A learning disability, or specific developmental disorder, is a disorder that inhibits or interferes with the skills of learning. Learning disabilities are life disabilities; they are seen in children as well as adults. The impairment may be so subtle that it may go undetected throughout the life. These disabilities create a gap between the true potential and day-to-day productivity and performance. The same learning disabilities that interfere with reading, writing and arithmetic interfere with cricket, football, getting dressed, keeping the room tidy, \textit{i.e.}, with every aspect of life.

If an individual does not benefit from a regular education programme and is not socially disadvantaged, intellectually limited or pedagogically deprived and shows no evidence for hard sign neurophysiological dysfunction, that individual is characterized as learning disabled. The child who has difficulty communicating either expressively or receptively and cannot read, write or do mathematics within the criterion range as established per school norms is learning disabled.

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Learning disabilities refers to a disorder that interferes with one’s ability to store, process or produce information. Such disorders may be manifested by specific delays in early development and/or difficulties in any of the following areas: attention, memory, reasoning, coordination, communication, reading, writing, spelling, calculation, social competence and emotional maturation. Learning disabilities are intrinsic to the individual and may affect learning and behaviour in any individual, including those with potentially average, average, or above average intelligence. Learning disabilities may arise from genetic variation, bio-chemical factors, events in the pre- to post-natal period, or any other subsequent events resulting in neurological impairment.

The Fourth Edition Text Revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, a handbook that mental health professionals use to diagnose mental disorders) uses the term learning disorders, formerly called academic skills disorders and defines this as cognitive difficulties arising from brain dysfunction. The use of the term learning disability is much more widely recognized than the term learning disorder, perhaps because learning disability terminology has been used more often in clinical, research, educational and political circles than has DSM terminology. This paper will use learning disability terminology and learning disability research and statements about learning disabilities may be assumed to apply directly to DSM-IV learning disorders.

Prevalence/Epidemiological Studies

The prevalence of learning disabilities varies considerably based on the criteria used, but estimates are in the range of 5-10 per cent (Pennington, 1991; United States Department of Education, 1995). Estimates by the U.S. Department of Education set learning disability prevalence at about 5-6 per cent based on legal definitions. On the basis of a survey conducted in rural
Perimpilavu, a city in South India, Suresh and Sebastian (2003) concluded that specific learning disability was observed in at least 7-8 per cent of the general population. Kapur (1993), in a study on urban primary school children from low socio-economic status found 17 per cent of them had scholastic backwardness. Rozario (1991), found in a sample of 110, nine-year-old children nearly one-third to be scholastically backward; a majority of them had specific learning disabilities.

An estimated 2-5 per cent, about half of all learning disabled identified by U.S. schools have reading disabilities (dyslexia), the most common of the learning disabilities (Kronenberger & Meyer, 2001). Prevalence studies find rates ranging between 2 and 8 per cent (Sadock & Sadock, 2003). There are three to four males for every female with reading disabilities (Spafford & Grosser, 1996). About 1 per cent of school age children have mathematics disabilities (dyscalculia), which is approximately one of every five children with learning disabilities. Precise prevalence rates are difficult to ascertain because studies on children have lumped several disabilities together rather than separating them into individual disabilities. Mathematics disabilities may occur with greater frequency in females (Sadock & Sadock, 2003). About 4 per cent of school age children have writing disabilities (dysgraphia), the prevalence of it alone has not been studied. There are three males for every female with writing disabilities (Sadock & Sadock, 2003).

**Definition of Learning Disabilities**

Kirk (1962), defined learning disability “as a retardation, disorder or delayed development in one or more of the processes of speech, language, reading, spelling, writing or arithmetic resulting from a possible cerebral dysfunction and/or emotional or behavioural disturbance and not from mental retardation, sensory deprivation, or cultural or instructional factors”.
The U.S. National Joint Committee on Learning Disabilities (NJCLD, 1988) defined learning disabilities as follows: “Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction and may occur across the life span. Problems in self-regulatory behaviours, social perception and social interaction may exist with learning disabilities but do not, by themselves, constitute a learning disability. Although learning disabilities may occur concomitantly with other disabilities (e.g., sensory impairment, mental retardation, serious emotional disturbance), or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences” (NJCLD, 1988).

The 1999 Federal Register that contains the regulations for identifying and defining students with specific learning disabilities under US legislation outlined criteria that should be considered in identifying students with this disorder. The disability must result from a deficit in one or more basic learning behaviours such as memory, reasoning, organization and perception; must manifest itself in the form of one or more significant learning difficulties in one or more of seven areas oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation and mathematical reasoning-compared with other children of the same age; must be evidenced by a severe discrepancy between intellectual ability and academic achievement in at least one of these seven areas; and must not be caused by mental retardation, hearing or vision impairment, motor impairment, emotional and behavioural disorder, or environmental disadvantage (U.S. Department of Education, 1999).
Another method of defining and characterizing learning disabilities is through the DSM-IV which outlines three major types of learning disorders: reading disorder, mathematics disorder and disorders of written expression, as opposed to offering one general definition. However, the descriptions of these disorders in the DSM-IV share one important similarity with that found in the Federal Register. Both stipulate that there must be a discrepancy between achievement in the area in question and intelligence. Under U.S. federal law, public schools consider a child to be learning disabled if his or her level of academic achievement is two or more years below the standard for age and IQ level.

According to Bender (1995), discrepancy criteria are used to indicate a substantial difference between intelligence, as measured on standardized IQ assessments and achievement in a number of academic subject areas. Several researchers have questioned the overall validity and usefulness of the ability achievement discrepancy concept. On the basis of their research, Stanovich and Siegel (1994), have concluded that if there is a special group of children with reading disabilities who are behaviourally, cognitively, genetically, or neurologically different, it is becoming increasingly unlikely that they can be easily identified by using IQ discrepancy as a proxy for the genetic and neurological differences themselves.

Learning disabilities are intrinsic to the individual and the basis of the disorders is presumed to be due to central nervous system dysfunction. For the individual with learning disabilities, evidence of central nervous system dysfunction may or may not be elicited during the course of a medical-neurological examination. The critical elements in the diagnosis of learning disabilities are elicited during psychological, educational and/or language assessments. The failure to learn or to attain curricular expectations may occur for diverse reasons. Learning disabilities have their basis in inherently altered processes of acquiring and
using information. It is essential to understand this notion if one is to appreciate the resultant interaction between the learner and the learning environments. An understanding of this interaction facilitates the development of effective service delivery models and adaptive curriculum. This also leads to a clearer understanding of the ways in which individuals with learning disabilities may interact in a life-long social and cultural milieu.

**The Nature and Symptoms of Learning Disabilities**

Psychological and educational evaluations designed to assess learning disabilities and possible learning disabilities use a cybernetics model. Learning disabilities are defined based on the input-integration-memory-output model (Silver, 1991, 1996). The first task in learning is to receive the information and record it in the brain (input). Once recorded, this information must be handled in such a way that it can be understood (integration). The third process is storage and retrieval (memory). Finally, information must be communicated from the brain (output).

**Input Disabilities**

The central brain process is called perception; a person might have a visual perception disability or an auditory perception disability. Visual perception disabilities might be in distinguishing subtle differences in shapes. For example: misperceiving d and b, or p and q or 6 and 9. One may have difficulty with visual figure-ground tasks, that is not be able to focus on the relevant stimulus in the field of vision. Some children have trouble with visual depth perception; they may fall off chairs or bump into things. Auditory perception disabilities might be in the area of distinguishing subtle differences in sounds, leading to misunderstanding of what is being said. In English language there are 44 units of sounds called phonemes. Some words sound similar such as *hair* and *air*, *ball* and *bell*. Some children might have difficulty with auditory figure-ground, confusing what sounds to listen to when there is more
than one source. Some children cannot process sound inputs quickly. They appear to have to think about what is heard before understanding what is said. This is called auditory lag. They appear to be lost or confused when too much is said and may appear to be pre-occupied. Such children always seem to be misunderstanding what is being said.

**Integration Disabilities**

At least three steps are needed to understand what is recorded in the brain. The individual stimuli must be sequenced correctly and then understood in the context used (abstraction) and then organized with all other stimuli into a concept. One can have an integrative disability in each of the areas of sequencing, abstraction or organization. The disability might be for visual or auditory inputs. Sequencing disabilities can result in confusing inputs e.g., writing 21 rather than 12, reading was rather than saw. Such children can memorize the months of the year but be unable to say what comes after any month without starting with January and working their way up. Abstraction difficulties result in trouble picking up the subtle meanings of words. They might miss the meanings of jokes, puns, or idioms. Organization disabilities can result in difficulty pulling multiple parts of information into a full or complete concept. Such children can learn individual facts but may not be able to integrate them into a full concept. They show this in other aspects of life as their room may be disorganized, organizing time or making plans might be difficult.

**Memory Disabilities**

Children with learning disabilities usually have excellent long-term memory. They can retain information once stored. They might have difficulty, however, in short-term memory, the ability to concentrate on information and store it. They might learn information well by attending to it (spelling list, math concept etc.) yet they will not retain this information once they stop attending
to it. These students need many more repetitions to process information into long-term memory than the average. They can learn, but they must work on the process over time. One might have a visual-short-term memory disability or an auditory-short-term memory disability.

**Output Disabilities**

One may have difficulty getting information out of the brain through oral communication *i.e.*, a language disability or through the use of muscles *i.e.*, a motor disability. There may be a disability in one or both of these areas. Most children have little difficulty with spontaneous language, which refers to self-initiated talking. There is the opportunity to organize thoughts and find words before speaking. Children might have difficulty with demand language, which refers to situations where the child must respond without preplanning. To produce language they must organize their thoughts and find the right words as they speak. They might speak with ease when they initiate the conversation however they might not be able to respond when asked a question or requested to speak.

Some children with learning disabilities will have trouble coordinating the use of large muscle groups, *i.e.*, gross motor disability. They will be clumsy or having difficulties with activities like running, climbing, swimming. Others may have difficulty coordinating small muscle groups, *i.e.*, fine motor disability. They will be having poor handwriting, difficulty with written language tasks as spelling, spacing and punctuation.

**The Learning Disability Profile**

Each child or adolescent with a learning disability will have his or her own profile of learning abilities and learning disabilities. Each will have one or more of the above described disabilities. There is no stereotyped individual, each must be assessed and understood individually (Silver, 1991).
Characteristics of Learning Disabled Children

Learning-disabled children encounter difficulties in the process of learning.

They exhibit a significant educational discrepancy (at least two grades below) between their learning potential and actual educational achievement.

Learning difficulties are manifested in the acquisition and use of language, i.e., listening, speaking, reading, writing; and reasoning or mathematical ability.

Perceptual and cognitive deficits like reversal and poor discrimination of letters, failure to group and categorize similar items and poor problem solving skills are common.

There may be verbal thought disruption such as failure to comprehend concrete and/or abstract words, failure to recognize the connection between successive words in sentences and sentences in paragraphs.

Non verbal thought disruption may be seen such as a reluctance or failure to complete work, a tendency to be easily distracted by others and confusions in directions, left-right orientation and spatial order.

Attentional deficits such as failure to stay on tasks to completion are seen in these children.

They may exhibit symptoms of impulsivity, hyperactivity and inattentiveness.

Memory deficits especially in short-term memory can be found in many children.

They may show social immaturity and deficits in other social skills.

These children have a history of repeated failures, low self-concept and problems with peer relationships.

Many of them show emotional problems such as mood disturbances, anxiety and depression.
These children show motor disorders such as unable to skip, hop, are clumsy, have poor handwriting.

CAUSES OF LEARNING DISABILITIES

Genetic or Heredity Factors

Learning disabilities are genetically determined with genetic traits manifesting themselves in the neuroanatomy and neurophysiology of the child. These structural-physiological characteristics are manifested as learning disabilities. Support for genetic theory is found in studies that show that learning disabilities run in families. The concordance rate is higher for identical than fraternal twins for reading disorder. Some findings suggest that genes on chromosome 15 or 6 may cause reading disorder for a minority of individuals (Pennington, 1991). Critics of familial research note that high rates of learning disabilities within families could reflect family environment as much as genetics.

Neurological Factors

Neurological theories state that learning disabilities is a reflection of structural damage or improper development of the nervous system. Such problems could occur during prenatal or postnatal period, as the nervous system is developing. Alternatively, head injury, lack of oxygen, exposure to toxins, seizures and nutritional deficiencies may contribute to central nervous system damage. Empirical support for neurological hypothesis comes from studies indicating EEG abnormalities in some children with learning disability. Various neuropsychological deficits are associated with learning disabilities, such as in visuospatial perception, auditory perception, semantic memory and phonemic discrimination. Children with reading disorders have left-hemisphere deficits and autonomic disorders such as eczema, allergies. Children with mathematical disorders have deficits in neuropsychological functions indicative of right hemisphere damage (Rao, 2003).
Environmental Factors

Environmental factors can directly play a role in causing learning disabilities. Research shows that factors such as malnutrition, prematurity, poor prenatal and postnatal health care, stress, poor parenting and teaching can have a negative impact on learning by creating conditions in which brain dysfunction is more likely. Substance abuse such as alcohol and other drugs, defective learning models, emotional disturbances, social and cultural deprivation can contribute to learning disabilities. Summarizing the findings of several research studies, Silver and Hagin (2002) concluded that the preponderance of evidence points to the determining influence of poverty and inappropriate and/or inadequate stimulation on the development of learning disorders in children.

ASSESSMENT OF CHILDREN WITH LEARNING DISABILITIES

Cognitive Assessments

Assessment of General Cognitive Functioning as measured on standardized tests for intelligence. One or more of the following tests may be used.

Wechsler Intelligence Scale for Children-Revised (WISC-R; Wechsler, 1974): Administration of an individual, standardized intelligence test is essential in the diagnosis of learning disabilities. The Wechsler Intelligence Scale for Children Revised (WISC-R) (Wechsler, 1974), is the most commonly used test with learning disabled children. It comprises of 11 subtests divided into two scales, the verbal scale and the performance scale. Sattler (1990), reviewed studies and rank ordered WISC-R subscales from easiest to most difficult for children with learning disabilities: Picture Completion, Picture Arrangement, Block Design, Object Assembly,
Similarities, Comprehension, Vocabulary, Coding, Digit Span, Arithmetic and Information. The easiest four tests form the Perceptual Organization (PO) factor and two of the hardest three sub-tests form the Freedom From Distractibility (FFD) factor of the WISC-R. The most difficult four sub-tests form the “ACID” (Arithmetic-Coding-Information-Digit Span) profile of sub-scales. Low scores on the ACID profile are considered to be typical of learning disabilities. Children with learning disabilities tend to have higher Performance IQ than Verbal IQ and the FFD score is usually lowest. If IQ is less than 70, learning disability cannot be diagnosed.

Coloured Progressive Matrices (CPM; Raven, 1965): The test measures clarity of perception and thinking in children. It is a non-verbal non-performance test of IQ and can be individually or group administered. Norms are provided for children of 5-11 years of age.

Malin’s Intelligence Scale for Indian Children (MISIC; Malin, 1969): This is an Indian adaptation of the Wechsler Intelligence Scale for Children. Norms are provided for children of 6-15 years of age.

**Educational Assessments**

Assessment of the achievement level of the child as measured on educational tests. This involves the administration of educational tests in the following areas of learning: Basic learning skills, reading comprehension, oral expression, listening comprehension, written expression, mathematical calculation and mathematical reasoning. These tests can be standardized achievement tests and/or teacher made tests. Some examples of standardized achievement tests are:

- Woodcock Reading Mastery Tests- Revised (WRMT-R; Woodcock, 1987).
• Kaufman Test of Educational Achievement (K-TEA; Kaufman and Kaufman, 1985).

Individual teachers in their respective school subjects can construct teacher made tests. These can be used for assessing the degree of achievement of the child and diagnosing their learning difficulty and disability. In a child with average intelligence, an academic achievement two years below the actual grade placement is considered indicative of learning disability.

BEHAVIOURAL ASSESSMENTS

Parent/Teacher Reports

Substantial evidence exists that children with learning disabilities are at risk for behavioural problems. Conners’ Parent Rating Scale-Revised (CPRS-R, Conners’, 1997) and Conners’ Teacher Rating Scale-Revised (CTRS-R, Conners’, 1997) include a Cognitive Problems sub-scale, which measures poor achievement in school, difficulty sustaining mental effort and attention problems. Scores on this scale are expected to be elevated for a child with learning difficulty.

Assessment of Specific Learning Disabilities

Besides cognitive and behavioural assessments a range of tests can be administered to determine the strengths and deficits of the child in academic skills. These tests include reading, writing, spelling, comprehension (Rozario, 2003). A battery of tests called Nimhans Index of Specific Learning Disabilities (SLD; Kapur et al., 1991) has been developed at NIMHANS, Bangalore. The SLD battery has been developed separately for younger students Level I (5 to 7 years) and older students Level II (8 to 12 years). The index comprises of the following tests:

(a) Attention Test (Number cancellation).
(b) Language Test (Reading, Writing, Spelling and Comprehension).

(c) Arithmetic (Addition, Subtraction, Multiplication, Division and Fractions)

(d) Visuo-motor Skill (The Bender Gestalt Test and the Developmental Test of Visuo-Motor Integration).

(e) Memory (Auditory and Visual).

Treatment

The primary mode of treatment for children with learning disabilities is special educational planning and other educational services. These include regular education, regular education with modifications, collaborative consultation with special education, co teaching resource room (part time special education), self-contained special education, special day school, or residential school (Hallahan, Kauffman, & Lloyd, 1996). Focus has been placed on the importance of early intervention in recent years (Kirk, Gallagher, & Anastasiow, 1997). Early intervention can be used not only to intervene with learning disabilities sooner, but also to possibly prevent disabilities in young children at risk for developing them.

Numerous special educational strategies exist to promote learning for children with learning disabilities. These strategies differ depending on whether the child has reading disorder, mathematics disorder, or disorder of written expression. They typically involve two intervention processes: a) modifying the learning process to accommodate the child, e.g., more time on tests, giving less homework, less emphasis on certain material etc. and b) requiring the child to put more effort into remediating the areas of weakness under the supervision and teaching of special educators.


**Reading**

Current remediation interventions for children with reading disabilities aim to improve the child’s sight reading and phonics. Sight reading (memorizing words by sight) may be addressed by vocabulary-building exercises, sight reading exercises, learning word roots, prefixes and suffixes. Programs to improve phonics (recognizing and remembering the association between letters and sounds) such as Fernald-Keller approach, Gillingham-Stillman approach typically provide the child with extra experience that integrates several senses into phonemic awareness. For example, the child selects a word, which is written in large letters in a flash card. The child might trace the word as he says the word sound and looks at a picture of the word (tactile, auditory and visual senses). Other phonics programs (Clay, 1993; Iversen and Tumner, 1993), use words with slightly different phonemes (e.g., cat-bat) to demonstrate phonemic differences in reading. This sounds-in-words learning process typically proceeds from beginning word sounds to ending word sounds to sequencing of sounds. Both vowels and consonants are learned. Other positive coping strategies include small structured reading groups that offer individual attention and make it easier for a child to ask for help.

**Mathematics**

Treatments for mathematics disabilities combine teaching mathematics concepts with continuous practice in solving math problems. An essential first step would be to identify precisely where the child’s errors are occurring in the math problem. Child may have difficulty with multiplication tables, concept of zero or concept of borrowing in subtraction. Once these errors are identified several techniques may be used to help the child. Concrete objects, pictorial representations such as graphs, analogies and logical explanations are used to make abstract concepts meaningful. Strategies for translating word problems into arithmetic
problems can be directly taught (e.g., the words and and together usually mean that things will be added e.g., how many pencils did Simi and Mohit have together). Learning math rules (e.g., BODMAS; the digits in multiples of 9 always add up to 9 or a multiple of 9), math games, computer games where the focus is on problem solving activities, including word problems rather than only computation may be taught.

**Writing**

Treatment for writing disabilities includes handwriting practice, direct practice in spellings and sentence writing as well as a review of grammatical rules. Spelling problems frequently involve deficits in phonemic awareness and word recognition, therefore interventions focus on mostly spelling errors. Spelling skills can be promoted by teaching the child spelling rules e.g., i before e except after spelling of word roots as well as prefixes and suffixes and mnemonic strategies for remembering the spelling of specific irregular words. Strategies to make spelling game like for example, spelling bee, finding the hidden word; and to promote repetition learning are used for children with spelling deficits.

When there is a deficit in written expression such as communicating ideas in writing, strategies such as sentence combining, maintaining a diary, letter writing, writing invitations or gift lists and other naturalistic writing exercises are often used. Learning to write an outline before writing a story is used to promote logical, sequential, comprehensive flow in writing. For children with good verbal expression and poor written expression a verbal-to-writing intervention can be used. First the child dictates to an adult who writes what the child says. Next the child dictates to a tape recorder and later transposes own words into writing. Next, the child dictates only a few sentences into the tape recorder and writes the sentences before dictating a few more and so on. After this step is mastered the tape recorder is removed and the
child says the words out loud, pausing to write them periodically. Finally the child gradually says the words more and more silently until the child is writing while thinking (but not saying the words).

**Atypical Learning Disabilities**

Some children have cognitive problems such as short-term memory problem. For these children treatment techniques aim to provide the child with external accommodations and experience to function adequately in the classroom while improving their area of weakness. For nonverbal learning disabilities treatment suggestions include some of the following (Rourke, 1995). Teaching the child in a sequential, predictable, rote fashion. Encouraging the child to apply familiar problem solving strategies to new situations. Teach algorithms for dealing with new or unfamiliar situations. Directly teach appropriate social and non-verbal material in a rote fashion with practice to make the child’s learning more fluid and automatic. Teach the child to attend to visual as well as auditory verbal information. Teach visual organizational skills. Teach appropriate use of verbal material in a social context. Encourage contact with novel situations and problems. Encourage structured, clear, goal oriented peer interaction and teach comprehension skills.

**Behavioural Interventions**

In many cases the behaviour problems of the child with learning disability are as much of a concern as the learning disability itself. Behavioural characteristics such as inattention and hyperactivity have social consequences, putting a strain on interpersonal relationships and lead to negative self-evaluation. Because of consistent reports from teachers regarding these problems such as frequent out-of-seat behaviour, fidgetiness and other identifiable classroom behaviours, biofeedback and relaxation training have been identified as relatively non-intrusive methods
for dealing with these problems. A number of studies have demonstrated that biofeedback and relaxation can improve the behaviour and emotional well being of children with learning disabilities. (Amerikaner & Summerlin, 1982; Carter & Russell, 1985; Loffredo et al., 1984).

Learning disabled children have been found to have an external rather than internal locus of control (Short & Weissberg-Benchell, 1989) and this is likely to hamper their academic endeavours. They are more likely to attribute their scholastic success to factors outside of their control and this external locus of control leads to less involvement with academic tasks (Pearl, 1982). In order to combat this locus of control problem, several researchers have recommended that students with learning disabilities be subjects to attribution training in which they learn to attribute success in school work to such internally controlled factors as study time and effort (Hoy, 1986; Tollefson, Tracy, Johnson, & Chatman, 1986).

Social Skills Training

Several procedures have been used to improve the social skills performance of students with learning disabilities. According to Maag (1989), a basic principle of social skills instructions is that behaviours chosen for instructions should be those valued by persons important in the learner’s environment. In an analysis of social behaviours selected for individualized educational programs, Pray, Hall & Markley (1992), found that academically related social skills (e.g., task related skills such as following directions or being on task) were much more prominent than interpersonal skills (e.g., making conversation or accepting authority). They recommended more emphasis on inter-personal skills for students with learning disabilities. To foster peer interaction social skills curriculum needs to focus on four main areas: conversation skills (e.g., introducing oneself, asking and answering questions),
friendship skills (making friends, joining group activities, giving help), skills for difficult situations (accepting and giving criticism, resisting peer pressure) and problem solving skills (negotiating, persuading, asking for feedback). Bender & Wall (1994), reported that social skills training have been successful in helping students with learning disabilities.

**Peer Tutoring**

Several studies have focused on the effectiveness of peer tutoring (an instructional arrangement in which the teacher pairs two students in a tutor-tutee relationship to promote learning of academic skills) for students with learning disabilities. Peer tutoring has been found to improve academic skills, foster self esteem, develop appropriate behaviours and promote positive relationships and co-operation among peers (Mercer, 1997). The Class Wide Peer Tutoring Programme has been found to improve the academic and social performance of students with learning disabilities (Maheady, Harper, & Mallette, 1991).

**Family Interventions**

Parents and families help determine the social, intellectual and physical well being of their children. With the identification of a learning disability in their child, parents often have an immediate reaction of denial. As problems continue, denial or nonacceptance of the child’s difficulty is replaced by depression and guilt in the parents. Depression that the child is impaired, the child’s future is uncertain, the child cannot fulfill their wishes for him and guilt that the child may have inherited their learning disability. Parents may exhibit external causal attributions that make them feel powerless to help their child cope with problems. Anger may be directed at all who are involved with the child, at the family members, school authorities and at the child himself. At times, the anger is suppressed and with the mechanism of reaction formation,
the child may be overprotected and infantilized. Such over protectiveness may inhibit the child’s independent functioning, parents feel confused regarding how much freedom and independence to allow their child. Also, the child getting more attention from parents may generate feelings of resentment in the siblings. The learning disabled child may become demoralized, anxious and begin to harbor feelings of low self-esteem. Further, the unmet high expectation of parents with regard to the academic achievement of their learning disabled child adds to the child’s feelings of worthlessness and guilt. Sharma (1993), found that parents of learning disabled children were having very poor or low expectation of their child’s academic achievement. These parents also mostly perceived their children as socially incompetent with several problems. Parental counselling and family therapy would help to improve patterns of communication within the family members, between the parents and the child, thereby contributing to the development of a positive self concept in the learning disabled child.

CONCLUSION

Learning disability, an educational problem, forms an important cause of failure in school in otherwise capable children. The Central Board for Secondary Education (CBSE) and the Indian Council for Secondary Education (ICSE) recognize learning disabilities as a disability. As a result, specific learning disabled children have been formally granted with the benefit of availing certain provisions (e.g., extra time during written exams, dropping algebra, geometry for lower grade of mathematics and work experience) from standard I to XII. These provisions are meant to help the child to cope up in a regular mainstream school. All Delhi schools now have at least a counsellor or a special education teacher if not a special education department.
Learning disabilities are often accompanied by problems of attention and concentration, organization, mood disturbances, anxiety and depression, low self-esteem and deficits in social skills. Emotional and behavioural responses to learning disabilities depend on the cause, extent and severity of the disorder, the innate coping mechanisms and most importantly on the adequacy of support the child receives from parents and school. Failure and frustration may appear early in the child’s school experience where reactive behaviours of avoidance, depression, aggression and disobedience set the stage for subsequent emotional and behavioural problems. Parental reactions of non-acceptance, depression, guilt, all undermine support for the child (Silver & Hagin, 2002). Teachers may see the child as dull and lazy and may not see the child’s special needs. The emotional and behavioural problems of the learning disabled child need to be given prompt attention with appropriate psychological interventions and parental counselling. The multifaceted nature of learning disabilities, the large number of children involved and limited school resources makes it imperative that trained teachers, special educators, psychologists and social workers collaborate together in the education of these children. Remedial education is the basis for management.

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