

Including the children with learning disabilities

Abstract -The enigma of the youngster who encounters extraordinary difficulty in learning, of course, is not new. Throughout the years, children from all walks of life have experienced serious difficulties in learning. Moreover, the condition we call learning disabilities occurs in all cultures, nations, and language groups, however the role of teachers, parents, school heads and peers is to understand this and help a child in overcoming this difficulty. Once correct intervention in the form of various therapies is given, any child with learning disability can lead a life as normal as another child and have a successful career. Identification, support and correct intervention are the key to success.

Learning Disability is a disability which is not apparent to the naked eye and cannot be gauged by just looking at the child. It is an invisible disability.

What exactly is learning disability then?

The term **learning disabilities** refers to a neurological disorder in one or more of the basic processes involved in understanding spoken or written language. **This brain variance may influence an individual's ability to speak, listen, read, write, spell, reason, organize information, or do mathematical calculations. There will be a huge gap between expectation and the actual performance of as child.**

According to the National Center for Learning Disabilities, New York LD is “a neurological disorder that affects the brain's ability to receive process, store and respond to information. The term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills” **A person can be of average or above-average intelligence, without any sensory problems (like blindness or hearing impairment), and yet struggle to keep up with people of the same age in learning and regular functioning.** It is a lifelong condition .and is acquired before, during or soon after birth”.

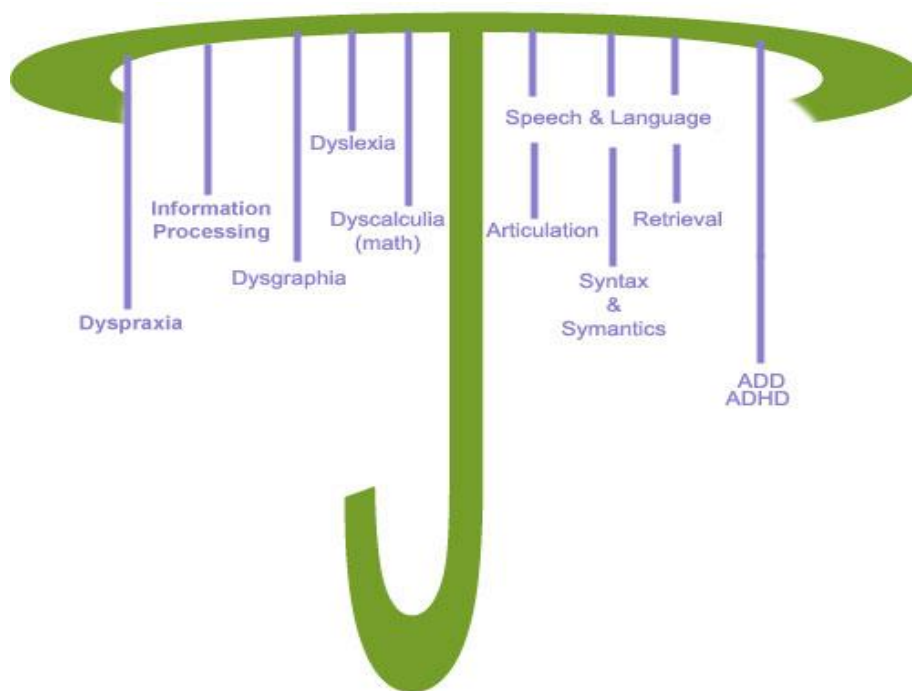
An important point which needs to be kept in mind while assessing and identifying a person as having learning disability is the measurement of his intelligence quotient or (IQ) .Measurement of the extent, of significant impairment of intellectual functioning is carried out through the use of psychometric tests which measure the IQ. For example, the mean at Wechsler Intelligence Scale (WISC) is 100, so a person having a learning disability will have an IQ of 90 or could even have an above

average or superior intelligence. Therefore, while assessing for scholastic backwardness; one must not confuse a slow learner with learning disability (LD).

An important difference between a slow learner and a child with LD is the IQ so an average or an above average IQ is detrimental for a child to be termed as having a learning disability.

The Indian version of WISC is the **Malin's Intelligence Scale for Indian Children (MISIC)**.

Learning disability is a vast umbrella encompassing different types of disabilities.



In a class full of children let's say 40 (which is an average number in an Indian school), almost 35 children would be performing at an average level, however the remaining 5 would be lagging behind in the class due to any given reason. As said earlier, if a child is unable to perform due to any sensory problem like a problem in vision or hearing physical or mental handicap, the reason is very clear, however is despite all sensory issues being normal, a child is still unable to perform then one needs to look into many other factors which could possibly be the reason for non-performance. Some of them have been given below.

Dyslexia A language and reading disability

Dyscalculia Problems with arithmetic and math concepts

Dysgraphia A writing disorder resulting in illegibility

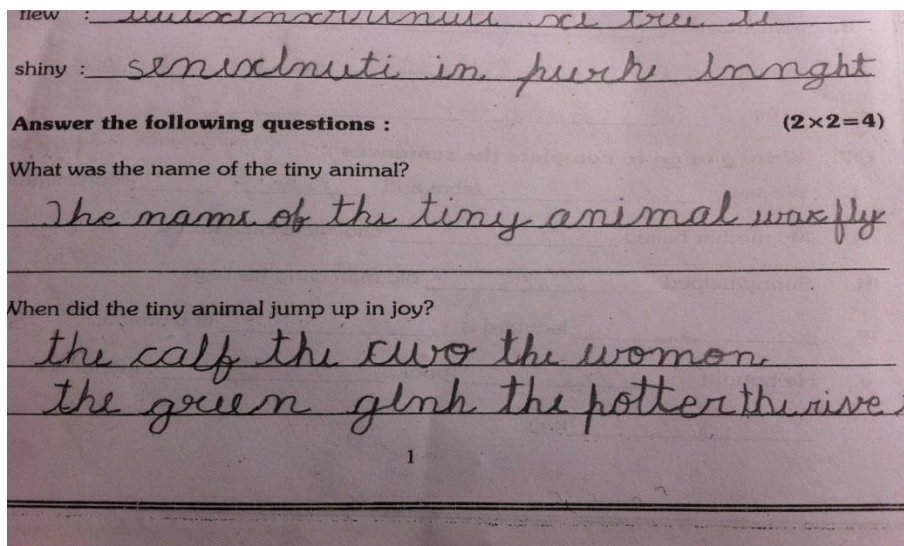
What is Dyslexia?

The word dyslexia comes from the Greek language meaning, "difficulty with words". Dyslexia is a language based learning disability and the main area of difficulty is reading. Students with Dyslexia usually experience difficulties with language skills such as spelling, writing and pronouncing words.

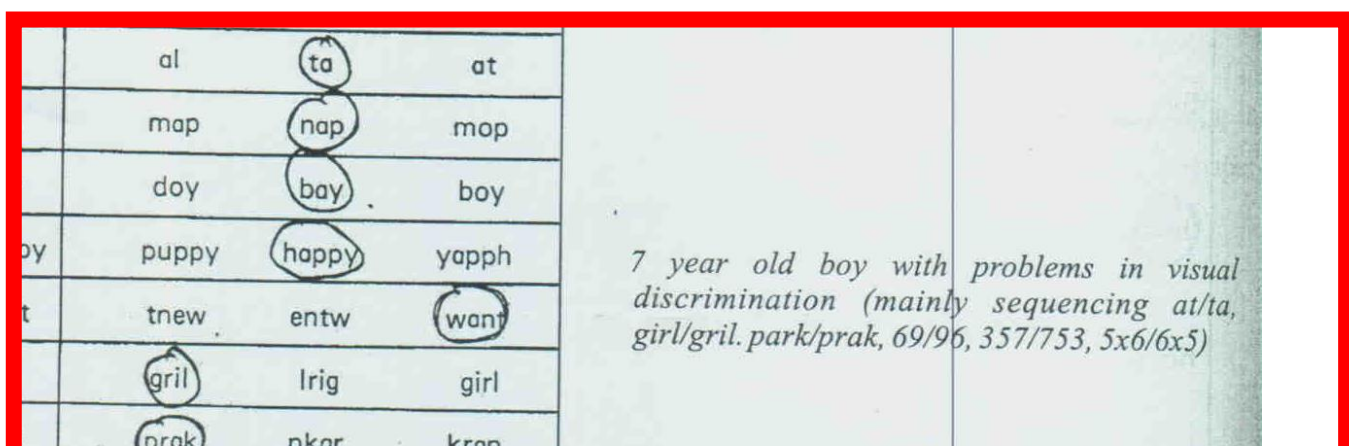
It does not result from vision or hearing problems. It is caused by impairment in the brain's ability to translate images received from the eyes or ears into understandable language.

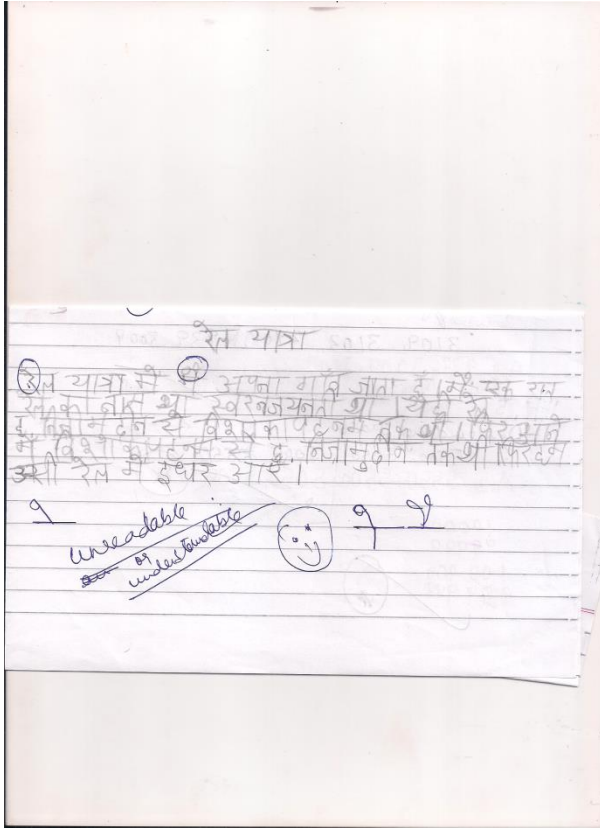
It is not due to mental retardation or brain damage. It is also not due to either lack of intelligence or a desire to learn. It is simply because the brain is wired in such a way that a child is unable to read or write correctly.

During the teaching learning process as early as kindergarten, a language is taught by teaching him/ her symbols of the words and the phonological sounds of it. A child who is having dyslexia will process the information not in the normal manner, but in a manner his/ her brain has been wired to process it. **A few samples have been given below**

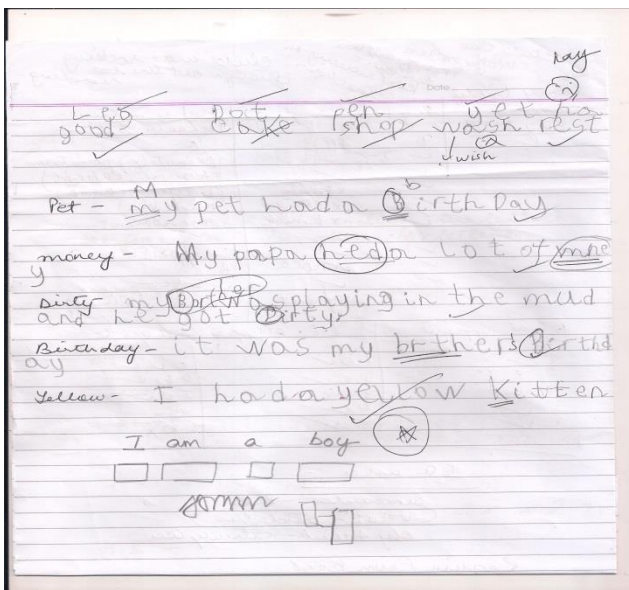


Sample of a class test of a 6 year old, where the text was learnt .

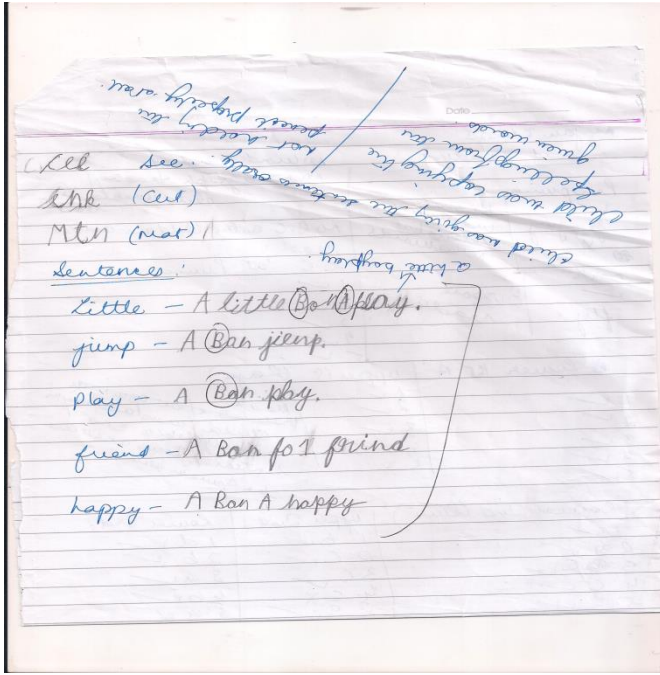




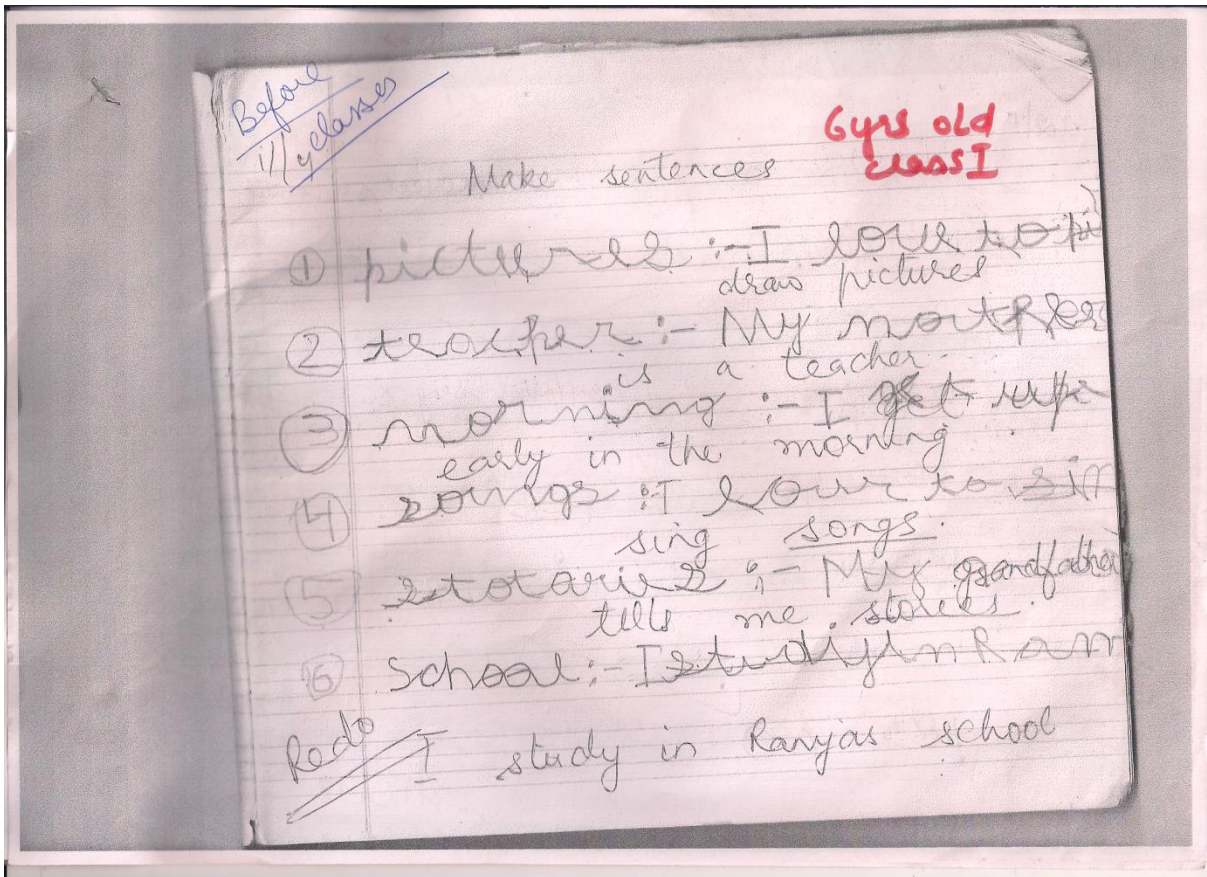
Sample of an 8 year old child having spacing difficulty.



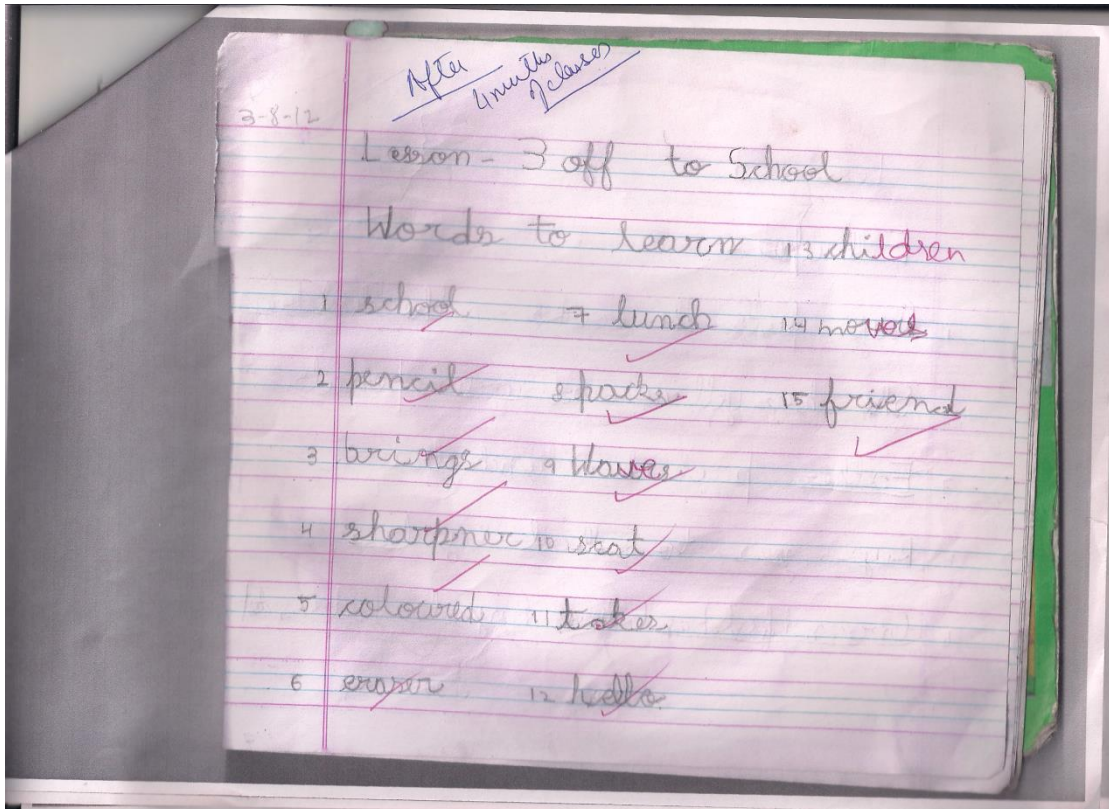
Sample of a 6 year old having handwriting difficulty



Sample of a 6 year old having dyslexia.



Sample of a 6 year old having dysgraphia. Both hand writing difficulty and difficulty in written expressions.



Sample of the same child after intervention

Ref: turning point : centre for child adolescent and family counselling

Common areas of difficulty and some educational implications:

Phonological awareness. The understanding of language is made up of individual sounds (phonemes) which are put together to form the words we write and speak. This is a fundamental precursor to reading.

An individual with difficulties in this area may not be able to follow instructions given verbally or may have trouble recalling information from a story read aloud.

The ability to remember or reconstruct the order of items in a list or the order of sounds in a word or syllable . One example is saying or writing "remember" for "remember."

The process of putting together phonemes to form words. For example, the individual phonemes "b", "a", and "t" are blended to form the word, "bat".

This child will have difficulty in copying with the class curriculum. The parental concern is always that the child is able to do everything at home and the moment he goes to school, the performance simply deteriorates.

Dyscalculia

Another common learning disability seen in children is dyscalculia.

Dyscalculia is a learning disability affecting a person's ability to understand and manipulate numbers.

Dyscalculia: Warning Signs by Age

Young Children	School-Aged Children	Teenagers and Adults
<p>Trouble With:</p> <ul style="list-style-type: none">> Difficulty learning to count> Trouble recognizing printed numbers> Difficulty tying together the idea of a number (4) and how it exists in the world (4 horses, 4 cars, 4 children)> Poor memory for numbers> Trouble organizing things in a logical way - putting round objects in one place and square ones in another	<p>Trouble With:</p> <ul style="list-style-type: none">> Trouble learning math facts (addition, subtraction, multiplication, division)> Difficulty developing math problem-solving skills> Poor long term memory for math functions> Not familiar with math vocabulary> Difficulty measuring things> Avoiding games that require strategy	<p>Trouble With:</p> <ul style="list-style-type: none">> Difficulty estimating costs like groceries bills> Difficulty learning math concepts beyond the basic math facts> Poor ability to budget or balance a cheque book> Trouble with concepts of time, such as sticking to a schedule or approximating time> Trouble with mental math> Difficulty finding different approaches to one problem

Dysgraphia

Dysgraphia is a learning disability that affects the handwriting and written expression of a child. Just having bad handwriting doesn't mean a person has dysgraphia. The thinking skills needed to communicate on paper are also affected— both these difficulties can overlap.

Dysgraphia makes the act of writing difficult. It can lead to problems with spelling, poor handwriting and putting thoughts on paper. People with dysgraphia can have trouble organizing letters, numbers and words on a line or page.

Since dysgraphia is a processing disorder, difficulties can change throughout a lifetime. However since writing is a developmental process—children learn the motor skills needed to write, while learning the skills to put the thoughts on paper need to be taught.

Dysgraphia: Warning Signs by Age

Young Children

Trouble With:

- > Tight, awkward pencil grip and body position
- > Avoiding writing or drawing tasks
- > Trouble forming letter shapes
- > Inconsistent spacing between letters or words
- > Poor understanding of uppercase and lowercase letters
- > Inability to write or draw in a line or within margins

School-Age Children

Trouble With:

- > Illegible handwriting
- > Mixture of cursive and print writing
- > Saying words out loud while writing
- > Concentrating so hard on writing that comprehension of what's written is missed
- > Trouble thinking of words to write
- > Omitting or not finishing words in sentences

Teenagers and Adults

Trouble With:

- > Trouble organizing thoughts on paper
- > Trouble keeping track of thoughts already written down
- > Difficulty with syntax structure and grammar
- > Large gap between written ideas and understanding demonstrated through speech

>Tiring quickly while writing

Whatever be the type of disability which the child has, there are certain common behaviour patterns which have been observed in the class room.

Some common complaints which the teachers have right from an early time are:- Incomplete class work

- Incomplete home work
- Spelling may be very poor.
- Difficulty remembering and understanding what they have just read.
- Poor concentration span
- Forgetful in getting complete books to school
- Poor recall of the concepts taught
- Lack of participation in class activities / group activities
- Aggressive behavior
- Truancy from school work
- Often seen standing out side the class room for disrupting the discipline of the class

Some common complaints which the parents have are:-

- Disabilities involving math vary greatly from person to person
- Poor concentration span at home while studying
- Losing things in school, like stationary, books, belts, water bottle tiffin box etc.
- Incomplete class work
- Not adhering to any time limit set by the care taker
- No friends
- In ability to set the bag according to the timetable
- Highly disorganized cupboards etc.

These observations have been recorded by the authors own experience in handling children with a variety of learning disabilities. The source of information has been the parents, teachers and school heads. The data has been collected through samples and directly observation and handling of the children in age group 6 till 11 years.

Inclusion as a reality

Though each child with a learning disability has a different set of problems, Management of these needs to be 2 folds- it involves intervention on one hand and accommodation on the other.

Intervention implies working with the child such that the weakness is improved, for instance, doing phonological awareness activities with the child who has trouble reading and spellings. These activities would enhance his spellings.

Accommodation implies bypassing the weakness of a child. For instance, not cutting marks for incorrect spellings as per guide lines given by the CBSE would be an accommodation given to a child.

It has been seen that in junior schools that intervention in the form of special education is very important as the brain is still developing and the changes are easily accepted by the mind and results are seen faster. Thus emphasis on remediation is heavy and as the child becomes older, the emphasis shifts to accommodation.

Since the disability of each child is different, hence the intervention of each child is different. An **individual education plan (IEP)** is a must for each child. This is a one to one session which needs to be given at least thrice a week if not more. Other than this, various accommodations should be given at the class room level which have been discussed below

Types of Accommodations

There are many ways in which accommodations can be used to support students with disabilities in the classroom. These include:

Accommodations in Presentation – this affects the way directions and content are delivered to students. Students with visual, hearing, and learning disabilities are much more able to engage in the content when it is presented in a form they can understand. Some examples of accommodations in presentation include:

- Oral reading (either by an adult or a tape)
- Large print (for a low vision)
- Magnification devices (again for low vision)
- Sign language (hearing impaired)
- Braille and Nemeth Code (a specific type of Braille used for math and science notations)

- Tactile graphics (e.g.; 3-D topographical maps, 2-D raised line drawings)
- Manipulatives (e.g.; geometric solids, real coins & currency, abacus for dyscalculia)
- Audio amplification devices (e.g., hearing aids)
- Screen reader (Adapted from Special Connections, 2005b)

Here are examples of how to provide intervention and accommodations for children with dysgraphia (in ability to put the thoughts on paper and poor handwriting)

Most important is to have occupational therapy and special education for the child along with the given tips.

- Use paper with raised lines for a sensory guide to staying within the lines.
- Try different pens and pencils to find one that's most comfortable.
- Practice writing letters and numbers in the air with big arm movements to improve motor memory of these important shapes. Also practice letters and numbers with smaller hand or finger motions.
- Encourage proper grip, posture and paper positioning for writing. It's important to reinforce this early as it's difficult for students to unlearn bad habits later on.
- Use multi-sensory techniques for learning letters, shapes and numbers. For example, speaking through motor sequences, such as "b" is "big stick down, circle away from my body."
- Introduce a computer early; however do not eliminate handwriting for the child. While typing can make it easier to write by alleviating the frustration of forming letters, handwriting is a vital part of a person's ability to function in the world, it is also not allowed in most of the schools in our country.

Accommodations in Response- this offers different ways for students to respond to assessment questions or tests. They help students with visual and hearing impairments, physical disabilities, and organizational problems to structure, monitor, or directly put words to paper. Examples of these accommodations include:

- Using a computer/typewriter or a scribe to record answers (directly or through tape recorder)
- Using an augmentative communication device or other assistive technology (AT) may be pencil grips or other assistive devices.
- Responding directly in the test booklet rather than on an answer sheet.
- Using organizational devices, including calculation devices, spelling and grammar assistive devices, visual organizers, or graphic organizers (Adapted from Special Connections, 2005c)

Accommodations in Setting - this affects either where a test is taken or the way in which the environment is set up. Changing the environment is especially helpful to students who are easily distracted. Some examples include:

- Administering the test individually (e.g., to the student alone)
- Testing in a separate room
- Testing in a small group

- Adjusting the lighting
- Providing noise buffers such as headphones, earphones, or earplugs
(Adapted from Special Connections, 2005d)

Accommodations in Timing/Scheduling - this allows flexibility in the timing of an assessment. Generally, these are chosen for students who may need more time to process information or need breaks throughout the testing process to regroup and refocus. Timing/scheduling accommodations include:

- Extended time
- Multiple or frequent breaks
- Change in testing schedule or order of subjects
- Testing over multiple days (Adapted from Special Connections, 2005e)

When determining accommodations, particular attention should be paid to ensure that there is no compromise to the test's ability to assess particular knowledge or skills.

For example, having an adult read aloud questions on a math assessment may not necessarily alter the math concepts being assessed, but having the same adult read aloud on a test of reading comprehension does have the effect of changing the assessment from one of reading comprehension to one of listening comprehension and, in effect, results in the assessment of a different skill altogether.

What Does the Research Say?

Looking to the research evidence, unfortunately, does not provide definitive answers to guided thoughtful policy and practices .(Chiu & Pearson, 1999; Johnstone, Altman, Thurlow, & Thompson, 2006; Koenig & Bachman, 2004; Sireci et al., 2003; Tindal & Fuchs, 1999; Thompson, Blount, & Thurlow, 2002).

Considering the very real implications related to the use of accommodations and their extensive application across testing environments, the lack of conclusive direction from the research base is both disappointing and frustrating. That is not to say that a long look at the research base cannot be instructive.

In fact, doing just that can lead to a better understanding of the complexities at play, for both researchers and practitioners alike, and more informed decision making about accommodations may indeed follow.

Accommodations given by the CBSE in India for inclusion of children with learning disabilities are

Annexure 1

Exemption from studying third language up to middle school level (i.e. Class VIII).
Permission to use an amanuensis.
The amanuensis is a student of class lower than the one for which the candidate

will be taking the examination.

The Centre Superintendent of the Examination Centre chooses a suitable amanuensis and forwards his/her particulars to the Regional Officer concerned for consideration and approval.

The candidate pays the fee as prescribed for use of the amanuensis to the Board. However, the Blind, Physically Handicapped or Spastic Candidates are being provided services of an amanuensis free of cost.

The amanuensis is paid remuneration as prescribed from time to time by the Board.

The candidate may be permitted to use the services of an amanuensis in all or any of the papers. Services of same amanuensis are taken for all the papers.

The candidates are being permitted to draw the diagrams etc. themselves, if desired by them. Services of same amanuensis are taken for all the papers.

Additional time as under is given in each paper;

For paper of 3 hours duration 60 minutes

For paper of 2 ½ hours duration 50 minutes

For paper of 2 hours duration 40 minutes

For paper of 1 ½ hours duration 30 minutes

The Centre Superintendent makes the sitting arrangements for the dyslexic, blind, physically handicapped and spastic candidates on the ground floor, as far as possible.

Alternative type questions are provided in lieu of questions having visual inputs for the blind candidates in English Communicative and Social Science for Class X and History, Geography and Economics for Class XII.

Separate question papers in enlarged print for Mathematics and Science & Technology in Class X are provided.

13. The Centre Superintendent(s) are directed to send the answer books of special category students in separate covers.

14. **To facilitate easy access, a few selected schools are made examination centres special students.**

15. Blind candidates from Delhi have the facility to use computer or a typewriter for writing answers.

16. Teachers from blind schools are appointed as Assistant Superintendent(s) (Invigilators) at the special examination centres. However, precaution is taken to appoint different subject teachers on different days.

17. A separate column has been provided on the title page of the answer book for indicating the category of physically challenged candidates so that these answer books could be segregated for sending them separately to the Regional Office of the Board.

18. However, at the Secondary School level a candidate has an option to opt for one language and any four of the following electives:

Mathematics, Science, Social Science, Another Language, Music, Painting, Home Science and Introductory Information Technology, Commerce (Elements of Business) & Commerce (Elements of Book Keeping and Accountancy)

19. Blind candidates have been permitted to offer subjects like Music, Home Science etc. which are not available in the school

It is earnestly hoped that schools will adapt / adopt some of these measures right from primary level. The sooner children are identified, the easier it is to help them monitor their disability and improve their performance

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Thus it is seen that whatever the provisions provided by the board, the same needs to be practiced even at a primary level, which would ease the inclusion of these children in the normal class room setting.

Categorizing accommodations into the well-known categories of presentation, response, timing/scheduling, and setting. Cortiella, C. (2005). *NCLB: Determining appropriate assessment accommodations for students with disabilities*. New York: National Center for Learning Disabilities

<http://www.worcestershire.gov.uk/cms/equality-and-diversity/interpretation-and-translation/accessible-formats-directory/learning-disabilities.aspx>

<http://www.ncl.org/types-learning-disabilities/dysgraphia/what-is-dysgraphia>

<https://www.nidcd.nih.gov/StaticResources/health/healthyhearing/tools/pdf/audiprocdis.pdf>

<http://www.mindwell.us/visual-processing-disorders/>