



NETAJI SUBHAS OPEN UNIVERSITY

B. Ed. Spl. Ed. (M.R./H.I./V.I.)-ODL

**MANAGEMENT OF
LEARNING DISABILITY**

B-11(E)

**B. Ed. Spl. Ed. (M. R. / H. I. / V. I)-
ODL Programme**

AREA - B

**B - 11(E) : MANAGEMENT OF LEARNING
DISABILITY**



**A COLLABORATIVE PROGRAMME OF
NETAJI SUBHAS OPEN UNIVERSITY
AND
REHABILITATION COUNCIL OF INDIA**



AREA - B
DISABILITY SPECIALIZATION
COURSE CODE-B-11 (E)
MANAGEMENT OF LEARNING DISABILITY

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The Self Instructional Material (SIM) is prepared keeping conformity with the B.Ed.Spl. Edn.(MR/HI/VI) Programme as prepared and circulated by the Rehabilitation Council of India, New Delhi and adopted by NSOU on and from the 2015-2017 academic session.

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Mohan Kumar Chattopadhyay
Registrar



Netaji Subhas Open University

From the Vice-Chancellor's Desk

Dear Students, from this Academic Session (2015-17) the Curriculum and Course Structure of B. Ed.- Special Education have been thoroughly revised as per the stipulations which featured in the Memorandum of Understanding (MoU) between the Rehabilitation Council of India (RCI) and the National Council for Teacher Education (NCTE). The newly designed course structure and syllabus is comprehensive and futuristic has, therefore, been contextualized and adopted by NSOU from the present academic session, following the directives of the aforesaid national statutory authorities.

Consequent upon the introduction of new syllabus the revision of Self Instructional Material (SIM) becomes imperative. The new syllabus was circulated by RCI for introduction in the month of June, 2015 while the new session begins in the month of July. So the difficulties of preparing the SIMs within such a short time can easily be understood. However, the School of Education of NSOU took up the challenge and put the best minds together in preparing SIM without compromising the standard and quality of such an academic package. It required many rigorous steps before printing and circulation of the entire academic package to our dear learners. Every intervening step was meticulously and methodically followed for ensuring quality in such a time bound manner.

The SIMs are prepared by eminent subject experts and edited by the senior members of the faculty specializing in the discipline concerned. Printing of the SIMs has been done with utmost care and attention. Students are the primary beneficiaries of these materials so developed. Therefore, you must go through the contents seriously and take your queries, if any, to the Counselors during Personal Contact Programs (PCPs) for clarifications. In comparison to F2F mode, the onus is on the learners in the ODL mode. So please change your mind accordingly and shrug off your old mindset of teacher dependence and spoon feeding habits immediately.

I would further urge you to go for other Open Educational Resources (OERs) -available on websites, for better understanding and gaining comprehensive mastery over the subject. From this year NSOU is also providing ICT enabled support services to the students enrolled under this University. So, in addition to the printed SIMs, the e-contents are also provided to the students to facilitate the usage and ensure more flexibility at the user end. The other ICT based support systems will be there for the benefit of the learners.

So please make the most of it and do your best in the examinations. However, any suggestion or constructive criticism regarding the SIMs and its improvement is welcome. I must acknowledge the contribution of all the content writers, editors and background minds at the SoE, NSOU for their respective efforts, expertise and hard work in producing the SIMs within a very short time.



Professor (Dr.) Subha Sankar Sarkar
Vice-Chancellor, NSOU

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First Edition : April, 2018

Printed in accordance with the regulations of the
DEB-UGC, Government of India



**Netaji Subhas
Open University**

**B-11(E)
Management of
Learning Disability**

B-11(E) □ MANAGEMENT OF LEARNING DISABILITY

UNIT-1 : LEARNING DISABILITIES : TYPES	9-22
UNIT-2 : ASSESSMENT OF BASIC CURRICULAR SKILLS	23-38
UNIT-3 : INTERVENTION STRATEGIES IN BASIC SKILLS OF LEARNING	39-56

Unit - I □ Learning Disability : Types

Structure

1.1 Introduction

1.2 Objectives

1.3 Verbal Learning Disabilities : Dyslexia, Dysgraphya, Dyscalculia

1.4 Nonverbal Learning Disabilities

1.5 Language Disorders

1.6 Associated Conditions: ADHD & ADD

1.7 Emotional & Behavioural Problems

1.8 Check your progress

1.9 Let us Sum up

1.10 References

1.1 Introduction

The latest challenging sub area of the broader field of special education is learning Disabilities. This term was proposed by Samuel Kirk at a parents meeting in New York city in the early 1960s. The idea behind this was to clear the confusing variety of levels that were used to describe the child with relatively normal intelligence who are having learning problems. (Reddy, G. L., Ramar, R., & Kusuma, A., 2014)

"Learning Disability" is a term used to describe a specific group of people having learning problems .They generally face problems in the areaof reading, writing, spelling and mathematics. Some of this people excel in many areas other than the problem areas. Others are merely slow in acquiring skills. Levels such as dyslexics, learning disabled, slow learners, minimally brain damaged and educationally handicapped are being used to describe such type of people. (Santhanam, T., Babu, B. P., & Sugandhi, S., 2014)

1.2 Objectives

After completing this unit, the learners will be able to:

- know the concept of learning disability

- be familiar with the types of learning disability
- understand the meaning of Nonverbal Learning Disabilities
- identify the problems of Language Disorders
- perceive the learning disabilities with ADHD & ADD and
- comprehend what types of Emotional & Behavioural Problems in learning disabilities

1.3 Verbal Learning Disabilities: Dyslexia, Dysgraphia, Dyscalculia

Learning disabilities, or learning disorders, are an umbrella term for a wide variety of learning problems. Children with Learning disabilities do not face problem with intelligence, motivation, laziness or dumbness. Most of them are just smart as other children. Their brains work differently. It affects how they receive and process information.

Disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language is noticed in the children with learning disabilities. The disorder may occur in various forms such as reading disability, writing disability, Communication and comprehension disability and numerical disability etc.

Learning disabilities are classified into various types. Such as:

Dyslexia (Reading Disabilities): (Sharma, A.R.2012)

Reading plays an important role in education and day to day life. Children with dyslexia show problems with reading task. They are unable to read. There are two forms of this disability- mild form and severe form. Mild form dyslexic child has difficulty in reading, but in severe form they are having total loss of reading ability which is sometimes also known as "Word Blindness". If timely identified and properly guided, mild form of dyslexic children can be integrated easily with their peers. Intensive remedial exercises are required for severely affected children.

Types of reading problems (Santhanam, T., Babu, B. P. & Sugandhi, S. 2014)

(i) Visual dyslexia

Difficulties are faced by the children with visual dyslexia in translating written letters into sounds. Confusion is caused by them with similar configuration of letters such as bad-bed, fan-fun etc.

(ii) Auditory Dyslexia

Auditory discrimination problem is the main characteristics of the children having auditory dyslexia. They face some problems to discriminate between nearest phoneme and nearest words like m & n, p & q, mat and man, beg & bag etc. Some of them face difficulties with certain words e.g. b, t, s, sh, c while others have problems with only initial or final consonants sounds.

(iii) Sound Blending

Sound blending is the ability to synthesize sounds into a complete word. Children with this difficulty are unable, to blend m-a-t into word mat. The three phonemes of this word remain as separate sounds,

(iv) Memory skills

Memory disturbed Children face problem in recalling information associated with various visual or auditory process.

(v) Letter and Word Reversals

A common problem of children with reading disability is to read some letters and words backwards, rotated or inverted. Single letters such as b,d,p,q,n,u,m and w are often read upside down and backwards. LD children are also observed reversing those words, e.g. saw for was, parts of words, e.g, tow for two and initial letters, e.g., big for dig.

(vi) Critical Reading Skills

Comprehension is the base of Critical Reading which involves critical value judgements based on attitudes and experience of the reader. Judging accuracy, drawing conclusions, evaluating the author's intention, etc. are the factors of critical reading.

Dysgraphia (Writing disabilities) : (Sharmsa, A. R. 2012)

Children who have writing disabilities may have trouble in writing and spelling. Children with dysgraphia show problems with spontaneous writing. Mild and severe are the two types of this disability. When the children face problems to write legibly is called mild dysgraphia. Mild dysgraphic children can read in general school and severe form of dysgraphic children can copy writing without distortion but cannot write spontaneously. Remedial exercises are required for the severe dysgraphic children and are thus hard to integrate in the academic areas.

Writing requires muscular control, eye-hand coordination and visual discrimination .It also requires smooth control of arms, hands and finger muscles. It needs adequate perception of the letter and word formation. Poor motor skills, faulty visual perception

of letters and words, poor muscular coordination and poor memory are some of the problems of LD children. (Santhanam, T., Babu, B. P. & Sugandhi, S. 2014)

Types of Writing Disabilities (Santhanam, T., Babu, B. P. & Sugandhi, S. 2014)

Handwriting, Spelling and Written Expression are the three types of writing disabilities.

(i) Handwriting

Handwriting is the important part of all the academic skills. Some children with handwriting deficits are unable to hold a pencil while others have problem in writing certain letters.

Some of the more common hand writing disturbances are as following:

- Prewriting Skills
- Letter Formation
- Manuscript Writing
- Cursive Writing

(ii) Spelling

Spelling is a major hurdle of learning disabilities than other problems. Addition of unneeded letters, omission of needed letters, reversals of whole words ,reversals of vowels, reversals of consonants and wrong association of sound, etc. are some common spelling errors.

- **Phonetic Ability**

The ability to transpose sounds to letters accurately is called spelling skills which is not there in many children with learning disabilities. These children have difficulties in auditory memory and auditory discrimination skills, e.g., they spell cat as cad, etc.

- **Visual Memory**

The visual memory is nothing but to retain the memory of either individual letter or the sequential order of letters in words and this is not available in some children with learning disabilities.

- **Motor memory**

Remembering ability is missing with the children with learning disability due to which during movement of hand in writing, certain words are totally forgotten by them.

(iii) Written Expression

Learning Disabled children are facing some problems in following areas:-

- Expression of Ideas

The children with learning disabilities cannot express their ideas properly in written form.

- Syntax and Grammar

Some of the children with learning disabilities can expressed their thoughts in writing but many syntax and grammatical errors are observed in their writing.

- Inadequate Vocabulary

Lacks of various experiences, the children with learning disabilities have poor vocabularies.

Dyscalculia (arithmetic disabilities)

Children who have arithmetic disabilities may have problems in calculations, even simple arithmetic, because of an inability to manipulate number relationships. It has also two types-Mild and Severe. Simple mathematical problems have been difficult to them. Children with mild form can read in general school. When difficulties are severe then child cannot understand or not be able to learn number symbols and their relationship. So in severe cases intensive remedial exercises are required.

Types of Arithmetic disabilities

The most commonly observed difficulties in children with this disorder are:

(i) Shape Discrimination

In this case it is shows that child cannot understand the shapes. For this it is affect later recognition of specific numbers. Such as 6 as 9.

(ii) Size Discrimination

Concrete geometric concepts such as big, small, long and short, and abstract numerical concepts such as more and less, cannot be understood by these children.

(iii) Classification

For mastering math., it is a very important concept to categorize objects into sets. If it is done then problems may arise even in simple operation like counting.

(iv) One-to-one Correspondence

In this case children with learning disabilities cannot understand ordinal numbers for lack of understanding.

(v) Sets and Numbers

A well-defined collection or group of objects is called a set and every part of a set is an element of that set. Concept of set is not understood by many learning disabled children. It is difficult for them to recognize the commonalities that distinguish a box of crayons, a bowl of apples or a group of boys as three sets.

(vi) Counting

In arithmetic training, counting is an important and first step. Basic computational skills of addition and subtraction become a big problem for the children who are unable to count properly and with this difficulty often skip numbers when counting ,e.g. 1,2,3,5,6,8,9, 11. Others count correctly, without understanding that each number corresponds to a particular element in a set.

(vii) Auditory-visual Association

Difficulties are there with these group of children in relating what they see visually with what they know auditorily. They face problem in associating the spoken word 'six' with the written symbol '6' or even written word 'six'.

(viii) Place Value

The basic to many mathematical functions is the concept of place value. Many learning disabled children do not understand that the same digit may create different value according to its place in numeral (e.g.; 27, 12 or 255). The child with place value difficulty cannot follow the meaning involved in reversing 15 into 51. Some children are not able to complete sums requiring carrying or borrowing (e. g.; add 63 and 18 as 711).

(ix) Computational Skills

Many of the computational problems are due to difficulties with the fundamental skills of one to one interaction, counting and set notification.

(x) Problem Solving

Difficulties in solving word problems arise due to problems in language, lack of analysis and reasoning.

(xi) Spatial Concept

Problems in making measurements of time, distance etc.

(xii) Measurement

One of the very first principles of measurement is that some objects are taller, shorter, larger or smaller than other objects which might prove confusing to some children.

(xiii) Quantitative Language

Sometimes an early indicator of later mathematical disabilities are difficulties in understanding such quantitative concepts as more, less, before, after, big, little, larger, fewer, more than, as many as, etc. Some children cannot distinguish a+ from a_, others face problems in perceiving particular symbols as a whole. The equal sign(=)is perceived by some children as two subtraction signs.

1.4 Nonverbal Learning Disabilities

A learning disorder characterized by verbal strengths as well as visual-spatial, motor, and social skills difficulties is called Nonverbal Learning Disorder (also known as nonverbal learning disability, NLD or NVLD).

Comprehension of nonverbal clues such as facial expression or tone of voice becomes difficult for the people with this disorder some times. Mathematics and handwriting are the common challenges.

Though various nonverbal impairments were recognized since early studies in child neurology, still there is ongoing debate whether the existing ideas of NLD provide a valid diagnostic framework or not.

The brain gets information from the eyes and ears and the process is called "input". Learning may suffer if anyone them does not function properly.

Auditory processing disorder- According to Professionals, "auditory processing skills" or "receptive language" is the ability to hear properly. The ability to read, write and spell greatly depends on the ability to hear things correctly. If anyone is unable to distinguish subtle differences in sound, or hearing sounds at the wrong speed then it will be difficult to sound out words and understand the basic concepts of reading and writing.

Visual processing disorder-Missing subtle differences in shapes, reversing letters or numbers, skipping words, skipping lines, misperceiving depth or distance, or having problems with eye-hand coordination are the symptoms of Problems in Visual Perception."Visual Processing" is referred by the Professionals as the work of eyes." Gross and fine motor skills, reading comprehension, and maths are affected by visual perception. (Sharma, R. 2012)

Motor disorder- People with motor problems might walk with a clumsy gait or have difficulty in throwing or catching a ball, skipping or hopping. Others face fine motor

problems when cutting with scissors, buttoning, zipping or even tying a shoe lace.

Coordinating perception with motor functions is the problem with the people suffering with the visual motor integration problems. A child suffering with this problem will face problem in tracing, cutting, clipping, throwing, catching and paper-pencil activities. (Santhanam, T., Prasad, B.B. and Sungandhi, S. 2014)

In the motor areas, the child faces difficulty in executing:

- (i) Gross-motor skills (running, jumping, skipping etc.)
- (ii) Fine motor skills (writing, drawing, pasting etc.) and
- (iii) Body image and awareness skills (solving puzzles, reading, facial expressions pointing to body parts).

1.5 Language Disorders

The disorders that involve the processing of linguistic information are called Language disorders or language impairments. Grammatical (syntax and/or morphology), semantics (meaning) or other aspects of language may be affected due to this problem. Receptive (involving impaired language comprehension), expressive (involving language production), or a combination of both may be noticed in this case. All forms of language such as spoken, written and sign language also may occur for the same. According to preliminary research it is observed that biological components, such as low-birth weight, prematurity, general birth complications, and male gender, as well as family history and low parental education may result the chance of developing language disorders.

Receptive language disorders (where one cannot properly comprehend language) and expressive language disorders (where one cannot properly communicate their intended message) are the two different indicators of language disorder. (Wikipedia, 2018)

Receptive Language Disorders

There are two types of receptive language disorders- acquired or developmental (most often the latter). Due to developmental disorder difficulties in spoken language tend to occur before three years of age.

Facing problems to understand meanings of words and sentences, put words in proper order, and inability to follow verbal instruction are the unique symptoms and signs of a receptive language disorder.

Language therapy, special education classes for children at school, and a psychologist (if

accompanying behavioral problems are present) are the remedy to overcome this problem.

Expressive Language Disorders

Problems with expressive disorder occur with voice and articulation and also with mental formation of language.

Expressive language disorder may take place during the development of child or it can be acquired. A normal neurological development is the result of this acquisition and is brought by a number of causes such as head trauma or irritation.

Certain common features of expressive disorder are limited vocabulary, inability to produce complex grammar and more lexical errors though it may vary.

The child may face difficulty in acquiring new words and grammatical structures due to this disorder. Starting to talk later than his/ her peers and progressing at a slower rate linguistically may happen due to this. Struggling with academics and socializing with peers may also occur due to the very nature.

Such disorders are commonly treated by the experts like Speech Pathologists and Audiologists. Disorder of spoken language

Any short come in the area of listening generally affect spoken language. The following characteristics are noticed in the most learning disabled persons: (Santhanam, T., Prasad, B.B. and Sungandhi, S. 2014)

- a) Reliance on simple sentence constructions
- b) Incorrect use of word given in its context.
- c) Problems with tense, pronouns, possessives, and negatives.
- d) Omission of words and endings.
- e) Insertion of extra words or word parts in their sentences.
- f) Fragmentation of thoughts expressed.
- g) Awkward organization of spoken language.
- h) Articulation difficulties.
- i) Difficulty retrieving words during conversation, often with attempted cover -up through stalling or insertions.

The speech of learning Disabled children appears to be very limited in structure and usually contains "filters.

Comprehension / Verbal

- Has difficulty following oral directions
- Has difficulty responding to and formulating questions
- May have difficulty expressing self in conversation e.g., incorrect word order, grammatical errors, etc.
- May have word finding problems
- May be slow in responding verbally
- Does not gain information from lectures.

1.6 Associated Conditions: ADHD & ADD

ADD and ADHD is the word more or less same. ADD means Attention Deficit Disorder. When attention span is not so normal then called ADD. Every child has some attention problem. But when this problem crossing the limit then suggests it is under ADD.

Very young children have short attention spans and act impulsively, but this usually improves with age. If these problems are severe or persistent, they may be due to Attention Deficit Hyperactivity Disorder (ADHD). Children affected by ADHD often have problems paying attention to instructions, finishing tasks, relating to others and staying settled.

If the following signs are present in the child for more than six months, professional advice should be sought:

- Easily distracted by their surroundings or other thoughts.
- Inability to focus on any activity for long.
- Overactivity , unable to keep still or stop talking, or
- Impulsively acting without thought to the consequences.

These type of children may have difficulty in making friends, have problems at school as a result they are wrongly labeled ' bad child'.If it is noticed that the child needs help the professional advice should be suggested.

There are some type of competent of challenging behaviours which is described 'difficult' or 'problematic' behavior.Each individual varies from each other in the frequency and intensity of these behaviours

Emerson (1995) define challenging behavior as "culturally abnormal behavior(s) of such intensity, frequency, duration that the physical safety of the person or others is likely to be put in jeopardy, or behavior which is likely to limit the use of, or result in the person being denied access to ordinary community facilities."

Challenging behavior can also be learned behavior - if behavior produces a pleasant or desired outcome, it is more likely to happen again. These type of behaviour do not have serious consequences but could be disruptive, stressful or upsetting.

In this reference challenging behavior is followed to children with a learning disability or neurological impairment but it is not exclusive.(Sharma, R.2012)

Attention is the ability to concentrate on a task long enough to grasp its essential features. Learning disabled children with attention problems are unable to avoid extraneous stimuli and are attracted by irrelevant stimuli. This also includes inability to focus on one activity for even a reasonable period of time. LD children are always on the move switching from one activity to another fast without completing anyone of them. Depression, anxiety, emotional problems or stress can lead to problems of concentration. The LD persons are considerably inferior in selective attention (cannot select the relevant details), and that they cannot sustain attention or maintain attention till the task is completed. They might exhibit short attention span, distractibility, impulsivity and hyperactivity.

1.7 Emotional & Behavioural Problems

Children with learning disabilities (LD) often have problems that go far beyond those experienced in reading, writing, math, memory, or organization. For many, strong feelings of frustration, anger, sadness, or shame can lead to psychological difficulties such as anxiety, depression, or low self-esteem, as well as behavioural problems such as substance abuse or juvenile delinquency. "Unfortunately," says Dr. Marshall Raskind, an expert in the field of learning disabilities, "these problems can be far more devastating than the academic challenges themselves. Although the severity and duration of a child's psychological difficulties may vary as she grows up, such issues can find their way into and through adulthood."

On the basis of several researches in the field of LD some suggestions can be provided to parents for helping them protect their children from developing such problems.

Some explanations for psychological difficulties in kids with LD

It is not difficult to see why children with LD are at greater risk for developing

psychological difficulties Despite the child's efforts and adult promptings to "try harder," children with LD may receive little positive feedback. Their academic struggles and failures are often met with disapproval by teachers, peers, and parents. Such disapproval can take the form of negative labeling of a child as "slow," "lazy," or "dumb." Rather than developing a sense of pride in their accomplishments, children with LD may end up in frustration and shame.

Such feeling never helps the child having learning disability develop positive self concept. In fact, as a result of constant struggle and failure, a negative self-image may develop. Low self-esteem and a lack of confidence only serve to further interfere with learning and academic success and reinforce a cycle of failure and negativity.

The second frequently offered reason as to why kids with LD may develop psychological problems is the social difficulties they often experience have social difficulties in making and keeping friends.

Psychological problems can have a negative effect on social interaction. Research has shown that children with learning disabilities are less accepted by the society, and often rejected by their peers. Teachers and other adults also may tend to have negative views of children with learning disabilities." Such social rejection can result in loss of self-esteem and negative views of oneself. In addition, social rejection can result in feelings of loneliness, which, in turn, may lead to psychological difficulties such as anxiety and depression.

There are several psychological, emotional, and behavioural difficulties experienced by children with learning disabilities.

- Research has shown that individuals with learning disabilities may experience increased levels of anxiety.
- individuals with learning disabilities may be at greater risk for depression.
- individuals with learning disabilities experience higher levels of loneliness.
- individuals with learning disabilities may have a lower self-concept (self-esteem).
- individuals with learning disabilities are at greater risk for substance abuse.
- individuals with learning disabilities may be at greater risk for juvenile delinquency (there is some debate here).

Kids with LD shows the following self defeating coping strategies like

- Quitting, when tasks become difficult or frustrating;
- Avoiding a task or activity for fear of failing;

- Clowning, to hide lack of confidence or to relieve pressure;
- Controlling, to counteract a sense of helplessness;
- Being aggressive and bullying, to fend off feelings of vulnerability;
- Denying, in order to manage the pain they would feel if insecurities were acknowledged;
- Being impulsive, finishing tasks as quickly as possible "just to get it over with."

Occasional and short-term use of these unproductive coping strategies is probably not a cause for concern. But when they become the habitual way a child approaches daily tasks, interfering with learning, growing, and enjoying life, it's time to look at the feelings behind the behavior.

Some kids with learning difficulties may become either anxious or depressed as a result of ongoing academic and non-academic struggles related to their LD. According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), which is used by physicians to diagnose psychological problems, a child who is anxious may seem worried most of the time; may act nervous in certain settings, such as in crowds of people, at school, or when expected to perform; or may fear being separated from home or from parents or other adults to whom he's attached.

A child who is depressed, according to DSM-IV criteria, seems sad or irritable most of the time; loses interest and pleasure in many activities she used to enjoy; over-eats or loses her appetite; feels inappropriate guilt; has trouble thinking, concentrating, and making decisions; feels worthless or hopeless

The parents should begin to support the LD kid to regain self esteem, motivation and the pleasure with friends, families and daily activities as soon as they identify or notice unusual attitude among the child's behaviour.

1.8 Check your progress

1. What do you mean by Learning Disability?
2. Discuss briefly the types of Reading Problems.
3. Write a short note on Written Expression.
4. Describe in detail about Arithmetic Disabilities.
5. What do you mean by Non-verbal Learning Disability?
6. Narrate briefly the Emotional and Behavioural Problems related with Learning Disabilities

1.9 Let us Sum up

In this unit students have the idea of learning disability and which component are involved with the learning disabilities. They have understood the difference between dyslexia, disgraphya and dyscalculia. After reading this unit, students are familiar with the non-verbal learning disabilities and also identify the language disorder. They have been know the biological components, such as low-birth weight, prematurity, general birth complications, and male gender, as well as family history and low parental education may result the chance of developing language disorders. It is also known that receptive and expressive language disorders are the two different indicators of language disorder. Student can know in this unit Learning disabled children with attention problems are unable to avoid extraneous stimuli and are attracted by irrelevant stimuli. This also includes inability to focus on one activity for even a reasonable period of time. LD children are always on the move switching from one activity to another fast without completing anyone of them. It is clear that Emotional and behavioural problems plays most important role in LD. parents should begin to support the LD kid to regain self-esteem, motivation and the pleasure with friends, families and daily activities as soon as they identify or notice unusual attitude among the child's behaviour.

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Unit - 2 □ Assessment of Basic Curricular Skills

Structure

- 2.1 Introduction**
- 2.2 Objectives**
- 2.3 Assessment of Readiness Skills**
- 2.4 Assessment**
 - 2.4.1 Gathering Information from the Teachers/School**
 - 2.4.2 Interview with the Child**
 - 2.4.3 Testing**
 - 2.4.4 Co-Morbidity with ADHD**
 - 2.4.5 Other Assessment Procedures**
 - 2.4.6 Assessments in India**
 - 2.4.7 Reading Assessment Techniques**
 - 2.4.8 Writing Assessment**
 - 2.4.9 Assessment of Maths Skills**
- 2.5 Teacher Made Test**
 - 2.5.1 Construction of Teacher Made Test**
- 2.6 Standardized Test**
 - 2.6.1 Needs of Standardized Test**
 - 2.6.2 Purpose of Standardized Test**
- 2.7 Interpretation of Test Report**
- 2.8 Let Us Sum Up**
- 2.9 Check Your Progress**
- 2.10 Reference**

2.1 Introduction

The National Information Center for Children and Youths with Disabilities (NICHCY, 1999) listed five purposes of assessment: (1) screening; (2) evaluation; (3) eligibility and diagnosis; (4) IEP development; and (5) instructional planning. Screening is concerned with identifying students who are suspected of having a disability. In the area of Learning Disability assessors would be evaluating children who are exhibiting learning difficulties or delays in acquiring academic skills. Data from the screening would point out the degree to which these students with suspected Learning Disability are approximating average academic growth patterns. Students with extremely deficient skills would be recommended for a full evaluation. This evaluation would delineate the student's strengths and weaknesses, and overall academic progress across the curriculum. Evaluation would encompass three areas, namely, pre-academic, academic, and learning style assessment. Pre-academic assessment provides information related to a student's status on prerequisite behaviors (e.g. attention to task) that need to be acquired before instruction in an academic domain (e.g. math) occurs. Academic assessment allows educators to: pinpoint deficit academic readiness skills; describe a student's overall skill performance level; identify academic skills necessary for learning a domain area; and delineate the steps of a learning task a student has mastered. Learning style assessment involves the identification of a student's individual learning pattern that she has acquired based on her learning and behavior assets and weaknesses(Anthony, et. al. 2005).

2.2 Objectives

After going through the unit the learners will be able to: -

- Concept of assessment of readiness skills.
- Explain the assessment of reading writing and maths skills.
- Describe the teacher made test
- Describe the standardized test
- Establish the interpretation of test report

2.3 Assessment of Readiness Skills

Young children cultivateswiftly, repeatedly enduringoverwhelmingalteration and progresssubstantially, cognitively, linguistically and culturally. Youngsters, for

example, seem to relay from one breakthrough to the next. Still, the ratio of growth and development among young children differs greatly. Undeniably, as a consequence of this immense changeability during early childhood that can be seen in nearly any environment with preschoolers and kindergartners, many professionals hesitate at labeling children as learning handicapped.

Studies signify that early arbitration can make a convincing difference in a child's development and many other professionals demand to acknowledge hastily when they figure regenerative delays or see that certain children are not gathering conventional expectations. When this is the case, a convenient appraisal is essential to regulate whether or not a child will benefit from early intervention and, if so, what kind of intervention. A distinctive all-inclusive judgement will analyze at-risk indicators, make identifications, and approve services needed. This is exceptionally true for children with questionable learning disabilities who display widely-varying differences in cognitive tasks that can complicated overall abilities.

Children presenting evidences of developmental delay will profit from efficient, thorough appraisal in some or all of the following areas:

- Upbringing clue about family, early development, health, language, literacy and educational experiences. A document of early developmental turning points will supply information about rate of learning, and note should be made of the age at which parents or teachers first observed "problems."
- Audition and Perception. Some anatomical accounts influence developmental delays. For example, a hearing deterioration can intervene with language procurement; a child with a visual impairment may be impotent to construe and communicate with his or her environment suitably.
- Perception, memory, language, thinking skills, and problem solving. Valuation of these competences and inclinations can boost in differentiating between children deferred in all manners of development and those slow in a few areas, who otherwise perform as well or better than their age peers.
- Listening apperception and expressive language. Observation of the child as he or she broadcasts with parents, teachers and peers validates his or her capability to assimilate single words, sentences, questions and short stories. A child should be able to use words antecedently learned, express ideas in a systematized way, employ the sounds that make words, and play rhyming games, as relevant. Pressures concurred with ceremonial testing may be less apparent during observation, disclosing more of what a child knows or can precise. This is a

meaningful area of observation because other representative systems, such as reading, writing, and mathematics are station largely on lingual language.

- Alertness and direction of sounds in words, letter names, and picture names. These are good predictors of early reading.
- Writing logistics and early content. A child's pencil clamp during the writing process, fragment of drawings, fictitious spellings, and falsify messages can adequately additive the results of more awkward orderly testing.
- Mathematics. Testing apparatus assess a child's oral, ocular and cognitive skills by his or her ability to admit numerals and notice determinative and subjective characteristics (more, less, bigger, similar, different). Supplementary intimate scrutiny is also priceless.
- Interpretation. A child's ability to sort, group, classify objects and attributes, solve problems, and discern cause and effect can be purposeful by the accomplishment of various assignments and by painstaking detection.
- Social and self-help skills and use of non-verbal communication. Children should show the aptitude to put on articles of clothing in the legitimate order, tie shoes, button buttons, select clothes that are appropriate for contrasting activities and weather conditions, and feed themselves. A child should learn to take turns, as play progresses from sensory exploration to a blend of survey and representational play. Penetrating the child perform tasks that require careful surveillance and other visual-spatial skills can be profitable.
- Attention. Younger children may be familiar to lack uninterrupted consideration and be uncontrollable, while kindergartners should evolve the ability to stay on-task for a sustained period. Estimation can confess problems in this area.
- Maturation. Parents can lend information about a child's ability to concern for himself or herself and for others. From this information, along with observation, a child's level of acceptedliberty can be driven.

Finally, periods of indicative testing should reveal a child's rate and pattern of learning and intuitiveness into favorable forms of apprenticeship by affording treasured data on his or her execution over time and across frameworks.

2.4 Assessment

Before a specific interpretation of a student is attended, pre-referral consultations by teachers respecting the temperament of the problem, and what available adaptations to

instructions in the classroom might be made are significant. The child must be evaluated in all areas accompanying to the doubtful disability such as health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities. (National Information Centre for Children and Youth with Disabilities, 2000). An ideal assessment for LD is an expanded system requiring assorted sessions with a qualified educational psychologist. Afar from carrying out a battery of tests, the psychologist also accumulates pertinent information about the child from the teachers and school records. The assessment procedure for LD embraces the following steps: Parental Consent and Parent Interview

o Parents' assent must be received before evaluating the child. The academic, developmental and medical history along with the grammatical usage and communications patterns of the child must be obtained from the parents. The parent must be involved in the planning of the intervention program such as attending a resource room, groundwork of compromise and modifications to the child.

2.4.1 Gathering Information from the Teachers/School

The psychologist must also notice the child in his/her school setting to know about the child's administration and behaviour in the class, and gain insights from the teacher. Oversight of previous grades will splash the pattern of academic advancement. These may deliver light into the problem areas of the child. A student's contemporary classroom performance can be compared to Test scores. A number of paths being used freshly include curriculum-based assessment, task analysis, dynamic assessment, and assessment of learning style.

These approaches yield rich information about students and are specially important when assessing students from *culturally or linguistically diverse backgrounds*, and therefore, are critical methods in the over all approach to assessment. (National Information Centre for Children and Youth with Disabilities, 2000).

2.4.2 Interview with the Child

"An Interview should be a conversation with a purpose" (Wallace, Larsen, & Elksnin, 1992, p.16), with questions designed to collect information that "relates to the observed or suspected disability of the child". (National Information Centre for Children and Youth with Disabilities, 2000). A careful review of the student's school records or work samples help the assessment team identify patterns or areas of specific concern which may be focused on at the time of interview. The student too, may have much to say to

illuminate the problem (Hoy & Gregg, 1994, p. 44). (National Information Centre for Children and Youth with Disabilities, 2000).

2.4.3 Testing

Though increasingly controversial, most assessments for LD include standardized tests. There are two types of tests.

(i) **Criterion-referenced tests** are chalked up according to a standard, or benchmark assured by the teacher, the school, or the test publisher. An example of a criterion referenced test might be a teacher-made spelling test where there are 20 words to be spelled and where the teacher has defined an "acceptable level of mastery" as 16 correct (or 80%). (National Information Centre for Children and Youth with Disabilities, 2000).

(ii) **Norm-referenced tests:** Points on these tests are not elucidated according to an infinite standard or criterion (i.e., 8 out of 10 correct, etc.) but, on how the student's performance in contrast with that of the norm group (a large number of representatives of that age group). This helps analysts determine whether the child is performing at a typical level, below, or above that is expected of a given ethnicity, socio-economic status, age, or grade. (National Information Centre for Children and Youth with Disabilities, 2000).

The hindrance of this type of test is that the norms in different regions of a country will vary and too, the norms of the same region will change over a period of time. Hence, in a country like India, each area would have to develop its own barometer which would need to be reviewed annually.

Virtually, the checks for LD have two leading components:

1. Testing for Potential: Performance Discrepancy.
2. Testing Processing Abilities.

A two-year conflict between *potential and performance* is an indicator of a possible LD. Validity of a significant discrepancy will be evaluated on a case by case basis (Hirisave U, et al., 2002). The recommended Psycho-educational tests are discussed below under various heads:

1. **Intellectual Assessment:** Weschler Adult Intelligence Scale Third Edition (WAISIII), Woodcock Johnson Tests of Cognitive Ability.
2. **Achievement:** Recommended tests include: Woodcock Johnson Psycho Educational Battery-Revised, Nelson Denny Reading Test, SATA.

3. *Cognitive Processing Abilities*: Woodcock Johnson Psycho-Educational Battery-Revised (Part 1 - Tests of Cognitive Ability), Weschler Memory Scales- Revised, Benton Visual Retention Test, Berry Visuo-Motor Integration Test, Raven Colored Progressive Matrices, Rex Auditory-Verbal Learning Test, Bender Visual Motor Gestalt Test, Halstead-Reitan Neuropsychological Test Battery, Memory-For-Designs Test, Nimhans Index (Hirisave U, et al., 2002).

These tests would have to be altered and norms constituted for children who come from divergent backgrounds. Segregation of other disabilities as the primary cause of learning difficulties is vital. Such disabilities include:

- Mental retardation.
- Sensory deficits. Example: Visual and/ or hearing impairment.
- Physical impairment.
- History of multiple education settings.
- Poor educational background or lack of prior learning.
- Cultural differences or lack of experience with the English language (Office of Disability Services).

However, a learning disability may co-exist with the above.

SLD being a language based disorder, it is compulsory that tests for both approachable and expressive language be comprehended in the assessment procedures.

2.4.4 Co-Morbidity with ADHD

Many children with LD prosper subordinate negligence and behavioural complications, Attention Deficit Hyperactivity Disorder (ADHD), which is characterized by developmentally- inappropriate inattention, hyperactivity and/or impulsivity, is often co-morbid with dyslexia (Kadesjö&Gillberg, 2001). The two disorders crop up concurrently in 12% to 24% of individuals with dyslexia (Shaywitz, 2003). However, they do not materialize to divide a common cause (Doyle, 2001; Shaywitz, 2003). Under these precedences, it becomes troublesome to extricate LD from a Primary ADHD (National Information Centre for Children and Youth with Disabilities, 2000).

2.4.5 Other Assessment Procedures

Curriculum Based Assessment

Straight assessment of academic skills (Curriculum Based Assessment) is one alternative that has lately attained acceptance. "Tests" of performance in this case come directly from the curriculum. For example, a child may be inquired to read from his or her reading book for one minute. Facts or news on the veracity and the velocity of reading can then be correlated with other students in the class. CBA is quick and offers specific information about how a student may vary from his peers. (National Information Centre for Children and Youth with Disabilities, 2000).

On account of the assessment is clinched to curriculum content, it grants the teacher to about guidance to a student's current strengths and diagnose areas where curriculum transformations or adjustments are desired.

CBA caters information that is right away compatible to instructional programming. (National Information Centre for Children and Youth with Disabilities, 2000). The benefits of a CBA are off-track in a system with a strict curriculum based principally on consciousness as is real in India where CBA may not be the appropriate preference.

Dynamic Assessment

The aim "is to analyze the character of learning, with the objective of accumulating information to bring about emotional change and to upgrade instruction" (Sewell, 1987, p. 436) (National Information Centre for Children and Youth with Disabilities, 2000). Dynamic assessment comprises a conference or communication between the examiner and the student. This interaction may include designing the chore for the student, giving the student hint or cues as he/she tries to resolve a given problem, asking what a student is deliberating while running on the problem and giving adoration or assistance (Hoy & Gregg, 1994).

The interaction allows the examiner to draw terminations about the student's thinking processes and his/her feedback to a learning situation. The "teaching" aspect is followed by a retesting of the student with an identical task but without backing from the examiner (National Information Centre for Children and Youth with Disabilities, 2000).

Dynamic Assessment Tools (LPAD) have been advanced by Prof. Reuven Feurenstein at the International Centre for Enhancement of Learning Potential (ICELP), Jerusalem. By all means, dynamic assessment is not without its restraints or critics. One distinct affair is the bulk of training required by the examiner to plan both the assessment and decipher results. Another is a deficiency of operational procedures or "instruments" for appraising a student's achievement or competence in the contrasting satisfied areas (Jitendra & Kameenui, 1993).

Alike with these constraints, it is an auspicious extension to current estimation techniques because it merges a teaching component into the assessment process. (National Information Centre for Children and Youth with Disabilities, 2000). Inclined to the difficulties in diagnosis due to environmental destitution evolving understandable dynamic assessment tools would notably profit children with learning difficulties.

2.4.6 Assessments in India

The National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore has developed the index to assess children with LD (Hirisave, U. et. al., 2006). There are two levels of this index. They are: Level I for children 5-7 years and Level II for 8-12 years. The index comprises of the following tests:

- a. Attention test (Number cancellation).
- b. Visuo-motor skills (the Bender Gestalt test and the Developmental test of Visuo-Motor integration).
- c. Auditory and Visual Processing (discrimination and memory).
- d. Reading, writing, spelling and comprehension.
- e. Speech and Language including Auditory behaviour (Receptive Language) and Verbal expression.
- f. Arithmetic (Addition, subtraction, multiplication, division and fraction) (Hirisave U, et al., 2006).

At the Lokamanya Tilak M.G. Hospital, Sion, Mumbai, the procedure for assessment of Specific Learning Disability involves the following:

- a. Neurological assessment.
- b. Vision and Hearing tests.
- c. Analysis of school progress report.
- d. I.Q. test.
- e. Educational assessment.
- f. Psychiatric assessment.
- g. Case conference.
- h. Counselling.

Most private institutions in India pursue some, if not all of these procedures. In our country where numbers usually decide procedures, it would be advantageous to support elementary cases for assessments within the educational ambience. The reasons are astounding:

Children encountering interruptions or learning problems may be secluded at the first level, provided with favorable help and only those demanding additional assessment would wish to bear further testing.

- Ideal assessment procedures being very intricate, cannot be done in a single session.
- Attending clinics and hospitals would be strenuous for the parents from an inferior socioeconomic framework. Information can be comfortably harvested from within the school. Surveillance of the child in the educational setting would be desirable to those made in a clinic.
- The assessment team could involve a psychologist, special teacher/educator, class teacher which, with recommendation from the parent and child, would expedite an all-embracing assessment of the child.
- Assessment procedures would include instructional planning, installation and growth of an Individualized Education Program (IEP) appropriate to the child's special needs or demands with a follow up estimation of student proficiency.
- Eligibility for special education services/ classroom and accommodations/ modifications is finest determined by a knowledgeable school team.

2.4.7 Reading Assessment Techniques

The unlike types of assessment that can be used for calculating development in reading skills in the aspirations that teachers will better understand how distinct accomplishments can be assessed by diversified measures. This characterization of the various assessment techniques may also help teachers to sketch their own classroom assessments, and may help teachers to better understand the district or campus assessments that are already being used with their students. These are:

Reading Comprehension

Language Comprehension

Decoding

Linguistic Knowledge

Phonology etc

2.4.8 Writing Assessment

Hughes (2003: 83) suggests that assessing writing involves three issues:

1. Writing tasks should be set that are properly representative of the range of tasks we would expect students to be able to perform.
2. The tasks should elicit writing that is truly representative of the students' writing ability.
3. The samples of writing can be appropriately scored.

Many different writing tasks can be used to elicit examples of students' writing ability. The length of text that students produce should be specified. For example:

- Writing a letter.
- Writing a description of something from a diagram or picture.
- Writing a summary of text.
- Writing on a topic to a specified length in words or paragraphs.
- Completing a partially written text.
- Writing a paragraph using a given topic sentence.
- Completing a paragraph.
- Writing a criticism or a response to a piece of writing.
- Writing a story, based on an outline provided.

2.4.9 Assessment of Maths Skills

This circumstantial type of learning in which students are learning lessons on how to solve real-life problems can be employed in mathematics. These ideas are bestowed as follows:

- **Thinking and reasoning:** Generating students to communicate in such activities that include gathering evidence, inspection, inquisition, comprehension, generalization, carving, plotting, analyzing, formation of hypotheses, use of trial and error, abstraction and solution-checking.
- **Settings:** Admitting the students to work individually or in smaller groups.
- **Mathematical tools:** The students enroll to use symbols, tables, graphs, drawings, calculators and computers.

- Attitudes and dispositions: Students in this class of learning environment learn doggedness, self-managing conducts and contemplation, cooperation and a distinctive keen interest for learning various kinds of situations.

2.5 Teacher Made Test:

Cautiously assembled teacher-made tests and patterned tests are akin in many ways. Both are fabricated on the basis of attentively projected table of stipulations, both have the carbon type of test items, and both provide fair directions to the students.

Still the two diversify. They differ in the attribute of test items, the dependability of test measures, the agendas for superintending and scoring and the interpretation of scores. No doubt, uniform tests are fine and exceptional in quality, more trustworthy and genuine.

Features of Teacher -Made Test:

1. The items of the tests are organized in order of difficulty.
2. The test is inclined by the teacher.
3. The test covers the whole content area.
4. The groundwork of the items harmonizes to the master plan.
5. Test construction is not a single man's livelihood, rather it is a co-operative venture.
6. A teacher made test is not a standardized test.
7. Teacher made test may also be engaged as a tool for impressionable appraisalment.
8. The test is advanced by the teacher to double-check the student's achievement.

2.5.1 Construction of Teacher Made Test

Teacher made test does not lack a well - planned preparation. The following steps may be followed for the test:

1. Planning

When the teacher prepared a teacher made test, teacher should have programmed for the test. In this connection teacher should include such types of planning like

- a) Objective of the test

- b) Syllabus should be covered
- c) Deciding the objective in behavioral terms
- d) Deciding the number and forms of items
- e) Having a clear knowledge

2. Preparation of the Test:

Outlining is a philosophical facet and preparation is the realistic aspect of test construction. It craves much thinking, rethinking and reading before construction of the test. After construction of the test items should be aligned in a simple to complex order. Direction or Command is an important part of a test construction. Without offering a proper direction or instruction there will be a possibility of defeating the accuracy of the test reliability. It may constitute a misconception in the students also.

Formal assessments give teachers a technique to evaluate knowledge and plan future instruction, but standardized exams or commercially prepared tests don't always correctly assess that information. The excess time required to prepare exams enhance with the promising for more accurate assessments, and with the welfares in mind, teachers can more accurately oversees student learning and progress.

2.6 Standardized Test

The denotation of a standardized test has somewhat replaced over time. In 1960, standardized tests were defined as those tests in which the conditions and content were equal for everyone taking the test, regardless of when, where, or by whom the test was disposed or sorted. The intention of this standardization is to make sure that the scores dependably signify the abilities or skills being measured, and no other things, such as different instructions about what to do if the test taker does not know the answer to a question(Olson, Amy M.; Sabers, Darrell, 2008)

By the beginning of the 21st century, the point of convergence switched away from a harsh similarity of conditions towards balanced fairness of conditions. For example, a test taker with a broken wrist might write more slowly because of the injury, and it would be more fair, and produce a more reliable understanding of the test taker's actual knowledge, if that person was given a few more minutes to write down the answers to a most test. However, if the aim of the test is to see how rapidly the student could write, then this would become an alteration of the content, and no longer a standardized test (Olson, Amy M.; Sabers, Darrell, 2008).

Standardized tests are frequently assigned to as assessments. An assessment is customarily defined as the accumulation and breakdown of information about one or more students. When tests are standardized, this means that a specific group of students will take the same test that will be scored and analyzed the same way. The Score result for each student is then distinguished to the rest of the group to see how well the students performed.

The federal law is noted as No Child Left Behind, or NCLB, was constructed so that schools were held answerable for what students learned all over the school year. States were prescribed to set ambitions and aspirations for students commencing in grade three and, at the end of the year, assess whether students met the required goals and objectives. These standardized, or high stakes, tests not solely provide schools, districts, and states with information about student achievement (or lack of), the tests can also resolve whether or not students are advanced to the next grade level. Furthermore, teachers and/or schools with high numbers of students who do not carry out well on the end-of-year tests could cast unfavorable consequences as a conclusion.

2.6.1 Needs of Standardized Test

A standarized test is needed

- (a) to study an individual from different aspects.
- (b) to study the specific qualities and disqualifications of a person,
- (c) to study a society or a community from different angles,
- (d) to compare the different aspects of an individual or a society with another individual or another society.

2.6.2 Purpose of Standardized Test

Through a standarized test we can study any type of behaviour, beliefs, attitude, knowledge, abilities, skill, competency of an individual which are visible and measurable and test able.

2.7 Interpretation of Test Report

During interpretation of test results a taster concentrate himself/herself in the following aspects : (a) Have the hypotheses been adequately tested; (b) is the analysis of rate relationship is logical and perceptive; (c) is it significance of statistical results tested properly; and (d) one the statistical results interpreted and presented without any bias.

2.8 Let Us Sum Up

Learning disability assessment and curriculum Assessment Type of Test Curriculum in very much important for the students. To obtain a comprehensive set of quantitative and qualitative data, accurate and useful information about an individual student's status and needs must be derived from a variety of assessment instruments and procedures including Response- to-Intervention (RTI) data, if available. A comprehensive assessment and evaluation should use a valid and the most current version of any standardized assessment. curriculum-based assessments, task and error pattern analysis portfolios, diagnostic teaching, and other non-standardized approaches continuous progress monitoring repeated during instruction. Non- standardized and alternative assessments is the traditional form of Assessment, where teachers construct questions, evaluate student responses, assign and check homework, and informally assess student progress every day.

Types of tests for reading, writing and math - scholastic reading inventory (SRI) is important test for the students. Woodcock reading mastery test (WRMT-III) is also essential reading skills test. Any other test is gray oral reading test (GORT-5), comprehensive test of phonological processing, test of word reading efficiency (TOWRE-2), rapid automatized naming tasks, test of early reading ability (TERA-3), wide range achievement test.

WECHSLER INDIVIDUAL ACHIEVEMENT TEST is measures: Reading, writing and oral language, as well as math skills (depending on which subtests are used) and subtests used, the test can take from 45 minutes to two hours to complete. What the scores mean: Results for this test, like other tests, give a sense of how your child is doing in various academic areas.

In this unit is also discuss teacher made test standardized test and test interpretation

2.9 Check Your Progress

1. Brief discuss about Assessment of Readiness skill
2. What is procedure of Reading Assessment
3. Discuss about the assessment procedure of Writing skill
4. How can assess the maths skill
5. What is Teacher Made test?

6. What is Standardized Test
7. Discuss about interpretation of test report

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Unit 3 □ Intervention Strategies in Basic Skills of Learning

- 3.1 Introduction
- 3.2 Objectives
- 3.3 Language Skills
- 3.4 Reading
- 3.5 Writing
- 3.6 Math Skills
- 3.7 Study Skills
- 3.8 Check Your Progress
- 3.9 Let Us Sum Up
- 3.10 References

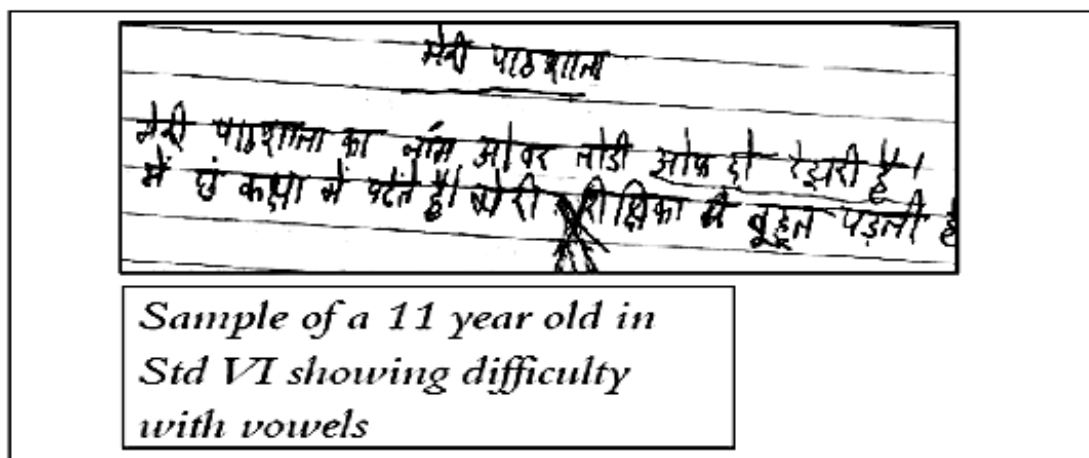
3.1 Introduction

The term "Specific Learning Disability" (SLD) means a disorder in one or more of the psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, write, spell, or to do mathematical calculations.

Sample Test papers of student with Specific Learning Disabilities are shown below:

tall	sh ort	(short/down)
big -	sm all	(large/small)
dry -	w et	(cold/wet)
up -	d own	(down/under)

Sample of an 8 year old boy in Std II showing difficulty in writing due to fine motor difficulties commonly referred to as Dysgraphia



Source: www.rehabcouncil.nic.in/writereaddata/ld.pdf

Learners with Specific Learning Disabilities (SLD) exhibit a disorder in one or more of the basic, psychological processes involved in understanding or in using spoken or written languages. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc.

3.2 Objectives

After completing this unit, you will be able to:

- explain how to use specific intervention strategies to meet the needs of children with language based learning disabilities (LBLD);
- explain how to use specific intervention strategies to meet the needs of children with reading difficulties;
- explain how to use specific intervention strategies to meet the needs of children with writing difficulties;
- explain how to use specific intervention strategies to meet the needs of children with difficulties in basic skills of mathematics and
- explain how to use specific intervention strategies to meet the needs of children with difficulties in study skills.

3.3 Language Skills

Language-based learning disabilities are problems with age-appropriate reading, spelling, and/or writing. This disorder is not about how smart a person is. Most people diagnosed with learning disabilities have average to superior intelligence. Many children with reading problems may have spoken language problems too. The child who has dyslexia as part of a larger language learning disability has trouble with both the spoken and the written word. These problems may include difficulty with the following (American Speech- Language- Hearing Association, n.d):

- Expressing ideas clearly, as if the words needed are on the tip of the tongue but won't come out. What the child says can be vague and difficult to understand (e.g., using unspecific vocabulary, such as "thing" or "stuff" to replace words that cannot be remembered). Filler words like "um" may be used to take up time while the child tries to remember a word.
- Learning new vocabulary that the child hears (e.g., taught in lectures/lessons) and/or sees (e.g., in books)
- Understanding questions and following directions that are heard and/or read
- Recalling numbers in sequence (e.g., telephone numbers and addresses)
- Understanding and retaining the details of a story's plot or a classroom lecture
- Reading and comprehending material
- Learning words to songs and rhymes
- Telling left from right, making it hard to read and write since both skills require this directionality
- Letters and numbers
- Learning the alphabet
- Identifying the sounds that correspond to letters, making learning to read difficult
- Mixing up the order of letters in words while writing
- Mixing up the order of numbers that are a part of math calculations
- Spelling
- Memorizing the times tables
- Telling time

Intervention Strategies:

Special education classes are the place of primary treatment. These classes focus on activities that sustain growth in language skills. The foundation of this treatment is repetition of oral, reading and writing activities. Usually the Speech Language Pathologist (SLP), psychologist and the teacher work together with the children in small groups in the class room. Another treatment is looking at a child's needs through the Individual Education Plan (IEP). In this program teachers and parents work together to monitor the progress of the child's comprehensive, verbal, written, social, and motor skills in school and in the home. Then the child goes through different assessments to determine his/her level. The level that the child is placed in will determine the class size, number of teachers, and the need for therapy.

The goals of speech and language intervention for the child with a reading problem target the specific aspects of reading and writing that the student is missing. For example, if the student is able to read words but is unable to understand the details of what has been read, comprehension is addressed. If a younger student has difficulty distinguishing the different sounds that make up words, treatment will focus on activities that support growth in this skill area (rhyming, tapping out syllables, etc.).

Individualized programs always relate to the school work. Therefore, materials for treatment are taken from or are directly related to content from classes (e.g., textbooks for reading activities, assigned papers for writing activities, practice of oral reports for English class). The student is taught to apply newly learned language strategies to classroom activities and assignments. To assist the child best, the SLP may work side-by-side with the child in his or her classroom(s).

Intervention with spoken language (speaking and listening) can also be designed to support the development of written language. For example, after listening to a story, the student may be asked to state and write answers to questions. He or she may be asked to give a verbal and then a written summary of the story.

Articulation (pronunciation) needs are also treated in a way that supports written language. For example, if the child is practicing saying words to improve pronunciation of a certain sound, he or she may be asked to read these words from a printed list.

The SLP consults and collaborates with teachers to develop the use of strategies and techniques in the classroom. For example, the SLP may help the teacher modify how new material is presented in lessons to accommodate the child's comprehension needs. The SLP may also demonstrate what planning strategies the student uses to organize

and focus written assignments (American Speech- Language- Hearing Association, n.d).

Landmark's Six Teaching Principles

Landmark's Six Teaching Principles create the conditions for learning that students with learning disabilities need to succeed. Students with language-based learning disabilities(LBLD) make stunning progress with targeted, intensive, skills-based instruction under these conditions. Essentially, these principles are(Newhall Patricia, 2012):

- Provide opportunities for success to foster a sense of self-efficacy.
- Use multisensory approaches so that all content is conveyed in visual, auditory, and tactile modes (see it, hear it, say it, do something with it).
- Micro-unit and structure tasks to form step-by-step processes, which facilitate learning and provide incremental opportunities for success that help students persist in the face of longer, more complex tasks.
- Ensure automatization through practice and review, as consistency and repetition develop skill.
- Provide models to give students samples of successful work and set clear standards, which helps students begin assignments and self-assess as they work.
- Include students in the learning process, because increasing students' self-awareness as learners helps them engage and invest in the classroom.

3.4 Reading

Over the past 30 years, a great deal of research has been done to identify the most effective reading interventions for students with learning disabilities who struggle with word recognition and/or reading comprehension skills. Martin, Martin and Carvalho (2008) reviewed a study by the U.S. Department of Education which reported in 2002 that the majority of the approximately 2,887,217 children receiving special education services were identified with a learning disability in reading. The number of children identified as having a reading disability has grown considerably.

The preferred methodology for teaching reading fluctuates because of on-going debates as to which methods are most effective. For a reading program to be effective, the program must combine various methodologies based on each child's needs while at the same time implementing the principal techniques of the program.

Intervention Strategies:

Following suggestion and strategies may help children who have language problems i.e problems with decoding, comprehension, or reading retention (NSOU, B.Ed. Special Education SLM, 2016):

- **Play word games.**

Word games and puzzles are fun and also build vocabulary and word understanding. Try crossword puzzles, word bingo, etc.

- **Read every day.**

Encourage children to read directions, labels and signs in the classroom, at home, in the car, and at stores or shops, and have them take turns reading aloud with a classmate, parent, or sibling. Discuss in class or at home what you are reading.

- **Model reading as an enjoyable activity.**

You might informally discuss what you are reading with your child or let him or her see family members or teachers enjoying reading. Have DEAR time several times a week where everyone "Drops Everything And Reads" for 20 minutes.

- **Put learning to use.**

Help children remember by having them explain, discuss, or apply information they have just read, letting them "teach" you facts or ideas they have learned from their reading, or encouraging them to act out characters from their reading selections.

- **Listen to books.**

Child may benefit from listening to his or her textbooks and trade books on tape or by using assistive technologies like screen readers.

- **Read to child every night.**

Read novel above his or her reading level to stimulate and enrich language, creativity, and interest. Ask structured questions and encourage the child to predict multiple endings to each chapter.

- **Engage children's senses while learning.**

Children with learning disabilities learn best when they use many of their senses to get information. Multisensory instruction allows the child to see, hear, touch, and act out words. For example, to learn letters children may read the printed letter, say the letter

name, shape the letter out of clay, trace the letter onto paper, and form their bodies into the shape of the letter.

Beyond phonics, there are key intervention strategies that do not necessarily isolate students from one another by sorting them into levelled groups. A few highlights include (Lexia, 2016):

Peer-Assisted Learning Strategies (PALS) exercises pair strong and weak readers who take turns reading, rereading, and retelling.

2. Teacher Read-Aloud

This activity, says Julie Adams of Adams Educational Consulting, is "perhaps one of the most effective methods for improving student fluency and comprehension, as the teacher is the expert in reading the text and models how a skilled reader reads using appropriate pacing and prosody (inflection)." Playing an audiobook achieves similar results.

3. Shared Reading/Modeling

By reading aloud while students follow along in their own books, the instructor models fluency, pausing occasionally to demonstrate comprehension strategies.

4. The Crazy Professor Reading Game

According to the article, to bring the text to life, students will:

- Read orally with hysterical enthusiasm
- Reread with dramatic hand gestures
- Partner up with a super-stoked question-asker and -answerer
- Play "crazy professor" and "eager student" in a hyped-up overview of the text
-

With Fluency-Oriented Reading Instruction (FORI), primary students read the same section of a text many times over the course of a week. Here are the steps:

- The teacher reads aloud while students follow along in their books.
- Students echo-read.
- Students choral-read.

- Students partner-read.
- The text is taken home if more practice is required, and extension activities can be integrated during the week.

3.5 Writing

"There is nothing to writing. All you do is sit down at a typewriter and bleed." ? Ernest Hemingway

Writing is one of the most important tools for learning and showing what someone has learned (Harris & Graham, 2013). It requires the ability to plan, produce text, revise, and self motivate (Santangelo, 2014) which can be a difficult academic skill for many students. It is even more difficult for students with a learning disability (LD) who have executive functioning deficits that affect how they "receive, store, process, retrieve, express, or manipulate information" (Cortielle & Horowitz, 2014, p. 3). Executive functioning helps people manage time, pay attention, switch focus, plan and organize, remember details, and do things based upon personal experiences (Bhandari, 2015). Poor executive functioning skills make it difficult to plan how much time should be dedicated to the writing process, plan ideas during prewriting, organize topics within the paper, and use memory to relate text-to-self ideas.

Dysgraphia is the term associated with a specific learning disability in writing. Cortielle and Horowitz (2014) described characteristics of dysgraphia as "a tight, awkward pencil grip and body position, tiring quickly while writing, avoiding writing or drawing tasks, trouble forming letter shapes as well as inconsistent spacing between letters or words, difficulty writing or drawing on a line or within margins, trouble organizing thoughts on paper, trouble keeping track of thoughts already written down, difficulty with syntax structure and grammar, large gap between written ideas and understanding demonstrated through speech."

INTERVENTION STRATEGIES:

Some of the following writing strategies and suggestions may help children who are experiencing problems with writing. Many of those listed are accommodations designed to work around a child's differences by offering alternate approaches at home and school. Choose the strategies that you think might be helpful to your child. (PBS Parents, n.d)

- **Create a safe environment for writing.**

Balance feedback between what is good about the writing and what needs improvement, always highlighting whatever is positive in a child's writing and avoiding direct comparison to other children's work.

- **Make your expectations explicit.**

Clarify your expectations when presenting an assignment or giving directions to children by telling them the process you want them to use to write a report and by modeling that process for them.

- **Evaluate content and mechanics separately.**

Help a child to see that he or she may have good ideas and still need to work on a particular writing sub-skill. Always correct any grammatical or other speech errors in private and do so in a respectful way.

- **Encourage a variety of writing activities.**

Keeping a daily journal can be motivating and can provide needed writing practice. Consider other fun writing assignments such as writing to pen pals or suggest that your child compose songs or record family trips.

- **Encourage free writing.**

Set a time each day during which children can write about anything that interests them. Stress that no one else will read or evaluate what he or she writes.

- **Separate the creative aspects of writing from the motor aspects.**

Some children who struggle with the physical process of recording their own ideas benefit from dictating assignments to a parent or someone else.

- **Allow enough time for each assignment.**

Help children estimate how long a given task will take to complete. Consider giving them additional time to complete a written assignment or test rather than have something due at the end of the class period.

- **Provide time for revision and proofreading.**

Encourage children to revise and proofread their drafts, and provide time for them to do so. Explain to them that writing is a process and that it is easier to proofread what they have written several days -rather than immediately- after writing it.

Introduce your child to one of a variety of simple graphic organizers.

Investigate computer programs including word webs, story maps, and venn diagrams, to help him or her approach writing in a systematic way. The Education Place Web site has a number of useful tools you can download.

Provide access to programs or tutors that can help your child improve his or her word processing skills.

Many children who struggle with motor output (handwriting) benefit from using a computer for their written work. Summer time is optimal for acquiring these skills.

3.6 Math Skills

Many students face difficulty in learning the basic skills of mathematics and in their efforts to mathematical problem solving in daily life. Mathematics based tasks like handling money, measurement, telling time, recognize bus number etc. are essential part of our daily life.

In the absence of intensive instruction and intervention, students with mathematics difficulties and disabilities lag significantly behind their peers (Jitendra et al. 2013).

INTERVENTION STRATEGIES:

Some of the following math strategies and suggestions may help children who are experiencing problems with mathematics. Identify strategies that you think will help your child and, if appropriate, talk to your child's teacher about using some of the strategies in school (PBS Parents, n. d).

- **Maintain consistency and communication across school and home settings.**

Parents, tutors, and classroom teachers should coordinate and use the same instructional approach.

- **Teach basic concepts using concrete objects.**

For example, let children explore number concepts by counting the legs of a chair to find the number four or by subtracting crayons from a box. The progression from understanding concrete materials, pictorial representations, and abstract number representations may take some children longer than others.

- **Provide specialized materials.**

To help children organize their calculations, have them use graph paper (or lined paper turned sideways) to keep numbers in columns. Encourage the use of scrap paper to keep

work neat, highlighters to underline key words and numbers, and manipulatives such as base-ten blocks or fraction bars.

- **Make your expectations explicit.**

Tell children the procedures you would like them to use when solving a problem, model each procedure for them, then have them tell you what they are expected to do. Some students benefit by having a math notebook filled with examples of completed problems to which they can refer if they become overwhelmed or confused.

- **Provide time for checking work.**

Emphasizing that completing math assignments is a process, encourage children to become comfortable reviewing their work, making changes, or asking questions when they are unsure of their answers.

- **Give children opportunities to connect mathematical concepts to familiar situations.**

For example, when introducing measurement concepts, have children estimate their measurements before measuring classmates' and family members' heights or weighing their book bags' when empty and when full.

- **Help children apply math concepts to new situations.**

For example, show them how to use percentages to understand the price of a pair of shoes on sale at the mall or the amount of their allowance they spend on snacks.

- Provide access to programs or tutors that can help a child improve his or her math skills.

Tutors can assist children with weak math sub-skills, such as multiplication and division. Provide tutors during summer months or after school to boost performance and ensure that the child retains his or her skills.

- Help children keep track of problematic areas.

When doing math homework, children may benefit from having their most common errors listed on flashcards. They can then refer to the cards while completing their assignments.

- Play math games.

To encourage automaticity with math facts, students may benefit from playing math games (i.e. dice, playing cards) and listening to commercially available audiotapes that provide a fun way of learning math facts.

3.7 Study Skills

Study skills refer to the method or strategies, a student adopts to learn the content of his course materials effectively and independently and reproduce contextually. All of us have different study habits. Success of the student is largely dependent on the study habits one adapts. As there is a wide variation in study skills, there is no single foolproof method. However, there are a few strategies, which will certainly help in improving the study habits and developing good study skills. Good study skills involve listening to what is being taught, taking notes, storing in memory the subject matter, systematic organization of the learnt subject matter and responding correctly when asked to answer questions in the subject- orally or in writing (NIMH, 2003).

INTERVENTION STRATEGIES:

The following method of reading, called the SQ3R Method, was developed to help people read faster and study better (Mayland Community College, 2002).

SQ3R Method of Reading

SURVEY—QUESTION—READ—RECITE—REVIEW

Survey: This step takes only a few minutes. Go through the chapter quickly. Glance at the chapter title, the introduction, headings, and summary paragraphs, if any. Notice any pictures, diagrams, graphs, tables, etc. Read any bold print. Previewing your text gives you some background about topics you may have never encountered before. You pick up general information. You know where to find information. You gain a better idea of how the information is organized and presented. It opens up a place in your brain where the new information will be stored. It saves time by reducing the amount of time it takes to read the chapter. Another advantage is that it creates an interest in what is coming up. It motivates you to read less interesting material to get to the "good stuff."

Question: Before you begin reading a section, turn the heading into a question. For example, if the heading is Basic Causes of Stress, your question would be "What are the basic causes of stress?" This arouses your curiosity and increases your comprehension. It also brings to mind information you already know. The questions you ask help make important points stand out as you read. This forces you to think about what you are reading.

Read: Read the material under the heading with the purpose of getting the answer to your question. Read with concentration. Identify the main ideas and highlight or

underline them. Read sections at a time and stop to ask questions. Jot down notes and ask yourself what you just read. If you can answer your question, read on. If not, look it over again. A good practice for more difficult reading is to do an outline of chapter in your notes. By leaving extra space you can fill in details during the class lecture. Make note of new vocabulary and write definitions in your notes.

Recite: This step requires that you recite out loud the answer to the question you asked prior to reading a section of the text. Say it in your own words. If you find you cannot answer your question, go back and look for the answer, then try again. This way you will know if you have understood the material. Besides answering your questions, look away from the book and try to state in your own words what the reading is about. You may jot down brief notes about what you read. When you are done, go back and make an outline of the chapter.

Review: After you have read the entire chapter, look over the notes you made to familiarize yourself with the important information. Check your memory by reciting the main points out loud. Then review the main points in your notes, making sure you understand them. Add to your notes from the text, if necessary. Always do a review of the chapter after completing your reading. Then do quick reviews before and after each class. Do longer, more in-depth reviews before exams.

Don't wait until exam time to review your textbook. Review once a week all the readings from that week. Be sure you can summarize the key points. Write them down to further reinforce learning.

Finally, make up test questions from what you have read. Be sure to write them.

The SQ3R Method of reading sets the stage for interacting with your text material. As you go through the five steps you are gaining information, formulating questions, thinking about what you are reading, and trying to find answers to your questions. You are also reciting information out loud. All of these steps require the use of your auditory, visual and kinaesthetic senses. When more senses are involved, more effective learning takes place.

Memory Strategies(NIMH, 2003).

Poor memory is very common characteristic among children with learning problems. Memory strategies are designed to help students retrieve information quickly.

Some common memory strategies are discussed below:

Mnemonic devices or memory tricks help you remember factual information like names, dates, formulas, or other information that requires rote memorization. Some sample mnemonic devices are:

- Rhymes:
"Thirty days hath September, April, June, and November..."
- Creative Sentences:
"My very eager mother just served us nine potatoes." (the planets in order from the sun)
- Acronyms:
NASA (National Aeronautics and Space Administration)
VIBGYOR (the colors of the rainbow: red, orange, yellow, green, blue, indigo, and violet)
IPMAT (stages of cell division: interphase, prophase, metaphase, anaphase and telephase)
Creating visual images of the content.
Rehearsing by repeating the content.
Classifying, grouping and clustering information for easy recall.
Semantic/ Concept Mapping: Content to be presented in an order to recall information when needed. One way of semantic mapping is associating the content to a clock dial.
Learning Preferences(Mayland Community College, 2002).

We all use all three learning channels. In fact, we use all our senses in learning about the world around us, but each of us has a tendency to lean more heavily on one of the three learning channels - visual, auditory, or hands on. You can improve your study habits by developing all three learning channels.

TO IMPROVE AS A VISUAL LEARNER...

- visualize what you are studying
- use color in your notes (colored pens, highlighters, etc.)
- visualize what the instructor is lecturing about
- draw pictures and diagrams

- use mind maps in your notes
- use picture and graphics to reinforce learning
- learn from videos

TO IMPROVE AS AN AUDITORY LEARNER...

- listen to tapes of recorded assignments
- tape record your own textbook reading
- read out loud
- talk over ideas from class and what you are studying with other students
- participate in class discussions
- listen to audiotapes on the subject

TO IMPROVE AS HANDS ON LEARNER...

- stand up and move around while you are studying
- take frequent breaks while studying
- make use of your hands and write things down as you study
- use the computer to reinforce learning
- be physically active; experiment with objects
- memorize or drill while walking or exercising

3.8 Check Your Progress

1. How is the term specific learning disability different from term dyslexia?
2. What is SQ3R?
3. Explain "Study Skills".
4. Discuss Landmark's Six Teaching Principles.

3.9 Let Us Sum Up

Students with language-based learning disabilities (LBLD) make stunning progress with targeted, intensive, skills-based instruction under Landmark's Six Teaching Principles.

Some strategies that may help children who have reading problems i.e problems with decoding, comprehension, or reading retention are play word games, read every day, model reading as an enjoyable activity, put learning to use, listen to books, read to child every night, engage children's senses while learning.

Writing intervention strategies involved a safe environment for writing, encourage a variety of writing activities and free writing.

Some strategies that may help children who have math problems may include teaching basic concepts using concrete objects, providing specialized materials, applying mathematical concepts to day to day situation, playing math game etc.

Study skills intervention strategies follow methods viz. SQ3R Method of Reading, Memory Strategies and Learning Preferences.

3.10 Refereces

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Notes

মানুষের জ্ঞান ও ভাবকে বইয়ের মধ্যে সঞ্চিত করিবার যে একটা প্রচুর সুবিধা আছে, সে কথা কেহই অস্বীকার করিতে পারে না। কিন্তু সেই সুবিধার দ্বারা মনের স্বাভাবিক শক্তিকে একেবারে আচ্ছন্ন করিয়া ফেলিলে বুদ্ধিকে বাবু করিয়া তোলা হয়।

— রবীন্দ্রনাথ ঠাকুর

ভারতের একটা mission আছে, একটা গৌরবময় ভবিষ্যৎ আছে, সেই ভবিষ্যৎ ভারতের উত্তরাধিকারী আমরাই। নূতন ভারতের মুক্তির ইতিহাস আমরাই রচনা করছি এবং করব। এই বিশ্বাস আছে বলেই আমরা সব দুঃখ কষ্ট সহ্য করতে পারি, অন্ধকারময় বর্তমানকে অগ্রাহ্য করতে পারি, বাস্তবের নিষ্ঠুর সত্যগুলি আদর্শের কঠিন আঘাতে ধূলিসাৎ করতে পারি।

— সুভাষচন্দ্র বসু

Any system of education which ignores Indian conditions, requirements, history and sociology is too unscientific to commend itself to any rational support.

— Subhas Chandra Bose

(Not for sale)