Abstract

Learning disability is an umbrella term used to describe many different neurological disorders. Children with learning disabilities have a glitch in how their brains are wired so that they might have difficulty with reasoning, spelling, writing and reading. The disorders are often described as disabilities because they may interfere with the student's ability to learn. Many students with a learning disability have average or above-average intelligence. The most common learning disabilities are Dyscalculia, Dysgraphia and Dyslexia, i.e., the disabilities are an impairment of doing math, writing, reading, respectively. This paper emphasises on different learning disabilities. If these students are diagnosed with Learning disabilities then they can receive special strategies corresponding to their needs. Identifying the problem areas in their learning is the first step towards helping the child. It should be kept in mind that each intervention strategy should be a unique instructional design based on the kind of learning difficulty of the child. Hence, it implies lot of creativity and imagination on the part of the teacher handling the difficulty. Teachers need to adopt different methodologies to help the children with learning disability to overcome their problems and to learn like any other normal child. Hence this paper highlights on concept of learning disabilities, types and strategies to overcome the learning disability.

1. Introduction

The interplay between heredity and environment has created this beautiful world which abounds in human diversity. Individuals differ from each other in their physical, intellectual, emotional and behavioral traits. This creates a confounding situation before a class room teacher wherein he/she
has to deal with students of different ability levels, emotional and attitudinal make up and of varying physical characteristics within the given time frame to fulfill academic responsibilities. Catering to individual differences in the classroom thus proves to be the greatest challenge before the teacher. A typical child in a classroom can either be a normal child with average capabilities or an exceptional or differently-abled one requiring more attention from the teacher. A part of differently-abled consists of children with Learning Disability.

2. Concept of Learning Disability (LD)

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 the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (IDEA 2004)

Learning disability (LD) is a term used to denote a neurological handicap that interferes with a person’s ability to receive, process, store, and retrieve information. LD creates a gap between a person’s ability and performance caused by an alternation in the way information is processed. Repetition and drilling does not alter this processing, but presenting materials in a different way helps. Individuals with LD are generally of average or above average intelligence. A condition giving rise to learning difficulties, especially when not associated with physical disability. A learning disability is not a problem with intelligence or motivation. Kids with learning disabilities aren’t lazy or dumb. In fact, most are just as smart as everyone else. Their brains are simply wired differently. This difference affects how they receive and process information.

- LD can affect one’s ability to read, write, speak or compute math, and can impede socialization skills.
- Early diagnosis and appropriate intervention and support are critical for the individual with LD.
- Because it is often a “hidden handicap,” LD is not easily recognized, accepted or considered serious.
- It is believed that LD never goes away, but can be compensated for.
- Attention deficits and hyperactivity are sometimes coupled with LD, but not always.
- LD is not the same as the following handicaps: mental retardation, autism, deafness, blindness, and behavioral disorders.

It is thought that up to 15 percent of any population anywhere contains learning disabled. Specific learning disabled (LD) persons find it difficult to succeed in conventional classroom. Therefore, it is essential that all teachers, preschool through university, will have LD students in their classes, unrecognized, undetected and therefore considered to be the “dullard,” the backbenchers. LD is a neurological condition that is beyond the control of the individual. Such a student is more normal than different. There are degrees of LD – mild, moderate, and severe. It might go undiagnosed as late as secondary school, university, or even never at all. They younger the child when diagnosed, greater is the possibility of remediation. When a student is older, it is coping strategies that need to be strengthened.
3. Probable Causes Of Learning Disabilities

**Heredity:** Often, learning disabilities run in the family, so it’s not uncommon to find that people with learning disabilities have parents or other relatives with similar difficulties.

**Problems during Pregnancy and Birth:** Learning disabilities may be caused by illness or injury during or before birth. It may also be caused by low birth weight, lack of oxygen, drug and alcohol use during pregnancy, and premature or prolonged labor.

**Incidents after Birth:** Head injuries, nutritional deprivation, and exposure to toxic substances (i.e. lead) can contribute to learning disabilities.

**Environmental Causes**

These could be poverty, inadequate housing, family dysfunction, and parental psychopathology or substance abuse, dysfunctional peers, too much of television viewing, inadequate or improper schooling.

Learning disabilities are NOT caused by economic disadvantage, environmental factors, or cultural differences. In fact, there is frequently no apparent cause for learning disabilities.

**Signs in learning disabilities are:**

- Late speech, pronunciation problems, difficulty with rhyming
- Trouble learning numbers, letters, days of the week, colors and shapes
- Difficulty learning and understanding left-right, up-down, before-after, first-last, yesterday-tomorrow
- Extreme restlessness, lack of ability to concentrate, impulsive behavior
- Difficulty following directions or learning routines
- Awkwardness when running, jumping, skipping; may bump into objects, fall frequently
- Difficulty with buttoning, zipping, using scissors, catching or hitting a ball
- They may slow to learn nursery rhymes, the alphabet, color names
- They may have a short attention span, is restless or hyperactive, and does not complete tasks
- They may have trouble in following directions
- They may have speech problems, difficulty making clear speech sounds, stuttering, have an unusually loud, soft, high, or low voice.

Learning disabilities result from impairments in one or more processes related to perceiving, thinking, remembering or learning. These include, but are not limited to: language processing; phonological processing; visual spatial processing; processing speed; memory and attention; and executive functions.

**How it affects the Students**

Learning disabilities affect the child from a variety of angles but mostly, self-esteem and self-confidence. In the very early years the feedback comes from parents, but since learning at this stage is fairly non stressful, the occasions for failure are few. The situation dramatically changes when the child enters schools and encounters other children (who is not a brother, sister or a cousin), competition (in an alien atmosphere), and other adults (who are not parents). It is the latter which have a very significant and lifelong impact on all students. This involves not only the teaching of particular academic skills, but as importantly, the fostering of students’ self-esteem, that is, to make them feel that they belong and are welcome in the school setting. This can be done in the classroom by providing them with responsibilities through which they perceive themselves as contributing and...
making a difference (e.g., distributing books to the students, helping younger children during recess, helping make charts for the class). Offering them opportunities to make choices and decisions and solve problems, communicating encouragement and positive feedback will also help the process. While these kinds of positive interventions are important for all students, they are particularly relevant for student who finds learning problematic. Negative experiences in the school, especially in terms of learning incapacity can leave long lasting scars of being demeaned, belittled, or accused of being disruptive as they struggled to understand what was being taught.

**Behavior Problems**

LD can present with hyperactivity and impulsive behavior with lack of reflective thought prior to action. These children have poor peer relationships and poor social judgments. They may behave inappropriately in different situations and fail to see consequences of their actions. They may be overly gullible, and easily led by peers. They show poor adjustment to environmental changes and excessive variation in mood and responsiveness.

**Emotional Problems**

- LDs often go unrecognized. Children may present with symptoms such as school refusal or agoraphobia, or develop somatic symptoms such as headaches and stomach-aches, especially on the school day they are expected to speak or read in front of the class.
- Undiagnosed and untreated, these problems increase till the child begins to dislike school, refuses to do homework, and perhaps develops oppositional defiant symptoms. Some children may become verbally abusive and physically provocative. Successful intervention with these children requires the diagnosis and treatment of the learning and language problems. Behavioral and emotional problems are more likely to emerge as children mature and academic tasks become more difficult and peer interactions become more complex.

4. **Types of learning disability**

1. **Learning disabilities in reading (dyslexia):** 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. **Learning disabilities in math (dyscalculia):** 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 5x5=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.

3. **Learning disabilities in writing (dysgraphia):** 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 of learning disabilities and disorders
- Reading, writing, and math aren’t the only skills impacted by learning disorders.

Table 1: Types of learning disability & Difficulty in problem faced

<table>
<thead>
<tr>
<th>Types Of Learning Disability</th>
<th>Difficulty In Problem Faced</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyslexia</td>
<td>Reading</td>
<td>Reading, Writing, Spelling, Speaking</td>
</tr>
<tr>
<td>Dyscalculia</td>
<td>Math</td>
<td>Doing Math Problems, Understanding Time, Using Money</td>
</tr>
<tr>
<td>Dysgraphia</td>
<td>Writing</td>
<td>Handwriting, Spelling, Organizing Ideas</td>
</tr>
</tbody>
</table>

5. Strategies For Teachers To Teach Learning Disability Learner

I. Beware of different teaching methods: Because children learn in a number of different ways, there is no single method for helping all children with learning disabilities. Good teaching is intentional, systematic, and takes time.

II. Trust your instincts: Many people may offer suggestions for helping your child, including teachers, therapists, and other parents. Listen to what others suggest but remember that teacher knows what the child’s best in. Gather information, ask questions, and then use those strategies that seem to be most appropriate for each child.

III. Repeat and summarize: A teacher need to repeat and summarize oral lecture notes as Summarizing builds comprehension by helping to reduce confusion. Teachers train students to process the information they read with the goal of breaking down content into succinct pieces. This strategy can be used with the whole class, small groups, or as an individual assignment. Summarizing text by using writing activities builds on prior knowledge, helps improve writing, and strengthens vocabulary skills. Give students written versions of key points.

IV. Verbalization: Verbalize what is being written on the chalkboard and read aloud material contained in hand-outs. As In the process of verbalizing, students often become aware of the specific point on which they are confused. Also they may realize what they need to do to overcome the problem. It also builds Confidence when they realize they understand concepts well enough to express them verbally. The verbal expression of the ideas also gives the teacher the opportunity to provide positive reinforcement, which further enhances the student's confidence.

V. Providing Study Materials: Early exposure to books can be an important component of a child’s development, and will provide a solid foundation for the expansion of reading skills so...
students a copy of booklist for upcoming semester/school year so that students can “get a jump on” the reading assignments.

VI. Alternate exam site: The students are not able to write their exam in the scheduled time due to their disability so we choose an alternate exam site away from the general education classroom or scheduled exam. Ensure that this alternate locale is free from auditory and visual distracters and consider a substitute exam/assessment

VII. Use of language: The language used by teachers must avoid confusing and should not use any complicated language as they cannot understand the concept and it loose their confidence.

VIII. Extra time: Allow student extra time to complete exams/assignments, especially if there are unique demands regarding reading and writing skills. Give only one assignment at a time. It avoids confusion and builds confidence due to fewer burdens.

IX. Use of visual aids: Visual aids are a great tool for seeing and understanding. Visual aids allow children the time they need to process what they are being asked to do and helps bit by bit learning and understanding and ultimately increased confidence and self-esteem. Visual aids should be used in conjunction with other forms of communication such as speech, signing and tactile experience so Support learning with visuals for this kind of children.

X. Step-by-step instructions: The way that we give instructions can make or break an activity, without clear instructions, students may become confused, may lose confidence, and may not get the most out of the experience. So it’s very important to give clear instructions. We can use some pictures or modules while giving step by step instruction to the LD students.

XI. Multi-sensory Approach: Use manipulative to provide a multi-sensory approach to learning concrete math facts, science concepts, vocabulary.Multi-sensory approach means presenting all information to students via three sensory modalities: visual, auditory, and tactile. Visual presentation techniques include graphic organizers for structuring writing and pictures for reinforcing instruction; auditory presentation techniques include conducting thorough discussions and reading aloud; tactile presentation techniques include manipulating blocks and creating paragraphs about objects students can hold in their hands. Overall, implementing a multisensory approach to teaching is not difficult; in fact, many teachers use such an approach. It is important, however, to be aware of the three sensory modes and to plan to integrate them every day. A multi-sensory approach is also use to teach writing letters and numbers, such as Handwriting without Tears.

XII. Mnemonics: Mnemonics are strategies that can be modified to fit a variety of learning content. This method enhances memory of complex words or ideas and promotes better retention of material to be learned. It is especially beneficial to LD students and others who may have difficulty with information recall. Use mnemonics to help memorize math concepts like Color code columns of math problems – write the “tens” column in one color and the “ones” column in another color. Use of acronym in science and other languages helps them to memorize and recall.

XIII. Rhythm in teaching: Music is also an effective, almost magical medium for learning and retaining information, it activates three different centers of the brain at the same time: language, hearing, and rhythmic motor control. By inducing emotions, it also creates a heightened condition of awareness and mental acuity. Words paired with music are far easier to retain. Hence Use rhythm and music to teach math facts, science concepts and languages and to set steps to a beat
6. Techniques for LD children

- Suggest use of pencil grips and/or specially designed writing aids
- Try a variety of pencils and pens to identify the one your child finds most comfortable. Some students prefer to write with a mechanical pencil or an erasable pen.
- Use graph paper to assist with lining up numbers for math assignments.
- Use raised line paper to provide sensory feedback and to encourage writing within the lines.

6.1 Use Of Technology

- For writing assignments, students with LD should be allowed to use a computer (if available) so that they can get spelling support through the spell check program.
- Students with dyslexia may find that writing assignments are more easily completed on a computer.
- Consider trying computer software, like Kurzweil 3000, which reads textbooks and other materials to students.
- Allow students to use calculators during Math, when the goal is concept attainment (and not automaticity of math facts)
- Allow students to tape record lectures and/or tape notes for students.
- Allow students who cannot speak clearly to use a speech synthesizer.
- Allow for alternate forms of assessment by allowing students to demonstrate learning through such things as portfolios, slide presentations, photographic essays, or taped interviews.
- Schedule computer time for the student for drill and practice
- Provide alternatives to written assignments (video-taped reports, audio-taped reports)
- Allow the use of laptop or other computer in-class essays.
- Suggest LD learners to use of word processor.

6.2 General Guidelines for Educators

- Students with LD may take much longer to learn and can also tire quickly. They have to try harder, which can be exhausting. Be aware that the pace of the normal class is likely to be too fast because they often need more to process language. Make a conscious effort not to speak too rapidly.
- Be prepared to learn from the parents. Interest, involve, and work closely with them. Use whatever works-home/schools agendas, face-to-face meetings, phone calls or e-mails.
- Ensure that information concerning the student is passed on when the students is in transition from one teacher to another and from one year to another. Do not assume that this will be done automatically.
- Encourage students to be aware of and to evaluate the strategies they use to study and to learn Study skills, like note taking and time organization, need to be actively taught.
- Provide structure. Lists of the day’s routines and expected behaviors can be great help. Give plenty or warning when changes are made to the timetable, teacher or task.
- Teach how to ask questions. All students, especially the ones with LD, need to feel comfortable with seeking assistance.
- Break activities into small, sequential tasks. Give specific examples.
- Repeat, repeat, repeat – both old and new materials, in different ways.
- Provide the amount of structure and support that the students’ needs.
• Do not expect the students to listen and write simultaneously.
• Mark positively – tick the good bits. Mark for content – not presentation or mark for presentation and not content.
• Do not use playtime to finish work.
• Reward any and all good behavior.
• Very important, seek opportunities to praise and build self-esteem.

7. Conclusion
Learning disabilities, sometimes inappropriately conceptualized as a “mild” disorder, they may be persistent and may not respond to general instruction or to inappropriate instruction. We need to treat individuals with learning difficulties with sensitivity and understanding. It is important to combine realism with encouragement as progress is often slow. Learning difficulties are life-long problems and they will require on-going multi-modal management and support. Professionals need to ensure that students with learning difficulties are not over-assessed and under-remediated. Teachers’ task is therefore to create more windows of opportunity where individuals with learning disabilities have the chance to shine, to relax and redeem their self-respect. Teachers’ role is therefore to identify and remediate their needs, discover and nurture their talents, advocate on their behalf, give them strategies to cope with stress and above all preserve their dignity in the process.

8. References