

A DEEP STUDY ON LEARNING DISABILITY

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ABSTRACT:- A people is said to have a learning impairment if they struggle with acquiring new information due to a variety of underlying causes that are not fully understood. It is used to refer to a set of problems that are defined by an inadequate development of certain intellectual, language, including speech abilities. The condition that impairs the capacity of the brain both receive and processing information seems to be the issue that is not well understood. People who have learning disabilities may struggle to master certain skills or to carry out certain responsibilities. Conditions that impair with an individuals personal ability to comprehend and then are considered to be triggered by difficulty in processing but also integrating data are referred to as learning disabilities or learning differences. Another term for learning differences is learning differences. Reading disability, also known as dyslexia, maths disability, also known as dyscalculia, and typing disability, also known as dysgraphia, are all examples of various types of educational impairments.

KEYWORDS:- Learning Disability etc.

The subfield of learning disabilities is the latest recent addition to the area that falls under the umbrella term "special instruction." The notion of a mental handicap did in fact exist; however, it was not acknowledged, and that as a result, it was kept secret for generations. Franz Joseph Effrontery, a physician from Vienna, is credited with having done the pioneering work in this field. Gall made the connection in 1802 between certain areas of the brain and particular activities carried out by humans. He saw people who, as a result of a brain lesion, were not able to communicate their thoughts and emotions via the use of spoken words. By 1990, work in this regard had shown that aspergers might be the true reason of low academic performance but that learning impairment could be the case instead. In later years, a greater number of studies were carried out in the subject of mental impairment. As a consequence of this, one group examined the field of mental disabilities, while another focused its attention on those who had suffered brain injuries. The latter course of action ultimately resulted in learning disabilities. Kirk came up with the phrase "learning disability" at a seminar for parents that was held throughout Manhattan. He intended for it to be used to describe people who, although having normal

or nearly average intellect, had a bewildering assortment of cognitive and behavioral issues. Just few years down the line, the medical and educational communities came together to formally acknowledge the word by establishing the Division for Kids with Learning Disorders (DCLD) inside the Society of Youth Affairs (CEC). Kirk proposed using the term "cognitive impairment" to refer to each of the behavioral symptoms that manifest as a result of a failure in the main processing systems of the kid. This word refers to a set of youngsters who have had difficulties in the development of their language, speaking, and writing as well as the accompanying communication skills that are necessary for social engagement. Children who are unable to participate in this group include those who have mental retardation, functional limitations, or emotional disorders.

Learning disability – Concept and Definitions

Learning disabilities may affect people of any age and can occur in any socioeconomic background. The term "learning disability" refers to a range of difficulties, including difficulties in listening, focusing, speaking, thinking, remembering, reading, writing, math, and social skills. However, disabilities are really not universal impairments but rather specialized impairments. Learning disabilities are a group of neurological diseases that may impact some or all of the methods by which an individual takes in knowledge, retains information, or utilizes information. The phrase "s language" is utilized to describe to this group of illnesses. People who perform at a normal or above normal intelligence level but also have severe particular academic challenges paired with a weakness in executive processes are said to have learning disabilities.

According to the definition established by this same National Working Group on Developmental Disability (1981), the descriptor "learning" is indeed a general term applied to a diverse group of diseases that are characterized by great issues inside this learning and application of listening, trying to speak, having to read, composing, reasoning, or arithmetic skills. These conditions are endemic to the human, and it is believed that they are the result of malfunction in the brain's central neurological system.. They may persist throughout a person's whole life. Any learning impairment is not the product of these other handicapping disorders or external forces, despite the fact that it may exist simultaneously with other handicapped conditions.

To summarize,

1. The term "learning difficulties" refers to a diverse collection of conditions.
2. The person is the fundamental cause of the issue.

3. An issue with the functioning of the brain's central nervous network is regarded as being at the root of the problem.

4. A mental difficulty may develop in conjunction with other forms of impairment.

The official definition of mental difficulty that was established in 1975 statute and kept unaltered in 1986 renewal remained in force from 1977 forward, when the term first went into effect. This concept is now used as the foundation for many educational programs, in addition to the definitions used by the federal government and the majority of the states. A ailment that affects one or miscellaneous field of this same basic psychology associated with comprehending or in utilising language group chat written is what this description of specialized learning difficulties refers to. This illness may emerge as a flawed capability to listen, believe, speak, read, try writing, spell, or even do calculations. First from second section of such federal statute, we can deduce that when a student does have a learning disorder, he is unable to obtain according his time of life and intellectual prowess even if adequate learning perceptions are given to him. This is the case despite the teenager is given the opportunity to participate in appropriate educational activities. There is going to be gap between the achievements one has under their belt and their intellectual capacity.

The three main criteria in defining learning disability can be identified as

1. A Criteria for Discrepancies
2. The severity evaluation criteria
3. Resistance Criterion

According to the Discrepancy Standard, a classification of learning impairment is appropriate whenever there exists a significant gap between academic accomplishment and other measures of performance over time or intellectual capacity. According to the findings of a number of academics, the gap between the biological age of kids and their level of success must be at least two years wide in order to be considered significant. However, there are many who believe that the degree of scholar talents need to lag behind general success by a two-year time period. There is a possibility that a kid has a mathematical handicap if there is a gap between the patient's IQ score and also the child's level of accomplishment in mathematics; nevertheless, many children who have mathematical disabilities do not fit this requirement.

The severity criterion is the second one on the list of criteria. It utilizes the cut-off criteria of the 21st percentile, but somehow it guarantees that the few children who might be given a diagnosis having mathematical difficulties are those who have results that are consistently lower than this cut-off over the course of many academic years.

The Resistance Criteria is the final and third test that may be included in definitions describing learning disabilities. Authors who base their defense on this criteria believe that the basic symptoms of a school impairment will only be detected after a term of treatment has been provided.

Categorization of Learning disability

A variety of different criteria may be used to classify learning disabilities. This discussion will focus on two distinct classification schemes. The initial is determined by how well a person processes information, while the latter one can be determined by the special needs child they have.

1. Based on information processing

According to the findings of the International Dissemination Institute for People with Special needs, learning disabilities may be broken down into four major categories dependent on the phases of cognitive processing which is used during the education process: input, assimilation, storage, and release.

- a. Input: This term describes the information that is obtained via the use of one's senses. These challenges might make it difficult to correctly identify the form, location, and dimensions of an object that is seen.
- b. Integration: This really is the step whereby the received input is processed, classified, arranged in a pattern, or connected to past learning.
- c. Synthesis: This really is the step whereby the observed data is synthesized into new information.
- d. Storage: Issues with memory may manifest itself in either the working memory (also known as bad memory) or the permanent memory (also known as long-term remembrance).
- e. Output: Data is sent from the brains to the outside world in either the shape of words, also known as features such as syntax highlighting, or via the use of muscular movement, such as painting, writing, nor gesturing. There may be difficulties with both spoken and printed words as a result of this.

2. Specific learning disabilities

Based on the specific difficulties faced by children learning disability can be classified into the following categories

1. Dyslexia

A vernacular condition where an individual has difficulty comprehending written words, dyslexia causes a person to have difficulty reading written language. According to its etymological roots, the term dyslexia refers to a "impairment with language." It may be thought of as a reading handicap or reading problem that has its roots in the neurological system. It is defined by challenges in understanding how to read despite spite of such an intellect level that has been average or superior and frequent exposure to language education. This condition is known as dyslexia. It is a disorder rooted in the brain which is frequently inherited and lasts a person their whole life.

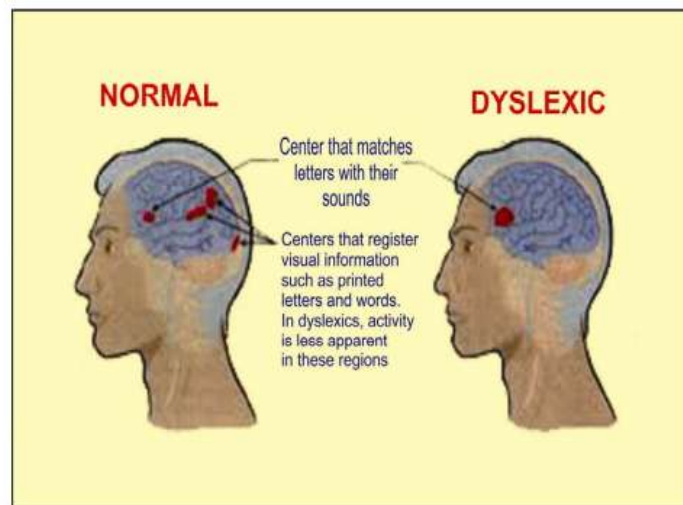


Figure Normal and dyslexic brains

2. Dyscalculia

A mathematical handicap wherein a people has trouble solving mathematical problems and understanding mathematical ideas. People with this condition often struggle with arithmetic. Students who have dyscalculia may have challenges in reading as well as in arithmetic. Children who have dyscalculia may need a significant amount of energy to complete even the simplest of arithmetic assignments.



Figure A dyscalculic student

3. Dysgraphia

Dyspraxia is a kind of writing impairment that occurs when a person has difficulty forming letters or typing within a certain area of the page. These youngsters almost often have very bad handwriting and struggle with getting their thoughts in the correct order.



Figure Dysgraphia

4. Dyspraxia

Dysarthria is a kind of learning impairment that manifests itself in difficulties following repeated body movement. The term "dyspraxia" originates from that Greek words "dys," meaning defective or abnormal, plus "praxis," meaning acts or deeds. Together, these words form the English word "expressive aphasia." A other name for this condition is fine motor disability.



Figure A child with Dyspraxia

5. Dysphasia

Regarding the phenomenon is a kind of learning impairment that makes it difficult to grasp spoken language and to express oneself verbally. It is a condition of the language that creates difficulties in speaking as well as in the understanding of words. Incapacity to understand language, difficulty pronouncing words, incapacity to talk spontaneously, difficulty forming words, and failure to recognize things are all indications of dysphasia. The difficulty of speaking is referred to as dysgraphia. Aphasia is when a person loses the ability to communicate verbally.

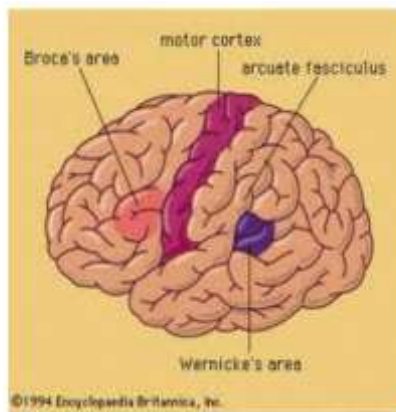


Figure Brain affected by Dysphasia and Aphasia

Dysphasia is characterized by clearly defined regions of impairment. The red circle, which represents Broca's region, is destroyed in expressive dysgraphia, while the lavender circle, which represents Wernicke's area, is destroyed in receptive dysgraphia.

6. Dysnomia

It's really the incapacity to recollect names or remember relevant words for writing or verbally. It may also be referred to as memory loss. The ability to speak, write, or both might be impacted as a result of this. These children can have issues with their verbal material. They are unable to retain the information that they absorb. Some people have difficulty recalling the things they witness or go through. They need much more time to finish the examinations.

7. Dysarthria

That is a disease of the muscles that control speech that may be caused by a nerve damage and is marked by impaired articulation. The condition in the neurological system that causes dysarthric speaking is called dysarthria. It is because the muscles involved are either weak or not coordinated.



Figure A student with Dysarthria

8. Sensory Processing Disorders

It refers to a sensorimotor disability in which a person seems to have trouble understanding vocabulary despite having normal sight and hearing because of a deficit in the methods of recognizing but also interpreting data gleaned by the senses. This leads the individual to have difficulty communicating with others. Hearing and visual perceptions are indeed the two domains of processing that are affected the most often in individuals who have learning impairments.



Figure Sensory Processing Disorders

9. Nonverbal Learning Disabilities (NLD)

Children who have this condition are unable identify and interpret non-verbal signals, including facial movements or the voice tone onto important insights. This includes being able to read facial movements. As a

result of the children's improper reactions to nonverbal cues, a diagnosis of emotional disturbance was given to



them when it was really a mistake.

Figure A student with Nonverbal Learning Disability

Psychological and Behavioural Characteristics of Learning Disabled Children

1. Difficulties in perception, perceptual-motor integration, and general cooperation

a) Reading-impaired young kids are more inclined to exhibit visuospatial problems (difficulties in arranging and comprehending visual sensory stimulation), according to a number of studies which indicate that reading-impaired children are quite likely to showcase visual perceptual issues than youngsters who are mean readers or even above mean readers.

b) Perceptual - cognitive Difficulties: Although the proportion of learning disabled kids who have perceptual - cognitive disabilities is rather small, there has been some studies done on this topic. According to the findings of these research, children with learning disabilities are more likely to have impairments with auditory perceptual processing than children with normal development.

c) Problems with Perceptual-Motor but also General Coordination: From a clinical standpoint, it's been noticed that children who have learning disabilities often struggle with tasks that require the utilization of motor skills in a specific context. The challenges that have been given to them require both visual and motor (muscular that are tiny in size) and motor coordination (muscles that are big in size) abilities. Coordination of something like the visuomotor systems is typically required for the development of small motor abilities.

2. Attention deficit hyperactivity disorder (ADHD) is a common symptom of learning disabilities. Many researchers have reported the attention problems of children with learning disabilities. It would indicate that children with learning disabilities are more easily confused and less attentive than typical youngsters are.
3. Problems with language: children with learning disabilities demonstrate inefficient use of language.
4. Problems with memory and thought Learning challenged children, in general, show memory problems in response to both audio and visual inputs. Children that are impulsive don't take the time to think things through before answering; instead, they react fast without properly evaluating the many options.
5. Emotional vulnerability: a kid with learning disabilities often displays behaviors that are indicative of depressed mood. These behaviors might be seen rather regularly. He isn't an joyful kid and possesses a poor sense of his own worth.
6. Disorders affecting speaking and hearing Any kid who has a learning disability may have problems recalling or comprehending what has been said to them, may have delayed speech pronunciation, or may make improper use of language and vocabulary.
7. Neurological issues: A much higher proportion of children with learning disabilities exhibit symptoms of neuropsychiatric disorders compared to kids in the general population.

A child's level of academic attainment can vary greatly depending on the number of learning disciplines in which they struggle. Though some children struggle in all scholarly areas, others always struggle in one but rather two learning disciplines. Reading difficulties are almost certainly the most common kind of scholastic difficulty. Literacy, writing, mathematics, conversational skills, especially auditory perceptual deficiencies are the most common areas in which students with learning disabilities have difficulties in their academic work.

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