



SYSTEM INDUCED CHALLENGES OF DYSLEXIA

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ABSTRACT: Learning disability is an umbrella term that covers a range of disorders in learning. It is currently attributed to differences in brain structure and wiring. Dyslexia is the most common learning disability. According to the Dyslexia Association of India, research showed that 10–15% of Indian children are dyslexic. Dyslexia can't be cured, it is lifelong. But with the right support, dyslexic individuals can become highly successful students and adults. Dyslexia manifests itself and pose challenges in many areas like reading, writing, organizational skills, memory etc. Aspects of the existing system which serve as a hindrance to the development of dyslexic children and play a significant role in shaping the academic profile of a dyslexic child in a worser way are referred as the system induced challenges. In this paper, the system induced challenges of dyslexia are discussed under three major areas: Identification (Pre-assessment), Assessment, Remediation & Concession (Post-assessment). Improving on these aspects would definitely have a positive impact on dyslexic children and would change the disability into a different ability.

Index Terms: Dyslexia, challenges, system

I. INTRODUCTION

Learning disability is an umbrella term that covers a range of disorders in learning. It manifests as difficulties in acquiring skills such as reading, spelling, writing, comprehension etc during conventional classroom instruction. It is currently attributed to differences in brain structure and wiring. There are several kinds of learning disabilities like dyslexia (reading difficulties), dysgraphia (writing difficulties), dyscalculia (math difficulties) etc. Although it cannot be cured, there are interventions for underlying conditions so that children with learning disabilities can adapt, accomplish academic achievements, and live productive and fulfilling lives. (Shapiro BK 1993)

Dyslexia is the most common learning disability, and nearly 70%-80% of students diagnosed with learning disabilities have deficits in reading. The other areas affected may include memory, attention, organizational skill etc. It is referred to as a learning disability because dyslexia can make it very difficult for a student to succeed academically in the typical instructional environment, and in its more severe forms will qualify a student for special education, special accommodations, or extra support services. (The International Dyslexia Association, 2009)

There's no single test that can diagnose dyslexia. A number of factors are considered. There's no known way to correct the underlying brain differences that cause dyslexia. However, early detection and evaluation to determine specific needs and appropriate educational methods and techniques can

help the child improve in the areas of difficulties. With the right support, dyslexic individuals can become highly successful students and adults.

II. PREVALENCE OF DYSLEXIA

The incidence of dyslexia in India is believed to be 15%. According to the Times of India, Jan 22, 2013, there are 228,994,454 students enrolled in recognized schools, which brings our count of dyslexic Indian children to nearly 35 million. (GOI 2015) According to the Dyslexia Association of India, research showed that 10–15% of Indian children are dyslexic.

III. IMPLICATIONS OF DYSLEXIA ON THE SOCIETY

During the early primary school years, the synergistic relationship between reading, writing, and spoken language is more evident than during the pre-school years. (Davis, R: Braun, E 2010) The overall academic success in higher classes can be predicted with reasonable accuracy by using reading outcomes at early grades. (Torgesen 2002) A child who has difficulty in reading is likely to experience academic failure as a result of difficulty in all academic subjects, and this is due to the importance of reading to most aspects of academic curricula. (Davis, 2010) As a result, a child with a reading disability will fall further and further behind his/her typically-developing peers due to the pervasive nature of his/ her disorder.

While dyslexic children have immense potential, the condition often masks their abilities and highlights only their difficulties. It leaves a huge volume of potential untapped. Implication of dyslexia is so critical that if left unattended, we will lose out on the academic success of a huge number of our future generation.

IV. SYSTEM INDUCED CHALLENGES OF DYSLEXIA

Dyslexia manifests itself and pose challenges in many areas like reading, writing, organizational skills, memory etc. These are due to the inherent nature of the condition. But there are some other factors which play a significant role in shaping the academic profile of a dyslexic child in a worser way. These factors tend to create more challenges to the dyslexic child in addition to the existing inherent challenges. These are referred as the 'System Induced Challenges'. These are the aspects of the existing system which serve as a hindrance to the development of dyslexic children. Improving on these aspects would definitely have a positive impact on dyslexic children and would convert the disability into a different ability.

System Induced challenges of dyslexics in India can be considered under three major areas:

- Identification (Pre-assessment)
- Assessment
- Remediation & Concession (Post-assessment)

IDENTIFICATION

Dyslexia is a hidden disability making its identification very difficult. Identification is possible in school by teachers and at home by parents. These are the two places where there is a possibility of the child's difficulties getting observed.

PARENTS

The following scenarios are commonly observed.

- Parents are not aware of dyslexia and manifestation of its difficulties.
- Parent is not with the child while he/ she studies or does the homework. Child just manages by himself or tries to cope up with what is taught at school. Or, child is sent to

tutions where the focus is on completion of homework and rote learning of subjects for the purpose of exam. In both cases, parent is not aware of the child's academic abilities and difficulties.

- Low marks are considered as lack of effort from child.

Every day at school can pose new challenges. Parents should be supportive, identify the child's strengths and difficulties, encourage and use strengths to balance difficulties, keep up his self-esteem and confidence.

TEACHERS

Around 10% of school children have some degree of dyslexia. In developed countries and the West in particular dyslexia is recognized as a major educational and medical problem, but has not received sufficient attention in developing countries. Elementary school teachers could play a crucial role in identifying dyslexia early and in creating awareness about learning disorders in the community. (Shetty, Anil & Rai, Sanjeev 2014) Teachers play a critical role in identifying and dealing with the first signs of dyslexia--if they are aware of its symptoms. (Spirou, 2008) 92.3% of the teachers admitted to poor knowledge and were not confident of guiding children with dyslexia. (Spear-Swerling L, Brucker PO, Alfano 2005) Teachers often have a negative attitude towards children with learning disabilities due to their limited knowledge (Charan & Kaur, 2017). They do not show empathetic behavior or give support to learners with impairments due to excess workload.

Regular school teachers lack awareness. Some symptoms of dyslexia like reversal are commonly seen even in non-dyslexic kindergarteners. But it is suspected as dyslexia immediately. But the other symptoms like difficulty in copying, a specific pattern of errors in writing / math are not noticed and hence not suspected as dyslexia.

In a classroom with many children, individual attention is very less. No efforts are made to identify why the child lags, difficulty areas. So, the children scoring low marks are considered lazy/ not taking effort/ low capability and often labeled as slow learners.

Parents and teachers struggle as they do not know the reasons for the child's failure and label the child as 'lazy' (Mirchandani, P 2006). Ignorance and lack of awareness among parents or school teachers result in delay of detection and remediation (Bajaj & Bhatia, 2019). There is still a stigma associated with dyslexia in India, which can lead to dyslexic students being bullied or discriminated against.

Proper assessment of a child for learning disability can happen only when someone who has observed the child have a doubt about the child being dyslexic or at least a thought that the child's poor performance in some aspects is not due to the child's laziness or lack of effort. Then the child must be referred for an assessment.

ASSESSMENT

There are different criteria to diagnose specific learning disability, which varies according to the country or region. For example, 'Response-to-Intervention' framework is recommended in the United States (Bjorn 2018), while on the other hand, Nimhans SLD Battery in India uses 'norms with academic curriculum difference/lag' criteria to diagnose SLD (Hirisave 2020).

The three-tier assessment system of learning disability in US gives the child a better possibility of getting identified. The 3 levels are as follows:

- The first level of the three-tier model is the core classroom instruction. In the assessment that is held at school level, if more than 80% of children are up to their grade level, school teaching system is considered as adequate. Else, the school's system and

teaching method is changed. The problem is not that of the child. But, in India as of now, there is no such system. The school's quality of teaching is not considered at all. Even if the child is lagging because of lack of good quality teaching, it is attributed to the child's inability to learn.

True dyslexia affect about 3%–6% of the population. Yet in some parts of the country, up to 50% of the students are not reading at grade level. The reason for most children not being able to read at grade level could be ineffective reading instruction. The child with dyslexia is often a victim of having SLD and is being exposed to ineffective instruction as well. (Myers 2003)

- The second level of the three-tier model is as follows. After ensuring that more than 80% of the children are at grade level and confirming that school's teaching method and system is good enough, children who did not attain grade level skill (<20%) are provided targeted small group instruction in addition to the core curriculum. Students who do not improve with this level of support are moved to the third level.

- The third level of the three-tier model is intensive individual remedial intervention in which the individual need and problems are addressed.

This three-tier approach has lot of benefits. It identifies the children in need of extra support at the early stages (i.e.) Even when they lag in the current grade level, unlike our system where the child proceeds to further grades without the basic skills and thereby creating a huge learning gap. The early identification means less time taken for remediation without missing out the further grade concepts.

Assessment for the purpose of certification during board exams is done by government doctors and psychologists. For the sake of knowing the problem and taking necessary steps, assessment is also done by psychiatrists, psychologists who are private practitioners. But most parents are reluctant to take their child for an assessment to a psychiatrist/ psychologist as these professions are in common associated with mental illness. Learning disability is a condition and is not a mental illness. But, due to the lack of awareness among general public and stigma of getting labeled as a mentally sick person hinders the chance of getting assessed.

Research says that as early as first grade, children show symptoms of learning disability (Ferrer E 2015). Hence, the right time to identify academic difficulty is in the first grade or even earlier in some children who show severe deficits in learning (Shields 2016). Identifying during the first grade or even earlier gives better chances for remediation and gives sufficient time for the child to learn and master academic skills by the time s/he comes to third grade. In this regard, education department of the US has even issued a statement that assessment for learning disability should not be delayed till third grade (Ryder 2016). This is also what is usually followed in 'response-to-intervention' criteria method.

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 (Strag, 1972).

The assessment methods focus majorly on reading and writing skills of the child. If the deficiency in reading and writing is due to other reasons like inadequate instruction or inadequate learning, there is a possibility of these reasons getting ignored and getting labeled as dyslexic. On the other hand, child who is actually a compensated dyslexic may end up not getting labelled.

Consider the case of Student X, a dyslexic child. The child was taught phonics and other reading skills since a very early age along with good parental care and support in academics and every other aspect. So, the child learnt to read early and developed good reading skills above grade level. But

the underlying dyslexia manifested in other ways like bad handwriting, slow copying from board, spelling mistakes relating to dyslexia and dysgraphia (though the spelling ability was above grade level), difficulty in following multiple instructions etc. These deficits created a gap between the child's potential and actual performance. Indian assessment methods concluded the child was non-dyslexic whereas an UK based assessment identified the child's dyslexia along with dysgraphia. The child could have received concessions if the assessment had been right and could have scored better than what he could without any concession in exams.

Also, there is a confusion among assessors and assessing system about dyslexia and dysgraphia. Some believe that each can exist alone while some argue that it can only co-exist. In the example discussed above, dyslexia got masked with the child's consistent effort and coping strategies but dysgraphia was visibly seen. But, since the assessor doesn't believe that dysgraphia cannot exist alone and can only co-exist with dyslexia, the child is diagnosed with neither dyslexia nor dysgraphia. If it had been an assessor or system that believes that dysgraphia can exist with or without dyslexia, the child would have received the concessions related to dysgraphia like extra time, ignoring spelling mistakes or even a scribe. This arises a question if the quality of assessment method and assessor determines the fate of the child. This also shows that the methods used are more subjective rather than being objective.

When a child has clear and significant degree of academic difficulties, it is sufficient to use the NSB as it is. (Nimhans SLD battery, abbreviated as NSB is the testing tool for learning disabilities used in India) However, where the degree of learning disability is in question, when there are inconsistencies in the test findings, one has to look at the nuances of the test results and has to go beyond what is given in NSB. (Roopesh, Bangalore 2021)

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. (National Joint Committee on Learning Disabilities NJCLD)

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.

REMEDICATION AND ACCOMODATION

REMEDICATION

Timely remediation is not provided. Generally, Parents of lower primary class children tend to consider the lag in academic skills with less importance and do not sense a need for remediation. They do not emphasize on academic skills in the initial years, try teaching them in a strict way by themselves when marks start reducing, arrange for tuitions when they are not able to make the child study around upper primary and finally after changing many tuitions with no fruitful results, comes to an understanding that remedial class is the only option. But the precious early years are lost and the gap between actual and expected level of the child is very wide, thereby taking more time and effort to bridge the gap.

Early intervention programs should 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).

Schools should have a checklist for end of term/year goals for each class level. It should not be based on the subjects. It should be based on basic reading, comprehension, spelling skills. If the child doesn't meet those pointers in the checklist, immediate remediation must be provided to fill the gap as quickly as possible.

Some schools on the other hand, conduct 'tuitions' in school in the name of 'remedial class'. Their idea is to reteach the same subjects taught in regular class to a smaller group whose performance is lower than their peers. Though the term 'remedial class' is used, it is actually a form of tuition available in school with or without extra fees. In case of dyslexia or even any normal child whose level does not match the grade level, there is no use in reteaching the same subject for many times without proper remediation and elevating the child's level. But the confusion exists and many consider tuition as remedial class. The real meaning of remediation is not understood and hence not provided too.

Proper remediation is not easily available. There are many tuitions available for the school subjects. But remediation is rarely available and very expensive too, mostly charged on per class basis. Both availability and affordability are a problem. Special educators are more apt for remedial class than regular teachers. But special education covers a wide area. Special educator may be specialized in any of the special need areas like hearing impairment, visual impairment, intellectual disability, autism, learning disability etc. According to school authorities, special educators are experienced in teaching physically challenged students; they lack theoretical and practical skills required for teaching learning disabled students. The teaching methods have to be tailor-made for these students since they have behavioral problems as well. (Chaudri 2015)

Some of the other limitations include a limited number of qualified special educators in the country and the lack of appropriate infrastructure to support remedial interventions (Karande 2022). 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).

Just because someone is a special educator doesn't ensure the presence of required knowledge and skill to teach a dyslexic child. Apart from the professional courses or the less valued certificate courses, the special educator needs to learn a lot specific to learning disabilities as lack of knowledge would cause a great loss to his/ her students. The variation in student outcomes from a good to a bad teacher can be as much as a full year of knowledge per academic year; in other words, while a poor teacher gets gains of 0.5 grade-level equivalents during a school year, a good teacher gets gains of 1.5 grade-level equivalents. Clearly, with a string of good or bad teachers, the implications for student performance could be very large. (Hanushek, Eric. 1971). This applies to a regular teacher in regular schools. But, in case of a special educator teaching a child with special needs, the ability plays a more important role. Since there is an already existing gap in the child's level, there's not much time to lose or use trial and error methods.

While remediation is being done, the child is expected to perform in school with the actual grade level requirements. Though there is a tremendous effort and improvement from the child in his/ her level, it will not be reflected very much in his actual grade level exams. He continues to be viewed as a slow learner in spite of the improvements. For improvement to be noticeable in the actual grade level exams, patience and consistency in efforts is important.

Remedial education is considered as one of the efficient intervention methods for dyslexia when administered at early stages (students at primary level) due to higher adaptive features of their central nervous system (Karande & Kulkarni, 2005). However, to achieve significant results, the children need to undertake these training sessions regularly for some years. (Karande et al., 2011)

Different training programs are found effective in remediating children associated with learning disabilities if given at early stage. (Kujala et al., 2001) The brains of dyslexic students can be retrained with phonics. (Rodgers 2006)

CONCESSION & ACCOMODATION

Many boards are offering concessions, but there is no uniformity in rules for demanding certificates. Some boards demand only a certificate of SLD and some require a detailed report along with the certificate; some need renewal while some accept one-time certification. (Shah 2017)

In case of board concessions, certain boards require assessment at the time of examination or every year. This causes confusion. For example, Certification of LD (Learning Disability) is given if the child's level is at least 3 levels below the current grade level. But a child who might have been assessed as having a learning disability at earlier stages might have undergone remediation and improved skills in such a way that he is not 3 grades below present grade level, but doesn't match his grade level, say 2 grades below grade level. The child would still be suffering in his grade level and it is due to his underlying LD condition. But it will be considered as learning difficulty and not as learning disability and hence not considered for certification. This poses a question, "Are we waiting for the child to fail? Are we looking only for failure while ignoring the potential of the child?"

Consider this case of Student-A and Student-B. Both gets diagnosed for LD at grade 5.

Student-A attends remediation class, improves his academic skills, comes back for certification at grade 10, disqualifies for certification as the learning disability had now come down to learning difficulty level after intense remediation & hard work. He writes exam with his slow, bad handwriting, limited reading & spelling skills without any concession and scores average marks.

Student-B doesn't attend any remediation class to improve reading & writing, learn and give answers orally, focuses on extra-curricular activities, comes back for certification at grade 10, qualifies for certification and gets a scribe, subject exemption, extra time and score average marks or even better marks than Student-A with so many concessions.

Even if both get the same average marks, Student-A's efforts are much more than Student-B. His entire schooling period would have been dedicated to remedial class and extra class to compensate his difficulties in contradiction to Student-B who would have spent his time in improving his other extra-curricular skills. At the end, the system facilitates in providing the same output in both cases. The above scenario which is very much possible is a perfect case of ethical dilemma.

The awareness among policy makers regarding this point of differentiation is limited. Students are not able to avail relaxations and suffer silently. Pediatricians and psychiatrists rely on clinical psychologists to distinguish students with learning difficulty and disability. This confusion creates problems for the process of certification and intervention. The problems of students with learning difficulty not amounting to disability needs to be dealt with specialized techniques of intervention just like what we would have done in the case of a certified learning disability but without any board concessions.

UK system allows child with dyslexia/ dysgraphia to submit assignments and exams in typed format. So, remediation suggested is to learn touch typing. But, in Indian system, unfruitful measures like handwriting classes are suggested as remediation measure. In some schools, differentiation for slow learners in lower classes is provided in the form of less syllabus and easy question papers. By this, we are making the child learn less that what they should have actually learnt. In long term, they will miss out on many aspects. There should be measures taken to teach, learn and test the same concepts in different methods. For example, a dyslexic child may have problem with learning and writing answers in exam. But oral examination or demonstrating the

learnt concept in the form a demonstration, visual presentation should also be accepted. To enable such accommodations, changes must be made to the system.

V. CONCLUSION

Dyslexia poses everyday challenges. As it is a hidden disability not visibly seen as any other physical impairment, the expectations from a dyslexic child are more often the same as those of a non-dyslexic child. This creates a constant stress for the dyslexic child to meet the expectations, which when not met causes low self-esteem in addition to the confusion of how to deal with their difficulties. But, with so many limitations and flaws in our environment and system, the challenges become even more tougher. Parents, teachers, schools and policy makers should become more aware of the scenario to make necessary changes in the system and provide support mechanisms to bring in those changes. It is not just for the well-being of dyslexic children but for the nation as a whole in long term as they are an important part of the country's future.

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