

# Behaviour Modification of Children with Learning Disabilities

Nabanita Dutta & Kaushik Bhakta

Research Scholar, Department of Education, University of Calcutta

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**Abstract:** Learning disabled children are those who suffer from serious learning disabilities. Learning Disability (LD) is not a single disorder, but is a general category of special education composed of disabilities in any of seven specific areas: (1) receptive language (listening), (2) expressive language (speaking), (3) basic reading skills, (4) reading comprehension, (5) written expression, (6) mathematics calculation, and (7) mathematical reasoning. These separate types of learning disabilities frequently co-occur with one another and with social skill deficits and emotional or behavioural disorders. Most of the available information concerning learning disabilities relates to reading disabilities, and the majority of children with learning disabilities have their primary deficits in basic reading skills. An important part of the definition of LD is its exclusions- learning disabilities cannot be attributed primarily to mental retardation, emotional disturbance, cultural difference, or disadvantage. Thus, the concept of LD focuses on the notion of a discrepancy between a child's academic achievement and his or her apparent capacity to learn. The present paper highlights on different types of children with learning disabilities and the techniques used in modifying their behaviour.

**Key Words:** Learning Disability; Behaviour modification techniques.

## Introduction:

'Learning Disabilities cannot be cured, but they can be treated successfully and children with LD can go on to live happy successful lives' (Anne Ford). The rates of behaviour problems among young disabled children, and especially children with learning difficulties are three to four times higher than among non-disabled children (Baker *et al.*, 2002; Baker *et al.*, 2003; Volkmar and Dykens, 2002). These behaviour problems typically continue to persist into later childhood and adolescence (Emerson, 2003) and, as the child increases in size, strength and speed, become more severe. This puts the child at increased risk of harm and also means they become more and more difficult for parents and schools to manage.

**Children with Learning Disabilities** may have difficulty reading, writing, spelling, reasoning, recalling and/ or organizing information.

**Behaviour modification** is a treatment approach, based on the principles of operant conditioning that replaces undesirable behaviours with more desirable ones through positive or negative reinforcement.

## Objectives:

1. To know the different types of children with learning disabilities.
2. To know the different techniques used in modifying the behaviour of children with learning disabilities.

## Methodology:

This paper is qualitative in nature. The data has been collected by the researchers from different sources like journals, books; websites etc. and analysis the data then draw conclusions.

## Concept and characteristics of children with Learning Disabilities:

Learning Disability is significantly reduced ability to understand new or complex information, to learn new skills, reduced ability to cope independently which starts before adulthood with lasting effects on development (Department of Health, U.K., Valuing People: A New Strategy for Learning Disability for the 21 st Century. 2001) .

The definition of Learning Disability as per the Diagnostic and Statistical Manual – IV (DSM-IV) (American Psychiatric Association, 1994): Learning Disorders are diagnosed when the individual's achievement on individually administered, standardized tests in reading, mathematics or written expression is substantially below that expected for age, schooling and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living.

National Joint Committee on Learning Disabilities (NJCLD) used the term 'Learning Disability' to indicate a discrepancy between a child's apparent capacity to learn and his or her level of achievement.

Children with learning disabilities reveal the following characteristics-

- Hyperactivity
- Impulsivity
- Perceptual-motor impairments
- Disorders of memory and thinking
- Emotional liability
- Academic difficulties
- Co-ordination problems
- Language deficits
- Disorders of attention
- Equivocal neurological signs

Lerner (2000) identified following nine characteristics of children with learning disabilities which include-

- Disorders of attention
- Reading difficulties
- Poor motor abilities
- Written-language difficulties
- Oral language difficulties
- Social skill deficits
- Psychological process deficits
- Quantitative disorders
- Information processing problems

The most common types of learning disabilities involve problems with reading, writing, math, reasoning, listening and speaking.

### Types of Learning Disabilities:

There are mainly five types of learning disabilities. These are:-

#### 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.

*Remedial Measures:* Techniques helping children with dyslexia are-

- They may be asked to help in the reading tasks by tracing over letters, using the sense of touch, showing pictures along

with words, using toy and other concrete material along with the word.

- They should provide training in the task of processing information into language or cognitive systems.
- Children should be taught the relationship between spelling and reading and how to correctly spell the words they read.

#### 2. Learning disabilities in math (Dyscalculia):

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.

*Remedial Measures:* Teaching steps include-

- Students should be provided with examples and non-examples for the clarification of the fundamental concepts and principles.
- All children with learning disabilities should be provided with abacus and calculators for counting and calculator works.
- Students should be provided opportunities for drill work, making use of programmed learning material and computer assisted instruction (CAI).

#### 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. Symptoms of a written language learning disability revolve around the act of writing.

*Remedial Measures:* Since lack of proper motor control may be one of the causes for their poor handwriting; it should be overcome by adopting the following means-

- Using manipulative exercise to strengthen muscles. Before writing on paper and pencils children should learn to write on sands, modelling through clay games, doing chalkboard practice etc.
- Helping them to learn a proper position and form of writing.
- The students should be given sufficient practice to write in straight lines. For this, use of lined paper or graph paper is recommended

- The students should be made to write by maintaining proper links and gaps between words and sentences.

**4. Learning disabilities in motor skills (Dyspraxia):** 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.

*Remedial Measures:* This includes-

- Children should be provided with proper exercise to strengthen their muscles.
- They should learn to make proper hand-eye coordination with various things.

**5. Learning disabilities in language (Aphasia/Dysphasia):** 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.

*Remedial Measures for this include:*

- Language should be taught in purposeful context following the sequence of normal language development.
- Production and comprehension should be taught to these children.
- Effective teaching strategies should be used while promoting new concept or skill.
- Modelling should be used to denominate language.
- Structural language programmes should be used to promote intensive practice and feedback.
- **6. Attention-Deficit Hyperactivity Disorder (ADHD):** Attention-Deficit Hyperactivity Disorder is a condition that can make it hard for a person to sit still, control behaviour, and pay attention. These difficulties usually begin before the person is 7 years old. However, these behaviours may not be noticed until the child is older.

There are three main signs, or symptoms, of ADHD.

- (1) Problems with paying attention,

- (2) Being very active (called hyperactivity) and

- (3) Acting before thinking (called Impulsivity).

*Remedial Measures for these children include:*

- The sitting arrangement for these children should be made at the centre of the classroom. Individual attention and extra observation should be given for their work.
- Instruction should be clear and precise.
- Appropriate and interesting methods should be used to provide information.
- Reinforcements, appreciations and rewards must be used.
- Students should be made to practice self-restraint and overcome inappropriate behaviour.

### **Specialized Approaches and Techniques for Modification of Behaviour of Children with Learning Disabled:**

There are several specific and specialized techniques and approaches for modification of the behaviour of the Learning Disabled children.

- **Behaviour modification of management approach-** In this approach, attempts are made to modify or manage the behaviour (particularly overt behaviour) of the learning, providing opportunities for modification or change in the behaviour, properly reinforcing their changed behaviour and thus helping them to acquire desirable learning behaviour,
- **Psychoanalytic Approach-** In this approach, attempts are made to analyse behaviour of the disabled child and find out the root cause or causes of his learning deficiency. Accordingly, a remedial programme is planned and administered by establishing proper rapport with him.
- **Clinical or Medical Approach-** This treatment model or approach recommends medical treatment/medication as a method of solving the problem faced by learning disabled children on the assumption that problem is psychological and medication is the best treatment for its solution. By following this approach, captodiamine hydrochloride (Surven) a psychic activator is used for lengthening attention span in the cases of attention deficit disorder. Similarly for the children exhibiting severe symptoms of hyperactivity or irritability the medicines like, osidazine hydrochloride or mellaril (a type of tranquilizer) and the amphetamines like Dexedrine and Benzedrine

(for having calming effect) are prescribed in the cases of the minimal brain dysfunction.

➤ **Cognitive Training Approach-** Cognitive Training Approach (also called cognitive behaviour modification and metacognitive strategy instruction) is aimed to bring desirable changes in covert thoughts of the learning disabled children (instead of bringing changes in overt thoughts as brought by behaviour modification and management approach). A number of techniques, like the following may be used for making use of the cognitive training approach for the learning disabled.

- **Self-monitoring-** In making use of this technique a learning disabled child is required to keep track of his/her brain and performance and tries to become aware of his/her own learning process. Such act of monitoring or taking care of one's progress may help a learning disabled child to get rid of a particular learning disability such as attention deficit or reading problem.
- **Direct Instruction-** Use of direct instruction programmes may help in seeking proper corrective, remedial as well as developmental measures for the learning disabled children. A variety of direct instruction programmes are available to the teachers for this purpose more specifically in the field of reading, writing, spelling, mathematics and thinking skills. The names of such programmes are corrective Reading: Decoding (Englemann, Carnine, Johnson and Meyers, 1988) and corrective reading: Comprehension (Englemann, Carnine, Johnson and Meyers, 1989).
- **Graphic organizers and Visual displays-** Graphic organizers help in providing the needed information containing words of statements through graphic (visual special) presentation. In addition to the use of graphic displays, such information can also be provided to the learning disabled children through other means of visual displays. All these aids and devices like graphs, maps, charts, pictures, model, specimen diagrams, etc. providing visual displays of many abstract concepts and principles may prove quite helpful to all types of learning disabled children in their attempts for academic gains.
- **Guided notes-** Guided notes are nothing but a sort of well-prepared handouts on the part of a subject teacher wish to guide his students for proper understanding and comprehending the curriculum contents

covered by him/her in the course of his/her delivery of a lesson. In these handouts the subject teacher tries to organize or enhance the curriculum content in the form of notes, providing standard cues and specific spaces for writing important facts, concepts and relationships that students are expected to learn. The use of guided notes strategy not only helps the learning disabled to improve their note taking skills but also help them in their academic progress.

- **Mnemonic devices-** The use of mnemonic devices may prove quite useful for children with learning disabled for improving their recall of specific subject matter. For example, a first letter mnemonic device, VIBGYOR may prove helpful in the easy recall of the seven colours of the spectrum (Violet, Indigo, Blue, Green, Yellow, Orange and Red). Similarly the mnemonic device TEENS may help the learning disabled in remembering the five sense organs such as tongue, eyes, ears, nose and skin.
- **Cooperative learning-** The use of cooperative learning strategy may prove quite useful to the learning disabled to get rid of their learning deficits and problems related to various academic areas. The use of this strategy calls for the involvement of a student or a class of varying ability levels working together in learning one or the other things. Moreover, capable peers play the role of peer-tutors for helping the learning disabled to overcome their academic deficits.
- **Individualized instructional approach-** This approach advocates the use of small groups or even individuals for helping them rectify their learning deficiencies. Peer tutoring (making use of component and good peers) has proved to be successful technique for providing individual assistance to the affected ones. The learning disabled feels quite safe and secure for receiving needed assistance in such a set-up and are then able to come up on the satisfactory learning level.
- **Self-instructional approach-** In this approach, learning disabled children are required to adopt self-learning and self-improvement measures for treating their learning deficits and deficiencies. For this purpose, remedial programmes present in the form of programmed learning text, computer assisted instructions, teaching machines, tape recorder and video disc etc

can be put into use. Self-learning questionnaire and instructional modules can also be prepared and made into use with the help of teachers. Sometimes guidance can be provided by trained classroom teachers.

- **Multisensory approach-** In this approach, learning disabled children are taught by appealing to their multiple senses- visual, auditory, touch, smell and taste, etc. depending upon the nature of the subject material and its learning objectives. For example, to provide wholesome language experiences, a multisensory approach named VAKT (providing Visual, Auditory, Kinaesthetic and Tactile experiences to the children) has been devised. This is a step-by-step approach where a learner is first acquainted with the letters of a word and then slowly familiarised with the word. The learner is then made to see, say, hear and feel the experiences woven around this particular word. Once the word is mastered, the learner is asked to make use of it in a sentence. After mastering the words and the sentences, the learner may be provided with a story writing test. After that reading practices are carried out. It can also be done through vicarious experiences provided through multi-sensory aids materials and equipments.
- **Technological approach-** In this approach, advanced technology is used for providing remedial instructional programme to the learning disabled. These are:
  - ❖ **Audio tape and tape recorder-** Use of an audio tape and tape recorder are quite helpful for learning disabled. Many of their language learning difficulties can be rectified with this device particularly pronunciation, proper intonation and way of speaking etc. Reading, speaking and conversation skills can be better developed with the help of audio tapes and tape recorders.
  - ❖ **Video-disc instruction-** This type of remedial instruction provides high quality visual and auditory presentation. The learning disabled can watch useful and interesting academic as well as social presentations on the video-discs in the form of continuous motion pictures and simultaneously listen to the carefully prepared narration for providing useful instruction.
  - ❖ **Computer assisted instruction (CAI) -** The use of computer has opened up a vast

field of remedial instruction for all types of learning disabled. With the use of computer technology self-instructional or individualized instructional as well as group instructional remedial programmes may be arranged for learning disabled. The deficiencies like reading, writing, conversation, mathematics, science and other practical oriented subjects and social skills can well be treated by this method.

In the field of mathematics and sciences, it can provide best opportunities for the demonstration of knowledge and skills. The practical work in science can be best demonstrated by the use of CD ROM technology. Through Computer Assisted Instruction (CAI) knowledge of mathematical skills can be best provided the learning disabled children. CAI also proves quite fruitful in providing instruction for students who have learning deficiencies. The advanced developments in CAI like hypertext and hypermedia have proved useful in the following way:

- Hypertext technology uses pop-up text windows for further desires explanation and understanding of a traditional text books material. Learning disabled usually feel difficulty in following their text-books as properly as their normal peers; it is computer hypertext which makes the things much easier for them. It may give definitions or illustrations of difficult words, may rewrite the complicated language of the text, provide useful hints for solving the problems, give diagrams, pictures, maps, etc for proper understanding of the text material, concepts and generalizations. Thus the learning disabled children get all these extra information with simple press of a key or moving of the mouse.
- Hypermedia technology of computer makes use of a variety of a variety of a format to supplement and enrich the text by merging computer and media technologies; one can listen, watch, store, locate and search the needed information through the application of multimedia application of the computer technology.

Therefore these are the various techniques through which we can modify the behaviour of children with learning disabilities.

## Conclusion:

Children with learning disabilities should need proper guidance. Teachers and parents must be aware about the learning disabilities of the children. They should learn how to handle these types of children with proper love, protection and care. Each and every child should be given opportunity and training for improving their study habits, methods of improper learning and modifying their inappropriate socio-emotional, psycho-educational behaviour. Attitudes towards these children need to be changed. Society should accept them with all their weakness and deficiencies. Teachers should not lose their patience while dealing with these kinds of children.

Our approach towards these children as far as possible should be very constructive, pleasant as well as encouraging so that the children with learning disabilities may learn the proper way of rectifying their behaviour and thus gain the self-confidence to overcome all the obstacles which prevent their progress and developments in educational and social spheres. One thing we must remember in this direction- 'If a child can't learn the way we teach, maybe we should teach the way they learn' (Ignatio Estrada).

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