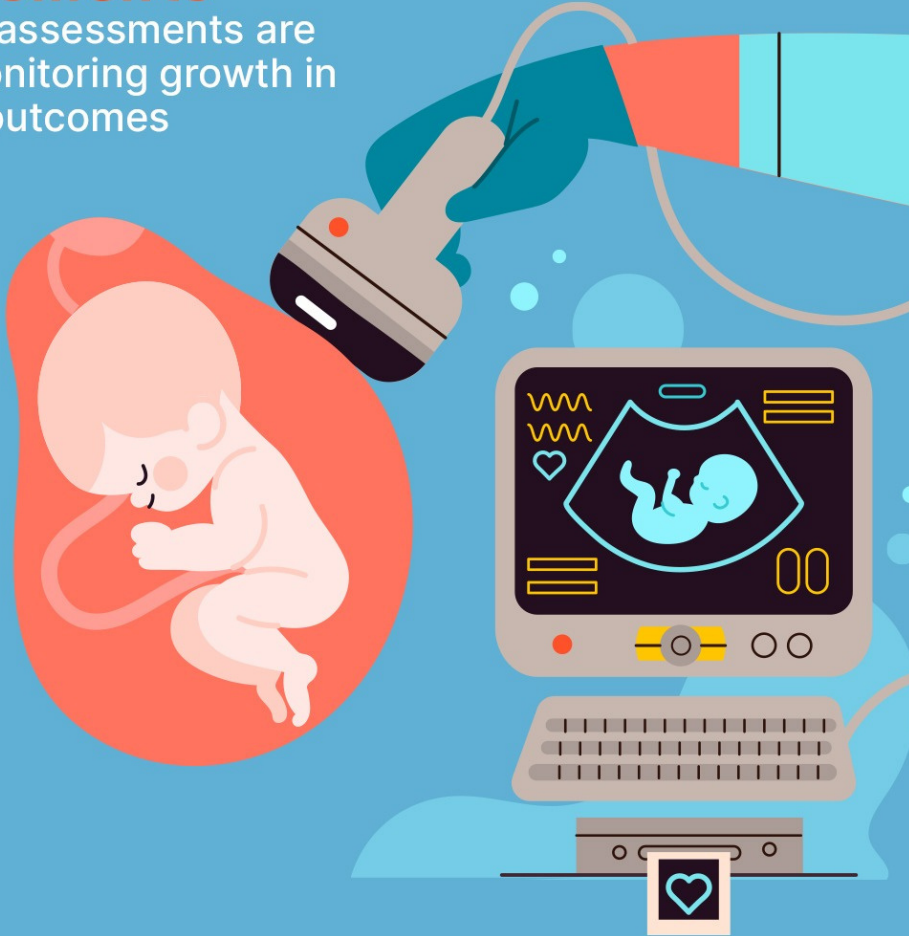


Pillar Four:

Inclusive Assessments

Inclusive assessments are key to monitoring growth in learning outcomes



Did You Know?

Dr. Beryl Benacerraf, who pioneered the use of Prenatal Ultrasound, revolutionized the assessment of fetal abnormalities like Down Syndrome, is a proud Dyslexic. Her uncanny visual sense saved millions of lives around the world.

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1. Introduction

The #Speak4Dyslexia: The NEP Way Series highlights five pillars of mainstreaming inclusion for students with specific learning disabilities. These are:

1. Identification and Screening
2. Remedial Support and Accommodations
3. Inclusive Teaching
4. **Inclusive Assessments**
5. Leveraging Technology

This volume covers the fourth pillar- Inclusive Assessments.

Inclusive assessments ensure that every student, regardless of their disability, has an equal opportunity to demonstrate their knowledge and skills. When designed and conducted in an inclusive manner, with provision of reasonable accommodations, inclusive assessments ensure accurate measurement of learning outcomes.

It's important to remember that more often than not, SLD manifestations are confused or misinterpreted as a student who is lazy, careless, uninterested, or a slow learner. Thus, when evaluating assessments, it is critical that students are screened for learning disabilities in case they are not performing at their expected potential.

NEP 2020 CLAUSES

Assessment and certification agencies, including the proposed new National Assessment Centre, PARAKH, will formulate guidelines and recommend appropriate tools for conducting such assessment, from the foundational stage to higher education (including for entrance exams), in order to ensure equitable access and opportunities for all students with learning disabilities. (NEP, 6.13)

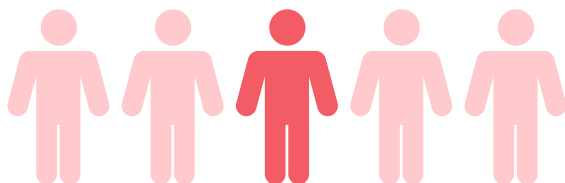
2. What are Specific Learning Disabilities?

It is important to remember that with support, remedial interventions and accommodations, individuals with specific learning disabilities can not only cope, but succeed in their lives.

Individuals with Specific Learning Disabilities (SLDs) have average or above average intelligence, and struggle with processing language (both spoken or written). They have difficulty in comprehending, speaking, reading, writing, spelling, and/or doing mathematical calculations.

This is because Specific Learning Disabilities (SLDs) impact the brain's ability to process information and learn. They include conditions such as Dyslexia, Dyscalculia, Dysgraphia, Dyspraxia, and Developmental Aphasia.

1 out of 5 individuals have a Learning Disability



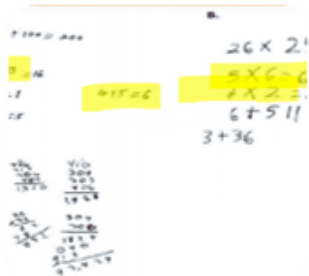
INDIVIDUALS WITH SLDS HAVE AVERAGE OR ABOVE AVERAGE INTELLIGENCE.

In India, both the Rights of Persons with Disabilities Act, 2016 (RPwD 2016) and the National Education Policy, 2020 (NEP 2020) recognize SLDs and mandate the full participation of individuals with SLDs in the regular schooling process from the foundational stage to higher education, through inclusive classrooms.



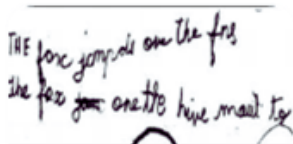
Dyslexia...

...struggles with language. It accounts for 80% of all SLDs



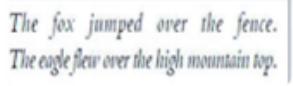
Dyscalculia...

...struggles with math. It is present in about 5% of the population.



Dysgraphia...

...struggles with writing and fine motor skills.



KEY FACTS

01
It is more common than one realises-affecting 20% of the global population. Yet only 1 in 20 get identified.

02

Individuals with SLDs have average or above average intelligence (IQ). However, they are often confused to be “slow learners”.

03
Beyond academics, SLDs impact an individuals daily functioning, and emotional wellbeing.

04

SLDs impact language abilities across all languages. If you are diagnosed with Dyslexia in English, you will also have Dyslexia in Hindi.

05
No two learners with learning disabilities are the same.

06

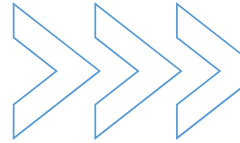
SLDs are a lifelong condition that runs in families.

07
Accommodations and assistive technologies help individuals excel through their lifetime.

08

It is an invisible disability-diagnosed through psychometric testing.

SLD STRENGTHS



It may come as a surprise that despite their many struggles, individuals with SLDs have been extremely successful and are responsible for most innovations that have changed the world!



DID YOU KNOW?

These differently abled **DYSLEXIC** inventors have changed the world



It's time to change the conversation about the differently abled.
International Day of Persons with Disabilities
December 3, 2022

#SashaktDivyang

#Speak4Dyslexia

Dyslexia is one of the 21 disabilities recognised by the Rights of Persons with Disabilities Act 2016. The Act protects the rights of people with disabilities, recognizing them as valuable human resources for the country and creating an environment that provides them equal opportunities and full participation in society.

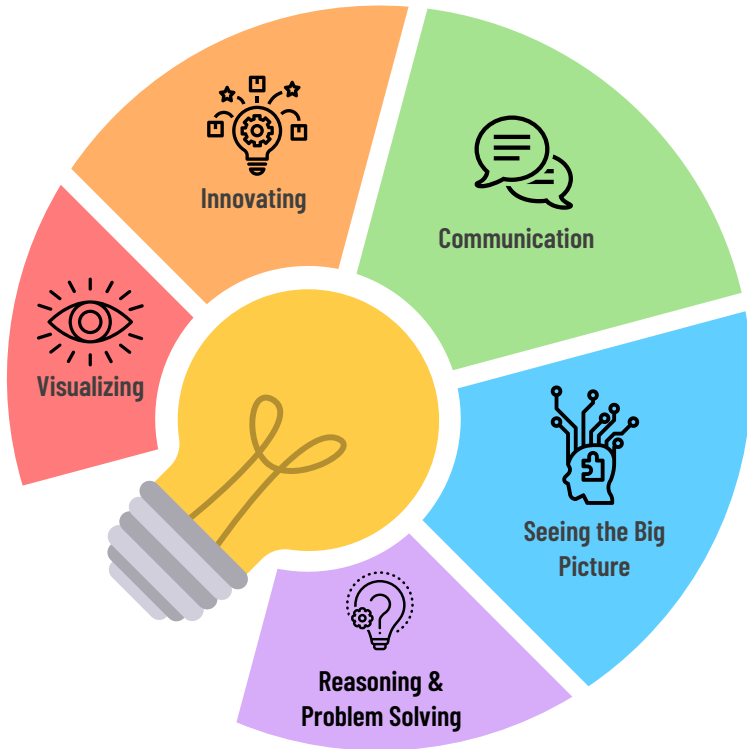
Global studies have shown that the percentage of individuals with Dyslexia in the fields such as engineering, arts and entrepreneurship is over twice the percentage of individuals with dyslexia in the general population.

Dyslexia is surprisingly so common at the Massachusetts Institute of Technology (MIT), that it is also known as the MIT disease.

40% of the world's self-made millionaires are dyslexic.

Top 10 companies founded by Dyslexics, in 2020 generated \$1 trillion globally,

INDIVIDUALS WITH SLDS CAN ACHIEVE THESE ACHIEVEMENTS BECAUSE THEY HAVE CRITICAL SKILLS- OFTEN REFERRED TO AS "DYSLEXIC THINKING"



SLD STRUGGLES

Specific Learning Disabilities impact three core aspects of an individual's life.

01 Academic Performance

The impact of SLDs on a student's academic performance, often results in educators and parents thinking that the child is being lazy and/or is a "slow learner." This is not true. Remember- Individuals with SLDs have average or above average IQ. However-

- There is generally a gap between written and oral performance.
- Despite trying hard, they struggle with academic results.
- They struggle with spellings, writing and completing tasks on time.
- They may understand a concept but struggle with showcasing steps and doing complex calculations.

02 Executive Functioning or Daily Struggles

SLDs impact processing of information, which impacts the ability to manage basic, daily tasks. This could include difficulty in time management and planning, following instructions, understanding directions, completing tasks especially those that involve multi-tasking, among other things.

03 Emotional Well-being

- When forced to process lots of information (reading/writing) without breaks, they are likely to experience headaches, aches and pains (especially hands and fingers), exhaustion, as well as may sleep excessively.
- Judgements around their intelligence and their abilities leads to poor self-esteem, frustration, depression, etc.
- There is a higher probability of them being bullied by their peers and teachers, for not being smart enough.
- High levels of anxiety.

3. Intervention Plan

Policy

- Publish inclusive assessment guidelines.
- Mandate the creation of item banks and question papers that follow the guidelines on inclusive assessment.
- Ensure that committees/ expert groups set up to create assessments include experts from the disability space.
- Mandate that if a student is consistently not meeting learning outcomes, they should be checked/screened for a learning disability.

Capacity Building-

- Build the capacity of the teams that work on the creation of formative and summative assessments to apply inclusive assessment frameworks.
- Build the capacities of educators to conduct inclusive assessments while providing the necessary accommodations.

Leveraging Technology

- Sample and previous years' question papers and item banks should be made available online in an accessible format.
- Online tracking systems and assessment platforms must adhere to assistive technology guidelines.

Implementation-


- Ensure that the accommodations for students with disabilities are made available during assessments.
- Create student trackers that alert the educator if certain students are consistently not meeting their learning levels. These trackers should incorporate an SLD checklist to screen students are at risk of having an SLD.
- Student trackers used for formative and summative assessments in the classroom should have provisions for including accommodations needed by the student.

4. Understanding

Different Types of Assessments


The combination of summative and formative assessments allows for a comprehensive understanding of student progress, fostering improved learning outcomes and a more enriching educational experience.

01 Summative assessment (SA)



Summative assessments are used to evaluate student learning, knowledge, and proficiency at the end of an instructional period (term, academic year, board exams, college entrance tests, etc). These assessments have fixed formats and are formally graded, often carrying significant weight in determining a student's academic performance and readiness for the next level of learning. Ensuring that these assessments are inclusive enables the educator to have a more accurate idea of their class's/ school's learning level. This is especially important as it accounts for students with invisible disabilities who have not been diagnosed yet. Countrywide assessments that measure benchmarks and monitor the learning outcome levels such as NAS, ASER Survey, FLS, etc. should also be mandated to follow the inclusive assessment guidelines.

02 Formative assessment (FA)



Formative assessments are conducted at regular intervals during the session to provide timely feedback, identify misconceptions, and close learning gaps making formative assessment a valuable tool for improving learning outcomes. This includes quizzes, discussions, concept maps, and group activities. Having inclusive formative assessments gives educators an opportunity to gauge each individual student's level and bridge the learning gaps with alternative teaching methods. This is useful especially since SLDs often go undiagnosed yet students with an SLD will be given regular opportunities to catch up.

5. Assessment Challenges Faced by Students with SLDs

When designing assessments, it is important to be mindful of the difficulties a student with SLDs may face that can impact their performance and hinder their ability to demonstrate their true abilities. Some of the common assessment challenges include:

1

READING AND WRITING DIFFICULTIES:

Students with dyslexia often struggle with decoding, fluency, and comprehension, affecting their performance on written assessments and reading-based tasks. They may confuse options that look similar or seem to mirror each other, including images.

2

PROCESSING SPEEDS

Students with SLDs have slower processing speeds, which can lead to difficulty in completing assessments in the given time. Further, they may get tired or exhausted if assessment durations run for a long period. They may also need more time to prepare for an assessment.

3

WORKING MEMORY LIMITATIONS

Students with working memory deficits may have trouble holding and manipulating information in their minds, making it challenging to follow multi-step instructions or solve complex problems.

4

MEMORY RETENTION

Students with SLDs may struggle with long-term retention of information. While they do grasp concepts, if not revised regularly, they tend to forget the concept. Thus, regular revision is crucial for cementing new concepts. This requires frequent and repetitive revisions of same concepts. They also struggle with reproducing content by memory (eg. poem recitation).

5

ORGANISATIONAL SKILLS

Students with SLDs may struggle with organization and time management, which can impact their ability to prepare for exams as well as plan and structure their responses during assessments.

6

SENSORY PROCESSING ISSUE

Sensory processing challenges can affect a student's ability to concentrate during assessments, especially in environments with sensory stimuli or distractions.

7

TEST ANXIETY

Some students with SLDs may experience test anxiety, which can aggravate their condition, interfere with their performance and cause them to underperform in high-pressure testing situations. This is aggravated when they are not provided accommodations for their learning needs.

6. Strategies for Inclusive Assessment

The aim of conducting inclusive assessments is to ensure that every student, regardless of their individual characteristics, has an equal opportunity to demonstrate their understanding and progress in their learning journey.

Here are some key principles and strategies to keep in mind while implementing inclusive assessments:

- There are **two types of learners** based on how they retain knowledge-
 - Those who learn by repetition (of knowledge or skills)
 - Those who have problems in long-term retention of information. (e.g.- children with SLDs, ADHD, etc.)

The baseline of the curriculum should be decided keeping both types of learners in mind while aligning it to the assessments.

- **Varied Assessment Methods:**
 - Use a variety of assessment methods that cater to different learning styles and preferences, irrespective of whether it is a formative or summative assessment.
 - Further, a student's overall grade should take into account their performance in both summative and formative assessments.
 - Grades should be a weighted average that accounts for all assignments they are engaged in like group activities and discussions, experiments, projects, etc., along with their written assessments. This gives students multiple opportunities to excel based on their individual talents.

- **Clear Learning Objectives:**
 - The syllabus and the schedule including the dates of each assessment should be provided to the students at the beginning of each term .
 - Clearly communicate the learning objectives and expectations of each assessment to the students. When students understand what is expected of them, they can focus on demonstrating their knowledge and skills without being hindered by confusion or uncertainty.
 - Ensure that the learning objectives are aligned with a students' IEPs.

- **Accommodation and Modifications:** Provide accommodation and modifications for students with specific needs. This might involve providing extra time, providing assistive technologies, offering alternative formats, or adjusting the assessment conditions to support individual students effectively. Make sure these are available across all subjects, grade levels, irrespective of the type of assessment.

- **Use of Universal Design for Learning (UDL):** Apply the principles of Universal Design for Learning, which involves creating assessments that are accessible and beneficial to all students from the outset. UDL emphasizes providing multiple means of representation, expression, and engagement.

- Create **an inclusive assessment environment** that is physically and emotionally supportive. This may involve providing a quiet space, minimizing distractions, and fostering a positive and non-discriminatory atmosphere.
- Allow **flexibility in assessment scheduling** when possible, considering students' individual needs and circumstances. Some best practices include avoiding scheduling multiple assessments on the same day and providing ample advance notice so students can prepare. Ideally, an assessment schedule should be provided at the beginning of each term, for each subject.
- **Type of Question:** Based on each subject's syllabus, a very clear classification should be made for which topics should be assessed through open-ended, subjective questions and those that should be assessed through MCQ, objective questions. **Be mindful while developing MCQs (Multiple Choice Questions)-**
 - MCQs should use a lot of sensory and motor models as aids to help children with special needs, especially those with an SLD visualize the solution more clearly.
 - MCQs are NOT always the solution. Although objective questions reduce reading and writing load and are perceived as less demanding, they may still require significant processing time for certain concepts, especially if they require multiple steps to solve.
 - Additionally, students might comprehend the material but make mistakes due to calculation errors, etc. Thus, a balanced mix of objective and subjective questions is essential for effective assessment.

- MCQ answer options test for the concept and can be easily differentiated. When requiring calculations, test for the concept and not the ability to execute complex calculations. Avoid options like-
 - 96 & 69 or 9/6 & 6/9
 - bag & gap
 - 5.6 & 56 & 0.56 as (unless it's a decimal/ understanding unit-based question)
 - When applying a formula, complex fraction/ decimal based calculations. Instead test for ability to understand and apply the formula.
- **Align assessments with alternative curriculum-**
 - Questions should align with the alternative curriculum a student is being taught- especially for students who have alternative practicals/ activities etc.
 - Avoid questions that test using visual prompts for those with visual impairment, especially in word problems. For example- changing of color of litmus paper, movement of the hands of a clock, asking for a diagram, describing what the police officer was wearing, etc.
 - Provide alternative questions for those with tables, maps, and diagrams.
- **Provide constructive and actionable feedback** to students after the assessment to help them understand their performance and areas for improvement. For students with SLDs, keep in mind their accommodations and challenges while providing feedback (e.g.- Avoid telling them to work on their spellings)

While undertaking assessment reforms, it is also important to ensure that formative assessments, especially those conducted internally, are inclusive.

This is especially critical for activity-based formative assessments. Following are some additional strategies to keep in mind for written formative assessments beyond the strategies given above-

- Formative Assessment questions should include:
 - Previous learning and current learning outcomes
 - Balance in testing for retention-based and conceptual understanding. A good ratio is a 40:60.
 - A mix of level of rigour that covers basic, at-level and advanced questions.
 - An equal split between objective and subjective questions.
- The assessment may have only one anchor question/ big question with multiple smaller questions supporting it to focus on one crucial, difficult concept.
- Topics with a high frequency of misconceptions should repeatedly be covered across multiple formative assessments.
- FAs should be conducted continuously and consistently through different multisensory methods (orals/project work/ portfolios/ practical exams and more).
- Teaching practices should be aligned and modified based on the results of the assessments.
- Grading rubrics should be extremely robust and detailed for each qualitative strategy and subjective question asked (even for an informal FA).

6. Framework for Designing Inclusive Assessments

While accommodation level the playing field for students with disabilities, inclusive assessments along with alternative formats ensure that student's learning levels are assessed fairly.

There are four components for the creation of inclusive assessments:

1. Content of Written Assessments
2. Content of Activity-based Assessments
3. Grading/ Evaluation
4. Formatting

Following are checklists of things to keep in mind while designing each of these components.

Content of Written Assessments

- Use short sentences and concise language only. Use active voice.
- Omit details and images that are not required.
- Provide clear Instructions. Avoid presumptuous language.
- Define acronyms and jargon upfront.
- Break up long questions with short ones.
- Give each new piece of information/ data on a separate line/ in the form of bullet points.
- Rough work should be evaluated for conceptual understanding if the final answer is wrong.
- Enlarge and label images used.
- Avoid patterns and images behind text.
- Ensure MCQ questions are accessible.
- Create concept-based assessments, and not rote memory based.
- Label questions appropriately. Do not use the same letter in capital and small letters as labels. For e.g.- AE= a units
- Ensure questions are aligned with alternative syllabus.

Content of Activity-based Assessments

- Multisensory inputs and outputs should be available for all the students. (orals/project work/ portfolios/ practical exams and more). They may be adapted and modified to address the needs of students with disabilities.
- Avoid rote memory-based activities
- In group activities, ensure all group members are included in the project.
- Divide groups based on different strengths and learning styles students have.
- Students should be penalized if a group member is purposely excluded from participating.
- The grading rubrics should be extremely robust and detailed for each qualitative strategy and subjective question to ensure consistent and unbiased scoring.
- Activities should be tailored to address misconceptions identified through formative assessment. These activities should be designed to clarify and reinforce understanding of the topic or concept.
- Children with Learning disabilities should be exempted from speed based timed activities like dictations and mental maths.

Grading & Evaluation

- Don't deduct marks for spelling errors.
- Don't cut marks for "calculation error." If conceptual understanding has been displayed
- Marks should be allocated for showcasing the correct steps.
- Allow students to write answers in bullet points.
- Allow students to provide answers in multiple modes.
- Evaluate rough work for conceptual understanding.

Formatting

Font:

- Should not be smaller than 12 points. When possible, use 14-point font. Large print materials should be used between 16-point and 18-point sizing.
- Use font with medium heaviness, avoid light type with thin strokes.
- Avoid formatting codes such as italics, bold, and oblique.
- Both upper case and lower-case fonts should be used in text, all caps make the text harder to read.
- When using fonts in local languages, like Kruti Dev or Mangal, ensure that they can be read-aloud in digital formats.

Colour contrast and paper: These apply both to text and images.

- Type color is most eligible in black.
- Colored text should be restricted to titles, headlines, or highlighted material. Avoid pastel or neon colors.
- A high contrast (70 percent) between text and background is best.
- Off-white non-glossy/matte paper should be used for printing.

Page and text layout:

- Materials should be designed with clear margins and spacing
- The main text should be left aligned.
- No hyphenation to break words at the end of lines.
- The spacing between lines of text should be at least 25 percent of font size.
- Space between words and letters should be increased.
- Page numbering must be provided in the format Page X of Y.
- Print only on one side. If double-sided printing is done, then indication should be provided to turn the page over.
- Increase spacing in-between questions, to clearly demarcate when a new question starts.
- Provide blank page/ rough page for student to do calculations and/ or take notes.
- Mathematical questions: Provide spacing in between brackets with symbols next to it essential for clear differentiation.
- In algebra, use fonts that clearly distinguish between x and multiplication sign.

Formatting

Images:

- Images should have a wide range of color contrast or gray-scale variation.
- Labels should be used for each image with at least 12-point font.
- Pattern or image behind text should be avoided.
- People with disabilities and of varying ethnicities, cultural groups, and ages can be included in images.

Accessible PDF format:

- Ensure the information can be read by an assistive device (its text is not PDF based).
- There should be a hierarchy of headings – for clarity and understanding.
- Lists, tables, and paragraphs should be marked
- Only relevant images and graphics should have informative alternative descriptions/ tags.
- Ensure correct Tab order so that read aloud features work coherently
- Ensure Meta Data - Title, author, keywords etc. should exist for discoverability.

Online Assessment Platforms

Online assessment platforms must ensure accommodations are met:

- Speech to text software
- Spell check
- Word prediction
- Digital Whiteboard
- Text to speech software
- Controls for font type/size
- Video/audio speed controls
- Compensatory time to complete assessments on E-learning platforms.

7. Inclusive Assessments: An Opportunity to Identify SLDs

Only 1 in 20 students with learning disabilities get diagnosed. 19 out of 20 unidentified students struggle with meeting learning outcomes, most are mislabeled as careless learners, lazy students who are not putting in enough effort and hard-work while learning. Their assessment feedback often includes comments like work harder, improve your spellings, can do better, etc. These students often have discrepancies in their summative vs. formative performance. They also tend to struggle with classwork, taking notes, etc.

Therefore, it is essential to pay close attention to the discrepancies in a student's performance (especially if they are consistently not meeting learning outcomes) to differentiate students who are struggling due to learning loss vs. a learning disability.

This can be achieved by mandating that the general educator screens all children who are not meeting learning outcomes based on the following SLD checklist. This basic checklist should be integrated into ongoing tracking systems like the Holistic Progress Card (HPC), online learning outcome trackers, etc.

SLD Checklist

Following is a basic checklist to monitor signs that the child may be at risk of having SLD.

It is important to highlight that most children will fall into either one category at some point. However, only if the child continuously shows signs in each of the three categories mentioned below (beyond age-appropriate development goals), then they may be at risk for an SLD. Talk to the teacher, special educator and/or your doctor to understand the condition and initiate a formal diagnosis.

Academic Struggles

- Difficulty learning to read, write & spell in all languages being learnt
- Difficulty with phonological awareness
- Persistent and continued reversing of letters & figures, e.g., '15' for '51', 'b' for 'd'
- A tendency to read inaccurately/ read slowly and/or without adequate comprehension
- Difficulty copying accurately from board or textbook
- Poor structure and organization of written work, but can express orally
- Difficulty in mathematical operations
- A gap in their oral and written performance

Life Skills

- Difficulty remembering information in order, e.g., order of a story, times table, science procedures, dates & days of a week
- Difficulty in writing or taking longer than average to complete written tasks
- Difficulty in telling left from right
- Difficulty in fine motor skills including tying shoelaces, putting on a belt or buttoning a shirt.
- Unable to focus for longer periods or getting tired easily
- A challenge with concentration, especially if there is movement & noise around them

Emotional Well-Being

- Low self-esteem and/or low confidence
- A sense of frustration due to constant failure despite working hard
- A high level of anxiety
- Bullied, no friends or social pariah
- Often complains of having headaches, is constantly tired and/or excessive sleeping.

Disclaimer: The above list is not a diagnostic tool. The checklist is only indicative that the child may be at risk of an SLD, and necessary action may be taken.

8. Recommended Readings



Following is a list of additional resources that we encourage you to read, to better understand and support individuals with SLDs.

Policy Documents

- The Gazette of India – notification dated 4th January 2018
 - National Education Policy (NEP) 2020
 - Rights of Persons with Disabilities Act (RPwD) 2016
 - Samagra Shiksha Implementation Guidelines D.O. No. 2-18/2018-IS-1/IS-15 – 12th October 2022
-

Understanding SLDs

- The Complete Learning Disabilities Handbook: Ready-to-Use Strategies and Activities for Teaching Students with Learning Disabilities (Jossey-Bass Teacher), Joan M. Harwell; Rebecca Williams
 - The Gift of Dyslexia, Ronald D. Davis, Eldon M. Braun
 - The Dyslexic Advantage, Brock L. Eide, Fernette F. Eide
 - Overcoming Dyslexia, Sally Shaywitz
-

Living with Dyslexia

- Fun Games and Activities for Children with Dyslexia, Alais Winton, Joe Salerno
- More Fun Games and Activities for Children with Dyslexia, Alais Winton, Hannah Millard
- Dyslexia Tool Kit for Tutors and Parents – what to do when phonics isn't enough, Vyonna Graham, Dr. Alta E. Graham
- Dyslexia Outside-the-Box: Equipping Dyslexic Kids to Not Just Survive but Thrive, Beth Ellen Nash
- Learn to Read for Kids With Dyslexia: 101 Games and Activities to Teach Your Child to Read, Hannah Braun.
- Blast Off to Reading!: 50 Orton-Gillingham Based Lessons for Struggling Readers and Those with Dyslexia, Cheryl Orlassino

At ChangeInkk Foundation, we strongly believe that for India to become a \$10 trillion economy, contributions of individuals with Specific Learning Disabilities is a must. After all, 40% of the world's self-made millionaires have a learning disability, like Dyslexia, and #DyslexicThinking has powered most innovations that have changed our world!

So, we are working hard to #Speak4Dyslexia, raising awareness around the many strengths of dyslexic minds. Through innovative programs, advocacy and capacity-building initiatives, we are #ChangeInkkTheConversation, to actively build inclusive ecosystems that support them from cradle to career.

We engage closely with individuals, parents, educators, employers, policy makers, and civil society, to mainstreaming inclusion in schools, higher education and workplaces, where individuals with SLDs can thrive.



For more information about ChangeInkk and our initiatives, visit www.changeinkk.org or write to us: info@changeinkk.org.