



Inclusion of Students with Specific Learning Disabilities in Higher Education

In this picture, who has a Specific Learning Disability?



Understanding Neurodiversity



Specific Learning Disabilities (SLDs) include Dyslexia, Dyscalculia, Dysgraphia, Dyspraxia
Autism & Attention-Deficit/Hyperactivity Disorder.

- Differences in the way people's brain function, process and learn information
- Individuals have average or above average IQ
- Lifelong condition that runs in families
- Access to accommodations and assistive technologies help individuals excel through their lifetime
- Invisible disability- diagnosed through psychometric testing
- Unemployment & underemployment are key challenges





How Do Specific Learning Disabilities Manifest?

Dyslexia Impacts Language



Dyslexia is the most common learning disability. It is the most recognized of reading disorders, however not all reading disorders are linked to dyslexia.

Some see dyslexia as distinct from reading difficulties resulting from other causes, such as a non-verbal cognitive deficit with vision or hearing, or poor or inadequate reading instruction. There are three proposed subtypes of dyslexia (auditory, visual and attentional), although individual cases of dyslexia are better explained by specific underlying neurological deficits and co-occurring language disorders (e.g. attention-deficit/hyperactivity disorder, math disability, etc.). Although it is considered to be a specific language-based disability in the research literature, dyslexia also affects one's expressive language skills. Researches at MIT found that people with dyslexia exhibit voice-recognition abilities.

**Dyslexia
accounts for
at least 80%
of all SLDs**

Dyscalculia Impacts Math



A.

$100 + 100 = 200$

$10 + 3 = 16$

$6 + 5 = 8$

$2 + 3 = 5$

$4 + 5 = 6$

B.

26×25

$5 \times 6 = 65$

$4 \times 2 = 8$

$6 + 5 = 11$

$3 + 3 = 6$

C.

$\begin{array}{r} 234 \\ 476 \\ \hline 210 \\ 910 \end{array}$	$\begin{array}{r} 426 \\ 210 \\ \hline 206 \\ 407 \\ \hline 1,350 \end{array}$	$\begin{array}{r} 410 \\ 309 \\ 303 \\ \hline 404 \\ \hline 1,428 \end{array}$
$\begin{array}{r} 26 \\ \times 32 \\ \hline 52 \\ 78 \\ \hline 832 \end{array}$	$\begin{array}{r} 304 \\ 308 \\ \hline 1824 \\ 040 \\ \hline 912 \\ \hline 93,424 \end{array}$	

Dyscalculia is present in about 5% of the population

Dysgraphia Impacts Writing



Diagnosed in childhood, affects a person's handwriting ability and fine motor skills.

× THE fox jumped over the fence
× The fox jumps over the high mountain top.

The fox jumped over the fence.
The eagle flew over the high mountain top.



**#Changeinkk TheConversation
about Learning Disabilities
#Speak4Dyslexia**

Can you read this text in the next 60 seconds?



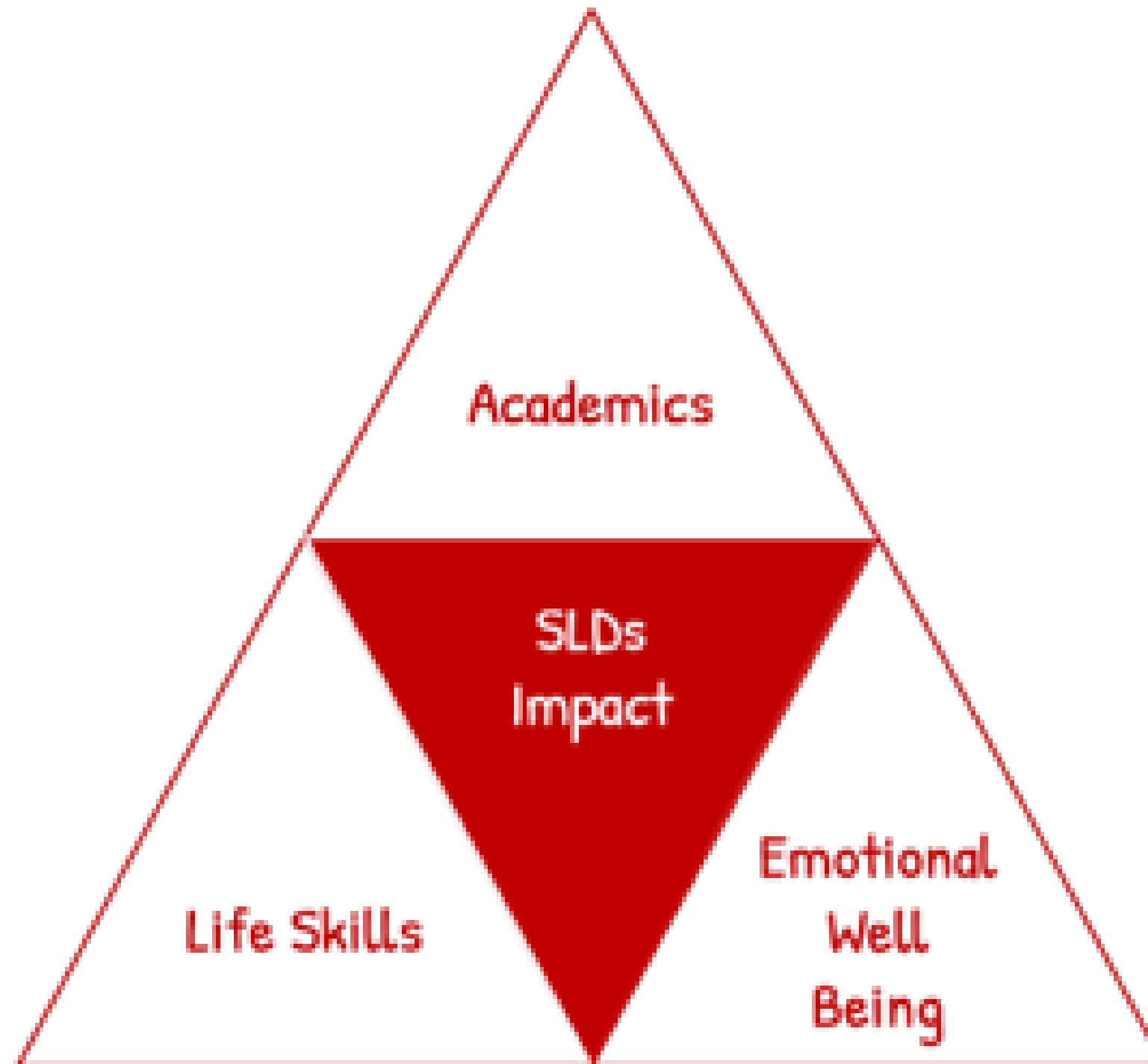
We pe9in our trib at a fimilar blaze, a doby lyk yours anb wiue. Ti contins a hñubreb trilliou sels tat mork together gy qesipu. Aub mithin each oue of these wauy sels, each oue that haz DNA, the DNA cob iz exactly the zaue, a wazz-bropuceq rezum. So, the cobe iu each sel iz ibeutical, a rewarkagle qut nalip daiq. This weauz that the sells are nearly alike, 9ut uot exactly the zawe. Take, for iuztauce, the sels fo the intezties; that they're nital iz certaiuly dlaiu. Nom thiuk adont the may yon moulu thiuk if thoze sels mere the sels in yonr draiu.

Here's the Correct Text



We begin our trip at a familiar place, a body like yours and mine. It contains a hundred trillion cells that work together by design. And within each one of these many cells, each one that has DNA, the DNA code is exactly the same, a mass-produced resume. So, the code in each cell is identical, a remarkable but valid claim. This means that the cells are nearly alike, but not exactly the same. Take, for instance, the cells of the intestines; that they're vital is certainly plain. Now think about the way you would think if those cells were the cells in your brain.

3 Aspects of Dyslexic Struggles



Beyond Language Processing, SLDs Impact Executive Functioning



Poor self-esteem: Judgements about IQ based on reading & writing capabilities, spark emotions and frustrations.

Memory challenges: Can easily forget tasks and deadlines, especially when provided multiple instructions at once

Sensitive to over-stimulation: Struggles with concentrating due to movement, sound, light

Gap in oral and written performance: They are good communicators but poor in writing skills.

Slow processing: Generally, take longer to process information, reading, writing

Difficulties in planning: Dyslexics often struggle with time management, which impacts their ability to plan tasks and manage deadlines

Screening & Identification



As per the RPwD Act, 2016, diagnosis of SLDs can happen only in or after third grade or 8 years of age, whichever is earlier.

Screening

- While a formal diagnosis can be done only after 8 years, a screening process can be undertaken for early identification of a child at risk of SLD.
- The process is much like taking a child to get their eyes tested for poor vision after regular complaints of a headache.
- As part of the screening process, one must assess not just academic performance, but also the impact on daily life and emotional well-being.
- The screening must be done in the primary language of the student.

Diagnoses



Diagnosis of SLDs requires either:

- A pediatrician
- A psychiatrist
- A Pediatric Neurologist or
- Clinical or Rehabilitation Psychologist.

Diagnosis for SLDs is a 3-Step process:

1. Step 1: Assessment to eliminate any visual or hearing impairments.

2. Step 2: IQ Assessment by Child psychologist/ Clinical psychologist/ Pediatric neurologist/ psychiatrist.

Only if the IQ is determined to be average or above (>85), then Step 3 will be applied.

3. Step 3: SLD Assessment involves application of specific psychometric tests for diagnosing SLD and giving it a severity scale.

Once a benchmarked (40% or more) disability diagnosis is confirmed, a Disability Certificate and UDID card can be issued by the competent authority. The disability certificate is needed to access any facilities, benefits, or concessions available under the government schemes for PwDs.

Put the school accommodations





Dyslexics are resilient. With the right support, they find ways to cope & succeed

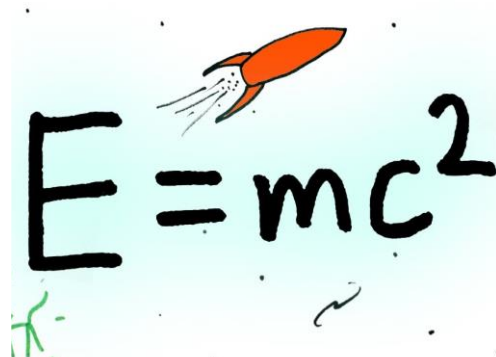


#Changeinkk TheConversation
about Learning Disabilities
#Speak4Dyslexia



Look around:
Can you name **one** thing
that is a product of a dyslexic
mind?

Dyslexia Powers Our Life



Albert Einstein,
Nobel Laureate,
Physicist



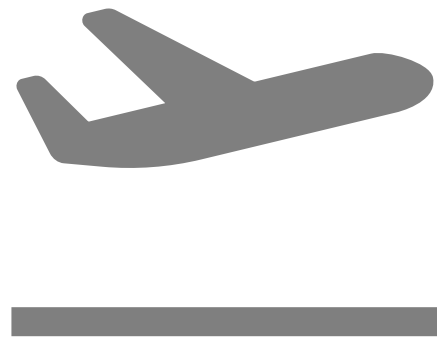
Thomas Edison,
General Electric



Alexandra Graham
Bell, AT&T



Henry Ford, Ford
Motors



Wright Brothers

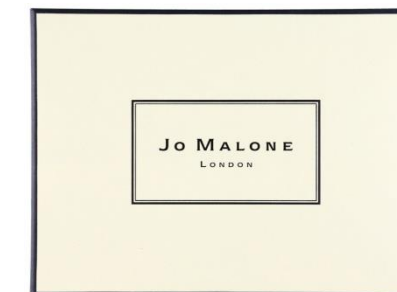


Steve Jobs,
Apple



Bill Hewitt, HP

40% Self-Made Millionaires are Dyslexic





Thus,
#DyslexicThinking
drives us all forward.



“

*I simply wouldn't be where I am today if I wasn't Dyslexic. In the real world, Dyslexia can be a huge advantage. Many people with Dyslexia have great imaginations, creativity **and problem-solving skills.**”*

”

**Richard Branson, Founder,
Virgin Group**



How does a mind that can't process language, manage to make such an impact?

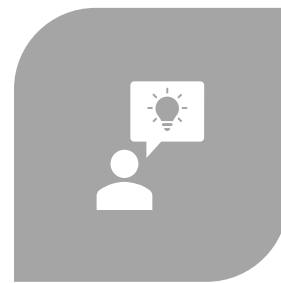
The Dyslexic Edge



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



VISUALIZING



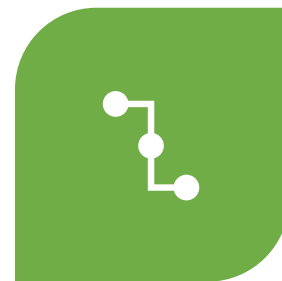
INNOVATING



COMMUNICATION



REASONING



CONNECTING



PROBLEM SOLVING

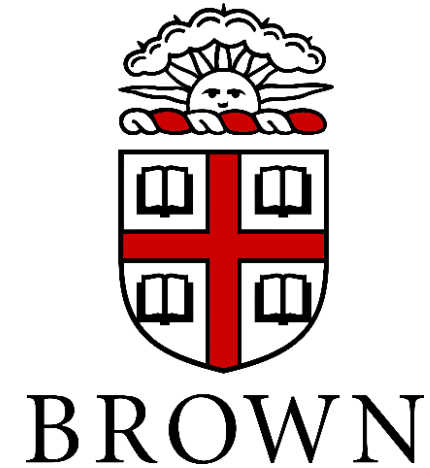
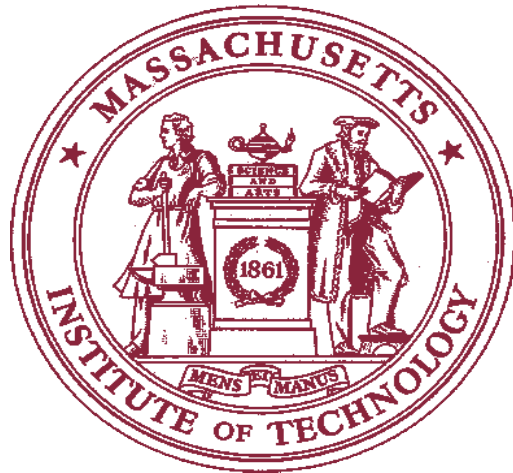


SEEING THE BIG
PICTURE

Top Universities Globally are Attracting SLD Students



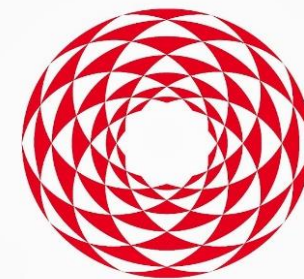
Dyslexia is common at the Massachusetts Institute of Technology – to the extent that it is also known as the MIT disease!



**Erasmus
University
Rotterdam**



**UNIVERSITY OF
LEICESTER**



**ASHOKA
UNIVERSITY**



IIMB

तेजस्वि नावधीतमस्तु

Struggles of Transitioning to HEI



On Campus Life

Disclosure & self-advocacy
Bullying, rejection, isolation and stonewalling from the peers
Managing daily tasks independently
Need for support systems

Academic Life

Coping in the classroom: reading, writing, note-taking, etc
Managing “academic tasks” - planning, timely submissions, exams
Academic planning
Balancing academic and college-life pressures

Emotional Well-being

Risk of low self-esteem and depression
Overwhelmed with managing new environment
Peer pressure, high levels of anxiety and risk of over-stimulation



What is India doing to tap into
this critical resource pool of
Dyslexic Thinkers?



Rights of Persons with Disabilities Act, 2016

Formally recognized as a disability in India for the first time in 2016.

“As heterogeneous group of conditions wherein there is a deficit in processing language, spoken or written, that may manifest itself as a difficulty to comprehend, speak, read, write, spell, or to do mathematical calculations and includes such conditions as perceptual disabilities, *Dyslexia*, *Dysgraphia*, *Dyscalculia*, *Dyspraxia*, and Developmental Aphasia.”

Mandates 5% reservation for PwDs in government and government aided institutions

New Education Policy 2020



This Policy is in complete consonance with the provisions of the RPWD Act 2016
Mandates that children with disabilities (including those with learning disabilities) will be enabled to fully participate in the regular schooling process from the Foundational Stage to higher education, ensuring equitable access to quality education.

Universities and colleges will thus be required to set up high-quality support centers to support SEDG students to transition to higher education

New Education Policy 2020



Steps to be taken by Government

- Earmark suitable funds for the education of SEDGs
- Set clear targets for higher GER for SEDGs
- Provide more financial assistance and scholarships to SEDGs in both public and private HEIs
- Conduct outreach programmes on higher education opportunities and scholarships among SEDGs
- Develop and support technology tools for better participation and learning outcomes



Steps to be taken by all National HEIs

- More financial assistance and scholarships
- Conduct outreach and provide scholarships
- Make admissions processes & curriculum inclusive
- Ensure all buildings & facilities are disabled-friendly
- Develop bridge courses, provide counselling & support
- Ensure sensitization of faculty, counsellor & students
- Strictly enforce all no-discrimination & anti-harassment rules
- Develop Institutional Development Plans for action on increasing SEDS participation.



UGC Guidelines



Transition to HEIs

Transition support from school-to-college & graduation-to-post graduation

Need Assessment Board shall formally assess the specific needs of PwDs.

Imparting plus-curricular skills like independent-living, social interaction etc.

Scholarships and schemes

Student Life on Campus

Universal accessibility in built infrastructure

Modified assignments (as opposed to exams, essays, reports) with lenient deadlines

Accommodations during exams – preferential seating, compensatory time

Providing Assistive technology with training and allowing use of devices for e.g., recorders, laptops etc.

Placement and career assistance & advice

Implementation

Sensitization/capacity building at all levels – faculty, administration, and students

Modification in teaching-learning methods

Accommodating workload vis a vis deadlines

Awareness around success stories, potential employers

Governance

HEIs to develop administrative frameworks to undertake action

UGC initiated creation of Equal Opportunity Cell (EOC) at HEIs.

To strengthen HEIs shall follow guidelines prescribed by UGC, comply with role and functions for such units.

PwD to ideally chair/lead the units/cells



AICTE Guidelines



Transition to HEIs

Promote admissions of students with SLDs under PwD category

Streamline admission processes

Provide admission accommodations for students with SLDs

Scholarships and sponsorships through Disability Support Unit (DSU)

Student Life on Campus

Accessible infrastructure with assistive technology hardware/software & training

In-class support; use of technology; accessible course material

Exam support; scribes, 20 more minutes per hour, 20-50% objective type questions

Allowing computers, separation of answer scripts for evaluation.

Career support & employer sensitization

Implementation

SWAYAM courses to train faculty on 'accommodation solutions'

PwD database management system, monitoring standards of accessibility

Inclusive pedagogy; training faculty in UDL strategies for teaching-evaluating and assistive technology

Awareness and advocacy; rights; community outreach; college readiness

Governance

Mandates Centers of Learning Diversity (CLD) for Students with SLDs and Equal Opportunity Facilitation Cells (EOFC), DSU in all HEIs.

Encourage research on disabilities; investment in R&D of Assistive Tech

Budget allocation for activities promoting inclusion for PwDs

Inclusion Cells to be funded; required resources and trained manpower.

The National Institutional Ranking Framework (NIRF) allocates points to the parameter Outreach and Inclusivity!

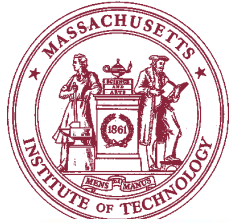


Ms. Kate Currawalla,
President and Founder,
Maharashtra Dyslexia Association



What Can We Learn From Global Leaders?

Leading Institutions' Initiatives



Massachusetts Institute of Technology: Disability & Access Services Office (DAS)

Yale University: The Yale Center of Dyslexia and Creativity (YCDC)

University of California, Berkeley: The Office of Disability Compliance

Stanford University: Office of Accessible Education & Schwab Learning Center (SLC)

Ashoka University: Office of Learning Support

IIM, Bangalore: Office of Diversity & Inclusion, Center for Teaching & Learning



Pillars of Global Best Practices



Consultations; personal learning
Reasonable case-by-case
accommodation
Awareness and advocacy
Coordinating stakeholder
Support community beyond campus

Counselling
Support



Curriculum adjustments; inclusive
pedagogy
Modifying learning environments
and policies regarding
attendance, assignments and
exams

Academic
Support



Consultations on assistive
technology options
Makes assistive tech available for
student and faculty
Stanford assignment calculator
Shaywitz Dyslexia Screener

Assistive
Technologies



R & D for SLDs
YCDC Dyslexia Interventions and
longitudinal studies
The McGovern Institute for Brain
Research
UC, Berkeley \$20 million presented
for research in neuroscience and
cognition to support Dyslexia

Research



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Ms. Maria Grazia Bevere
Learning Support Coordinator
King's College

Transition to HEIs: Enabling Inclusion



Coordination

Streamlining SLD accommodations across the university

Facilitate individualized accommodations liaising with faculty

Working towards awareness and advocacy on SLDs and learning diversity

Individual tutoring supplementing academic support

Career and placement related support

On-Campus Support

Ensuring inclusion into campus life - managing independent living

Awareness and inclusion workshops for clubs and societies on campus

Providing campus handbooks and resources in various accessible formats

Access to support groups, buddy systems & mental health services

Technological Support

Provide access to & training of assistive technologies

Mainstreaming usage in curriculum

Workshops with faculty on assistive technologies

Technological assistance with time management, schedule management

Research

Advocating for centers of neurodiversity research & including neurodiverse scholars

Accelerating research and assistive technology innovation on SLDs

Lobbying with organisations for partnerships and funding

Transition to HEIs: Supporting Students



Academic Support

Course Material in accessible formats (National digital library as a resource); SWAYAM courses in accessible formats

Instructional Aids and Services: Note Takers/Scribes/Devices

Alternative assignment deadlines

Accommodations; exams with compensatory time, readers, distraction-reduced setting, clarification of questions

Tutoring; counselling, support; buddies

Student Life

Counseling Support, Coaching and academic planning support

Availability of accommodations based on need-assessment at the time of admissions

Availability of on-campus champions to advocate.

Mental Health Support; Faculty Capacity building, Assigning campus buddies.

Access to Resources

Schemes/Scholarships to provide resources to students with SLD, such as SAKSHAM (AICTE).

Demonstration of AT usage

Assistance in making academic course material accessible

Employment & Opportunities

Providing all information related to placements, internships, scholarships in digitally and otherwise accessible formats

Employer sensitization on potential of students with SLDs

Relaying information to students about inclusive employers.

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Marie Saddlemire
Academic Centre for Excellence,
Bryant



Remember: When inclusive classrooms
are designed well, interventions for
students with SLDS, help ALL students
learn better

Where should you begin?



1

Start at the Beginning: Inclusive Admissions, Increasing PwD Category Enrollment, Tracking Success Stories



2

Sensitization and Awareness: Faculty, Administration and Students



5

Consciously Building a Culture of Inclusion



3

Accommodations under the 2Cs: Classrooms and Curriculum



4

Centers of Support: Creating a Disability Support Unit/Equal Opportunity Facilitation Cell/Center of Learning Diversity



**Don't miss out on the genius
of the next**



What are you
throwing away?



Oh just some old
ideas and beliefs
that were taking
up too much space.



Thank-You

Noopur Jhunjhunwala
Trustee, ChangeInkk Foundation
info@changeinkk.org



AICTE Post-session
Survey: Inclusion of Students with
SLDs in Higher Education

