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Learning Disability: Concept, Definition, Causes and Types

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Abstract: In this article scholar is going to explain about learning disability. According to neurologist - learning disability is a neurological disorder but it is not affect whole area of life. It is specific problem in human life so learning disability is also specific. "Learning Disability" does not stand for a single disorder; it is a term that refers to a group of disorders. Causes of learning disability are Genetic or heredity factors, Organic or physiological factor, Environmental Factors and some of others factors. Some types of learning disability like Dyslexia– Difficulty with reading, Dyscalculia– Difficulty with math; Problems doing math problems and handling money, Dysgraphia– Difficulty with writing; Problems with handwriting, Dyspraxia– Difficulty with fine motor skills; Auditory Processing Disorder– Difficulty hearing differences between sounds and Visual Processing Disorder–Difficulty interpreting visual information.

Introduction

Learning disability is a disorder in which a person has a difficulty to learn effectively, caused by an unknown factor or factors. The unknown factor is the disorder that affects the brain's ability to receive and process information. This disorder can make it problematic for a child to learn as quickly as same age of other who is not affected by any other disability. Learning disability is not indicative of intelligence level. Rather, people with a learning disability have trouble performing specific types of skills or completing tasks if left to figure things out by themselves or if taught in conventional ways. A learning disability cannot be cured or fixed; it is a lifelong issue. With the right support and intervention, however, people with learning disabilities can succeed at school and go on to successful, often distinguished careers later in the life.

Learning disability is a group of disorders that affects people's ability either to interpret what they see and hear or to link information from different parts of the brain. These limitations can show up in many ways: as specific difficulties with spoken and written language, coordination,



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self-control, or attention. Such difficulties extend to schoolwork and can impede learning to read, write, or to do mathematical formulas.

What is a Learning Disability?

A learning disability is a neurological disorder. In simple terms, a learning disability results from a difference in the way a person's brain is "wired." Children with learning disabilities are as smart as or smarter than their peers. But they may have difficulty reading, writing, spelling, and reasoning, recalling and/or organizing information if left to figure things out by them or if taught in conventional ways.

A learning disability can't be cured or fixed; it is a lifelong issue. With the right support and intervention, however, children with learning disabilities can succeed in school and go on to successful, often distinguished careers later in life.

Parents can help children with learning disabilities achieve such success by encouraging their strengths, knowing their weaknesses, understanding the educational system, working with professionals and learning about strategies for dealing with specific difficulties.

Concept of Learning Disability

Learning disability refers to learning problems which manifest in an unsatisfactory ability to listen, think, speak, read, write or do mathematical calculations which are not primarily due to visual impairment, hearing impairment, motor handicap, mental retardation environmental or economic disadvantages, but due to a disorder in the psychological process involved in understanding or in using language.

Definition of Learning Disabilities

In the matter of defining the term learning disability the famous author S.A. Kirk (1971), has remarked as below.



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“The term learning disabilities or disability is not meant to be used for children with minor or temporary difficulties in learning but with a sever discrepancy between ability and achievement in educational performance and such several discrepancy described as learning disabilities with significant learning problems that cannot be explained by intellectual disability, sensory impairment, emotional disturbance or lack of opportunity.”

The Association for Children with Learning Disabilities USA, (1967) according to *Telford and Sawrey (1977)*

“A child with learning disabilities is one with adequate mental ability, sensory processes and emotional stability who has a limited number of specific deficits in perceptual, integrative or expressive process which severely impair learning efficiency. This includes children who have central nervous system dysfunctions which are expressed primarily learning efficiency.”

The following *Federal definition* by the U.S. Government in Public Law 94-142 of Learning Disabilities has been adopted in India.

“Specific Learning Disabilities means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not apply to children who have learning problems that are primarily the result of visual, hearing or motor disabilities, of mental retardation, emotional disturbance, or of environmental, cultural or economic disadvantages.” (*Federal Register, 1977*, p. 65083).

As observed thus learning disability refers to a state or condition of a child in which he/she experiences a lot of problems and difficulties in the path of his learning. Gradually the learning problem becomes so acute as to cause severely impaired learning inefficiency in one or the other cognitive areas. It leads to a distinctive gap between one’s potential and actual educational achievement which require special care, attention and remedial measures and when it happens the learner is labelled as learning as learning disabled.



Causes of Learning Disability

Depending on the types of learning disabilities found in the children a number of researches have been conducted to find out the possible factors or causes of learning disabilities. Generally the factors causing learning disabilities may be found to fall in the following three categories:

1. **Genetic or heredity factors:** In some cases, the genetic or heredity factor is found to be the major cause for generating learning disabilities among the children. On the pattern “Like begets like” it has been found that many characteristics commonly found in learning disabled are transmitted from generation to generation. This relationship between inheritance and disabilities has been established on the basis of the following results:
 - a. Nearly 20 to 25 percent of hyperactive or impulsive children have been found to have at least one parent of this nature.
 - b. Emotional imbalances, disorders of memory and thinking, speech and learning have been found to run in families.
 - c. Going deep into the genetic research, the USA scientists and psychologists have attained success in identifying particular genes that may be held responsible for reading and other learning problem.

2. **Organic or physiological factor:** Study of most learning disabled cases reveals that they suffer from malfunctioning or dysfunction of their central nervous system consisting of brain, spinal cord and message carrying nerves etc. this dysfunction, however minimal it may be, is caused by the factors like below:
 - a. Brain damage caused by an accident or by a lack of oxygen before, during or after birth resulting in neurological difficulties that may affect their ability to learn.
 - b. Damage of injury caused to the spinal and message carrying nerves etc. leading to their malfunctioning and subsequent learning difficulties.
 - c. Dysfunction of the central nervous system may be caused by bio-chemical imbalances generated by the factors like below:



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- Colourings and flavourings in many of the food items consumed by the children may cause hyperactive, impulsive, emotional imbalance etc. leading to malfunctioning of the central nervous system.
- Vitamin deficiency may cause inability of a child's bloodstream to synthesize a normal amount of vitamins essential for normal functioning of the central nervous system.

3. **Environmental Factors:** In many cases, learning disabilities may be caused by the improper and uncongenial conditions and factors present in an individual's physical, social, cultural and educational environment. Some of these factors may be cited as under:

- a. The poor nourishment and defective environment received by the foetus for development in the mother's womb.
- b. Pre-mature delivery, uncongenial and improper environment settings at the time of birth or a defect in the central nervous system.
- c. Diet deficiency in the early age, severe disease, accidents and injuries that may cause central nervous dysfunction.
- d. Children who do not receive proper care and attention and as a result suffer from any impairment in their senses of hearing, sight, taste, touch smell and other neurological functioning become handicapped in terms of learning.
- e. Insufficient early experiences and stimulation in terms of learning and acquisition received on account of defective educational set-up.
- f. Poor or inadequate instructions received on account of their own family set-up or lack of motivation, skill and ability on the part of teachers.
- g. Emotional disturbance and lack of motivation on account of so many factors present in a person's environment and even on account of malfunctioning of his physiological process.
- h. Inadequate and improper development of language skills, lack of concentration and adequate attention.
- i. Use of drugs and intoxicating substances like consumption of alcohol.



- j. Imitation and the company of defective learning models present in one's cultural, social and educational environment.
- k. Social and cultural deprivation.

Types of Learning Disabilities

Common types of learning disabilities-

1. **Dyslexia** – (Difficulty with reading; Problems reading, writing, spelling, speaking) - There are two types of learning disabilities in reading. Basic reading problems occur when there is difficulty understanding the relationship between sounds, letters and words. Reading comprehension problems occur when there is an inability to grasp the meaning of words, phrases, and paragraphs. Signs of reading difficulty include problems with: letter and word recognition, understanding words and ideas, reading speed and fluency, general vocabulary skills.
2. **Dyscalculia** – (Difficulty with math; Problems doing math problems, understanding time, using money) - Learning disabilities in math vary greatly depending on the child's other strengths and weaknesses. A child's ability to do math will be affected differently by a language learning disability, or a visual disorder or a difficulty with sequencing, memory or organization. A child with a math-based learning disorder may struggle with memorization and organization of numbers, operation signs, and number "facts" (like $5+5=10$ or $5 \times 5=25$). Children with math learning disorders might also have trouble with counting principles (such as counting by twos or counting by fives) or have difficulty telling time and handling money.
3. **Dysgraphia** – (Difficulty with writing; Problems with handwriting, spelling and organizing ideas) - Learning disabilities in writing can involve the physical act of writing or the mental activity of comprehending and synthesizing information. Basic writing disorder refers to physical difficulty forming words and letters. Expressive writing disability indicates a struggle to organize thoughts on paper. Symptoms of a written language learning disability revolve around the act of writing. They include problems with: neatness and consistency of writing, accurately copying letters and words, spelling consistency, writing organization and coherence.



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4. **Dyspraxia (Sensory Integration Disorder)** – (Difficulty with fine motor skills; Problems with hand-eye coordination, balance, manual dexterity) - Motor difficulty refers to problems with movement and coordination whether it is with fine motor skills (cutting, writing) or gross motor skills (running, jumping). A motor disability is sometimes referred to as an “output” activity meaning that it relates to the output of information from the brain. In order to run, jump, write or cut something, the brain must be able to communicate with the necessary limbs to complete the action. Signs that your child might have a motor coordination disability include problems with physical abilities that require hand-eye coordination, like holding a pencil or buttoning a shirt.
5. **Dysphasia/Aphasia** – (Difficulty with language; Problems understanding spoken language, poor reading comprehension) - Language and communication learning disabilities involve the ability to understand or produce spoken language. Language is also considered an output activity because it requires organizing thoughts in the brain and calling upon the right words to verbally explain something or communicate with someone else. Signs of a language-based learning disorder involve problems with verbal language skills, such as the ability to retell a story and the fluency of speech, as well as the ability to understand the meaning of words, parts of speech, directions, etc.
6. **Auditory Processing Disorder** – (Difficulty hearing differences between sounds; Problems with reading, comprehension, language) - Professionals may refer to the ability to hear well as “auditory processing skills” or “receptive language.” The ability to hear things correctly greatly impacts the ability to read, write and spell. An inability to distinguish subtle differences in sound, or hearing sounds at the wrong speed make it difficult to sound out words and understand the basic concepts of reading and writing.
7. **Visual Processing Disorder** – (Difficulty interpreting visual information; Problems with reading, math, maps, charts, symbols, pictures) - Problems in visual perception include missing subtle differences in shapes, reversing letters or numbers, skipping words, skipping lines, misperceiving depth or distance, or having problems with eye–hand coordination. Professionals may refer to the work of the eyes as “visual processing.” Visual perception can affect gross and fine motor skills, reading comprehension, and math.



Conclusion

Learning disability is a group of disorders that affects people's ability to either interpret what they see and hear or to link information from different parts of the brain. These limitations can show up in many ways: as specific difficulties with spoken and written language, coordination, self-control, or attention. Such difficulties extend to schoolwork and can impede learning to read, write, or do math. A learning disability can't be cured or fixed; it is a lifelong issue. With the right support and intervention, however, children with learning disabilities can succeed in school and go on to successful, often distinguished careers later in life. Parents can help children with learning disabilities achieve such success by encouraging their strengths, knowing their weaknesses, understanding the educational system, working with professionals and learning about strategies for dealing with specific difficulties.

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