

Exploring the Invisible: Issues in Identification and Assessment of Students with Learning Disabilities in India

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INTRODUCTION

Learning Disability as a disability has received significant attention recently in light of the urgent need to ensure timely identification and remediation in order to minimize and prevent its disabling effects on learning in individuals. Often quoted as an 'invisible disability', as not easily identifiable like other 'disabilities', Learning Disability is marked by significant difficulties in learning and academic achievements, with no other obvious disability in individuals.

A 'heterogeneous group' of disorders, 'Learning Disability' is manifested by significant difficulties in the 'acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities, and are intrinsic to the individual and presumed to be due to Central Nervous System dysfunction.' Despite the occurrence of a Learning Disability, often alongside other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g., cultural differences, insufficient/inappropriate instruction, psychogenic factors), it "may or may not be a direct result of those conditions or influences" (NJCLD, 1990). As a disorder or retardation of development affecting specific area such as reading, spelling, arithmetic and writing as well as delayed language development (Samuel Kirk, 1963), the disability may be accompanied with problems in self-regulatory behaviors, social perception and social interaction (Wong, 1996).

Being a life-long disability and observed as significant unexpected scholastic under-achievements, academic capabilities and experiences, Learning Disability may vary in severity across individuals, depending upon the degree in which it affects an individual. Eventually it hampers or slows down an individual's capacity to interact with the demands of the environment that they are part of and their own strengths and needs, demanding an unusually high level of efforts and support to maintain the performance; and about 7% of children and adolescents are found to experience a substantive learning deficit in at least one area of mathematics before graduating from high school (Barbarese et. al, 2005: 281-289). The degree in which Learning Disability affects an individual's ability of 'information processing' used in learning, results in deficit in input, integration, storage, and output of the information in a learner.

Depending on the type of difficulty and the related symptoms evident in a learner with Learning Disability, the disability may be classified into *Dyslexia* ('Word Blindness' or 'Reading disorder' leading to difficulty in reading, writing, and spelling), *Dyscalculia* (difficulty in computation, Math, concepts of time and money), *Dysgraphia* (difficulty in written expression leading to illegible handwriting, spelling, and composition), *Dyspraxia* (difficulty in fine motor skills and coordination), *Auditory Processing disorder* (difficulty in Interpreting auditory information affecting language development and reading), *Visual Processing disorder* (difficulty in interpreting visual information affecting reading, writing, and math). When accompanied with other related disorders like *Attention Deficit Hyperactivity Disorder* (ADHD), the level of concentration and focus in learners as well gets affected, who as a result exhibit over-activity, get easily distracted

and tend to be impulsive. Difficulty in sitting still, losing interest quickly, handling complexity, adaption and flexibility, attending to and remembering differentiation, judgment, symbolic thought perception of the patterns and rhythms of forms in knowledge and reflection are areas affected that probably define the abilities of individuals with Learning Disabilities (Crealock, et al., 1993).

Prior to the conduction of a specialized evaluation of a student, pre-referral discussions by teachers regarding the nature of the learning problems, informed consent of the parents of the learning disabled student and the possible instructional modification in the classroom need to be ensured; and the child be assessed in all areas related to the disability suspected, including the family history of the disability, health check-up, level of vision, hearing, the social, psychological and emotional status, general intelligence, academic performance, communicative status, and motor abilities. An ideal assessment for Learning Disability may be a long-term process requiring several sessions with a qualified educational psychologist. Apart from the administration of a battery of tests in assessment, relevant information about the child should be gathered by psychologist from the teachers and school performance and academic achievement records through observation, interviews, tests, curriculum-based assessment and discussions with the parents, peers, teachers and school staff to understand the strengths and weaknesses of the student which can help in the proper assessment of the student. This information can be synthesized to determine the specific nature of the student's special needs, the requirements of special services if needed, and in designing an appropriate intervention (NICCYD, 2000).

1 Identification and Assessment at School Level

The primary identification of students with Learning Disabilities is done usually at the school by the teachers, who through observation assess the need for diagnosis and assessment of these children, who are then referred by them to the special educators (or counselors in absence of special educators in the school) who try to identify the traits of the disorder present in the child. If necessary, the special educator through consultation with the school counselor reports the concern to the parents of the children and tries to convince them for getting their child diagnosed at a government registered hospital. Here the choice of the parents is respected and prioritized to ensure their satisfaction. It is essential to obtain the parents' consent before evaluating the child. The academic, developmental and medical history, along with the communication patterns and linguistic usage and efficiency of the child are obtained from the parents. The parents of the student are supposed to be involved in the planning of the intervention program such as attending a resource room, provision of accommodation and modifications to the student. An interview with the student helps in collecting information (Wallace et al., 1992) that "relates to the observed or suspected disability of the child" (NICCYD, 2000), illuminating the problem through sharing of experiences and difficulties experienced in learning which can help in a proper identification, assessment and remediation (Hoy and Gregg, 1994); and a careful review of the student's school records, study note books or work samples helps in the assessment and identification of specific areas of concern and intervention. Approaches like the Curriculum-based Assessment, Task Analysis, Dynamic Assessment, and Assessment of Learning Styles yield rich information about students that help in assessing students from culturally or linguistically diverse backgrounds, hence being critical methods in the overall approach to assessment. The first apparent goal is the 'identification of high-risk children and designing suitable intervention procedures', while the next goal to 'minimize the risk of exposing children to academic failure when they enter formal academics'.

Informal Assessment

Teacher made tests (Educational and Ecological)

Teacher made assessments are criterion based, designed to evaluate specific IEP goals and may be Paper Tests, Picture or Word Cards, or even Tasks (with exercise to sort by color, etc.) for which Task Analysis is written and the materials for the evaluation are provided by the teacher.

Curriculum Based Assessment

Curriculum Based Assessments are criterion based tests, usually based on what the child is learning in the school curriculum. They may be formal, such as the tests that are developed to evaluate chapters in mathematical text books, Spelling tests or Multiple Choice tests designed to evaluate the student's retention of Social Studies curricular information.

2 Diagnosis for Medical Certification

Medical certification is essential for the child having a disability so as to avail the Provisions given by the Education Boards in India, as relaxations during classroom learning and evaluation of the candidate by the Board. The Diagnosis for medical certification of the children with Learning Disabilities is done through a range of Formal tests.

Formal Tests

The Individualized Achievement Tests are criterion based and standardized tests often used for IEP. The Woodcock Johnson Test of Student Achievement, the Peabody Individual Achievement Test and the Key Math 3 Diagnostic Assessment are some of the tests designed to be administered in individual sessions, and provide grade equivalent, standardized and age equivalent scores as well as diagnostic information helpful in designing an IEP and an educational program.

Psychological Evaluation

Psychological evaluation is important for assessing and ruling out the history of Learning Disabilities in the child's family, the historical background of the same is analyzed before administration of any other tests, which in turn forms the basis of Psychological evaluation of the child by the registered medical practitioner. Psychological assessment involves a comprehensive assessment of the individual, involving the integration of information from multiple sources like tests of normal and abnormal personality, tests of ability or intelligence, tests of interests or attitudes, as well as information from personal interviews. Collateral information is also collected about personal, occupational, or medical history, such as from records or from interviews with parents, teachers, or previous therapists or physicians.

Intelligence Test

The common intelligence tests in practice in India are –

a. Wechsler's Intelligence Scale for Children (WISC) --

The Wechsler Intelligence Scale for Children (WISC) developed by David Wechsler is an intelligence test for children between the ages of 6 and 16 years, that can be completed without reading

or writing. The WISC generates an IQ score and the test comprises ten core subtests and five supplemental subtests that are used to accommodate children in certain rare cases or to make up for spoiled results which may occur from interruptions or other circumstances. These subtests then generate a Full Scale score (FSIQ), Verbal IQ and Performance IQ as well as four composite scores known as indices - Verbal Comprehension (VCI), Perceptual Reasoning (PRI), Processing Speed (PSI) and Working Memory (WMI). Subjects over 16 years are tested with the Wechsler Adult Intelligence Scale (WAIS), and children aged three to seven years, three months are tested with the Wechsler Preschool and Primary Scale of Intelligence (WPPSI).

The WISC is used not only as an intelligence test, but also as a clinical tool to diagnose Attention Deficit Hyperactivity Disorder (ADHD) and Learning Disabilities; usually through Pattern Analysis. When diagnosing children, a multi-test battery is used since learning problems, attention and emotional difficulties can have similar symptoms, co-occur or reciprocally influence each other. The WISC-IV can also be used to assess a child's cognitive development, with respect to the child's chronological age.

b. WAPPIS –

The Wechsler Preschool & Primary Intelligence Scale (WAPPIS) is used for the Intelligence testing of children in the age group of 2.5 - 7 years.

Perceptual Battery

a. Bender Gestalt Visual Motor Test (BGVMT) –

The Bender Gestalt Visual Motor Test, a psychological test first developed by child neuropsychiatric Lauretta Bender, is used to evaluate 'visual-motor maturity' to screen for developmental disorders, or for assessing neurological function or brain damage. The test consists of nine figures, each on its own 3 x 5 card. The subject is shown each figure and asked to copy it onto a piece of blank paper. The test typically takes 7-10 minutes, after which the results are scored based on accuracy and other characteristics. The Bender-Gestalt test is among the top five tests used by school and clinical psychologists to measure perceptual motor skills, perceptual motor development, and indicate neurological intactness. The test has been used as a personality test, a test of emotional problems and also as a screening device for brain damage.

b. Frostig Test of Visual Perception –

The Frostig Developmental Test of Visual Perception, also known as the Marianne Frostig Developmental Test of Visual Perception and the DTVP, is a test widely administered to children in Pre-Kindergarten through third grade to diagnose possible Learning Disabilities or neurological disorders by assessing perceptual skills (visual perception and hand-eye coordination). Children are generally referred for the test by special educators of schools, occupational therapists, or psychologists. The DTVP can be administered individually or in groups. It consists of 41 tasks arranged in order of increasing difficulty on demonstration cards and is designed to evaluate the child's visual skills in the eye-motor coordination (drawing continuous straight, curved, or angular shapes), figure ground perception (detecting embedded figures), constancy of shape (distinguishing common geometric shapes), position in space (identifying reversed position), and spatial relations (connecting dots to form shapes and patterns). Test results are evaluated in relation to standard first-grade reading skills, and raw scores for each subtest are converted to age scores and scaled scores. The scaled scores for all five subtests are then combined for a total test score, which is divided by the child's age to produce a perceptual quotient.

Achievement Battery

a. NIMHANS Battery –

The NIMHANS Battery developed by the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, is an index to assess children with Learning Disability (Hirisave U, et al., 2002), and is the most prevalent battery of tests used in India for assessing the Reading, Writing, Math and Comprehension ability of the Learning Disabled. The index comprises of two levels - Level I for children of 5-7 years and the Level II for children of 8-12 years of age, and comprises of the following (Hirisave U, et al., 2002: 79-80) tests –

- i. Attention test (*Number cancellation*)
- ii. Visuo-motor skills (*the Bender Gestalt test and the Developmental test of Visuo-Motor integration*)
- iii. Auditory and Visual Processing (*discrimination and memory*)
- iv. Reading, Writing, Spelling and Comprehension
- v. Speech and Language including Auditory behavior (*Receptive Language*) and Verbal expression
- vi. Arithmetic (*Addition, Subtraction, Multiplication, Division and Fraction*)

b. WRAT 3 and WRAT 4 –

Wide Range Achievement Test - Third Edition (WRAT-3) is used to assess the cognitive ability of children as well as individuals aged 5- 75 years, using the Absolute, Standard, and Grade scores for reading, spelling and arithmetic. 15-30 minutes are taken for each of the 3 forms. The re-standardization of the WRAT serves to expand the scope of the test to include pre and post testing while maintaining an ease and reliability of previous editions. The WRAT-3 uses a single level format, and has two alternate forms, the BLUE and TAN, which provide the traditional three subtests of previous editions. The alternate forms may be used in combination with one another for a more qualitative assessment of academic skill, or singularly, leaving the other form to be used for testing at a later date. There are three subtests contained on each of the alternate forms. The Reading Subtest includes the recognition and naming of letters and pronunciation of words out of context. In the Spelling Subtest, the examinee is asked to write their name, and then to write letters and words as they are dictated. The Arithmetic involves counting, reading number symbols, solving oral problems, and doing written computations.

The WRAT- 3 is used to measure the basic codes used to learn reading, spelling, and arithmetic. When used with a measure of general intelligence that has the same SD, the WRAT-3 can be useful in determining 'learning ability' or 'disability'. The Wide Range Achievement Test 4 (WRAT4) is an achievement test which measures an individual's ability to read words, comprehend sentences, spell, and compute solutions to Math problems. The test is appropriate for individuals' aged 5-94 years. The WRAT 4 provides two equivalent forms (Blue and Green), which enables retesting within short periods of time without potential practice effects that occur from repeating the same items. The alternate forms also may be administered together in a single examination.

c. ASTON INDEX –

The Aston Index, a comprehensive battery of assessments for screening and diagnosing language difficulties, offers a thorough understanding of the needs and difficulties of individual children for a sound basis for planning a remedial programme. The Aston Index contains 16 tests and helps in measuring an individual's general ability and attainment with reference to their mental age, and in examining their strengths and weaknesses in visual aid and auditory discrimination,

motor co-ordination, written language, reading and spelling. The index identifies children with special educational needs, language difficulties, auditory and visual perception difficulties, graphic difficulties, and the Specific difficulties in reading, writing and spelling fluency.

d. WOODCOCK JOHNSON TESTS OF COGNITIVE ABILITIES –

The Woodcock Johnson Tests of Cognitive Abilities is a set of intelligence tests that may be administered to children aged above 2 years, and adults. WJ-III covers "a wide variety of cognitive skills" though it does not find sufficient applicability in the Indian context. There are 10 tests in the Standard Battery, and an additional 10 in the Extended Battery, allowing considerably a detailed analysis of cognitive abilities. A General Intellectual Ability (GIA) or Brief Intellectual Ability (BIA) may be obtained. The test examines - Comprehension-Knowledge, Long-Term Retrieval, Visual-Spatial Thinking, Auditory Processing, Fluid Reasoning, Processing Speed, Short-Term Memory and Quantitative Knowledge and Reading-Writing Ability.

Assessing ADHD (Attention Deficit Hyperactivity Disorder) –

CONNORS SCALES – Connors Rating Scale (Revised) is used to assess the maladaptive behavior and ADHD. There are three domains- inattention/concentration, hyperactivity/restlessness, and impulsivity/self-control, based on the core symptoms of ADHD as it typically appears in children. Other symptom domains being self-regulation, prioritization of work, awareness of time; memory; difficulties with self-image; interpersonal problems; learning problems (especially during adulthood); and mood disturbances (e.g., irritability, frustration, or overreaction to stressful events). The Inattention/Cognitive factor is analogous to the inattention that characterizes ADHD in children, although in adults it encompasses a variety of cognitive problems, including difficulties with executive functions and with starting and completing tasks. The Hyperactivity/Restlessness factor encompasses the motor hyperactivity and also feelings of inner restlessness, distractibility, risk taking, and a tendency to become bored easily. The Impulsivity/Emotional Liability factor resembles childhood impulsivity but also includes impulsive verbal outbursts, "hot temper," stress intolerance, irritability, and labile mood.

Assessing Behaviour Problems

Achenbach Battery – The Achenbach System of Empirically Based Assessment (ASEBA) is used to assess behavior problems in children and individuals of 2 to 90 years of age, and is useful in assessing the Adaptive behavior (children's competencies and behavioral/emotional problems). The educational implications for educators concern the need for differential diagnosis, specific training and meaningful instruction (Sapir and Wilson, 1967: 1291- 1293).

3 Issues in Identification and Assessment of Students with Learning Disabilities

Learning Disabilities are manifested differently over time, both in severity and with varying settings and environment. The identification, comprehensive assessment for diagnosis, and service provision to the Learning Disabled needs to be effectively integrated, and differential diagnosis is necessary to distinguish between and among other disorders, syndromes, and factors that can interfere with the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities and planning of an appropriate intervention program by a multidisciplinary team,

with a clear distinction between 'Diagnosis of Learning Disability' and 'Eligibility for Specific Services' (NJCLD).

The primary issues in the identification and assessment of Learning Disability appear to be the construction and validation of identification tools, identification criteria, identification of reasons for the occurrence of a particular Learning Disability, identification of co-occurrence of other deficits along with Learning Disabilities in an individual, the implications of Learning Disabilities on the educational, personal and social life and intellectual functioning of an individual, the probable causes of the deficit and the need and relevance of specific interventions and effect of remediation on an individual with Learning Disabilities. The issues that in particular make identification and assessment of children with Learning Disabilities in India difficult and challenging and that need to be addressed for timely treatment and remediation of the children are –

Lack of a Clear Definition and Understanding

The identification of Learning Disability has been under much dispute owing to the lack of an agreed upon definition of Learning Disability and a clear objective identification criteria. Previous methods for identification of children with reading difficulties are also found to suffer from lack of a theoretical foundation and supportive evidence for validity, which was responsible for the unnecessary delay in identification (Lyon et al., 2001: 54-76).

Lack of adherence to a consistent definition of Learning Disabilities to emphasize on the intrinsic and life-long nature of the condition; the understanding, acceptance, and willingness to accommodate normal variations in learning and behavior; sufficient competent personnel and appropriate programs to support the efforts of teachers to accommodate the needs of children who do not have Learning Disabilities but who require alternative instructional methods; insufficient supply of competently prepared professionals to diagnose and manage exceptional individuals; false belief that underachievement is synonymous with Specific Learning Disability; the incorrect assumption that quantitative formulas alone can be used to diagnose Learning Disabilities; failure of multidisciplinary teams to consider and integrate findings related to the presenting problems; comprehensive assessment practices, procedures, and instruments necessary to differentiate Learning Disabilities from other types of learning problems; and preference for the label "Learning Disability" over "mental retardation" or "emotional disturbance," which leads to the misclassification of some individuals, are the primary issues in the identification of Learning Disabilities (NJCLD).

Epidemiological studies of Learning Disability are also fraught with difficulties ranging from the very definition of Learning Disability, identification and assessment, to socio-cultural factors unique to India, and its implications in a pluralistic society being immense and cannot be easily dealt with (Karanth, 2002); where each type of Learning Disability needs to be individually addressed instead of being addressed under the broader umbrella term 'Learning Disability'.

Lack of Awareness and Policy Recognition

The understanding of Learning Disability in India has been dependent on Western literature and the practices of assessment and remediation are influenced overly and often inappropriately by western thought, practice and materials (Karanth and Rozario, 2003: 17-29).

Despite the Government Policies and Programmes available for children with disabilities in India, especially the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995, 'Learning Disability' unfortunately lacks recognition as a 'Disability' under the broader umbrella of 'disabilities'. Although the Sarva Shiksha Abhiyan (SSA) attempts to offer appropriate education for all children, with a mention made of 'Dyslexia'; still, since

the Scheme of Assistance to Disabled Persons for Purchase/Fitting of Aids/Appliances (ADIP Scheme) recognizes definitions of the various disabilities as stated in the 'Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995', therefore, this Scheme as well does not recognize Learning Disability as a disability for extension of the assistive services to the Learning Disabled as is available for persons with other disabilities. This Policy gap leaves Children with Learning Disabilities with little hope for assistance and support. In such a situation, the assistive educational provisions being provided by the Education Boards in India offer the only hope in assisting and helping these children from dropping out of the education system in struggling to meet the educational level and demands at par with their non disabled peers in the schools (Ahmad, 2014: 9-16).

There is need for concerted efforts from the government to ensure recognition and identification of Learning Disabilities and to translate its policies from paper into action, in terms of implementation, for an inclusive and equitable approach.

Lack of Proper Diagnosis and Timely Intervention

The currently recognized 15% prevalence rate of Learning Disability is considered to be inflated; though studies also report Learning Disability to be under-identified. While the increase in the rate can be attributed to better research, a broader definition of disability in reading, focus on phonological awareness, and greater identification of girls with Learning Disabilities; the increase in prevalence rate also has some unsound reasons like the broad and vague definitions of Learning Disability lacking specificity, lack of financial incentives to identify students for special education, and the inadequate preparation of teachers by colleges of education leading to the over referral of students with any type of special need (Lyon, 1996: 55-76).

There is lack of clear consensus on the diagnosis of Learning Disability, as to whether it should be split into different sub-types, and also if the methods for teaching Dyslexic children are as appropriate as those for teaching other poor readers. The different Specific Learning Difficulties manifesting in an individual may result due to an overlap of a mixture of symptoms depending on which the individual may have Dyslexia, Dyspraxia, Dyscalculia or Dysgraphia or a combination of these (Nicholson, 2002: 55-66). Considering the overlapping symptoms manifested in the 'Dyslexia ecosystem', the various external or environmental influences on the learning disabled child have significant impact on how Dyslexia affects their academic achievement. The causal variant within the multi-factorial framework is likely to involve gene-gene and gene-environment interactions leading to the different symptoms in the Dyslexia spectrum, including other conditions like ADHD and Central Auditory Processing Disorder (CAPD) depicting the Specific Learning Difficulty as just another difficulty with the learning involved, and only one of the symptoms (McGrath et al., 2006). Strong Dyspraxia, Dyscalculia, Dyslexia evidence proves the presence of genes influencing Developmental Dyslexia at several chromosomal loci which are responsible for the different aspects of the condition (Williams and O'Donovan, 2006: 681-689); prevention of certain Learning Disabilities may therefore likely be affected through education of vulnerable families (McGlannan, 1968: 185-191).

Earlier, a substantial discrepancy between a child's aptitude, typically operationalized by IQ, and their reading performance were an indication suggesting children as having reading difficulties (Gunning, 1998; Francis et al., 1996a: 132-143). And though the discrepancy-based method was widely used, there appeared to be several conceptual and measurement problems that warranted an alternative method of identification of dyslexics and other poor readers (Francis et al., 1996b: 3-17; Shaywitz et al., 1992: 145-150). The overall academic success in higher classes can be predicted with reasonable accuracy by using reading outcomes at early grades (Torgesen and Wagner, 2002) and early identification of children at risk for reading difficulties (Shaywitz et al., 1992; Juel, 1988).

Inappropriate diagnostic practices and procedures result in erroneous inclusion of individuals whose learning and behavioral problems are not attributable to Learning Disabilities while also exclusion of individuals whose deficits are manifestations of Specific Learning Disabilities. This has led to the questionable incidence rates of Learning Disabilities (NJCLD).

Children at high risk who receive intervention during early schooling demonstrate significant improvement in academic performance over time (Schenck et al., 1980), and studies confirm that children identified as having reading difficulties would not have required 'learning disability status' if their difficulties had been recognized at an early age (de Hirsh et al., 1966; Strag, 1972). Prevention and early intervention programs should therefore be a combination of good instruction in phonological awareness, phonics, fluency development, and reading comprehension strategies for developing efficient reading skills in children (Lyon, 1996).

Issue of Acceptance, Stigma and Labeling

In India, the tendency of 'acceptance' is not guaranteed to children with disabilities in inclusive schools since it depends more on the school's capability to provide the necessary services. The 'mainstream education' therefore appears to be just a 'norm' in terms of implementation of inclusive policies and being out of these schools tends to 'exacerbate the difference and marginalize vulnerable children further'. Inclusion therefore has rather become selective inclusion of the children with disabilities in the mainstream, especially in the private schools (Jha, 2010). Social attributes pose a major problem for children with disabilities where the attitude and acceptance from peers in schools, teachers and parents of the children affects their successful inclusion.

Negative peer attitude proves to be a major barrier for social inclusion, and lack of close friends with similar disabilities is a contributing factor (Mcdougall et al., 2004: 287-317). Acceptance by peers seems a greater challenge, since they being the closest to them and hence may be an easy target for being teased and bullied by their non-disabled peers (Mishna, 2003: 336-347); while the vulnerability of being bullied cuts across all types of disabilities (Smith and Tippett, 2007). Children who lack acceptance by peers are generally at risk for difficulties also later in their life (Ochoa and Olivarez, 1995: 1-19).

A major barrier which the children with disabilities experienced at school is often the attitude of the regular teachers (Agbenyega, 2007; Wall, 2002; Yu et al., 2011: 355-369), who often considering children with disabilities as the responsibility of the resource teachers, hold them to be a 'disturbance' to the class causing distractions which delay course completion, hence, ignoring their presence and concentrating on execution of their lesson plans (Das, A. and Kattumuri). While the intentions of the teachers generally appear to be noble and accommodating, they are found to lack the tendency to effectively engage students with special needs in the classroom (Gerber, 1992: 213-231; Soni, 2004). Also, the lack of sufficient knowledge and understanding about their students is another hindrance, though there seems to be the willingness to learn (Sengupta and Biswas, 2003). However there is no evidence of acceptance of a total inclusion (Avranides and Norwitch, 2002: 129-147). The beliefs, attitudes, and perceptions of regular teachers about students with disabilities and inclusive education play a significant role in the acceptance of these students and also the commitment of regular teachers in implementing and promoting inclusion (Opdal and Wormnaes, 2001: 143- 161; Minke et al., 1996: 152- 186; Villa et al., 1996: 29-45).

The attitude of the parents of non-disabled children also poses hindrance for inclusion in regular schools when they resist accepting children with disabilities to study in the same class as their non-disabled child. Sometimes, parents of the children with disabilities themselves prefer 'alternative schooling' for their 'disabled' child in hope for some vocational gains, relaxations or to gain the benefit of medical rehabilitation, or in an attempt to escape bullying of their child by

the non-disabled peers in regular schools.

Parents of children with Learning Disabilities usually are also not comfortable accepting their child's 'Learning Disability' and often lack the knowledge to use appropriate remedial education for learning difficulties. The lack of awareness in the community, parents, and teachers, about Learning Disabilities and also regarding the provisions available for them, is yet another issue. While some teachers, administrators, professionals and parents, do seem to be aware of the concept of inclusive education, but are often not aware as to how it can be implemented in ordinary settings (Shahazadi, 2000; Crabtree and Williams, 2011).

The social stigma of a 'Learning Disability' often prevents parents from seeking appropriate remedies for children with Dyslexia (Stigma stands, 2004) and hence generally avoid disclosing to their child's teacher what they know to be true about their child with special needs when they are actually expected to declare the problem so that the school can assess the situation and provide the necessary support. 'Parents often resort to concealing the fact lest the school would reject admission, pretending to be ignorant of the fact and waiting for the school to discover the child's special needs' (Sundaram, 2006). The expectations and anguish of the parents is in some ways justified for want of empathy from the schools for atypically developing children.

Issue of Language

The multilingual social context in India, where students are required to study through a medium other than their mother tongue, has made the education system complex and multi-tiered, hence the diagnosis extremely difficult and the estimation of prevalence of Learning Disability near to impossible. Although the benefits of educating a child using multiple languages are many, the multilingual and the multi-orthographic systems prevalent in India pose fundamental issues in assessing children with special needs (Ramaa, 2000: 268-283).

While assessing the development of auditory comprehension of language structure, lexical and grammatical, it is observed that one category of function words does not develop before another; rather auditory comprehension of language structure depends on the particular linguistic structure, its referent, and frequency of use (Carrow, 1968: 99-111). Since the mother tongue of children, the language spoken in a given state, and the medium of instruction in school could be different the simultaneous exposure to three languages could be demanding even for a typically developing child and even much more difficult for a child with a Learning Disability.

Also the multilingualism perpetuating the social strata adds to the complexity where children who are more privileged and hail from affluent families are found to be more proficient in English and are likely to receive a more appropriate education than children who are less privileged, socially disadvantaged and can access only vernacular language. 'English' being considered a foreign language and lack of proper exposure further aggravates the academic difficulties for the children and teachers, attributing the learning difficulties to a "language problem". Ruling out whether or not the learning difficulty of the child is caused by limited proficiency in the language of the school or by a Learning Disability, during the assessment is essential.

'Linguistic diversity of India poses complex challenges but it also opens a door of opportunities for teachers as well as learners' (Rajakumar et al., 2005, NCF 2000); though the age of enrolment of the child in the school, preschool exposure and literacy support available in their respective homes during the school years does add to the complexity of the language issue. As a result, relating "adequate instruction" and "social opportunity" to children from varied backgrounds and level of support is a tremendous challenge (Karanth, 2002).

Parents of children with Learning Disability are also observed to use the assistive provision of language choice otherwise, by approaching the Government-accredited centers for getting their child certified as 'Learning Disabled', with the aim to get their child 'exempted from one language

to improve their overall academic performance, though whether or not having a Learning Disability' adding to the ambiguity (Ramaa, 2000: 268-283). Lack of assessment tools in vernacular languages, lack of awareness on available alternate options, lack of sufficient training for teachers, and insufficient diagnostic opportunities are other challenges in the identification of children with Learning Disabilities for extending the needed assistance.

Lack of Teacher Awareness and Competency

In India, Learning Disability unfortunately lacks recognition as a disability, with 'little knowledge even amongst the Directors of State Education who are known to express doubts at the existence of any such disability'. The acute lack of teacher awareness, assessment procedures or indigenous tools for assessment of processing deficits, intelligence testing and testing for proficiency in reading and writing further complicates the inherent complexities of the notion of Learning Disability (Karanth, 2002). The teacher certification programs in India are short of sufficient courses in special education to prepare general education teachers for inclusive classrooms. Owing to the lack of proper training in the area, lack of familiarity with reading process and areas of reading skills which require assessment, creativity and 'trial and error' is what guides the course of remediation (Mirchandani and Sundaram, 2006). The role of speech language pathologists who are required to work in close coordination with teachers to set appropriate goals and activities for children in their classrooms and design intervention programmes for targeted children, is undermined in being determined by the clinical setting in which they work and in most cases the most important factor influencing their involvement with reading disability is their own interest, limiting successful intervention (Nirupama and Karanth, 2003).

Lack of Proper Research in the Area

Learning Disabilities in India is relatively a new and less explored area, with only selected centers and departments being interested and involved in researching this field. The educational system in the country lays particular emphasis on 'knowing' rather than 'learning', and 'theory' in place of 'application', and is therefore inappropriate for students with Learning Disabilities. It is imperative to examine the issues pertaining to assessment and remediation in the Indian context since there is lack of indigenous research and the preference and dominance of Western adaptations in absence of an appropriate need-based assessment.

Most of the researches and intervention in the area of Learning Disabilities in India is being undertaken by the non-government and private organizations, with little substantial communication and participation between them and the state educational authorities. Further a divide exists also between the personnel in the health and educational fields in both the private and government sector hindering in effective medical interventions, though early identification and prevention programs and provision of early intervention in basic reading skills in primary-grade general education classrooms can reduce the number of students with reading problems by up to 70% (Lyon, et al., 2001).

In the researches done on Dyscalculia, the deficits are found to point towards two patterns of brain dysfunction; one where there are impairments of auditory perception, semantic memory and phonemic discrimination, whereas no deficits being in Visuo-spatial skills, showing such children to be more deficient in reading and spelling than in arithmetic. These deficits have been interpreted as indicative of left hemisphere damage. In the other group of Dyscalculia, impairments of visuo-spatial perception, visuo-spatial analysis, tactual discrimination and finger agnosia are found while their auditory abilities remaining intact. This group is more impaired in arithmetic than in reading and writing and the deficits in neuropsychological functions indicative of right hemisphere

damage (Rao, 2003). Studies done across several countries prove that the typologies have clinical significance from the view point of diagnosis, and warn against the improper clubbing of all children with Dyscalculia into one group, stressing on the rehabilitation programmes for these children to be planned carefully keeping in mind the nature of dysfunction. Within the multi-factorial framework, the gene-gene and gene-environment interactions may be a reason for the different symptoms in the Dyslexia spectrum resulting in other conditions like ADHD (Attention Deficit Hyperactivity Disorder) and CAPD (Central Auditory Processing Disorder) which surface in future implying that 'Specific Learning Difficulty' is more than just a difficulty with learning involved, and one of the symptoms (McGrath et al., 2006).

Researches need to be conducted to understand the speech perception mechanisms in children with CAPD (Central Auditory Processing Deficits in Children with Learning Disability) to design comprehensive rehabilitation strategies, as no single test can provide complete information and may fail to detect the deficit at a particular level (Shivshankar, 2003: 268-283).

Lack of Standardized Tests for Assessment

The complexity of reading processes and their underlying relationship with language pose problems for the assessment of reading and reading disorders. Generally, psychometric and criterion-oriented approaches are used for the assessment of Learning Disabled children which often obscure the actual impairment of various skills, the knowledge of which is vital for the planning of an effective programme of Remedial education.

'Assessment is extremely essential to rule out whether the child's learning difficulty is caused by limited proficiency in the language of the school or by a Learning Disability' (Ramaa, 2000). Further the standardized tests of achievement used in India are a one-time-task, lacking revision, owing to the lack of credential body of experts and sufficient financial resources for periodic revisions with respect to their usability, reliability, validity, and norms across different states in the country. Also ready-made standardized assessment tools are not available in the different languages to suit the multilingual social context of the country.

Majority of the tests used in India for identification and assessment of children with reading difficulties are either western tools or adaptations of western tools and limited efforts have been made to translate assessments into relevant vernacular languages and to re-standardize them (Prema, 1998; Ramaa, 2000), hence frequently criticized for being insensitive to the reader's linguistic environment and the characteristics of their writing system. Indigenous, language based reading assessment tests should be used that are sensitive to the characteristics of each language and its script specific features since reading processes depend on the nature of language and its script-specific features (Prema and Karanth, 2003).

Lack of an Alternate System of Education

Lack of an alternate system of education for children with Learning Disabilities and certain preferential choices of parents of Learning Disabled students for certain subjects and training options is another hindrance in the access to need-based education of children with Learning Disabilities. Since children with Learning Disabilities and slow learners find learning difficult because the regular school evaluation system does not allow a range of choice of subjects for them to choose from, they have an alternate provision to enroll under the NIOS (National Institute of Open Schooling System) which offers more skill-based subjects to choose from, acknowledges Learning Disabilities as of heterogeneous nature, and accordingly prescribes the educational assistive provisions as per the nature of the disability (*Dyslexia, Dysgraphia, Dyspraxia, Dyscalculia*) besides also permitting the use of Calculators and Computers in the examinations to such students as the need be. The

NIOS is functional through a network of accredited academic and vocational institutions all over India, working in interaction with many NGOs and other special schools, offering Certificates which are considered at par with the Board Certificates, based on which the student can get admission into mainstream college later on if needed. A student having Learning Disability who cannot cope up with the regular school syllabus may opt for NIOS provisions and benefit from it instead of dropping out of the education system struggling to meet the expectations to perform at par with their non-disabled peers in inclusive schools (Ahmad, 2014). Schools with NIOS syllabus also have in-house vocational training facilities but the specific social preferences for certain selective vocational courses with an 'utter disregard' for other vocational training has emerged as a major hurdle in the education of children with Learning Disability in India (Karanth, 2002). Parents of children with Learning Disabilities need to understand that it is important to make the student self-reliant with a vocation learnt earlier, than force the student to pursue higher education when the interest and abilities of the learning disabled students do not permit this (Ahmad, 2014).

NIOS not being available at all schools depriving especially children from underprivileged backgrounds of its programs, is yet another issue.

CONCLUSION

Students with Learning Disabilities have special needs in academic, classroom, behavioral, physical, and social performance and hence require need-based adaptation of classroom procedures for effective academic instruction. To address the educational needs of learners having Learning Disability, it is essential to ensure timely identification, assessment and remediation to help minimize the effects of Learning Disability since it manifests itself in multiple forms. Children with disabilities in reading accompanied with the attention deficit disorder are found to be having reading deficits that are more severe and more resistant to intervention. Appropriate early intervention, phonological instruction, and continuous and intensive support to deal with other co-occurring disorders like CAPD (Central Auditory Processing Disorder) and ADHD is essential to address the issue and assist the children in efficient learning, since longer the children with disability in basic reading skills go unidentified and without intervention, the more difficult is the task of remediation, lesser the rate of success and more severe the accompanied social and behavioral deficits in the children as co-occurring disorders hampering their healthy learning and growth. It is therefore vital to identify and address the issues in identification and assessment of Learning Disabilities in the country to offer a fair platform to students, opening a window of opportunities by assisting them to learn at their own pace and helping them to study and perform at par with their non-disabled peers in schools. Policy recognition of Learning Disability, extension of equitable access to facilities and assistance in learning, effective and timely interventions, adequate research on the identification, treatment and remediation of Learning Disabilities to understand the gravity of the affects of this 'invisible disability' can help sought out a direction to address the problem. Besides, ensuring means of identification and assessment that are indigenous and easily adaptable in the country can help in addressing the differences in a just and need-based manner and making learning barrier-free, inclusive and accessible to all.

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