person has difficulty learning in a typical manner, usually caused by an unknown factor. Learning disability refers to significant learning problems in an academic area. Learning disabilities are life long. However, with appropriate cognitive and academic interventions and technology many can overcome the effects of their disability. Individuals with learning disabilities can face unique challenges that are often pervasive throughout the lifespan. The learning disabled cannot learn the concepts as easily as the normal children. Depending on the type and severity of the disability, interventions and current technologies may be used to help the individual learn concepts that will foster future success. Some interventions can be quite simplistic, while others are intricate and complex. The need for appropriate and timely assessment, remediation and education is critical if these individuals are to participate fully in society. Given both remediation and a solid general education, elementary students with LD can learn the concepts to the same levels as their peers and make relatively smooth transitions to middle or secondary school. By addressing students' specific learning needs, schools can foster students' engagement, and willingness to take risks and responsibility for learning. Such motivation promotes the completion of their studies and, thereby, creates openings to further educational options.

Introduction

Learning disabilities are problems that affect the brain's ability to receive, process, analyze, or store information. These problems can make it difficult for a student to learn as quickly as someone who is not affected by learning disabilities. There are many kinds of learning disabilities. Certain kinds of learning disabilities can interfere with a person's ability to concentrate or focus and can cause someone's mind to wander too much. Other learning disabilities can make it difficult for a student to read, write, spell, or solve math problems. In the 1980s, the National Joint Committee on Learning Disabilities (NJCLD) defined the term learning disability as "a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g. cultural differences, insufficient and inappropriate instruction, psychogenic factors) it is not the direct result of those conditions or influences". More succinctly, Zigmond (1993) noted that "learning disabilities reflect unexpected learning problems in a seemingly capable child." Learning disabilities are of two categories: verbal and nonverbal.

People with verbal learning disabilities have difficulty with words, both spoken and written. Some people with verbal learning disabilities may be able to read or write just fine but struggle with other aspects of language. For example, they may be able to sound out a sentence or paragraph perfectly, making them good readers, but they cannot relate to the words in ways that will allow them to make sense of what they're reading (such as forming a picture of a thing or situation). Some people have trouble with the act of writing as their brains struggle to control the many things that go into it — from moving their hand to form letter shapes to remembering the correct grammar rules involved in writing down a sentence. People with nonverbal learning disabilities may have difficulty processing what they see. They may have trouble making sense of visual details like numbers on a blackboard. Someone with a nonverbal learning disability may confuse the plus sign with the sign for division, for example. Some abstract concepts like fractions may be difficult to master for people with nonverbal learning disabilities. According to Lyon, G.R. (1996) approximately 5% of all public school students are identified as having a learning disability. The study of learning disabilities was initiated in response to the need to understand individual differences among children and adults who displayed specific deficits in spoken or written language while maintaining integrity in general intellectual functioning and to provide services to these students, who were not being adequately served by the general educational system

(Moats, L.C., and Lyon, G.R., 1993).

Concepts and categories of basic concepts

Concepts are the basic unit of all types of learning and a vehicle of our symbolic behavior. Individuals differ in their level of concept formation on the basis of their age, intelligence and experience. A concept is a symbolic construction that represents some common and general feature or features of objects or events. In other words, it is a general idea about objects, animals, events etc. Normal development with regard to concept formation depends upon the abilities to differentiate, abstract, generalize and categorize. The basic concepts are not restricted to a particular subject or form of knowledge. These are the fundamental concepts which are universal in nature and is required generally by all the children in order to understand the world around us and to acquire different forms of knowledge. If the children have not acquired these basic concepts they experience difficulty in learning various academic subjects. The children with learning disabilities experience difficulty in the development of different types of basic concepts.

Objectives

1. To test the appropriateness of BTBC (Boehm's test of basic concepts) for primary school children of English medium in Indian context.
2. To find out whether there is any significant difference among normal children studying in different grades from I through V in primary schools of English medium in the development of different types of basic concepts, namely spatial, temporal, quantitative and miscellaneous concepts.
3. To identify the children with learning disabilities among children of grades III, IV and V of primary schools of English medium.
4. To find out whether there is any significant difference among children with learning disabilities studying in different grades from III through V in primary schools of English medium in the development of different types of basic concepts.
5. To find out whether there is any significant difference between normal children and children with learning disabilities of different grades from III to V in their development of different types of basic concepts.
6. To determine if development of different types of basic concepts differ among two sexes in normal children as well as children with learning disabilities of different grades from III to V in primary schools.
7. To find out the deficiencies in the development of basic concepts among children with learning disabilities of different grades.

Methodology

This study attempts to explore the deficiencies in the devel-

opment of basic concepts among children with learning disabilities. The study envisages that the findings can be used for developing interventional programmes for the children with learning disabilities studying in primary schools of english medium. Boehm's Test of Basic Concepts was administered to different grades of three english medium primary school children studying in grades II through V in Mysore city . 120 students of which 67 girls and 53 boys were randomly selected for the study. These children were normal in different academic subjects. The result of the Boehm's test of Basic Concepts showed that 50% of the students of grade II had not mastered around 20 out of 50 concepts and 80% of the children of Grade III to V had attained 80% of the concepts. Thus this test was considered to be appropriate from Grade III onwards.

Identification of Children with Learning Disability

Out of the population of around 1380 children from the four primary english medium schools chosen for the study, 87 students from the grades III through V were identified as being poor in academic skills such as reading, writing and arithmetic by teachers. Informal assessment confirmed them to be poor in these academic areas.

For the 67 children who were retained after the informal academic assessment by the investigator the following criteria were applied.

Table - 1 : Criteria, tools and techniques employed for identification of children with Learning Disabilities

Sl. No.	Criteria	Tools/Techniques employed
1.	No sensory defects	Observation, teachers opinion and child's responses to questions asked by the investigator
2.	No emotional problems	Teacher's opinion and child's report
3.	No chronic health problems	Teacher's opinion and child's report
4.	Regularity in attendance	Teacher's opinion and school record
5.	Help at home	Child's report
6.	At or above 7 years of age	School record
7.	Two years retardation in reading	English Word Recognition Test (Uma Devi, 1996- yet to be published)
8.	Two years retardation in writing	English Word Recognition Test (Uma Devi, 1996- yet to be published)
9.	Poor in Mathematics	Arithmetic diagnostic test for primary school children (Ramaa, 1992)
10.	Normal intelligence	Raven's coloured progressive matrices (Raven's, 1956, 1962)

The table below gives an account of the students who were eliminated among 67 students for various reasons in accordance with the criteria employed in identifying children with learning disabilities.

Table - 2 : Number of children excluded for different reasons

Reason for exclusion	Emotional problem	Absentism	No academic help at home	Chronic health problems	Under age
					Over age
No. of students excluded	3	6	5	2	4

Out of 67 students, 20 students were excluded as they failed to meet one or the other criteria. The remaining 47 children who were average or above average were found were found to be retarded by 2 or more years in reading, writing and arithmetic. These 47 children were considered as learning disabled. Out of those 47 children 34 were boys and 13 were girls from grades III through V. All the 47 children were included in the study.

Assessment of basic concepts among children with learning disabilities.

Boehm's Test of Basic Concepts was administered individually to 47 children with learning disabilities. Scoring was done and mean and SD were computed for each grade separately.

Variables

The study dealt with variable like grade, sex, presence or absence of learning disability (as independent variable) and basic concept development (as assessed by BTBC) as dependent variable.

Techniques of analysis of Data

To analyze the data quantitatively statistical measure like *t' ratio was computed. The data was also analysed qualitatively by taking the frequencies and percentages of children with learning disabilities and normal children who have passed the different types of basic concepts.

Findings of the Study

From the study the following inferences were drawn:

1. There was a considerable individual difference among the normal as well as children with learning disabilities with respect to the development of different basic concepts.
2. The Boehm's test of basic concept was found to be appropriate from grade III onwards in an indian context.
3. The attainment of number of different types of basic concepts (spatial, temporal, quantitative and miscellaneous concepts) increased with the increase of grade (III to V) among normal children.
4. Among children with learning disabilities of grades III to V, the attainment of a number of different types of basic concepts namely spatial, temporal, quantitative and miscellaneous concepts improved generally as they proceed to higher grades. However, there were some exceptions. Children of grades III and IV did not differ significantly in the development of miscellaneous concepts and grades IV and V in spatial concepts.
5. The normal children of different grades III to V performed significantly better than the children with learning disabilities of same grades on BTBC as a whole as well as on its subtypes.
6. Among normal children of grade III and IV there was no considerable improvement in the performance of boys and girls on total BTBC as well as quantitative concepts. But in spatial concepts, the performance of girls was better and in temporal and miscellaneous concepts, the performance of boys was better than girls in both grades.
7. Among normal children of Grade V, the performance of boys was better than girls on total BTBC as well as temporal concepts and miscellaneous concepts. But in the development of spatial and quantitative concepts there was no considerable difference between both the sexes.
8. There was no considerable difference between the performance of boys and girls with learning disabilities of grade III on total BTBC and temporal and miscellaneous concepts whereas there was a significant improvement in the development of spatial and quantitative concepts among boys than girls.
9. On the total BTBC as well as spatial and quantitative concepts, the boys performed better than girls whereas in temporal and miscellaneous concepts, the performance of both the sexes was same among grade IV children with learning disabilities.
10. Among children with learning disabilities of grade V, there was no significant difference between boys and girls in the development of basic concepts as a whole but the boys had attained more number of spatial concepts.
11. There were many concepts, which most of the normal children were deficient of. But the spatial concepts, quantitative concepts and miscellaneous concepts were found to be difficult by most of the normal children of grade III and some children of grade IV and V.
12. The spatial concepts were found to be deficient in more than 75% of the children with learning disabilities of all the three grades.

13. The temporal concepts were not attained by more than 75% of the children with learning disabilities of all the three grades.
14. More than 75% of the children with learning disabilities of all the three grades were deficient in the quantitative concepts
15. More than 25% of the children with learning disabilities of all the three grades were deficient in the miscellaneous concepts.
16. Among all the three grades of normal children, the percentage of children who had attained different concepts were varied implying different levels of difficulty.
17. In case of children with learning disabilities, the order of difficulty of the concepts varied from that of normal children and also with reference to grades III to V.

REFERENCE

- Boehm's Test of Basic Concepts Manual. New York, Psychological Corporation .1971. | • Lyon,G.R.The Future of Children Special education for students with disabilities. Vol. 6 • No. 1 – Spring 1996. | • Moats, L.C., and Lyon, G.R. Learning disabilities in the United States: Advocacy, science, and the future of the field. Journal of Learning Disabilities .1993 ,26:282–94. | • Zigmond, N. Learning disabilities from an educational perspective. In Better understanding learning disabilities: New views from research and their implications for education and public policies.G.R. Lyon, D.B. Gray, J.F. Kavanagh, and N.A. Krasnegor, eds. Baltimore: Paul H. Brookes, 1993, pp. 251–72.