LEARNING DISABILITIES
Chapter 1

Historical Perspective

“No other disabling condition affects so many people and yet has such a low public profile and low level of understanding as LD”, Washington Summit 1994 (Reid L, et al., 1994).

Morgan, a general practitioner in Sussex, England, published the first case of what is now known as dyslexia, a word derived from the Latin word “dys”, which translates to ‘difficult’, and the Greek word “lexia”, which translates to ‘words’; it literally means, “difficulty with words”.

On 7th November, 1896. Morgan wrote in the British Medical Journal, about Percy F., a 14-year old, who was intelligent, bright, quick with learning games, and the intellectual equal of his peers, but fell behind, in his inability to learn how to read.

Today, as in 1896, most people associate intelligence with the ability to read, but Percy F. and the experience of millions of people with dyslexia breaks down the relationship between reading and intelligence. Researchers were left with the question, “What causes dyslexia if intelligence is not the marker?” (Snowling MJ, 1996).

Morgan and Hinshelwood, an ophthalmologist also writing at the turn of the Century, speculated that such difficulties with reading and writing were due to “congenital word blindness”, and for many years, the dominant view was that dyslexia was caused by visual processing deficiencies. There is still interest in the role of visual factors in the etiology of dyslexia, especially in low level impairments of the visual system. However, the most widely accepted view today is that dyslexia is a verbal deficit and can be considered part of the continuum of language disorders. Indeed, converging evidence supports a specific theory, that dyslexic readers have phonological (speech) processing deficits (Snowling MJ, 1996).

The identification and description of Learning Disabilities as being deficient general learning processes centering mostly on what we today call distractibility, hyperactivity and visual-perceptual and perceptual-motor problems began in the Western world in the 1950s and 1960s (The Nalanda Institute, 2002).

The major developments of the LD movement during this period centered on children who appeared normal in many intellectual skills, but who also displayed a variety of cognitive limitations that seemed to interfere with their ability to read, write and learn in the classroom. LD was seen primarily as a processing disorder with difficulty in cross-modal integration (Karanth, 2002).

Dyslexia at this stage was a term coined to describe right brained thinkers who have difficulty in reading, think in pictures and are very imaginative and multidimensional (Eklavya School). Famous personalities, Walt Disney and Albert Einstein were cited as examples.

It was a unanimous thought even at this time that these children needed to be accommodated in the mainstream class and rather than expecting them to mould themselves to the system, the system
needed to become flexible to adapt to their needs. Gardner’s theory (1983) of Multiple Intelligences talked of different ways to teach these children. In addition, detailed assessments in various processing areas such as auditory or visual sequencing, auditory/visual memory and discrimination (which are still included in most test batteries for LD) resulted in specific remedial measures to deal with a deficient processing pathway.

The 1980s, however, witnessed a renewed emphasis on the association of language disturbances with Learning Disabilities (Karanth, 2002). Today it is accepted that LD is a language based disorder.

In the years following the report on the first case of dyslexia, different types of specific learning disabilities were defined: dyslexia (difficulty in reading), dysgraphia (difficulty in writing), dyscalculia (difficulty in numbers and mathematical concepts) and dysnomia (difficulty in naming). Simultaneously dysphasia (expressive language difficulty) was also being noted together with receptive language difficulties (Karanth, 2002).

Today all these are included under the umbrella of Specific Learning Disability (SLD). Hence using the word dyslexia interchangeably with LD is technically incorrect.

It is important to remember that a Specific Learning Disability, as the name suggests, includes difficulties in specific processing areas as opposed to global difficulties in children with compromised intelligence (Karanth, 2002).

**Federal Definition of LD**

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

“Specific Learning Disabilities means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, spell or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, or mental retardation, emotional disturbance or environmental, cultural or economic disadvantages.” (Federal Register, 1977, p. 65083) (Karanth, 2002).

The LD movement in India is of more recent origin and comparable today with that of the western LD movement of nearly half a century ago.

In the eastern world, LD was earlier considered a problem of English speaking countries. The apparent lower incidence of these types of difficulties resulted in a relative lack of concern about LD in Asian countries such as India and China. Reports of lower incidences of LD in the eastern world were attributed by Western scholars to the general lack of awareness and sensitivity among educationists. The specific difficulties faced by children learning to read were attributed to the overcrowded classrooms. At the same time, reports of the high incidence of problems associated with the acquisition of reading in Western countries was attributed by easterners to the vagaries and complex nature of alphabetic writing systems such as English (Karanth, 2002).

During the last decade or two, however, there has been an increasing awareness and identification of children with LD in India. Despite this growing
interest, we still have no clear idea about the incidence and prevalence of LD in India.

Epidemiological studies of LD are fraught with difficulties ranging from the very definition of LD, identification and assessment, to sociocultural factors unique to India. The Federal definition implies key factors: adequate intelligence, appropriate instruction and sociocultural factors. The implications of these terms for identification of children with LD in a pluralistic society such as ours are immense and cannot be easily handled (Karanth, 2002).

The inherent complexities of the notion of LD are further complicated by an acute lack of teacher awareness, of clear-cut assessment procedures or indigenous tools for assessment of processing deficits, intelligence testing and testing for proficiency in reading and writing (Karanth, 2002).

The examples given demonstrate the difficulty these children have with processing and using language, be it spoken or written.

**Difficulties with Language of Print**

**Reading Difficulties:** Unable to read, poor tracking, reading errors.

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Spellings of a 9 year old boy in Std IV; not only are the formation of letters reversed, he is unable to differentiate the sounds in words and associate them with correct letters. He is a very bright child and can give all answers orally.

**Sample of a 11 year old in Std VI showing difficulty with vowels**
Difficulties with Oral Language

Expressive Language

Children with expressive language difficulties exhibit slow vocabulary growth, pronunciation difficulties, difficulty in expressing (single words, poor/wrong retrieval of words, poor answering and narrative and conversational skills) and Grammatical difficulties.

Difficulty with word retrieval

4.5 year old boy
Teacher: “What do you want Karim?”
K: (pointing to car) ”that”
T: What is “that”
K: (still pointing to car) That, want that

Whilst narrating a story

They escaped the tiger from getting eaten.

On a hot day:

I am shivering, put the fan on!

Father comes home late from work

Why are you so early Papa?

Pronunciation difficulties – igruler/irregular come/become, set/let

8 year old girl in Std III has difficulty with visual sequencing (circled incorrect matches..letter/numbers are in incorrect order)

10 year old boy in Std V (repeating) has difficulty with sounds and letters (top) and though he has given incorrect answer re: friction (below), when asked orally was able to answer correctly
10 year old girl in Std IV has great difficulty in expression, speaks in single words, and has great difficulty in retrieving the words. For example if asked to point out the color brown (identification), she will do so, but if asked to name (naming) a brown object, cannot do so.

Often retrieves the wrong word
Teacher: Whose gado is it?
Child: Mario
Teacher: r…r..
Child: Ratan
(the word is Ramu)

However in exercises offered as a multiple choice, she will pick out the correct answer as seen below

Oral samples of a 12 year old English speaking girl shows incorrect retrieval of words as well as difficulty in putting the words in correct sequence

10 year old boy in Std V shows grammatical difficulties as well as difficulty in word order in his mother tongue (Konkani)
Read the following lines and answer the questions given below:

“I took them gently in my hand and stood high on my toes”

What does “them” refer to?

Examination sample of a 12 year old girl in Std VI speaks in single words, has great difficulty in forming sentences. Was unable to form a sentence to give the answer; however when asked orally, immediately gave the correct reply “glasses”. She has subsequently tried to fit the word, “gass” incorrectly spelt into her sentence.

Receptive Language Difficulties

Difficulties with processing sounds affects understanding which in turn

Difficulty with sequencing, linking thoughts, difficulty with concepts.

Difficulties with usage

9 year old English speaking boy asked to write 10 - 15 lines for an essay. Tells mother “why 10 - 15 lines, it should be 1-15 lines”

“We start from 1st line to 15, not from 10 to 15”

Diagnostic and Statistical Manual–IV Definition

The definition of Learning Disability as per the Diagnostic and Statistical Manual – IV (DSM-IV) (American Psychiatric Association, 1994):

Learning Disorders are diagnosed when the individual’s achievement on individually administered, standardized tests in reading, mathematics or written expression is substantially below that expected for age, schooling and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living.

Learning disorders are of four types: Disorders of Reading, Disorders of Mathematics, Disorders of written expression and Learning disorder not otherwise specified (NOS) (American Psychiatric Association, 1994).

In fact, many institutions use a discrepancy of 2 years between ability and performance as a marker of LD, provided that other factors, emotional
disturbance or environmental, cultural or economic disadvantages have been excluded.

Various terms are used to describe specific learning disabilities. A person may exhibit one or more of them.

Some of them are as follows (codes provided are ICD-10 and DSM-IV, respectively). (F80.0-F80.2/315.31)

**Dysphasia/Aphasia** - Speech and language disorders
- Difficulty producing speech sounds (articulation disorder)
- Difficulty putting ideas into spoken form (expressive disorder)
- Difficulty perceiving or understanding what other people say (receptive disorder). (F81.0/315.02)

**Dyslexia**
The general term for reading disability which involves difficulty in phonetic mapping, where sufferers have difficulty with matching various orthographic representations to specific sounds.

Some claim that dyslexia involves a difficulty with sequential ordering such that a person can see a combination of letters but not perceive them in the correct order. (F81.1/315.2)

**Dysgraphia**
The general term for a disability in physical writing, usually linked to problems with visual-motor integration or fine motor skills. (F81.2-3/315.1)

**Dyscalculia**

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### The ICD-10 1999 Definition of LD

The ICD DSR (International Statistical Classification of Diseases and Health Related Problems) is a detailed description of known diseases and injuries. Published by the World Health Organization, it is used world-wide for morbidity and mortality statistics, reimbursement systems and automated decision support in medicine (GEON, 2005).

Learning disorders (LD) refer to a significant deficit in learning due to a person’s inability to interpret what is seen and heard, or to link information from different parts of the brain (GEON, 2005).

Learning disorders can be classified into three major types: disorder of written expression (DWE); reading disorder (RD); and mathematics disorder (MD).

The description of learning disorders corresponds to the educational legal designation of learning disabilities. Learning disabilities are legally defined in a law called the Individuals with Disabilities Education Act, or IDEA.

The rules and related laws of IDEA stipulate that children with LD are entitled to free education and special services. A fourth category of LD has also been established for an LD that does not completely fit into any category (called an LD not otherwise specified) (GEON, 2005).

The difficulty with LD is that:

(a) The DSM and ICD definitions of LD are medical and used as a marker for eligibility for special education facilities; however LD primarily requires educational interventions.

(b) The federal definition adopted in India is based more on processing difficulties,
however without a national policy for LD and standardized assessment procedures, this adoption is almost redundant.

Children with LD have difficulty expressing in words. They have related the story of Gautam Buddha (History lesson) in pictures.

Figure 1: The story begins. The king and queen.. praying for a son......
Chapter 2
Incidence and Magnitude of the Problem

With controversies raging regarding the diagnostic criteria for LD, the estimates on the prevalence of LD in the U.S. show marked variation. However, it is a fact that the LD category now accounts for 52% of all students with disabilities served in special education under the Individuals with Disabilities Education Act (IDEA). Between 1976–77 and 1996–97, the number of students serving as LD increased from 797,213 to 2,259,000, a 283% increase (Macmillan, et al., 1996).

The spectrum of difficulties and their severity makes diagnosis of SLD extremely difficult especially when they are confounded by environmental, cultural and economic disadvantages.

In India these factors namely, the poor exposure of many of these children to education, knowledge and language makes diagnosis even more problematic.

Developed countries today face some of the same difficulties due to large number of children from immigrant populations; the diagnosis of SLD is certainly not easy.

An important landmark in the history of LD was the Washington Summit on Learning Disabilities in 1994. At the summit, the prevalence of LD was quoted as 15% of the population. Among the array of learning disabilities, deficits in basic reading skills were the most prevalent (Reid L, et al., 1994).

Some of the areas of concern were:

1. The most recent scientific discoveries about learning disabilities have exciting implications for helping children, but they have not been quickly translated into appropriate interventions for students with learning disabilities, particularly in the education system.

2. The field of learning disabilities is somewhat fragmented across a number of academic and professional disciplines. Each of these groups has focused on different aspects of LD, which has led to disagreements and differences in priorities; there are few formal communication channels.

3. Despite substantial gains that have been made via federal legislation for those with learning disabilities since the passage of Public Law 94-142, known now as the Individuals with Disabilities Education Act (IDEA), and the Americans with Disabilities Act, the uneven and uninformed implementation of the law has led to many tragic failures.

4. Statistics: The numbers and the tragedies:
   - 50% of all students in special education in the public schools have learning difficulties (US Dept of Education, 1992).
   - 75-80% of special education students identified as LD have their basic deficits in language and reading (National Institute of Health).
• 35% of students identified with learning disabilities drop out of high school. This is twice the rate of their non-disabled peers. (This does not include the students who are not identified and drop out). (National Longitudinal Transition Study Wagner, 1991).

• 60% of adults with severe literacy problems have undetected or untreated learning disabilities. (National Adult Literacy and Learning Disabilities Centre, 1994).

• 50% of the juvenile delinquents tested were found to have learning disabilities. (National Centre for State Courts and Educational Testing Service, 1977).

• Up to 60% of adolescents in treatment for substance abuse have learning disabilities. (Hazelton Foundation, Minnesta, 1992).

• 62% of learning disabled students were unemployed one year after graduation. (National Longitudinal Transition Study Wagner, 1991).

• Learning Disabilities and substance abuse are the most common impediments to keeping welfare clients from becoming and remaining unemployed according to the 1992 report of the Inspector General (Reid L, et al., 1994). As a follow up to the Learning Disabilities Summit: Building a Foundation for the Future, the Office of Special Education Programs (OSEP) in the U.S. Department of Education brought together a group of researchers for a meeting on November 29-30, 2001.

They concluded as follows:

*It is difficult to know the true prevalence rate of specific learning disabilities.* However, based on reading research, conducted largely in the elementary grades, we know that high quality classroom instruction is a way to meet many of the educational needs of individuals with learning difficulties. Also known as supplemental intensive small group instruction can reduce the prevalence of learning difficulties. Even with these interventions, approximately 6 percent of students may exhibit specific learning disabilities and will need special education interventions. Prevalence rates of students with specific learning disabilities involving math and written expression are difficult to estimate given the current lack of research evidence (Cook L, et al., 2001).

**The Situation in India**

We need to learn from these experiences. At present, in India, LD is considered the prerogative of a few in the big cities. Even Directors of State Education are known to express doubts at the existence of any such disability. Unfortunately, the confounding factors of English as a foreign language and lack of proper education and exposure whilst aggravating the academic difficulties for the children, also play a major part in masking the processing problems and hence make LD an elusive entity. Teachers attribute the learning difficulties to a “language problem”, not realizing that LD too is a language based disorder.

Most of the (research and intervention) work in the area of LD is being done by private organizations and the NGOs. There is little communication between these organizations and the state educational authorities. Adding further to the problems, there is a divide between the personnel in the health and the educational fields, be they private or government.
LD as all other developmental problems is both a health and an educational issue, but regrettably, the meeting point between the two is few and far between.

The multilingual social context in India, where children often have to learn to study through a medium other than their mother tongue is a complexity that makes not only diagnosis extremely difficult but also, estimation of prevalence next to impossible.

The language issue is further compounded by factors such as age of enrolment in school, pre-school exposure and literacy support available in their respective homes during the school years. Consequently, relating “adequate instruction” and “social opportunity” as is required by definition of SLD to children from varied backgrounds (from an urban child enrolled in pre-school at age 2½ years with early and sustained support to a rural child attending school for the first time at age 6½ years with no additional literacy support of any kind is a tremendous challenge (Karanth, 2002).

If this is true of identification and assessment, the challenges faced with respect to remediation and management are no less daunting. Our educational system with its overwhelming emphasis on knowing rather than learning, theory rather than application, is ill-suited for the child with LD. The overwhelming influence of Western thought with lack of indigenous research has led to a situation where even ones strengths are turned into liabilities, an example being the ‘phonemecisation’ of the Indian scripts under the influence of the phonic method of the West.

The near total lack of alternate systems of education and the social premium for a handful of vocational courses with an utter disregard for all other vocational training are other major hurdles in the ‘education’ of the child with LD. These are but some of the issues faced by the individual and the family of the learning disabled, to date in India (Karanth, 2002).

An epidemiological study (1995–2000) of child and adolescent psychiatric disorders in urban and rural areas of Bangalore, was done by the Dept of Psychiatry, Epidemiology and Biostatistics, National Institute of Mental Health and Neuro Sciences, Bangalore to determine prevalence rates of child and adolescence psychiatric disorders for the Indian Council of Medical Research. The total prevalence rate in 4-16 year old children in urban middle class, slum and rural areas was 12%. However the children with SLD were eventually excluded from this study as most of them lacked adequate schooling as per the ICD-10-DCR criteria for SLD. In addition, many of the assessments were incomplete due to lack of cooperation for the lengthy testing for Specific Learning Disabilities (Srinath S, et al., 2005).

The prevalence study on Learning Disability conducted at the L.T.M.G. Hospital, Sion, Mumbai reveals that of the total number of 2,225 children visiting the hospital for certification of any kind of disability, 640 were diagnosed as having a Specific Learning Disability. These children came from the lower, middle and upper middle socio-economic strata of society. Referral was due to their poor school performance (LTMG, 2006).

Studies conducted by the Sree Chithira Thirunal Institute of Medical Sciences and Technology in Kerala in 1997 revealed that nearly 10% of the childhood population has developmental language disorders of one type or the other and 8-10% of the school population has learning disability of one form or the other.

The Institute for Communicative and Cognitive Neurosciences (ICCONS), Kerala, has been conducting research programs in child
language disorders and developing research and rehabilitation programs for learning disabilities. Screening for LDs for Classes I to VII in schools with follow up assessments by experts in 10 panchayats in Kerala revealed that 16% of these school children have a learning disability (Suresh, 1998).

Other studies have been done at child-guidance clinics in India (Khurana, 1980; John & Kapur, 1986) where 20% children attending the clinic were diagnosed to be scholastically backward. However, variables such as the socio-economic class, exposure to language act as confounding variables in such clinic-based studies (GEON, 2005).

Figure 2: A sample Siddhartha, a loving son
Dyslexia is not a transient lag in development (Bruck, 1992; Francis, et al., 1996; Shaywitz, 2003). It is a persistent condition that will not fade away with brain maturation. It is critical that children at risk for dyslexia begin treatment as early as possible. More significant is the successful outcome of early intervention than the one that is initiated later. (Lyytinen, et al., 2005; Torgesen, 1998; Hinton 2006).

If LD is etiologically related to heredity and abnormalities in the brain, is treatment futile? The structure of the brain is a function of a synergistic interaction of genetics and experience.

Neural circuitry is continually constructed and reconstructed in response to experience. Consequently, while genetic predispositions influence the architecture of the dyslexic brain, there is considerable potential for functionally significant structural modification (Shaywitz, 2003). Therefore, it is crucial that individuals at risk for dyslexia receive effective treatment (Hinton 2006).

This implies that though LD is not curable, there is much scope for using compensatory mechanisms to alter functional gaps which are to be initiated early to ensure that the disability is not aggravated further. The child must be able to develop and learn to the best of his/her potential.

Early intervention presupposes early identification. At present, there is no universally standardized screening procedure to guide referrals from schools.

The Schwab Foundation for Learning has a grade specific checklist to help identify “at risk for LD” children. This list is comprehensive and usually followed by organizations working in the field of LD (Schwab Learning, 2002).

The checklist for LD in the Sarva Shiksha Abhiyan Manual (SSA, 2003) is also a helpful tool for initial screening by teachers in the schools. However, at present, the assessment itself is being used as a screening/identification procedure. The children are referred for assessment by the school/teacher for reasons of failure, underachievement or behavioural problems. For the same reasons, parents may take the child directly, and avail of examination concessions that exist in some states. In the rural areas, there is near zero awareness of LD and practically no assessment facilities.

Assessment

Before a specialized evaluation of a student is conducted, pre-referral discussions by teachers regarding the nature of the problem, and what possible modifications to instructions in the classroom might be made are important.

The child must be assessed in all areas related to the suspected 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 a long process requiring several sessions with a qualified educational psychologist. Apart from administering a battery of tests, the psychologist also gathers relevant information about the child from the teachers and school records.

The assessment procedure for LD involves the following steps:

**Parental Consent and Parent Interview**
- Parents’ consent must be obtained before evaluating the child. The academic, developmental and medical history along with the linguistic 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, provision of accommodation and modifications to the child.

**Gathering Information from the Teachers/School**

The psychologist must also observe the child in his/her school setting to know about the child’s performance and behavior in the class, and gain insights from the teacher.

Review of previous grades will show the pattern of academic progress. These may throw light into the problem areas of the child. A student’s current classroom performance can be compared to Test scores.

**Looking at Student Workbooks**

Regrettably, in the present educational set up, very often the notebooks don’t reflect the learning difficulties faced by the child due to rote learning especially when the child can easily copy from the blackboard. The examination papers may give a clearer picture of the specific nature of difficulty.

Only through collecting data through a variety of approaches (observations, interviews, tests, curriculum-based assessment, etc.) and from various sources such as parents, teachers, peers, adequate picture be obtained of the child’s strengths and weaknesses. Synthesized, this information can be used to determine the specific nature of the child’s special needs, whether the child needs special services and if so, to design an appropriate program. (National Information Centre for Children and Youth with Disabilities, 2000).

A number of approaches being used recently include *curriculum-based assessment, task analysis, dynamic assessment, and assessment of learning style.*
These approaches yield rich information about students and are especially important when assessing students from culturally or linguistically diverse backgrounds, and therefore, are critical methods in the overall approach to assessment. (National Information Centre for Children and Youth with Disabilities, 2000).

**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).

**Testing**

Though increasingly controversial, most assessments for LD include standardized tests.

There are two types of tests.

(i) **Criterion-referenced tests** are scored according to a standard, or criterion decided 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**: Scores on these tests are not interpreted according to an absolute standard or criterion (i.e., 8 out of 10 correct, etc.) but, on how the student’s performance compares with that of the norm group (a large number of representatives of that age group). This helps evaluators determine whether the child is performing at a typical level, below, or above that expected of a given ethnicity, socio-economic status, age, or grade. (National Information Centre for Children and Youth with Disabilities, 2000).

The drawback 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 diverse country like India, each area would have to develop its own norms which would need to be reviewed periodically.

Essentially, the tests for LD have two major components:

2. Testing Processing Abilities.

A two-year discrepancy 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:

2. **Achievement**: Recommended tests include: Woodcock Johnson Psycho-
Educational Battery-Revised, Nelson Denny Reading Test, SATA.


These tests would have to be modified and norms created for children who come from culturally and linguistically diverse backgrounds.

*Exclusion of other disabilities* as the primary cause of learning difficulties is essential. 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 imperative that tests for both receptive and expressive language be included in the assessment procedures.*

**Co-Morbidity with ADHD**

Many children with LD develop secondary inattention and behavioural difficulties; 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 occur simultaneously in 12% to 24% of individuals with dyslexia (Shaywitz, 2003). However, they do not appear to share a common cause (Doyle, 2001; Shaywitz, 2003). Under these circumstances, it becomes difficult to differentiate LD from a Primary ADHD. (National Information Centre for Children and Youth with Disabilities, 2000).

**Other Assessment Procedures**

*Curriculum Based Assessment*

Direct assessment of academic skills (Curriculum Based Assessment) is one alternative that has recently gained popularity. “Tests” of performance in this case come directly from the curriculum. For example, a child may be asked to read from his or her reading book for one minute. Information on the accuracy and the speed of reading can then be compared with other students in the class.

CBA is quick and offers specific information about how a student may differ from his peers. (National Information Centre for Children and Youth with Disabilities, 2000).

Because the assessment is tied to curriculum content, it allows the teacher to match instruction to a student’s current abilities and pinpoints areas where curriculum adaptations or modifications are needed.

CBA provides information that is immediately relevant to instructional
programming. (National Information Centre for Children and Youth with Disabilities, 2000).

The merits of a CBA are lost in a system with a rigid curriculum based mainly on memorization as is true in India where CBA may not be the right option.

Dynamic Assessment

The goal “is to explore the nature of learning, with the objective of collecting information to bring about cognitive change and to enhance instruction” (Sewell, 1987, p. 436). (National Information Centre for Children and Youth with Disabilities, 2000).

Dynamic assessment includes a dialogue or interaction between the examiner and the student. This interaction may include modeling the task for the student, giving the student prompts or cues as he/she tries to solve a given problem, asking what a student is thinking while working on the problem and giving praise or encouragement (Hoy & Gregg, 1994).

The interaction allows the examiner to draw conclusions about the student’s thinking processes and his/her response to a learning situation. The “teaching” phase is followed by a retesting of the student with a similar task but without assistance from the examiner. (National Information Centre for Children and Youth with Disabilities, 2000).

Dynamic Assessment Tools (LPAD) have been developed by Prof. Reuven Feurenstein at the International Centre for Enhancement of Learning Potential (ICELP), Jerusalem.

Of course, dynamic assessment is not without its limitations or critics. One particular concern is the amount of training needed by the examiner to conduct both the assessment and interpret results. Another is a lack of operational procedures or “instruments” for assessing a student’s performance or ability in the different content areas (Jitendra & Kameenui, 1993).

Even with these limitations, it is a promising addition to current evaluation techniques because it incorporates a teaching component into the assessment process. (National Information Centre for Children and Youth with Disabilities, 2000).

Given, the difficulties in diagnosis due to environmental deprivation developing simple dynamic assessment tools would greatly benefit children with learning difficulties.

Learning Styles

We know that all children have different learning styles. A learning style assessment, attempts to determine the elements that has an impact on a child’s learning.

Some of the common elements that may be included here would be the way in which the material is presented (i.e., visually, auditorily, tactiley) in the classroom, the environmental conditions of the classroom (hot, cold, noisy, light, dark) the child’s personality characteristics, the expectations for success that are held by the child and others, the response the child receives (for example, praise or criticism) and the type of thinking the child generally utilizes in solving problems (for example, trial and error, analyzing). Identifying the factors that positively impact the child’s learning are very valuable in developing effective intervention strategies. (National Information Centre for Children and Youth with Disabilities, 2000).

Outcome-based Assessment

Outcome-based assessment involves considering, teaching and evaluating the skills that are important in real-life situations. Assessment,
from this point of view, starts by identifying what outcomes are desired for the student (for example, being able to use public transportation). The team then determines what competencies are necessary for the outcomes (for example, the steps or sub-skills the student needs to have mastered to achieve the outcome desired) and identifies which sub-skills the student has mastered and which he/she needs to learn. (National Information Centre for Children and Youth with Disabilities, 2000).

This type of assessment though generally used for the mentally challenged or autistic, may also be used for children in the general classroom with severe behavioural difficulties.

Assessment of the Culturally and Linguistically–Diverse

Because culture and language affect learning and behavior (Franklin, 1992) the school system may misinterpret what students know, how they behave, or how they learn. Students may appear less competent than they are, leading educators to inappropriately refer them for assessment. Once referred, inappropriate methods may then be used to assess the students, finally leading to inappropriate conclusions and placement into special education.

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., 2002).

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).


d. Reading, writing, spelling and comprehension.

e. Speech and Language including Auditory behaviour (Receptive Language) and Verbal expression.


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. Counseling.
Most private institutions in India follow some, if not all of these procedures.

In our country where numbers often determine procedures, it would be beneficial to provide basic facilities for assessments within the educational setting. The reasons are overwhelming:

• Children experiencing delays or learning problems may be screened at the first level, provided with timely help and only those requiring further assessment would need to undergo further testing.

• Ideal assessment procedures being very elaborate, cannot be completed in a single session.

• Attending clinics and hospitals would be difficult for the parents from a lower socio-economic background.

• Information can be easily gathered from within the school. Observation of the child in the educational setting would be preferable to those made in a clinic.

• The assessment team could include a psychologist, special teacher/educator, class teacher which, with input from the parent and child, would facilitate a comprehensive assessment of the child.

• Assessment procedures would include instructional planning, placement and development of an Individualized Education Program (IEP) appropriate to the child’s special needs with a follow up evaluation of student progress.

• Eligibility for special education services/classroom and accommodations/modifications is best determined by a knowledgeable school team.

Given the lengthy assessment procedures, it is vital that proper pre-referral procedures are formulated for implementation. Teacher-training would avoid over referral.

Figure 5: Siddhartha growing up with friends
The exact cause of SLD is not yet known. Genetic factors and brain insult in the antenatal, natal and postnatal periods are possible etiologies. There is no cure for SLD, either medical or through other measures. However, the difficulties due to LD in the areas of reading, spelling, expression, etc., can be managed effectively with timely and appropriate intervention.

Processing information in the brain is a multi path process; hence, strengthening alternate modes of processing, building language and cognition are good compensatory strategies.

Possible Preventive Measures in Schools

Prevention of the effects of LD involves early identification and intervention for language development.

Language development and Phonetics are important areas to focus on.

In the US and UK as part of prevention and early intervention for reading difficulties, synthetic phonetics is now a compulsory part of the curriculum.

Synthetic and Analytic Phonics

Phonological awareness is an essential skill for reading, writing, and listening.

There are two main approaches to teaching phonics: analytic and synthetic. Both approaches require the learner to have some phonological awareness (the ability to hear and discriminate sounds in spoken language).

Synthetic instruction first presents the parts of the language and then how the parts work together to form a whole.

Analytic instruction presents the whole first and then how to break it into its component parts (Special Focus, 2005).

Synthetic phonics involves the development of phonemic awareness from the outset. As part of the decoding process, the reader would learn up to 44 phonemes (the smallest units of sound) and their related graphemes (the written symbols for the phoneme). The reader would be expected to recognize each grapheme and then sound out each phoneme in a word, building up through blending the sounds together to pronounce the word phonetically. This approach works well with phonetically regular words (Special Focus, 2005).

Some of the most popular synthetic approaches involve a highly systematic whole-class teaching program that is usually started very early in primary school. The sounds and their corresponding written symbols are taught in quick succession—up to five or six sounds per week. A multi-sensory approach is included where children see the symbol, listen to the sound, say the sound accompanied by action. This multi-sensory approach appears to support most learners in remembering many of the sound-symbol relationships (Special Focus, 2005).
Approaches that use a phonics drill may seem effective in the short term, but unless they are embedded within meaningful and purposeful texts and reading activities, they may well remain to be viewed as exercises for school and not as reading ‘for real’. Wray and Medwell (1999) reported that the most effective teachers of literacy put into context, the skills needed for decoding using meaningful texts for a real purpose (Special Focus, 2005).

**Multi Sensory Teaching**

All learning takes place through various senses. Babies learn a lot through a tactile approach (feeling, touching, and mouthing). In pre-school, kinesthetic activities (activities involving movement) enhance learning. For example, the child learns about a circle by forming a circle at play. The visual mode with some pictorials, but mainly copying from the board is popular in primary school; auditory input here is mainly repetitive rote (repeating poems or facts) and in secondary school there is an inevitable shift to the auditory mode of learning (only lectures) with much visual (print) in the form of the text book.

Using a multi-sensory teaching approach means helping a child to learn through more than one of the senses. A child with LD may experience difficulties with either the visual or auditory or both of these modes. The child’s visual processing may be affected and he/she may have difficulties with tracking and directionality. The child’s hearing may be satisfactory on a hearing test, but auditory memory or auditory processing may be weak.

The answer is to involve the use of more of the child’s senses, especially the use of touch and movement (kinetic). This will give the child’s brain tactile and kinetic memories to hang on, as well as the visual and auditory ones (Bradford J., 2000).

The training programs of Orton-Gillingham Institute for Multi-Sensory Education are based on the Orton-Gillingham method of reading instruction developed by Orton and educator Gillingham. This methodology utilizes phonetics and emphasizes visual, auditory and kinesthetic learning styles.

In India, mainly the lecture and blackboard method of teaching is used. This poses difficulties for children with auditory or/and visual processing problems. For them, activities involving self, drama, music, pictorials and use of audio-visual aids are essential, for example, learning alphabets through sandpaper cutouts, tracing, movement, sounds, etc. Similarly, activities that demonstrate concepts, such as, rotation and revolution in geography either through craft activities or role play will ensure understanding of the concept.

Advancement of technology is a boon. Teachers can use multi-media presentations in performing their tasks.

**Interventions**

Several components constitute interventions for individuals with LD. First, they need intensive,
targeted treatment aimed at developing phonemic awareness, phonics and fluency. Also needed is instruction in vocabulary, background knowledge, and comprehension strategies (Hinton, 2006). Reading programs through library activities, for example, story telling and individualized remedial reading sessions are essential.

The reading programs developed in the Western world are not suitable in the Indian context. Most of our children will need input in language development and enhancement of vocabulary alongside the phonemic awareness activities. For example, asking an Indian child to list words rhyming with ball will not work, as words like call, hall, and mall are not in his/her vocabulary. Development of indigenous programs and tools would be extremely beneficial. All reading programs must be linked with language development programs.

Many children with LD have difficulty with expressive language. Though it is important to encourage usage, it is crucial that these children be evaluated for non-language subjects through more multiple choice questions, drawings, etc., to avoid repeated failures.

As linking and retrieval of information is also a major difficulty, strategies to help them are: use of cues, prompts and development of pictorial mapping techniques. Finally, intervention should focus on preservation of self-esteem. Individuals must be supported and praised as they learn; motivation being an important ingredient of success (Hinton, Dyslexia Primer).

One must remember that many children with LD are very bright and may show brilliance in other areas. Hence they should be encouraged to nurture the development of their talent, be it in athletics, music, art, science, writing, or mathematics.

Figure 7: Three dimensional brilliance in an 8-year old child with LD

Pre-school Intervention

At present there is no standard developmentally appropriate pre-school curriculum followed in our country. This in itself creates difficulties and for children at risk for LD, aggravates the problem.

A diagnosis of LD is not made before a child is 7 years old which is the time when the brain matures. However, there are many warning signs (Schwab Learning, 2002) and interventions to help the LD children must be initiated at this level.

Pre-school intervention should focus on (a) Language development, (b) development of fine motor and visual motor skills. Adaptations of the Developmental Program in Visual Perception (Frostig, et al., 1972) can be included as a part of the regular pre-school curriculum, and (c) Synthetic and Analytic Phonics as mentioned earlier.

Children “at risk” for LD receiving timely help are able to cope much better as they move into the next level of schooling.
Interventions at Primary School

Interventions should focus on developing and strengthening language and basic skills of reading, writing and arithmetic. In addition ensuring that children are allowed to “think” for themselves, to develop higher cognitive functioning is vital.

A reading strategy developed by Das based on the PASS (Planning - Attention - Simultaneous - Successive) theory of cognitive development (Das, JP, 1998) may be used. This program is being used at the Maharashtra Dyslexia Association in conjunction with other remedial measures.

Emotional development must be incorporated into language-teaching with the ability to express emotion, both positive and negative, appropriately, a vital aspect of education.

Interventions at Middle School

Middle school is the time when the foundation for Sciences and Social Sciences are laid. Children with LD have great difficulty in memorizing, retrieval and linking of information. If they also have difficulties with learning English as a second language, failure is likely in every aspect of learning. Interventions at this stage, in addition to continuing language development and basic skills, must focus on teaching of concepts, critical thinking, and problem solving whilst encouraging creativity and divergent thinking.

Interventions at Secondary School (Std. VIII to X)

In these classes children must be provided with ways and means to complete school successfully so they can grow into confident, motivated individuals with their self esteem intact. Accommodations and modifications of curriculum are essential for this. At present the Maharashtra Board, ICSE and CBSE Boards do offer some concessions during examinations. There are some difficulties associated with this:

(a) Hospital certification required.
(b) Tendency for inappropriate referral.
(c) Inability of parents, especially those on daily wage to take the child for testing.
(d) Who will be the writer?
(e) Having a writer does not encourage the child to write.
(f) Stigmatization.
(g) Given the battery of tests and need for observation of the child in the school for making a reliable diagnosis, assessments are neither practical nor are they related to the school work.

An ideal situation would be to offer children a choice of subjects at SSC level as mentioned in Chapter 6 under Vocational Opportunities. Certification and Accommodations/Modifications would still be needed by some children, but these would be much fewer in number.

The Directorate of Education, Govt of Goa, is initiating a novel pilot project for introduction of a ‘SSC Special’ for children with learning difficulties. This will include work experience subjects instead of higher maths and specialized sciences.

Accommodations and Modifications: Adjusting the Classroom Experience

Accommodations

Accommodations provide different ways for children to take information or communicate their knowledge back. The changes don’t alter or lower the standards or expectations for a subject or test. A child with delayed reading skills can participate
in class discussions about a novel if she/he has listened to the audio tape version of the book. A child with poor writing and spelling skills may use assistive technology (tape recorder or word processor) rather than struggle with pencil and paper to do her report.

Accommodations would include classroom alterations such as seating the child in front, alterations in class work and homework such as individualizing assignments, regarding length, number, due date, topic and alterations in examinations such as multiple choice questions, oral examinations, reading of question paper, allowance for spelling errors (Schwab Foundation, 2006).

**Modifications**

Modifications are changes in the delivery, content, or instructional level of subject matter or tests. They result in changing or lowering expectations and create a different standard for kids with disabilities than for those without disabilities. Modifications mean that the curriculum is changed quite a bit (Schwab Foundation, 2006).

A fifth grade child with a severe math disability who isn’t ready to learn fractions and decimals may still be working on addition and subtraction. This means that his instructional level has changed significantly (second, not fifth, grade instruction) (Schwab Foundation, 2006).

**Present accommodations and modifications, commonly called concessions, being offered by some secondary boards in India are provision of a writer, reader, extra time, exemption from second and/or third languages, etc.**

Interventions are many, but none can equal good teaching practices. In addition, listing of interventions is meaningless without a National Program of Prevention and Intervention in the Indian context.

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**Figure 8: Siddhartha, the chariot ride**
Chapter 5

Education

The Quality of Education Imparted

As stated at the OSEP meet in November, 2001, “We know that high quality classroom instruction is a way to meet many of the educational needs of individuals with learning difficulties” (Cook L, et al., 2001).

Language is a vehicle of communication, expression of needs and thought; it is a medium of learning, a tool for social interaction.

Language can only be developed through a period of time with allowance for errors during development.

Children, especially from less privileged socio economic homes, do not have much exposure to language; their language develops mainly through the school experience. The school insists on perfectly correct answering skills in rote fashion, right from the entry stage. The child does not develop any independent expressive skills, language which should be a joy is nothing short of drudgery and without language, all other learning is restricted.

The linguistic diversity in India further compounds the problem. A headmaster from a rural school in Goa acknowledges that the children have not developed language skills even, in their own mother tongue.

Specific Learning Disability being language based, this has disastrous effects. Hence children with even mild processing deficiencies have great difficulty in learning and achieving.

If these children are allowed free expression with less stress on errors, there is a tremendous motivation to express and write. In addition their grades show appreciable improvement.
A study by Pratham (NGO) covering 3,000 children in Delhi revealed that 37% of children in the age group 7-10 years in government schools cannot read words and in private schools 16% of these children can read only letters or nothing at all (NGO Forum, 2006). This serious gap needs to be filled.

Also important for all children, is developing higher brain functions like understanding of concepts, and cognitive development through critical thinking, problem solving and encouraging creativity. Some children develop these on their
own, for other children with LD, extra efforts are needed.

At their training level, the teachers are trained in “teaching methodology”. However, they do have difficulty in identifying the concepts to be taught. This results in teaching verbatim from the textbook. In teaching language, the stress is on grammar, rather than communication. Hence, a child may score high marks in a language, but may still not be able to communicate in it. In addition, there is no talk of allowing the child to develop his/her own ideas, deduce meanings from context, and no mention of the encouragement of free expression and linking to emotional growth and development.

In India due to over-crowded classes and the stress on exam oriented learning and large curriculum, multi sensory teaching, experiential learning and encouragement of thinking has not found a place on a regular basis. This has led to a large number of under- or non-achievers and eventually school drop outs.

Ironically, if teachers were to spend time and energy teaching children with LD, teaching would automatically attain a high quality. In other words, children with LD would make better teachers of us all!


**Chapter 6**

**Social Issues, Socio Economic Rehabilitation, Human Resource Development**

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**Diagram 1: Why address SLD?**

**Social Aspects**

Schools play a crucial and formative role in the spheres of cognitive, language, emotional, social and moral development of a child (Kapur, 1995) (Johnson B, 2002)

Academic skills such as reading, writing and mathematics form the foundation upon which a student’s performance at school is assessed. A learning problem may therefore engender feelings of anxiety, inadequacy and shame, leading to behavioral disturbances in children of school age. Any negative feedback from school is likely to have an impact on the emotional, social and family functioning of a child. A review article by Johnson (2002), has thrown light into the significant association between learning disabilities and behavior problems. Many other studies including a retrospective study at Child and Adolescent unit at the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore found that 79% of children with learning disabilities had co-morbid psychological disorders, in which 32% had internalizing disorders such as anxiety, depression, 28% had externalizing disorders such as Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) and 19% had other disorders.

The co-morbidity of developmental dyslexia with both internalizing and externalizing disorders as well as other learning disabilities underscores the need for cognitive and behavioral approaches in the remediation programs offered to children with LD (Muthukumar, et al., 1999).

Early diagnosis and intervention in children with learning disorders makes a substantial improvement in self-confidence and social competency.

**Major Difficulties**

**Labeling**

Many of these children are branded as “stupid”, “lazy” or/and “slow learners”. The presenting symptom being behavioral, the children get labeled as “trouble makers”, a label that sticks because the performance and the behavior continues without appropriate help and interventions. The child may come to believe the label, and may act upto his/her reputation.
Failure and Non-achievement

Repeated failures lead to very poor self esteem, low motivation, further failure and rejection.

In today’s world where academic achievements are the gateway to success in life, the children are under tremendous pressure to excel in the examination, their parents under great stress to see their child find their place in the world, and the teachers are equally pressurized to produce results in the examinations. The burden of academic (examination) achievement affects families and teachers, takes away the joy of not just learning and teaching but the joy of teacher/child interaction as well.

Emotional Development

Both failure and labeling will not only affect the emotional development of these children; they also lack the ability to express their feelings due to the difficulties in expressive language which compounds the problem.

Social Stigma

Due to lack of awareness there is no real social stigma associated with SLD, the stigmatization is more due to the effects of LD, i.e., the behavioral issues, the labeling and non-achievement. At this point, certification without awareness is likely to result in discrimination rather than inclusion.

Parental Difficulties

Since LD is not an obvious disability, it generally takes time for the parents of a child with LD to accept that the child has different needs and requires certain accommodations. “My child is quite okay, why can’t he learn and achieve like other children. Why am I being constantly called by the school to be told how my child is difficult and will not study, is badly behaved and inattentive?” Parents find it hard to understand.

Once the parents recognize the difficulty, they have to take the child for assessments (often stigmatizing) in order to avail of concessions during exams. Many parents are known to spend months, even years rushing from hospital to government offices to even courts of justice to fight for the rights of their child. Concessions, when they are granted are a relief, but the parent and child still have to face the accusations of teachers and other parents who frown upon these as being unfair.

In the Western world, parent support groups including on-line ones are a great help to parents of children with LD. They provide emotional support as well as practical advice and information.

In India, many NGOs have attempted to facilitate parent support groups with little success; parent involvement is still at the “creating awareness” stage.

Parental Involvement and Community Mobilization

“Perhaps most important, parent groups can actually help the whole village” (Woodword L, et al., 2002).

Parents being the greatest advocates, empowering them can bring about major changes in processes and policies that would be beneficial for all children with LD. The involvement of parents can mobilize entire communities to be part of this support movement. However, many children are first generation learners. The parents are happy just to have their child in school; failure means the child has not put in any effort and a good beating should solve the problem!

Tutions are now a norm rather than an exception. Almost all children have been for after-school tuitions including children in Classes I and
II. Much stress has been laid on parents giving “quality time” to their children. Parents of LD children need to give more than that, they need to understand and be involved with the learning of their child. Again, this is all very well for some children, but for others like first generation learners, the parents feel equally helpless and abandoned. The entire burden of looking into the needs of these children has to be shared by the Government, the school system and the parent.

The community must feel the need to be involved in the development of children. Though they are aware of the consequences of academic failure, awareness regarding LD is almost nil.

Community endeavors like libraries, where children with reading and language difficulties can be helped, involvement of Parent-Teacher bodies in sponsoring special teachers, corporate bodies adopting schools will all go a long way in rehabilitating LD children. Corporate bodies may also offer apprenticeship/vocational training for the needy.

Panchayats can also contribute towards creating awareness and organize support services/measures through the community.

**Vocational Opportunities**

In spite of their difficulties in academic areas, many children with LD are creative and very good with their hands as in drawing, mechanical skills, etc. Regrettably, in our present school system, there is no room for such skills.

Waiting for children to fail or drop out before providing vocational opportunities is not sufficient, as it creates discrimination. Though the NIOS (National Institute of Open Schooling) has benefited many children with LD, this is not the ideal solution. Children should be exposed to various pre-vocational skills early in school and then be allowed to choose other subjects such as carpentry, drama, catering, art, etc. whilst graduating from school.

**Capacity Building of Trained Personnel**

If we are to genuinely include children with LD in our education system, there is an urgent need for capacity building of trained personnel in the field of LD. It is vital to train psychologists, special and regular school teachers in understanding and helping these children. In addition, awareness has to be created about LD amongst policy makers, parents and community bodies.

There are only a few hundred psychologists registered with the RCI. Apart from the big cities where there is opportunity for such training, the MA course in Psychology does not include LD. Government schemes that include LD and wherein assessments are mandatory necessitate children going to Government psychologists who apart from the load of their regular work, have little exposure to LD. Given the number of children being assessed, there is a risk of assessment procedures being compromised. There are instances where children with LD have been labeled as “mentally retarded” or “slow learners” which is unethical and needs to be looked into.
If we even take the prevalence of LD to be 5%, the number of children requiring assessments will be substantial. Short term “add on” courses for psychologists can fill the gap between need and availability.

A B.Ed. in Special Education (MR) does not equip the teacher with skills to teach a child with LD. Efforts to help children with LD in regular schools fail because of the insistence by government departments on a Special Education degree. With her involvement in a regular class, a B.Ed. teacher with awareness in LD may be better equipped to run a resource room for children with LD. A Special Educator could then provide additional input for children who are mentally challenged or are autistic.

The B.Ed. degree in Special Education awarded by SNDT College, Mumbai, includes LD. Other Special Education courses do not include specialization in LD.

Keeping in mind recent research that advocates small group interventions for all children facing difficulties in the classroom, a better alternative would be to offer a diploma in LD to regular B.Ed. teachers who are interested in working in the resource room. This will ensure that they are equipped to run the resource room as well as be a part of the regular class.

The B.Ed. colleges could run foundation courses in disabilities for teachers as part of their regular curriculum; this will ensure all teachers gain knowledge in all disability areas.
Chapter 7

Government and Policies

Newspaper Article 2: Policies on LD

The legal definitions view disability strictly from the medical and/or psychometric perspective. This ends up reinforcing a medical model of intervention rather than the much-needed community-based rehabilitation. In the case of LD, the diagnosis has remained in many instances medical; any scheme for children with LD has had to include identification in a hospital. This could lead to inappropriate referral, with the added danger of labeling and stigmatization, it is more discriminatory than inclusive. In addition “there is currently no universally accepted test, test battery, or standard for identifying children with LD” (Reid L., et al., 1994).

The Disability Focus

In India, we are going through a crucial phase in the historical development of LD. As awareness about LD is just in its infancy, there is no stigmatization attached. This is a great opportunity to create non-stigmatizing processes to address the problem. For example, sending children to Hospitals and Psychiatric Institutions (to the lay person a “mental hospital”) is more likely to lead to stigmatization whereas assessment in schools after following thorough pre-referral processes is more child friendly. In fact, present research (Chapter 8) is looking towards non-threatening ways of helping children with LD.

The Indian Context

LD being a developmental disorder, it must be viewed from both health and educational perspectives. At Government level, it is looked at as both a health (disability) and education (education for all) issue.

Legislative Actions

The last decade of the 20th Century saw the enactment of three legislations for the rehabilitation and welfare of people with disabilities.

All the three legislations, namely, The Persons with Disabilities Act, 1995; The Rehabilitation Council of India Act, 1992; and The National Trust Act, 1999 are comprehensive in spirit, and together deal with all aspects pertaining to rehabilitation, from prevention, training, employment, long-term settlement, human resource development and research, and documentation (SSA, 2003). However, Specific LD is not included in any of these acts.

The difficulty in diagnosis of Specific LD has made the formulation of a National Policy for these children no easy task. As a result, selected states have tried to provide for children with LD by bringing in their own legislations.

Maharashtra Government

Maharashtra Government has provided concessions for children with LD from Standards I to XII. However in the absence of a National policy, schools in Mumbai have been reluctant to follow these guidelines. There is a general feeling amongst those in the field of education that these concessions will (a) dilute the standards of achievement, and (b) create difficulties with parents of other children. For example a child with LD will not have marks cut for spelling errors and may get higher grades than another, who has produced better work.

These fears whilst being valid emphasize what is wrong with our education system; the focus is not on the child and his/her potential. The system is not designed to ensure all children learn and get educated; rather the child has to fit into the system. Any attempt at flexibility is challenged.

Every child has the right to basic school education. No system has the right to tell a developing child that he/she is a failure. It is not the child who is a failure; it is the rigid system that has failed the child.

Recently, cases have been cited where children with LD have been denied concessions at examinations. In response to the parents’ petitions, the Mumbai High Court directed all schools in Maharashtra to abide by the guidelines for students with LD (Times of India, 22nd July, 2006).

Other states too that are aware of the problem, are struggling to take decisions that will provide for children with LD. The Delhi High Court, for example, recognizing dyslexia as a form of disability, has ordered Delhi University to grant admission to dyslexic students under a three per cent quota for people with disabilities (The Tribune, June 22, 2004).

Goa Govt. Incentive Scheme for Special Children

In February 2005, the Goa Government introduced a novel scheme in promoting education among children with special needs, slow learners and children with LD, in the state (Govt of Goa, 2005). The families of the children with special needs, slow learners and children with LD, are given financial benefits, such as transport, uniform allowance and allowance for aids and appliances. Institutions are also given incentive money in order to promote inclusion. Though a laudable initiative, children with LD primarily require infrastructure that facilitates their learning, such as trained teachers, resource rooms, educational aids, a flexible curriculum and evaluation methods. Here again the absence of proper guidelines has resulted...
There is an urgent need for a National Policy on Learning Disability.

The Education for All Focus

“Although some learning disabilities are now known to be biological in origin, the treatments are more often educational” (Reid L., et al., 1994).

There have been various initiatives in the field of education such as DPEP, National Policy of Education, Total Literacy Campaign and establishment of DIETs, but none of these initiatives address the problems of LD and its related issues.

In recent years, the Government of India has launched Sarva Shiksha Abhiyan for Universalization of Elementary Education. The objective of UEE cannot be achieved without including children with special needs including LD under the ambit of elementary education.

Experiences of programmes like DPEP and various research findings have shown that the number of children with special needs in every district is by no means small. The Ministry of Social Justice and Empowerment, which is a nodal Ministry for disability issues, estimates the number of children having special needs as 5% (SSA, 2003). Given the difficulty in diagnosis of LD, this figure may not be accurate as for children with LD is concerned. At the same time, Sarva Shiksha Abhiyan has included LD in their categorization of children with special needs. “The term children with special educational needs, refers to all those children who are challenged with various problems such as that of vision, hearing, movement, learning, cerebral palsy or mental retardation” (SSA, 2003).

Education of children with special needs being a relatively new concept requiring a great deal of technical expertise, a manual has been developed under SSA to initiate, implement and monitor the program of educating children with special needs.

The SSA manual, though comprehensive in many respects, has not given clear cut directives regarding children with LD. Apart from a check list for LD, the structuring of the resource room, aids, teacher training, use of funds, curriculum alterations (accommodations and modifications) have not been defined. As a result, the state governments are still unsure of the steps to be taken with CWSN under the LD category.

The National Curriculum Framework

The National Curriculum Framework, 2005 also recommends an inclusive curriculum that ensures full participation of all children including first generation learners, learning disabled, slow learners and children from SC and ST (NCERT, 2005).

From Paper to Practice

The Government of India is committed to “Education for All”. Inclusion is a key word in India’s current education policy. We have excellent policies and we need to implement them.

Various schemes have been offered for the welfare of the disabled population, but the benefits often do not percolate to the disabled people, their families and organizations that work for them because of lack of awareness. The cumbersome and time-consuming procedures of availing the benefits also create hurdles in implementation.

The experiences of the NGO, Sangath working in the schools in Goa is an example of how a laudable initiative, a Special Needs Scheme by the Government does not get successfully implemented. A letter regarding the provisions for children with special needs was circulated to every school in the State. Due to lack of awareness regarding different types of disabilities, especially
LD, many schools did not relate the scheme to the children studying in their schools and no action was taken. It was also mentioned that the children wanting to avail of these benefits had to be assessed and certified by the psychologist in the government hospital. Though a handful of underachievers from a few schools have been sent for testing, most of the parents are extremely reluctant and upset about going to a “mental hospital” for obvious reasons. There is also lack of clarity regarding paperwork which results in incomplete documentation and hence no benefits.

There is an ongoing need to create awareness about LD in schools and if children are to be certified, this must be done within the school setting by educational psychologists.

To the stakeholders in the field, disability legislation in India seems progressive in spirit but lacking in steam. On the other hand, a strong legislation might remove legal barriers to participation but cannot ensure removal of social barriers.

The use of powerful legislation has the advantage of creating an enforceable right (SSA, 2003). However in the case of LD, the outcome may be more discriminatory than inclusive.

This brings us back to the social attitude towards disability. Most Indians view disability as a matter for charity rather than a human rights issue.

Ms. Annie Koshi, Principal of St Mary’s School in Delhi, which practices inclusion, attributes the lack of non-implementation of inclusion to viewing education of the disabled as an act of charity (India Together, 2006).

She notes that while education is under the Ministry of Human Resource Development, education for those with disabilities comes under the Ministry of Social Justice and Empowerment.

Nothing can be a “more telling statement of how disability is perceived in this country”. This attitude has to shift to a model based on rights and fairness (India Together, 2006).

An NGO initiative to help children with LD through a flexible curriculum and evaluation system in a Government school was severely criticized by the school authorities who felt the present education system had “scope” whereas this new system had “no scope”. The initiative was discontinued by the school authorities despite government support. These samples are from the examination (made flexible through mainly multiple choice and oral exam) papers of a repeatedly failing child (Figures 16 and 17).

The child, who can see would probably be a

![Figure 16: Sample of examination paper](image)
distinction holder, failed again in the next regular examination and has subsequently dropped out of school.

The teachers sympathize with the students, but they will not consider being flexible in their expectations, nor focus on developing the student’s potential; the focus is always on the examination.

Differences in teaching methods, use of multi-sensory tools and a focus on learning make a world of difference to the learning of children with LD. However the examination system often makes it impossible to integrate them. Hence, initiatives in this area have resulted in Special Schools for these children, e.g., Alpha Omega Learning Centre in Chennai and Nalanda Institute in Mumbai.

Special schools are now making room to accommodate children with LD and whilst the world is clamouring for “inclusion” in mainstream schools, it is the special schools that are welcoming children with LD from mainstream schools.

Apart from a few boards like the Maharashtra, ICSE and CBSE boards, other state boards do not offer Secondary School Certificate (SSC) concessions as a policy; hence if these children do graduate they do so from NIOS.
The Role of National Institute of Open Schooling (NIOS)

Many schools catering to children with LD are now using the NIOS for ensuring their children graduate from school successfully.

NIOS operate through a strong network of about 2,200 accredited institutions (academic and vocational) all over India. It also has interaction with many NGOs and other special schools involved in providing educational opportunities (NIOS Network). Children with LD as well as slow learners have to take admission in the NIOS as the regular school evaluation system does not allow a choice of subjects.

However, NIOS is not available at all schools, depriving especially most children from underprivileged backgrounds of its programs.

NGO and Other Initiatives

Most initiatives in the field of LD either involve a special school or services after school hours. The latter provide assessment and/or remedial services. The assessment services are provided by either a psychologist or developmental pediatrician or both, sometimes a speech and language therapist or child psychiatrist (this is because of the co-morbidity of LD with ADHD (Attention Deficit Hyperactivity Disorder).

A few of the many organizations working in the field of LD are mentioned below.

Alpha to Omega Learning Centre, Chennai

A full-fledged school for children with LD using innovative teaching methods, with inclusion of cognitive development programs, and a focus on both academic and non-academic areas of development.

The Centre also runs many training courses and facilitates International seminars on Education and Learning.

The Nalanda Institute for Learning Disabilities, Mumbai

The Nalanda Institute is an independent Trust set up by Schoolnet India Ltd. The students of this Institute are encouraged to study courses tailor-made to suit their needs.

The Institute encourages a variety of teaching methods that help enhance the learning experience including Computer Aided Instruction. It offers co-curricular activities which include cooking, art, craft and drama (The Nalanda Institute, 2002).

Maharashtra Dyslexia Association

The Maharashtra Dyslexia Association (MDA) was set up in March 1996 with a view to promoting a better understanding of LD. The MDA is instrumental in persuading the education authorities at every level, to make the system more empathetic to the special needs of dyslexic students. The Association is engaged in a dialogue with the state examination boards, concerned ministries and the Bombay University.

They also run learning centers that provide assessment and remedial services to children after school hours (India Together, 2006).

Sangath, Goa

Sangath, Goa is an NGO working in the field of mental health.

The mission of inclusion of the Let Everyone Project funded by Sir Dorabji Tata Trust, Mumbai is:

- To make all children welcome in mainstream schools irrespective of their academic ability.
• Ensure genuine learning for all children.
• Ensure all children experience success.
• Prevent school drop out.

They are presently involved in developing a “best practice” model for resource rooms in regular mainstream schools with ways to make the curriculum flexible and child focused. The work is being supported by the Directorate of Education, Government of Goa.

Figure 18: The dead man…….
Development of a holistic and progressive education system is the first step to ensuring the learning needs of all children are addressed. This will create a welcoming environment for all children, ensure genuine learning, achievement and success irrespective of the child’s academic potential.

In Western countries, the efficacy of the present method of assessment, certification and special education facilities in the case of LD is being questioned as it is difficult to identify children with LD given the confounding factors, the assessments are not related to instruction or exposure, children must fail before they can be identified with an LD, and the discrepancy factor of IQ and performance is not reliable. In addition, services for struggling students focus on eligibility rather than intervention.

The identification and diagnostic criteria being so complex, the recent advances in the field of LD have come full circle and today rather than elaborate assessment procedures, diagnosis is based on a Response to Intervention (RtI) model.

RtI is a new and highly-effective approach to help identify students at risk for learning disabilities and work with all students to ensure their educational success (National Centre for Learning Disabilities, 2006).

A key element of an RtI approach is the provision of early intervention when students first experience academic difficulties, with the goal of improving the achievement of all students, including those who may have LD. In addition to the preventive and remedial services this approach may provide to at-risk students, it shows promise for contributing data useful for identifying LD. This is based on the assumption that when provided with quality instruction and remedial services, a student without disabilities will make satisfactory progress (NCLD, June 2005).

As per the Individuals with Disabilities Education Act (IDEA, 2004) in diagnosing LD, the discrepancy criterion is no longer necessary. The act states that a local educational agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability in oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning (NCLD, June 2005).

However, a local educational agency may use a process that determines if the child responds to scientific, research-based intervention as a part of the evaluation procedure. This is referred to as the response to intervention or RtI model (IDEA, 2004).

In other words, schools don’t wait for formal identification of a learning disability, but instead start providing targeted interventions early on.

Because there are numerous concerns with the current model for identifying specific learning
disabilities, many schools are experimenting with alternatives, and WestEd’s Northeast Regional Resource Center (NERRC), along with numerous other groups, is researching these new approaches.

The extracts given below are from an article that was first published in WestEd’s R&D Alert (WestEd’s R&D Alert, 2004).

“ Alyssa” is a first grader with a wonderful imagination who loves listening to stories and quickly incorporates new words into her spoken vocabulary. Yet, while most of her classmates have begun to read fluently, she continues laboring over each word and her comprehension remains low.

Determining whether a student like Alyssa has a specific learning disability, poses a significant challenge.

Under the traditional model, the teacher’s next step with a student like Alyssa is to refer her for special education testing. If the testing reveals “severe discrepancy” between Alyssa’s ability, as measured by intelligence tests, and her academic performance, as measured by standardized achievement tests, then Alyssa may be considered to have a specific learning disability qualifying her for special education. Her teachers, parents, educational psychologist, and others would then develop an Individualized Education Plan (IEP) outlining services the student will receive.

Sounds good in theory, but numerous problems crop up in practice. The process is often time-consuming and expensive, requiring time and specialists outside the regular classroom or school. All this while, the child isn’t getting the special education and related services that she may need.

Some critics argue that cultural biases in the assessments call into question the results of intelligence tests for identifying specific learning disabilities. Also, because the tests are often not connected to the school’s regular curriculum, the IEPs developed under this system often have limited connections to what the child is supposed to learn in a general education classroom.

Perhaps the biggest concern with the “discrepancy” model is that it relies on what Michael Hock, formerly with WestEd’s NERRC, calls a “wait-to-fail” approach. In the case of Alyssa, a special education referral would lead to her being tested for reading ability. But the level of reading expected of someone Alyssa’s age, first grade, is not very advanced. So, even if she doesn’t score well on reading tests, it is possible — even likely — that her score will not be low enough to indicate a statistically significant discrepancy from her intelligence level as identified by the IQ test.

Alyssa would have to “wait” until she has fallen farther behind before this “discrepancy” approach would formally identify her as eligible for special education. The identification typically isn’t made until around third grade for students who have reading difficulties.

For Alyssa, RtI might play out like this: Having noticed Alyssa’s early difficulties in reading, her teacher monitors Alyssa’s efforts and provides focused support through daily small-group work. If this support does not seem to help, the teacher enlists the school reading specialist also to work with Alyssa, one-on-one. Throughout the few months of these interventions, the teacher also conducts regular assessments and documents Alyssa’s limited progress. She also notes the child’s increasing dejection.

When these interventions seem to yield no consistent or substantial gains for Alyssa, her teacher requests a meeting of a “Student Study Team”. There she presents her concerns about Alyssa’s reading and an overview of the
interventions that have been conducted, along with supporting documentation, including samples of Alyssa’s work and the results of multiple classroom reading assessments. The team agrees that because Alyssa has not responded to appropriate interventions, within a reasonable time duration, she has a specific learning disability and so needs additional support through special education (WestEd’s R&D Alert, 2004).

RtI is, first and foremost, about good teaching. Even before students are formally classified as having “learning disabilities”, those who need more assistance receive additional and progressively more intensive interventions. With this solid system in place in the general education classroom, a teacher is able to quickly identify students who need much more help. And for some students, the early support may make special education eligibility unnecessary.

*RtI is as much a prevention model as an identification model.* The experience of urban districts like California’s Long Beach Unified suggests the power of RtI. The district was recently honored by the Broad Foundation for Urban Education for making significant improvement in student achievement while reducing achievement gaps among *ethnic groups and between high- and low-income students*. Judith Elliot, Assistant Superintendent, Office of Special Education in Long Beach, credits part of that progress to implementation in all departments of interventions focused on student learning needs and the use of data to drive decision-making and problem-solving. *There are no IQ tests* in Long Beach Unified, but there is an abundance of student data used to identify students requiring special education resources (James, F., 2004).

Through RtI, “at-risk” students are identified for intervention on the basis of their performance level or growth rate or both. Intervention is implemented and students are tested following, or throughout the intervention period and those who do not respond (“treatment resisters”) are identified as requiring multi-disciplinary team evaluation for possible disability certification and special education placement (West Ed’s R&D Alert, 2004).
collaboration with the National Research Center on Learning Disabilities and the six OSEP-funded Regional Resource Centers (including WestEd’s NERRC), has initiated a study to identify key components and outcomes of RtI in schools across the country that are using the model. Additionally, NERRC has a technical assistance agreement with one of its states to pilot RtI in four elementary schools, with plans for statewide implementation if pilot results support the promise of this approach (James, F., 2004).

The biggest recent happening in the field of LD has been the Round Table Summit at which 10 national organizations representing 350,000 parents and professionals involved with SLD followed by the SLD Summit in August 2001. They brought together the research community with respect to the state of knowledge on identification, definition, classification criteria, and recommendations for improved practices (Bradley, Danielson, & Hallahan, 2002). There were eight consensus statements wherein (a) the concept of LD involving disorders of learning and cognition being intrinsic to the individual was acknowledged, (b) it was the responsibility of the state to educate the child through specially designed instruction, at no cost to the parents, to meet the unique needs of a child, (c) SLD is a lifelong disability, (d) prevalence rates are difficult to ascertain but high quality classroom instruction and supplemental small group intervention can reduce the prevalence of learning difficulties, after which still around 6% of children will need special education facilities, (e) IQ/achievement discrepancy is neither necessary nor sufficient for identifying individuals with SLD. IQ tests do not need to be given in most evaluations of children with SLD, (f) currently available methods for measuring many processing difficulties are inadequate. Therefore, systematically measuring processing difficulties and

**Diagram 2**

*Tertiary Prevention:* (5%) Specialized Individualized Systems for Students with Intensive Needs.

*Secondary Prevention:* (15%) Specialized Group Systems for Students with At-Risk Behavior.

*Primary Prevention:* School/Classroom-Wide Systems for all Students, Staff, & Settings.

**Advantages of Responsiveness to Intervention**

The RtI

- Provides assistance to all needy children including those with emotional difficulties and other marginalized children.
- Avoids over referrals and premature diagnostic labels and stigmatization.
- Involves mainstream teachers and staff.
- Creates a high quality teaching/learning environment.
- Student-progress is monitored across curriculum.
- Assessment data is used to improve instruction.

To generate additional information, the U.S. Office of Special Education Programs (OSEP), in
their link to treatment is not yet feasible, (g) response to quality intervention is the most promising method of alternative identification and can both promote effective practices in schools and help to close the gap between identification and treatment, (h) there is strong evidence that there are interventions that are effective for many individuals with SLD when implemented with consistency, appropriate intensity, and fidelity. Despite this knowledge, there are interventions for individuals with SLD that are demonstrably ineffective but are still being used (Reschly, et al., 2003).

**The Indian Scenario**

Unfortunately, as far as LD goes we continue to lag way behind.

We are now looking at the assessment, certification and special education facilities method. The usefulness of determining the prevalence of LD, given the confounding factors is questionable.

Using formal assessment as a screening procedure with its problems of over referral, cost, stigmatization and benefits confined to a few must be avoided. Given the fact that LD can only be diagnosed after excluding environmental, cultural factors, language, etc., often it is not possible to diagnose LD in children from lower socio economic groups. Hence, these children will not be eligible for the benefits under any scheme following this assessment – certification – special education method. In other words it is mainly the children from a higher socio-economic background who will be able to avail of the benefits.

Research must focus on the following main areas:

1. **Response to Intervention**
   Pilot projects using small group interventions through resource rooms in different States must be initiated. With funding from Sir Dorabji Tata Trust, Mumbai and supported by the Directorate of Education, Goa, a pilot project Let Everyone Learn, has been initiated by Sangath for non-achievers at middle school level in five mainstream schools in the State of Goa.

   The project is showing promising results and demands for more intensively monitored pilot projects.

2. **Developing Norm**
   Developing norm referenced conventional assessment tools as well as developing dynamic assessment tools that encourage modification of cognitive processes.

The following are urgent requirements in the field of LD:

1. **A National Policy for Learning Disabilities.**
2. **Professionals and personnel specifically trained in the field of LD (psychologists and teachers).**
3. **Creating awareness.**
4. **Introducing genuine language development and phonics as a mandatory part of pre- and primary education.**
5. **Developing non-stigmatizing processes to help children with LD.**
6. **Offering choice of subjects as well as appropriate accommodations at secondary school/board level.**
7. **Research focused on interventions and dynamic assessment tools.**

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It is from the children we must learn. It is they who will tell us their difficulties and how we can help. It is for us teachers, educationists, policy makers to “listen” to what the child is saying.

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10. Hinton CD. Brain and learning: dyslexia primer. [Online]. [cited 2006 Sept]; Available from: URL: http://www.oecd.org/document/51/0,2340,en_2649_14935397_35149043_1_1_1_1,00.html


18. L.T.M.G Hospital, Sion, Mumbai


37. The National Joint Commission On LD. Responsiveness to intervention and learning disability.


52. L.T.M.G Hospital, Sion, Department of pediatrics. Mumbai. 2006


54. Hinton CD. Brain and learning: dyslexia primer. [Online]. [cited 2006 Sept]; Available from: URL: http://www.oecd.org/document/51/0,2340,en_2649_14935397_35149043_1_1_1_1,00.html


68. Times of India, 2006, July 22.


