# ACCESSIBILITY & INCLUSION IN HIGHER EDUCATION IN INDIA

How do students with disability experience college today?

# Foreword

Indian census statistics calculate that Persons with Disability (PwDs) constitute 2.1% of the country's population. On the other hand, global bodies such as the World Bank estimate that the total population of PwDs in India is between 40 to 80 million. Whichever statistic we choose to go by, it is undeniable that India has a large population of PwDs; one that is underserviced and whose needs are often left unmet.

As the world works towards achieving the Sustainable Development Goals (SDGs) by 2030, it is becoming increasingly imperative to pay due attention to the PwD population. Of the 17 targets by the SDGs, five are intrinsically linked to the disability sector. To achieve quality education (Goal 4), decent work and economic growth (Goal 8), reduced inequalities (Goal 10), sustainable cities and communities (Goal 11) as well as partnerships for the goals (Goal 17), the need to collaborate with the PwD community and cater to their needs is crucial. While each of these goals are vital, the key to creating large-scale societal, systemic change arguably lies in transforming the education sector.

This report is an effort to engage with this sector; its present state of affairs and suggested path forward to become more inclusive to the needs of PwDs. By speaking informally to students from leading institutions all over the country, this report seeks to skim the surface of the issues that plague our colleges, preventing our students with disability from making the most of their time on our campuses and fully achieving their potential. This report identifies organisational, environmental and attitudinal barriers that are commonly faced in institutions of higher education across the country and seeks to put forward easily adoptable, highly effective recommendations. While it is merely scratching the surface of a complex, deep-rooted problem, I believe this report is essential for the reason that it asks us an exceptionally important question. What kind of education are we looking to provide the children of our country today?

As you read this report, I recommend that you engage with this question and pay close attention to the voices of the students with disability echoing from our classrooms. This report spotlights their experiences and it is important that we listen. Once we listen, it is important that we act. I believe this report is the first step on that path of action.

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# Preface

When I started losing my vision due to macular degeneration of the retina, I began realising the challenges faced by Persons with Disabilities in mainstream environments. A non-inclusive environment meant that PwDs often had limited access to resources and opportunities. The idea for Sarthak was born from the desire to reintegrate PwDs into mainstream society, ensuring a community based on mutual dignity, respect, and equal access to resources. At Sarthak, we believe that proper skill building and training is crucial to enabling better lives for PwDs and encouraging inclusion as a way of life.

While much of Sarthak's work lies in the areas of skilling and employment services, we recognise the importance of education in conjunction with our mission. It is an unfortunate reality today that many of the educational institutions in our country do not have accessible infrastructure that would enable students with disabilities to make the most of their time on campus. It is also worth noting that the challenges are not limited to physical infrastructure. Often, students with disability face discrimination due to ignorance, social stigma, stereotypes and misconceptions regarding disability. Coupled with inaccessible infrastructure, this leaves students with disability often struggling to excel in academics and experience the social joys of college life.

It was in this context that we undertook this project. We wanted to understand the lived experiences of students with disability in higher educational institutions around the country. Students spoke to us informally about access to academic as well as extra-curricular spaces, attitudes on campus, and what they hoped would change going forward. While this report is largely focused on technical institutions and is limited by the number of students we could access, we hope that it will act as a starting point for the much-needed conversation around inclusion and accessibility of our educational institutions. Towards the end of this report, we have also proposed recommendations that can be adopted at the institute level and we hope this will instigate administrations across the country to participate in the conversation around inclusion of students with disability.

This research would not have been possible without the support of Aricent Technologies, particularly Mr. Ashwini Lal (Chief Operational and Quality Officer) and Dr. Nuzhat Parveen (Director, Corporate Social Responsibility). It is due to funders and supporters like them that we have been able to shed light on such an under-researched area of study. Thanks also to the guidance of Padma Bhushan Dr. MB Athreya (management guru and our mentor) and Sri Krishan Kalra (former President of AIMA). I would also like to express my gratitude to Ms. Nistha Tripathi, the Program Leader (India) at Sarthak who was crucial in compiling this report.

I hope this endeavour of ours is the beginning of a much-needed, larger conversation.


**Dr. Jitender Aggarwal**
Founder

# Executive Summary

While the importance of education and literacy is often recognised, the experience of students with disability in higher education is grossly underrepresented. According to a study conducted by the Indian Ministry of Human Resource Development in 2018-19, there were 85,877 Persons with Disability (PwDs) between the ages of 18 and 23 enrolled in higher education[1] out of 37.4 million total enrolment.[2] This lack of enrolment in higher education is often attributed to societal discrimination and stigma, poor implementation of policies encouraging inclusion, and inaccessibility of public spaces. These environmental, societal and institutional barriers negatively impact literacy, education standards and employment levels of PwDs. According to the Census of 2011, around 70% of the PwD population is unemployed.[3]

It is within this context of poor education and resultant low employment that Sarthak undertook this study to understand the experience of students with disability in institutes of higher education across the country. The goal was to identify the hurdles in the experiences of students with disability in higher educational institutions. Understanding these bottlenecks and recommending paths to overcome them would then feed into Sarthak's larger goal of enabling employment and empowerment of the disability community. Rooted in the social model of disability[4] that understands disability as being the effect of inaccessible environments and discriminatory attitudes, the research sought to identify the challenges faced by students with disability in the classroom, campus and hostel settings.

A total of 156 students with disability across close to 30 institutes in India participated in the study. Respondents were identified through snowball sampling, with initial contact being made via personal and professional networks. This methodology, while convenient, meant that the sample did not have equal representation on the axes of sex, age or type of disability. Sample sizes across institutions were also unequal and often statistically not relevant. Further, this study is limited to the experiences of students with disability and does not include the views of other stakeholders within the education system like teaching staff, administration or students without disability. In light of these limitations, the study seeks only to put forth preliminary understandings of the higher education experience of students with disability in India.

The study focuses on three key axes of inaccessibility - organisational barriers, environmental barriers and attitudinal barriers. Discussions on organisational barriers spanned hurdles with regard to academics, placements as well as representation in the larger community. Students spoke of inaccessible coursework, the need for support during examinations and assessments, and the pressing requirement of sensitisation amongst placement representatives as well as potential employers. With regard to environmental barriers, students reported limited mobility as being a key limitation, both within as well as to and from campus. Accessible washrooms, hostels and recreational facilities as well as talking ATMs were identified as necessary for the inclusion of students with disability. These challenges of physical infrastructure and inaccessibility were exacerbated by attitudinal barriers. Stigma and ignorance around disability

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[1] Higher Education, for the purposes of this report, was understood as any education obtained after completing 12 years of schooling or equivalent. The education may be of general, vocational, professional or technical nature.

[2] AISHE Final Report (2018-19), http://aishe.nic.in/aishe/viewDocument.action?documentId=262

[3] Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020

[4] Social Model of Disability, ScienceDirect, https://www.sciencedirect.com/topics/medicine-and-dentistry/social-model-of-disability

both institutionally and from individuals were reported as resulting in discrimination against students with disability. This limited their access to equal opportunity and restricted integration into the mainstream student body.
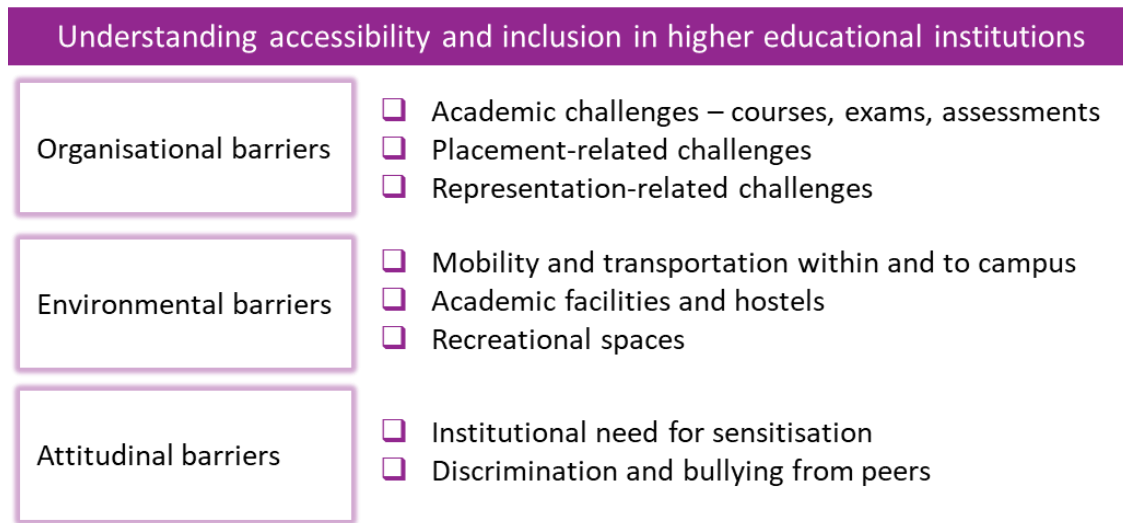


| Understanding accessibility and inclusion in higher educational institutions | |
|---|---|
| Organisational barriers | ❑ Academic challenges – courses, exams, assessments<br>❑ Placement-related challenges<br>❑ Representation-related challenges |
| Environmental barriers | ❑ Mobility and transportation within and to campus<br>❑ Academic facilities and hostels<br>❑ Recreational spaces |
| Attitudinal barriers | ❑ Institutional need for sensitisation<br>❑ Discrimination and bullying from peers |

*Figure 1: Key Findings*

Following this broad-based understanding of the challenges faced by students with disability, this report makes a series of recommendations to ensure more accessible and inclusive spaces of higher education. The focus of these recommendations is on attitudinal changes (the need to sensitise multiple stakeholders and enable a culture shift towards inclusion) and removal of physical barriers (distribution of assistive devices and improved accessibility of infrastructure).
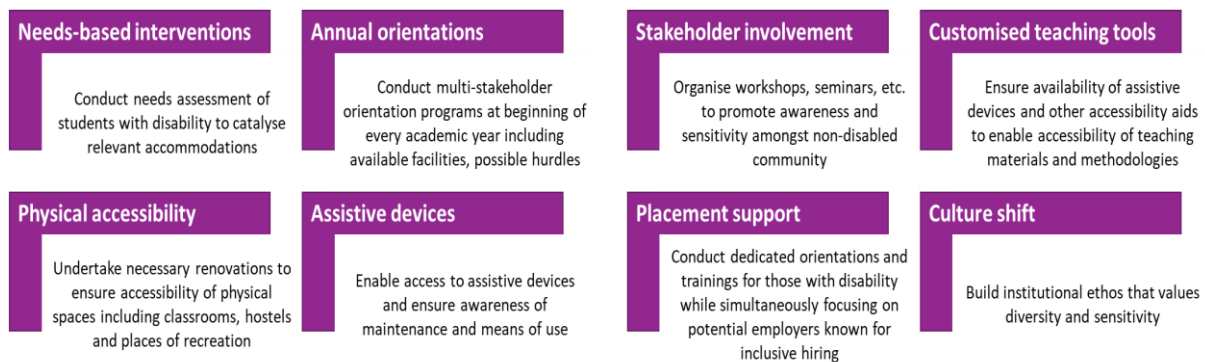


**Needs-based interventions**
Conduct needs assessment of students with disability to catalyse relevant accommodations

**Annual orientations**
Conduct multi-stakeholder orientation programs at beginning of every academic year including available facilities, possible hurdles

**Stakeholder involvement**
Organise workshops, seminars, etc. to promote awareness and sensitivity amongst non-disabled community

**Customised teaching tools**
Ensure availability of assistive devices and other accessibility aids to enable accessibility of teaching materials and methodologies

**Physical accessibility**
Undertake necessary renovations to ensure accessibility of physical spaces including classrooms, hostels and places of recreation

**Assistive devices**
Enable access to assistive devices and ensure awareness of maintenance and means of use

**Placement support**
Conduct dedicated orientations and trainings for those with disability while simultaneously focusing on potential employers known for inclusive hiring

**Culture shift**
Build institutional ethos that values diversity and sensitivity

*Figure 2: Summary of recommendations*

This report hopes to shed light on the need for more inclusive spaces of higher education. This focus on accessibility and inclusion in educational institutions is key to addressing the problem of unemployment amongst the disability community. It is through the collaborative effort of educational institutions, potential employers and disability organisations that true empowerment of Persons with Disability can take place. This report seeks to be the first step in that direction.

# Contents

# Abbreviations

| | |
|---|---|
| BTech | Bachelor of Technology (undergraduate) |
| CBR | Community Based Rehabilitation |
| Cr | Crore |
| CwD | Children with Disability |
| EAG | Economic Activity Groups |
| EOP | Equal Opportunity Policy |
| GDP | Gross Domestic Product |
| IFC | International Classification of Functioning, Disability and Health |
| IT | Information Technology |
| MHLW | Ministry of Health, Labour and Welfare (Japan) |
| ML&E | Ministry for Labour& Employment |
| MTech | Masters of Technology (postgraduate) |
| MwD | Men with Disability |
| NCPEDP | National Centre for Promotion of Employment of Disabled People |
| NSS | National Sample Survey |
| PwD | Persons with Disability |
| RPWD | Rights of Persons with Disability Act |
| RTE | Right to Education |
| SDG | Sustainable Development Goals |
| SSA | Sarva Shiksha Abhiyan |
| UN | United Nations |
| UNCRPD | United Nations' Convention on the Rights of Persons with Disabilities |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| WPR | Work Participation Rate |
| WwD | Women with Disability |

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# 1. Research Rationale

For most students with and without disability, their time spent in institutes of higher education overlaps with adolescence; a period defined by change, growth and learning. This includes not just education, but also social interaction, accessibility to future employment opportunities, and development of interests and hobbies. A higher education experience helps individuals grow beyond their familiar circle and often develop thoughts, personalities, and ideas of their own. This period of change is true for Students with Disability as well. Students with Disability have the same rights (against discrimination, to self-respect and dignity, and to self-assertion) as their non-disabled counterparts. Yet, more often than not, this important and pivotal stage of life is negatively influenced by their experiences in their educational institutions. Much of this negative experience can be attributed to environmental, social and institutional barriers.

Given the importance of understanding the experience of higher education for students with disability, it is particularly relevant to note the dearth of robust research on the subject. Without this research, decision-makers at both the governmental and institutional levels face limitations in understanding the perspectives and needs of this community. Thus, the need of the hour is research rooted in the rights-based approach[5] that analyses issues of accessibility and inclusion for students with disability from social, economic and environmental perspectives. Inclusive education and accessibility of physical spaces remain at the forefront of issues affecting the lives of students with disability.

It was against this background of underrepresentation of students with disability that this research was undertaken. The focus of conversations was on higher education in India and experiences of accessibility. By extension, this lacuna affects access to employment and economic independence of PwDs. Sarthak Educational Trust has adopted a person-first, rights-based approach to capture the experiences of students across a range of higher educational institutions, bringing to the fore their own voices to argue for inclusive education and accessibility.

The aim of this study is to better understand the issues of accessibility and inclusion of students with disability in higher education institutes. An attempt was made to better understand the everyday challenges faced by students with disability in the classroom, campus and hostel settings. The research was centred around classroom teaching, life in the hostel, attitudes and behaviours of teachers and peers, and special provisions made by the institutes. Following an in-depth understanding of the context, this report proposes robust recommendations to help institutions of higher education become more inclusive of students with disability. This research focuses solely on the experiences of students with physical and sensory (hearing and visual) impairment. All experiences reported are the experiences of individual students and not reflective of institutional administrations.

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[5]A human rights-based approach is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress. (Source: https://www.unicef.org/policyanalysis/rights/index_62012.html#1)

## The United Nations' Convention on the Rights of Persons with Disabilities

To understand the context of current conversation surrounding disability laws in the country, it is important to understand the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). In December 2006, the UN adopted the Convention on the Rights of Persons with Disabilities elaborating in detail the rights of Persons with Disabilities and setting forth a code of implementation. The international treaty is seen as marking a paradigm shift from a charity–based approach (which views Persons with Disability as "objects" of charity, medical treatment, and protection) to a rights-based approach (of seeing them as "subjects" capable of claiming their rights). This also led to disability becoming a mainstream issue, and their status being reflected in national assessments of development and poverty reduction strategies and corresponding international frameworks. Article 1 of UNCRPD defines Persons with Disabilities as those who have "long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others." The purpose of the Convention is to promote, protect and ensure the full and equal enjoyment of all human rights by Persons with Disabilities depending upon their needs and situations. It covers a number of key areas such as accessibility, personal mobility, rehabilitation and participation in political life, etc.

India ratified the UN Convention on the Rights of Persons with Disabilities (UNCRPD) in September 2007. It came into force on 3rd May 2008 and makes it obligatory on the part of the government to synchronize laws or legal provisions with the terms of the Convention.

Source: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-1-purpose.html

# 2. Background and Context

Inclusion of Persons with Disability in mainstream society is not just a development issue. It is a key human rights issue. Globally, PwDs are denied access to equitable healthcare, accessible education and equal employment. They often do not receive disability-related services, restricting efforts of mainstreaming.[6] The World Bank estimates that there is a total of one billion people in the world who experience some form of disability or impairment in their life span.[7]

In India, disability has multiple definitions across different laws and policies. The National Sample Survey (NSS) collects information on Persons with Disability annually and defines a Person with Disability as "a person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being."[8] The legal definition is put forth by The Rights of Persons with Disabilities (RPWD) Act 2016, which defines a Person with Disability as "a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others."[9] On the other hand, the International Classification of Functioning, Disability and Health (IFC) defines disability as an umbrella term for "impairments, activity limitations and participation restrictions." [10,11] These differing definitions set the context for any conversation surrounding disability, shedding light on the complexity of the subject and the need to acknowledge the interaction between disability and other social, environmental and physical factors.

Historically, disability was spoken of in the language of medicine. Over the years, this understanding has evolved. The role of social and physical barriers (and their interaction with health problems) has led to a new understanding of disability. The transition from an individual, medical perspective to a structural, social perspective has been described as a shift from a "medical model" to a "social model" of disability.[12] Today, disability is being seen as caused by social factors, rather than medical impairments. Thus, disability is not just a health problem; it is in fact the interaction between individuals with a health condition and personal and environmental factors such as negative attitudes, inaccessible public spaces and limited social support. Both environmental and social barriers must be removed for PwDs to be able to integrate into mainstream society.[13] While there are many other conditions that fall under the category of disability, this report is limited to exploring and understanding accessibility and inclusion of students with physical and sensory (hearing and visual) impairments in institutions of higher education in India.

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[6] https://www.who.int/publications/i/item/world-report-on-disability
[7] https://www.worldbank.org/en/topic/disability
[8] http://mospi.nic.in/sites/default/files/publication_reports/Revised_Disability_Manual_20june12_1.pdf
[9] http://www.deoc.in/wp-content/uploads/2018/10/Rights-of-Persons-with-Disabilities-RPWD-Act-2016.pdf
[10] While impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; and participation restriction is a problem experienced by an individual in involvement in life situations.
[11] http://mospi.nic.in/sites/default/files/publication_reports/Revised_Disability_Manual_20june12_1.pdf
[12] https://www.who.int/disabilities/world_report/2011/report.pdf?ua=1
[13] WHO, International Classification of Functioning, Disability and Health (IFC), (2001); accessed from https://apps.who.int/iris/bitstream/handle/10665/42407/9241545429.pdf;jsessionid=0B805E5FB129C35702D742E962DBA8B0?sequence=1 on 9th June, 2020

According to the 2011 Census, the total population of India is 130 crores, out of which 2.68 crores are Persons with Disability. This means that a significant 2.21% of India's population are part of the disability community.[14,15]

| | Persons | Males | Females |
|---|---|---|---|
| **Total** | 2,68,10,557 | 1,49,86,202 | 1,18,24,355 |
| **Rural** | 1,86,31,921 | 1,04,08,168 | 82,23,753 |
| **Urban** | 81,78,636 | 45,78,034 | 36,00,602 |



Population of India

2.1
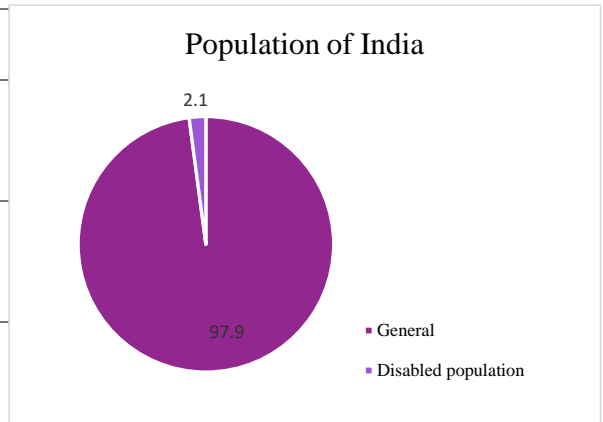
97.9

■ General
■ Disabled population

*Table 1: Population of PwDs in India according to sex and location[16]*    *Figure 3: Persons with Disability in India (%)*

Over the past few decades, the Government of India has launched various programs and campaigns, and has enacted laws that promote the inclusion and accessibility of PwDs into mainstream society. These include the Rights for Persons with Disability Act 2016, the Accessible India Campaign, and the expansion of the Sarva Shiksha Abhiyan (SSA) to include Children with Disability (CwD). The Department of Empowerment of Persons with Disabilities under the Ministry of Social Justice and Empowerment also launched the Umbrella Scholarship Scheme called 'Scholarship for Students with Disabilities' in 2018 to reduce the drop-out rate of CwD from grade IX onwards.[17] This is particularly relevant since a study by UNESCO in 2019 indicated that 6 lakh CwD (constituting 28% of the total population of children with disability) aged between 6 and 13 years are not attending school compared to the national estimate of 2.97%. of out of school children.[18]

Arguably a continuum from the concerns regarding education, another area of concern for the PwD community is employment. As of 2011, approximately 34 lakh PwDs were employed, out of the total population of 1.34 crore people of working-age.[19] This translates to an unemployment rate of 70% amongst the PwD population. This is further complicated by the inequalities between urban and rural populations.

According to the 2011 Census, 69% of PwDs live in rural areas. They are significantly disconnected from skills and markets and have low literacy rates, with 51% of PwDs in rural India being illiterate.[20] This makes it extremely difficult for them to find suitable employment and sustain themselves economically. While the RPWD Act of 2016 provides reservation for

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[14]Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020
[15]The 2011 census collected data on the disabled population through the 'household sampling phase'. The household sampling phase collected data on a house-to-house basis and took into account age, sex, education level, marital status, residence, employability, etc. of each disabled person.
[16](For Table 1 and Figure 3) Source: Census
[17]http://disabilityaffairs.gov.in/upload/uploadfiles/files/scholarship2(1).pdf
[18]UNESCO (2019), '*N for Nose: State of Education Report for India 2019, Children with* Disabilities' accessed on 22nd June 2020 from https://unesdoc.unesco.org/ark:/48223/pf0000368780?posInSet=1&queryId=61d8f754-79af-400a-ae81-8b3700e24397
[19]Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020
[20]Ibid

PwDs in government jobs and incentives for non-government jobs, there is a clear lack of implementation of guidelines outlined in the Act.[21]

On-going work by the Government of India and various non-government organizations has propelled India in the direction of becoming more inclusive and accessible to PwDs. However, the lack of a holistic approach remains a concern. Such an approach would need to take into account economic, political and social representation as well as inclusion in all spheres of life such as education, employment, health, and access to resources.

Over the last five decades, the Government of India has been working on enabling, including and increasing accessibility to education (primary, secondary and senior) to CwDs across India. This can be traced back to the National Educational Policy 1986 and Integrated Education for Disabled Children 1974, a centrally sponsored scheme focused on providing inclusive education to all CwDs and organising their reintegration into and retention in mainstream schools. The Rehabilitation Council of India Act 1992 initiated a training programme for the development of professionals to respond to the needs of students with disabilities.[22,23] The Government of India has also taken extensive steps to promote inclusion of CwDs through scholarships such as the Post Matric Scholarship for Students with Disabilities by the Department of Disability Affairs and the National Scholarships for PwD under the Ministry of Social Justice and Empowerment. These scholarships provide students with disability financial assistance to pursue higher education.

While laws like RPWD Act 2016 and the National Policy for Persons with Disabilities 2006 encourage inclusion, the situation in educational institutions tell a different story. Despite reservation in educational institutions for students with disability under the RPWD Act of 2016, the enrolment numbers in higher education institutes are dismal.



Percentage of Students with Disability in higher education, by sex

47%  53%

■ Male ■ Female
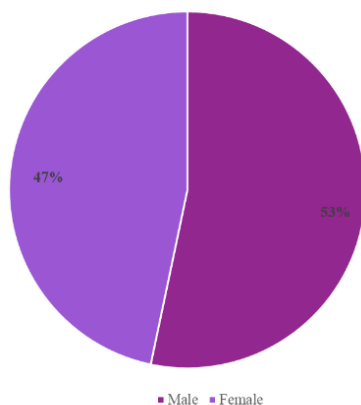
*Figure 4: Percentage of Students with Disability in higher education (by sex) [Source: All India Survey on Higher Education, 2019]*

In a study conducted on higher education in India in 2018, it was found that the total enrolment in higher education across rural and urban environments has been estimated to be 3.74 crore, split between 1.92 crore boys and 1.82 crore girls. Girls constitute 48.6% of the total enrolment. In comparison, the enrolment of Students with Disability in higher educational institutes is dismal. There are only 85,877 Students with Disability enrolled in higher education out of which 56% are male and 44% are female.[24]

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[21] For more information, refer https://thewire.in/rights/apathy-getting-in-the-way-of-implementation-of-reservations-for-people-with-disabilities

[22]Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020

[23]The advancement of the Right of Children for Free and Compulsory Education (2009) guarantees the right to free and compulsory education to all children between the ages of six and fourteen. This Act, when viewed in conjunction with the Persons with Disability Act, 1995, makes guarantees for free education to children with disability till the age of eighteen.

[24]http://aishe.nic.in/aishe/viewDocument.action?documentId=262

## 2.1 Intersectionality as axis

Disability in itself is a complex topic and its intricacies are further pronounced with intersections of gender, residence, class, caste, and other axes of identity.[25] An intersectional approach to understanding disability takes into account the external historical, socio-political and environmental contexts of individuals with disability while recognising the unique emotional experiences of each individual based on the intersection of their multiple identities. Various social constructions of identity intersect with disability to affect young adults' lives, especially in educational institutions. For example, female Students with Disabilities face more restrictions in access to higher education as compared to their male counterparts. Data from the All India

*Figure 5: Intersectionality of disability*

Survey on Higher Education 2018-2019 shows that there are more male Students with Disabilities in secondary school nation-wide as compared to female Students with Disabilities *(as shown in table 2)*. This not only indicates the burden of multiple vulnerabilities of PwDs due to their gender, residence, caste, economic status and other factors, but also shows the need for an intersectional approach to move towards an equal society for all.

Another important axis of identity that influences the experience of disability is that of the rural-urban divide. This divide cuts across differences on the basis of gender, class and caste, determining access, availability and affordability of resources. This is particularly relevant given that around 69% of all PwDs live in rural areas.[26] Thus, this factor is an overriding influence on any intersectional understanding of disability.

|         | Male  | Female | Total |
|---------|-------|--------|-------|
| 2018-19 | 48212 | 37665  | 85877 |
| 2017-18 | 42630 | 31687  | 74317 |
| 2016-17 | 40894 | 30073  | 70967 |
| 2015-16 | 39718 | 34717  | 74435 |
| 2014-15 | 34757 | 29541  | 64298 |
| 2013-14 | 31374 | 20580  | 51954 |
| 2012-13 | 45329 | 40904  | 86233 |

*Table 2: Enrolment of PwDs in higher education by gender [Source: AISHE 2018-19]*

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[25] For more information, please refer Mehrotra, Nilika. "Disability gender and caste intersections in Indian economy." DOI: 10.1108/S1479-3547(2013)0000007013

[26] Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020

The following section outlines the various ways disability interacts with other axes of identity (like gender) as well as structures (such as employment and education) to influence the experiences of accessibility and inclusion of PwDs. Figure 5 explains the way in which these institutions intersect with one other to form cultural, economic, political and social barriers.

## 2.2 Gender

To understand disability and gender together, one must be able to understand the way in which the two intersect to form structural, institutional and cultural barriers for Women with Disabilities (WwD). Girls and women of all ages with disabilities are part of the most marginalised sections of society. WwDs often carry a triple burden of gender, disability and poverty.[27] They are often subject to stereotyping, psychological, physical, financial and sexual violence, and inadequate healthcare.

Disability is both a cause and consequence of poverty. It increases vulnerability to poverty, while poverty creates the conditions for increased risk of disability.[28,29] The intersection of gender and poverty has been acknowledged in the past by feminist disability theorists and disability advocates. However, data to prove the same is limited to case studies and anecdotal evidence. No systematic studies have been carried out to understand this intersectional reality in detail. Having said this, data from national government sources like the population census and education statistics can point out to correlations between disability and gender.

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**Gender and Space**

There is meaningful association across space between disability, demographic characteristics, socioeconomic conditions and gender. While there has been little to no systematic research done to understand the connection and explicit intersection between demographic, socioeconomic, and geographic characteristics of PwDs, it is safe to assume that the connection between these axes is of utmost importance. Mapping spatial patterns of disability may reveal enough data to consider a full-fledged study into understanding the rural-urban axiom and its relation to gender and disability.

Women from rural areas are more likely to be caught in the poverty cycle. This increases their vulnerability to developing disabilities in the future. This can be inferred from the 2011 Census data which shows that 73% of the elderly population resides in rural areas. Further, the number of elderly women now exceeds the number of elderly men, a trend that was reversed in 1991.

Source: http://mospi.nic.in/sites/default/files/publication_reports/ElderlyinIndia_2016.pdf

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[27]Promoting Gender Equality. (2005). New York: United Nations Population Fund http://www.unfpa.org/gender/

[28] For example: poverty increases vulnerability to disability because of poor nutrition, lack of access to healthcare, greater exposure to violence and unintentional injury and lack of access to knowledge and information regarding disability. Disability increases vulnerability to disability because of the lack of access to the labour market, upskilling engagements, etc.

[29] Disability and Social Change: A South African Agenda, edited by Brian Watermeyer, Leslie Swartz, Theresa Lorenzo, Mark Priestley, Marguerite Schneider
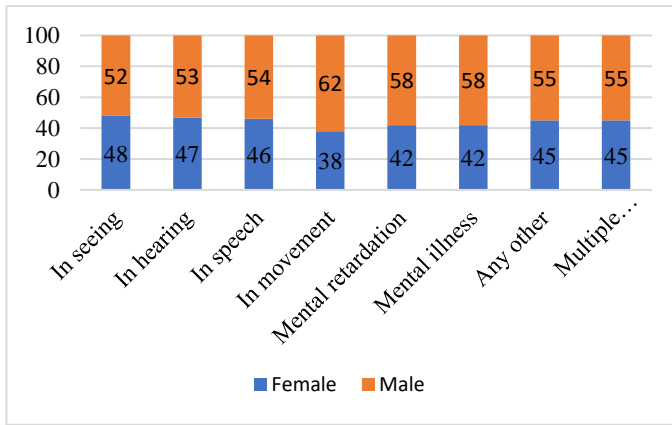
Figure 6: Distribution by sex (%), in each type of disability in India [Source: Census 2011]
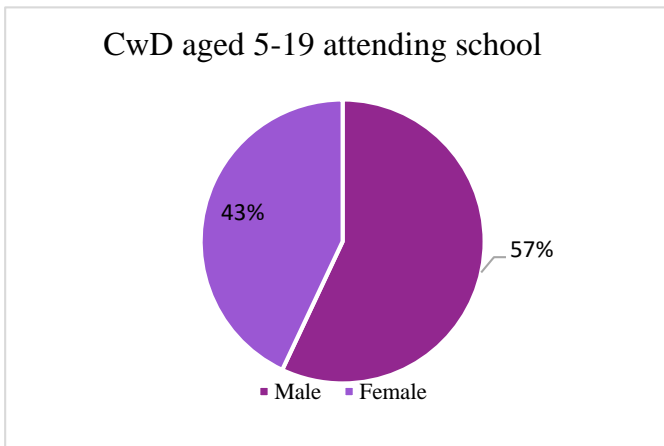
Among PwDs in India, 56% (1.5 crores) are male and 44% (1.18 crores) are female. Thus, WwDs in India constitute 44% of the total population with disabilities.[30] In the total population, the male and female population are 51% and 49% respectively. During the decade from 2001 to 2011, there was an overall increase in the population of PwDs, with numbers increasing both in rural and urban areas as well as amongst men and women. [31]

## CwD aged 5-19 attending school



Figure 7: Disabled children attending school, by sex (%) [Source: Census 2011]

As compared to non-disabled women as well as men with disabilities, women with disabilities are a smaller population in education and employment opportunities. Data from the Official 'Disabled People in India: A Statistical Profile 2016'[32] shows that more male children with disability in both urban and rural areas are attending school as compared to female children with disability. Among the CwDs aged between 5 and 19 years, male students made up 57% of the total.

While the legislation of the country has Acts and policies in place for the inclusion and protection of PwDs, many legislations like The Mental Health Act of 1987 lack a pronounced gender component.[33] However, the RPWD Act of 2016 lays specific stress on the rights of CwDs and WwDs. The Act signifies a paradigm shift in the way of thinking about social welfare and concern from a human rights angle for PwDs.[34]

Disability, gender and residence come together in a set of social relationships that have direct consequences on individual experiences and realities. To completely understand the context and background of the PwD population in India, one must also take into account the gender aspect at all steps of policy formulation, research and service provision.

[30] http://docs.manupatra.in/newsline/articles/Upload/7102F404-0902-4EEC-BA55-F8EFC25DA6D4.pdf
[31] Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020
[32] http://mospi.nic.in/sites/default/files/publication_reports/Disabled_persons_in_India_2016.pdf
[33]While the Mental Health Act of 2007 comes under Disability Laws in India because it takes under its ambit intellectual disabilities, learning disabilities and communication disabilities. However, this scope of research is outside the purview of the study we are conducting.
[34]Chaudhary, Laxmi Narayan and Thomas, John. (2011) 'Rights of Persons with Disabilities Act, 2016: Does it address the needs of the persons with mental illness and their families', The Indian Journal of Psychiatry; accessed on 12th June 2020 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5419007/

## Women with Disabilities and RPWD Act 2016

Most laws take a gender-neutral stance and tend to take into their ambit 'all people' without explicitly mentioning protection of Women with Disabilities (WwD). The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) and The National Policy for Persons with Disabilities 2006 recognized the vulnerability of WwDs to abuse, and proposed educational programmes, rehabilitation services, etc. The RPWD Act is a legislation that addresses discrimination and violence, recognizes civil, political, economic, social, and cultural rights, and provides for a monitoring authority as well as a Special Court to try offences against People with Disability.

The RPWD Act adopts a 'twin track' with disability that addresses vulnerabilities in the context of discrimination, social security, healthcare, and sexual offences for women with disability. The Rights of Persons with Disability Act 2016 brought in a pronounced gender component into disability laws. The Act states that the Government must protect rights of all women and children with disabilities while also focusing on special provisions like care, guardianship, etc. for them.

In terms of social security, the RPWD Act 2016 makes explicit mention of women with disabilities having 'support for livelihood and for bringing up their children.' Sexual and reproductive healthcare must also be provided especially to Women with Disabilities. As part of the reservations introduced for People with Disability under the RPWD Act 2016, there is a mention for priority to/for Women with Disabilities in allotment of agricultural land and housing, in poverty alleviation schemes and development schemes.

However, a study done by CREA (a feminist human rights-based organization) found that 'multiple and intersecting discrimination' was overlooked in the RPWD Act. The latent assumption in the RPWD Act is that women with disabilities experience discrimination only on grounds of disability. For instance, caste and disability intersect in ways that make girls and women more vulnerable to sexual violence and exploitation. However, the combined effect of these identities is not addressed under the RPWD Act.

Source: Swagata Raha & Shampa Sengupta, Rights of Women with Disabilities under Indian Legislations

## 2.3 Education

Provision of inclusive and equitable education remains one of the most important steps for the achievement of an inclusive society. The past decade in India has been monumental in bringing out positive change in the education space, moving towards universalisation of education and right to education for all. The international framework comprising the UNCRPD and the Sustainable Development Goals, specifically SDG 4 and Agenda 2030[35], provide a strong vision and a set of goals that have guided India's processes of fostering inclusion in schools. The Right to Education (RTE) Act 2009 and the Rights of Persons with Disabilities Act (RPWD) Act 2016 have helped create a comprehensive legal framework for inclusive

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[35] The Agenda 2030 is a commitment to achieving sustainable development by 2030 world-wide. Under this, the Sustainable Development Goal (SDG) 4 is Quality Education for all. SDG 4 focuses on addressing gender gaps, inequality and development of decent employment through education.

education. Teacher training and a shift to the home-based education for PwDs has been underway since the declaration of RPWD Act in 2016. [36]

| | Total | Rural | Urban |
|---|---|---|---|
| **Literate** | 121,96,641 | 95,26,033 | 26,70,608 |
| **Illiterate** | 146,18,353 | 91,10,325 | 55,08,028 |

*Table 3: Literacy status of disabled population by residence in India [Source: Census 2011]*

However, there are a few ambiguities about where children with disabilities should study and who should teach them. Gaps remain in the changing of norms and standardisation of educational institutes across the nation, along with addressal of cultural, social and political barriers to education.

The Sarva Shiksha Abhiyan (from the 2018-2019 budget) assumes pre-nursery to grade 12th education under its ambit and has special provisions for training, aids, and home-based education for Children with Disabilities. Education policies and laws like the SSA often fall short of strict implementation and adherence to guidelines set out for institutions. Many guidelines have been released over the years for conducting examinations for Students with Disabilities but a focus on the retention rate, classroom environment and inclusive curriculum is not present. Considerably less attention has also been paid to education at the undergraduate and post graduate levels.

> ### India's flagship education program: Sarva Shiksha Abhiyan
>
> India's flagship program on education, Sarva Shiksha Abhiyan (SSA, loosely translated to "universal education for all") is an attempt to provide an opportunity for improving human capabilities to all children, with special focus on bridging social, regional and gender gaps, through the active participation of the community in the management of schools. As an intervention program, SSA started in 2002, but as an idea and philosophy its roots go back to District Primary Education Program of 1994 that was aimed at achieving universal primary education. The Right to Education Act of 2010 legally bolstered the SSA program.
>
> Under SSA, a continuum of educational options, learning aids and tools, mobility assistance, support services etc. are made available to students with disabilities. This includes education through an open learning system and open schools, alternative schooling, distance education, special schools, home-based education as necessary, itinerant teacher models, remedial teaching, part time classes, Community Based Rehabilitation (CBR) and vocational education.
>
> Source: https://www.prsindia.org/report-summaries/implementation-sarva-shiksha-abhiyan-and-mid-day-meal-scheme

Despite reservation in educational institutions for PwDs under the Rights for Persons with Disability Act 2016, the enrolment numbers of students in higher education institutes are dismal. A study conducted by the Ministry of Human Resource Development, Department of Higher Education in 2016 titled 'All India Survey on Higher Education (2015-2016)' across India estimates that there are 74,435 PwD students, out of a total of 4 crore PwD between the

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[36]https://unesdoc.unesco.org/ark:/48223/pf0000368780/PDF/368780eng.pdf.multi

ages of 20-29[37] enrolled in higher education, in comparison to a total of 346 crore non-disabled students. Out of the PwD students, 39,718 (53.3%) are male and 34,717 (46.7%) are female students. A total of 44,356 institutions, colleges and universities were a part of this study over two years.

Barriers to education can often take different shapes and forms. Figure 8 outlines the broad categories of barriers. It is important to keep in mind that these individual factors all interact and intersect with one another to form different layers of barriers that present themselves differently for each individual.
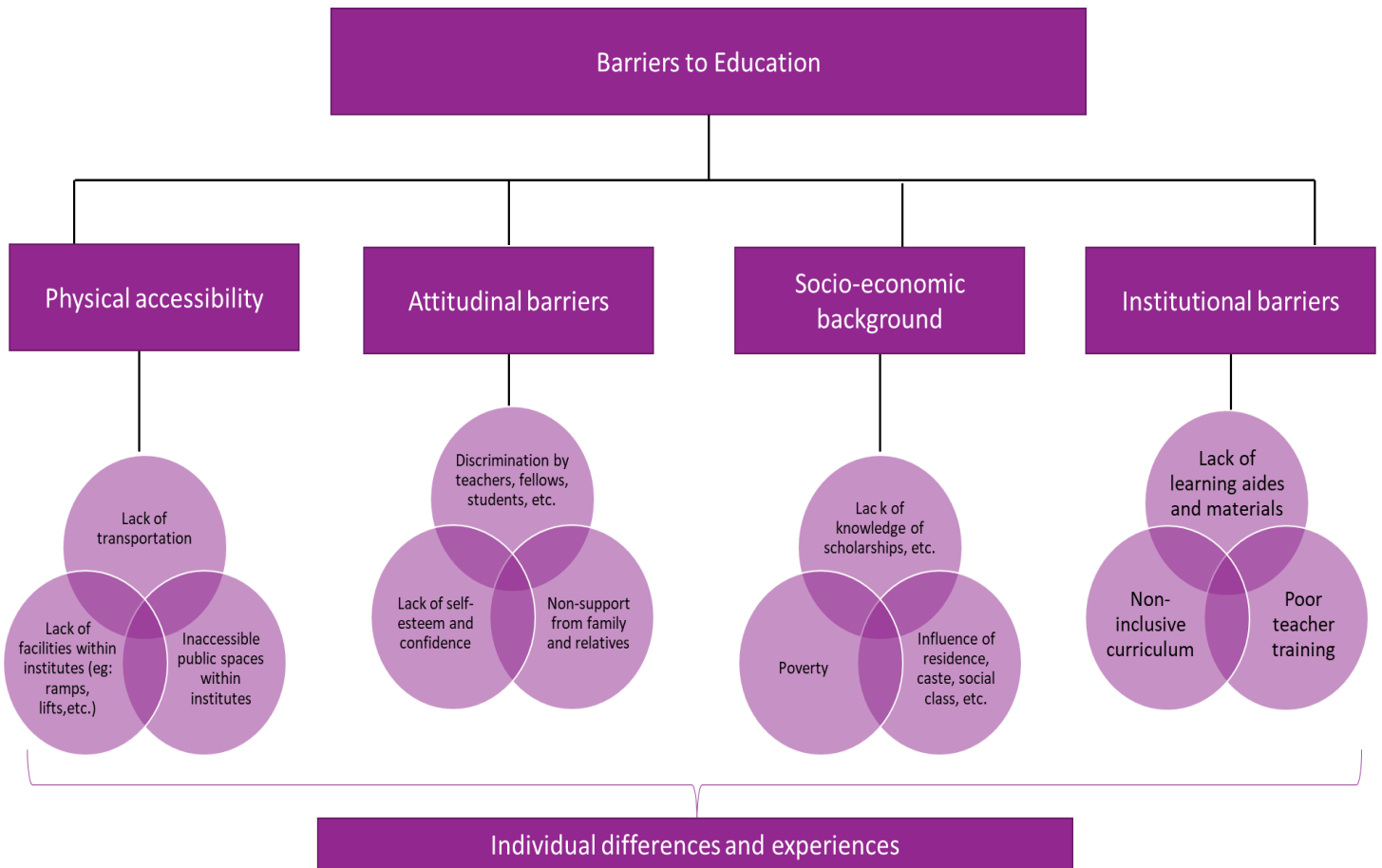


*Figure 8: Barriers to Education*

[37] Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020

| | Grade IX- X (in thousands) | | Grade XI-XII (in thousands) | |
|---|---|---|---|---|
| **State** | **Boys** | **Girls** | **Boys** | **Girls** |
| Andhra Pradesh | 7,572 | 7,033 | 0 | 0 |
| Arunachal Pradesh | 125 | 170 | 27 | 27 |
| Assam | 1,536 | 1,660 | 324 | 230 |
| Bihar | 4,005 | 3,120 | 462 | 390 |
| Chhattisgarh | 1,977 | 1,543 | 749 | 568 |
| Delhi | 3,259 | 2,461 | 1,898 | 1,447 |
| Goa | 337 | 161 | 73 | 41 |
| Gujarat | 6,357 | 3,913 | 2,233 | 1,609 |
| Haryana | 2,477 | 1,757 | 755 | 647 |
| Himachal Pradesh | 1,078 | 803 | 489 | 506 |
| Jammu & Kashmir | 736 | 662 | 212 | 230 |
| Jharkhand | 1,394 | 1,620 | 143 | 416 |
| Karnataka | 7,809 | 6,209 | 127 | 82 |
| Kerala | 11,662 | 7,438 | 4,297 | 3,017 |
| Madhya Pradesh | 6,116 | 4,382 | 2,229 | 1,505 |
| Maharashtra | 25,391 | 21,073 | 5,750 | 5,248 |
| Manipur | 240 | 305 | 69 | 99 |
| Meghalaya | 104 | 125 | 31 | 49 |
| Mizoram | 443 | 661 | 125 | 136 |
| Nagaland | 78 | 84 | 30 | 27 |
| Odisha | 6,195 | 5,565 | 599 | 524 |
| Puducherry | 207 | 226 | 73 | 361 |
| Punjab | 3,559 | 3,977 | 1,483 | 1,881 |
| Rajasthan | 4,154 | 2,650 | 1,996 | 1,261 |
| Sikkim | 108 | 121 | 42 | 51 |
| Tamil Nadu | 6,870 | 5,360 | 2,300 | 2,150 |
| Telangana | 3,916 | 4,045 | 781 | 1,072 |
| Tripura | 308 | 318 | 71 | 52 |
| Uttar Pradesh | 3,525 | 2,891 | 2,139 | 1,697 |
| Uttarakhand | 574 | 472 | 311 | 330 |
| West Bengal | 6,917 | 7,135 | 3,561 | 3,159 |

*Table 4: Enrolment at secondary and higher secondary levels by gender*

Gender and residence continue to act as limiting factors for students with disability. While literacy remains low amongst both urban and rural PwDs, the literacy rates amongst WwDs in rural areas is particularly low. According to the Census of 2011, 63% of WwDs in rural areas are illiterate as compared to 39% in urban areas.[38] Given the current scenario of the education and employment rates for PwDs, the importance of translating government laws and policies into action with a specific focus on the influences of gender and place of residence becomes particularly clear.

**Note:** 'Literate' includes figures for 'literates without educational level' and 'educational levels not classifiable'

| Types of Disabilities | Literate (thousands) | Below poverty (thousands) | Primary but below middle (thousands) | Middle but below matric/secondary (thousands) | Matric/secondary but below graduate (thousands) | Graduate and above (thousands) |
|---|---|---|---|---|---|---|
| Total | 146200 | 2840 | 3550 | 2450 | 3450 | 1250 |
| In Seeing | 26600 | 550 | 650 | 430 | 610 | 240 |
| In Hearing | 28900 | 550 | 690 | 470 | 710 | 270 |
| In Speech | 11600 | 240 | 280 | 180 | 270 | 110 |
| In Movement | 32700 | 530 | 810 | 610 | 840 | 280 |
| Intellectual Disability | 6200 | 170 | 170 | 90 | 100 | 30 |
| Mental Illness | 3500 | 70 | 90 | 70 | 80 | 20 |
| Any Other | 26900 | 530 | 690 | 500 | 730 | 280 |
| Multiple Disability | 7000 | 190 | 190 | 100 | 120 | 30 |

*Table 5: Literacy amongst PwDs by type of disability (crore) [Source: Census 2011]*

As is evident from the data presented, the experience of education for a PwD is greatly influenced by factors such as gender, residence, and type of disability. This means that informed policy, program design and implementation must keep in mind these variations. For education to be inclusive, it must be intersectional.

## 2.4 Employment

Persons with Disability in India face a variety of challenges when they are looking to develop skills for employment. While India is a signatory of the United Nations Convention of Rights of Persons with Disability (UNCRPD), citizens with disabilities continue to face barriers of entry into the labour market. In spite of the implementation of the RPWD Act of 2016 that reserves 3% of all categories of jobs in the public sector for PwDs and provides employment incentives for public and private sector companies that have at least 5% of their workforce comprising of employees with disability, there remain multiple unmet training, placement and opportunity requirements for PwDs in India.[39]

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[38] Census of India (2011). Government of India. Retrieved from http://censusindia.gov.in/ on 9th June, 2020
[39] https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sronew_delhi/documents/publication/wcms_229259.pdf

The Ministry of Labour and Employment (ML&E) is responsible for safeguarding interests of workers along with making special provisions for the marginalised sections of society to gain appropriate employment. Although Employment Exchanges under the National Employment Service are generally responsible for the placement of PwDs, Special Employment Exchanges were also set-up for their selective placement under the ML&E. Under the ML&E, there are 947 Employment Exchanges[40] including 43 Special Employment Exchanges for PwDs. There are 38 Special Cells for PwDs functioning in regular Employment Exchanges in various States.[41] According to a status implementation study conducted in 2018 by the National Centre for
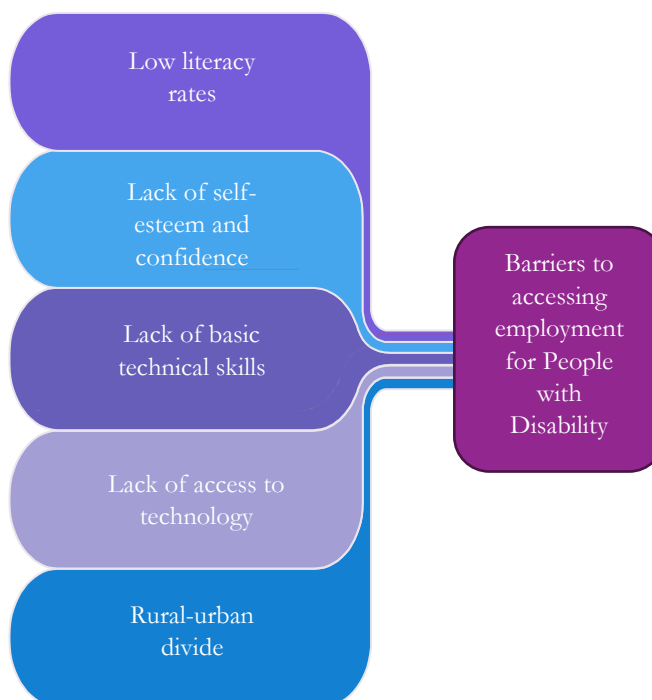


Figure 9: Barriers to accessing employment for PwDs

Promotion of Employment for Disabled Persons (NCPEDP), 8 states (namely Himachal Pradesh, Kerala, Madhya Pradesh, Meghalaya, Odisha, Tamil Nadu, Telangana, and Tripura) out of the 24 participant states had constituted an Expert Committee to identify suitable jobs for PwDs. Only 2 out of the 24 States had received Equal Opportunity Policy (EOP) updates from establishments (government and private) operating in their state.[42]

| Year | 2012 (in thousands) | 2013 (in thousands) | 2014 (in thousands) | 2015 (in thousands) |
|---|---|---|---|---|
| Registration | 13606 | 5653 | 3251 | 4434 |
| Placement | 237 | 249 | 61 | 147 |
| Live Register | 102687 | 94657 | 96251 | 93197 |

Table 6: Performance of the Special Employment Exchanges under the Special Placement Officer [Source: ML&E]

The above table (Table 6) shows that placement from the Special Employment Exchanges has reduced over three years despite significant provisions being made at the Centre and State levels to facilitate employment opportunities for PwDs.

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[40]Employment Exchanges can be understood as organisations that provide employment assistance for individuals registered with them. National Employment Service or Employment Exchange, operated by the Directorate General of Employment and Training, Ministry of Labour, runs over 900 Employment Exchanges in order to bring about a better matching of the demand for, and the supply of work opportunities. Job seekers register themselves with these Employment Exchanges and get notified as soon as any vacancy in the Government sector matches their desired profile. According to the Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959 in any State or area thereof, the employer in every establishment in public sector in that State or area shall, before filling up any vacancy in any employment in that establishment, notify that vacancy to such employment exchanges as may be prescribed. Employment Exchanges play a significant role in assisting the youth in finding employment in paid jobs.

[41]Ministry of Labour and Employment, 'Annual Report'; accessed on 9th June, 2020 from https://labour.gov.in/annual-reports

[42] Disability Rights in India Foundation, National Centre for Promotion of Employment of Disabled People, & National Committee on the Rights of Persons with Disabilities. (2019) 'Two Years of The Rights of Persons with Disabilities (RPWD) Act 2016- status of implementation n in the states and UTs of India.', 2018; accessed on 10th June from
https://www.ncpedp.org/sites/all/themes/marinelli/documents/Report_of_Status_of_RPWD_Act_Final.pdf

Among PwDs, there are between 5 million to 5.5 million people in the age group of 12-24 years in India. This means that the section of this population that is between the age of 18 and 24 is untapped as a labour resource, with immense potential to contribute to the economy. With governmental programs like Sarva Shiksha Abhiyan, the number of educated PwDs is gradually rising. Moreover, with technological advancement and assistive devices, it is possible to upskill this human resource pool to industry needs. This opens up an important focus area for both governmental and private actors looking to positively influence the empowerment of PwDs while also contributing to the growth of the country's economy.

### IBM's success story

IBM is an American multinational technology company established in 1911 with its headquarters in New York and operations in over 170 cities globally. IBM Asia-Pacific wanted to increase the diversity of their workforce. To enable this, they set out to identify internal problems in the hiring process as well as issues at the workplace.

IBM partnered with NGOs working in the disability space and started networking at disability forums to extend their hiring outreach. This was done to firstly be able to identify candidates with a disability and then train them appropriately at later stages of recruitment. The key focus was to ensure inclusive spaces for in-person interviews, expansion of the sourcing pool with Persons with Disabilities, and launching internal referrals and networking programs for the same. The 'employee as ambassador' approach was used to make IBM's employees with disabilities allies/mentors for candidates to give them validation and make them feel included. The company was also looking to eliminate hiring biases and increase sensitivity across the workforce by creating inclusive hiring strategies.

IBM recruited its first employee with disability in 1914 and has a long history of creating an inclusive work environment. PwDs have jobs in a number of roles at IBM, including project management, programming, consulting, operations, quality assurance and human resources.

IBM was also awarded India's National Award 2009 in the category of "Technological Innovation" for best applied research aimed at improving the life of PwDs. India's highest such award, t recognizes the work of IBM researchers in creating technology for what IBM calls the "Spoken Web." This voice-enabled technology developed by IBM Research (India) complements the Internet and enables people with visual impairment to access and share information, perform business transactions and create social networks using mobile or landline phones. Currently, IBM Asia Pacific has 120 People with Disability on its rolls.

Source: https://www.ibm.com/ibm/responsibility/2017/assets/downloads/IBM-2017-CRR.pdf / /
https://www.ibm.com/ibm/history/ibm100/us/en/icons/accessibleworkforce/

## Japan's Quota System

Japan is one of the few East Asian countries which has labor regulations in the form of 'quota systems' for the employment of Persons with Disability. A systematic mechanism in the form of quota reservation for PwDs is a big part of the open market regulations of Japan. Since the 1960s, the Government of Japan has been trying to systematically increase the employment levels of PwDs.

Under the "Physically Disabled Persons Employment Promotion Law" of 1960 the government promotes employment through quota systems, on-the-job adjustment schemes, financial assistance systems, and vocational guidance and placement. Since 1987, the government has been promoting employment for Persons with Intellectual Disability to companies through the levy system. The levy system aims to improve the level of employment of PwDs by collecting levies from companies failing to satisfy the quota. Companies with 300 or less employees are exempt from the levy system. The levy is not meant to be seen as a fine but rather understood as an expense for taxation purposes.

The Government of Japan considers it very important to have accurate statistics and details on the number of PwDs who are employed. As each company has to hire a legally stipulated number of people, the employers also have to submit an annual report on the employment situation of PwDs.

According to the Ministry of Health, Labor and Welfare (MHLW) of Japan, the quota system effectively induces employers to provide employment opportunities for PwDs. As shown in the graph below, the employment of PwDs, especially those with physical disability, has grown from 1999 to 2010.
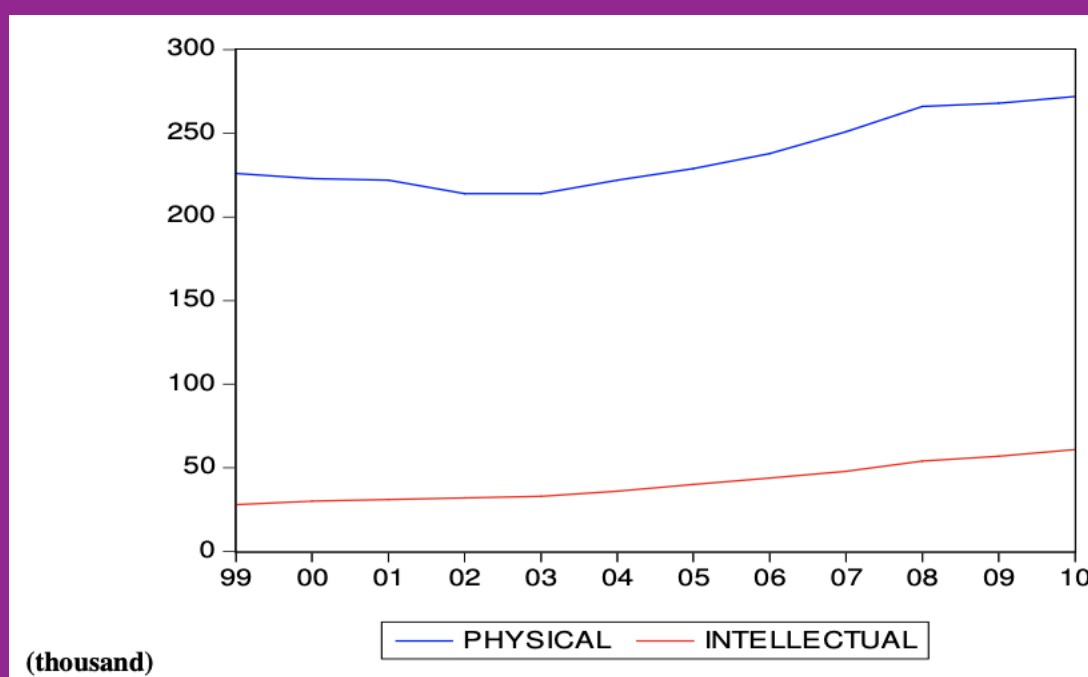


*The figure shows the trend in employment of PwDs in Japan from 1999 to 2010.*

The overall gradual increase in the employment of PwDs (both physical and intellectual) can be attributed to government intervention in the form of the quota system, levy charges and promotion of equality.

Source: https://pdfs.semanticscholar.org/78c3/5f8ea83f1ef77b4142b15348f50af8ec7c8d.pdf

In India, the Disability Act of 1995 provides a 3% reservation in "identified posts" for PwDs in all categories of government jobs. While noble in intent, the Act ran into issues in its implementation. According to the original Act, the posts were meant to have been identified soon after the Act came into force and updated every three years. However, the initial identification of posts by the Central Government was not completed until 2001 and no formal expansion of identified posts has been completed subsequently.[43] Furthermore, the 'identification of suitable positions' is in itself discriminatory. The list of identified jobs is based on the assumption that the characteristics of an impairment are the exclusive determinants of a person's ability to hold a position at a particular skill level and thus ignores the potential influence of individual characteristics like motivation and age as well as characteristics of the labour market and workplace.[44][45]



**NCPEDP Analysis of employment in Government Posts**

**Government Posts**

Number of posts

281398, 9%

2698762, 91%

■ Total posts  ■ Posts identified for PwD

**Public Sector Posts**

Number of posts

4,60,396

45,27,293

■ Total posts  ■ Posts identified for PwD

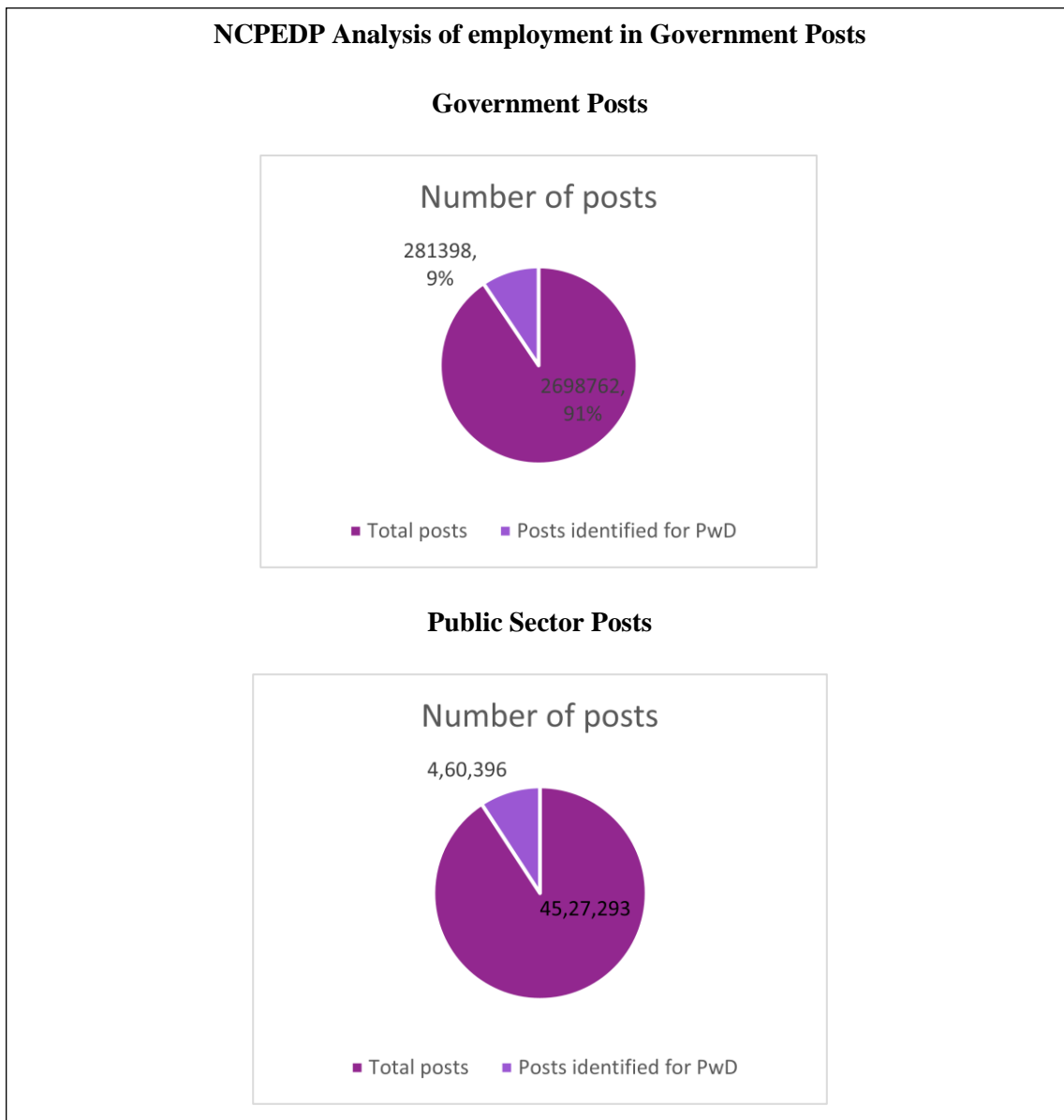*Figure 10: National Centre for Promotion of Employment of Disabled People (NCPEDP) Analysis of employment in Government Posts*

[43] https://www.dnis.org/Employment.pdf

[44] Ibid

[45] Idea adapted from World Bank Report- People with Disabilities in India: From Commitments to Outcomes; Document of the World Bank; Human Development Unit; South Asia Region; May 2017

While understanding the number of posts allocated to PwD employees is important, this data is best read alongside the work participation rate of PwDs. Work Participation Rate (WPR) is calculated as the percentage of workers among PwDs to the total PwD population.

| Type of Disability | Persons (%) | Males (%) | Females (%) |
|---|---|---|---|
| Total | 36.3 | 47.2 | 22.6 |
| In Seeing | 37.6 | 51.0 | 22.8 |
| In Hearing | 40.6 | 53.9 | 25.8 |
| In Speech | 42.0 | 53.4 | 27.3 |
| In Movement | 37.4 | 47.4 | 21.0 |
| Intellectual Disability | 21.4 | 26.7 | 14.2 |
| Mental Illness | 21.4 | 26.9 | 13.9 |
| Any Other | 41.5 | 53.4 | 26.8 |
| Multiple Disability | 18.5 | 24.1 | 11.7 |

*Table 7: Work Participation Rate Among Disabled Workers (WPR) [Source: Census 2011]*

Employment rates of PwDs vary with residence (along the urban-rural axis), gender, education, and type of disability. According to 2011 Census of India, 68% of India lives in rural areas which means the number of PwDs is proportionately higher in rural areas, accentuated by general poverty considerations and poor access to health services. PwDs in rural areas are significantly disconnected from skills and markets making it increasingly difficult for them to access suitable employment opportunities.

**Vazhndhu Kaattuvom Project**

Constant support and intervention from the State and Centre government have proven to be beneficial in some states like Tamil Nadu and Andhra Pradesh. Under the Vazhndhu Kaattuvom Project (roughly translating to "Let's show how to live") of the Tamil Nadu government, 50,749 People with Disability have been placed in 3458 self-help groups in first and second phase blocks of the project (since November 2005). About 1320 special groups have received seed funds to the tune of Rs.130 lakhs in total. Promoting Economic Activity Groups (EAG) of PwDs is another achievement of the project. Skilled PwDs are coming together as entrepreneurs and running productive businesses like poultry, cattle feed production etc. Four such EAGs in pilot panchayats with an average investment of Rs.4 lakhs/unit have been initiated.

Source: https://projects.worldbank.org/en/projects-operations/project-detail/P107668

## The Rights of Persons with Disability Act, 2016

Persons with Disabilities (Equal Opportunity Protection of Rights and Full Participation) Act came into effect on 7th February 1996. It was a significant step forward in making the law more inclusive and protecting the rights of PwDs. By this Act, a Person with Disability is defined as "a person suffering from not less than forty percent of any disability."[1] The Act provided for both preventive and promotional measures, like education, employment and vocational training; creation of a barrier-free environment; rehabilitation of PwDs; unemployment allowances; spreading awareness amongst the masses; and establishment of homes for persons with severe disability. The Act aimed to ensure prevention and early detection of disabilities through annual health check-ups for children in Primary Health Centres, adequate pre-natal, peri-natal and post-natal care of the mother and child, and investigations to ascertain the cause of disabilities. The Act has provisions related to affirmative action in government employment in the form of reservations. Under the Act, 3% of vacancies in government employment is reserved for PwDs of which 1% each shall be reserved for persons suffering from blindness or low vision, hearing impairment, and locomotor disability or cerebral palsy.

The Rights of Persons with Disability Act (RPWD) 2016 replaced the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995. The RPWD Act fulfils the obligations to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), of which India is a signatory. This law is transformative because it has expanded the definition of disabilities. It recognizes that communicational, cultural, economic, environmental, institutional, political, social or structural factors hamper the full and effective participation of PwDs in society. While other laws were not completely concerned with adjusting attitudes in society, the new Act makes it a prominent objective. The new list of definition of disability recognises 21 disabilities, as follows:

| | | |
|---|---|---|
| Blindness | Cerebral Palsy | Multiple Sclerosis |
| Low Vision | Specific Learning Disabilities | Thalassemia |
| Leprosy cured persons | Speech & Learning Disabilities | Haemophilia |
| Locomotor Disability | Mental illness | Sickle Cell disease |
| Dwarfism | Muscular Dystrophy | Autism Spectrum Disorder |
| Intellectual Disability | Acid Attack Victims | Parkinson's Disease |
| Hearing Impairment (Deaf & Hard of Hearing) | Chronic Neurological conditions | Multiple disabilities including deaf blindness |

Through the Act, responsibility has been cast on the appropriate governments (central or state) to take effective measures to ensure that PwDs exercise their rights as equal citizens. The Act has also put into effect a new rule that gives additional benefits in the form of reservation to persons with benchmark disabilities in higher education (not less than 5%), government jobs (not less than 4%), and allocation of land and poverty alleviation schemes (5% allotment).

Source: https://vikaspedia.in/social-welfare/differently-abled-welfare/policies-and-standards/rights-of-persons-with-disabilities-act-2016

# 3. Methodology: Sampling, Data Collection and Study Limitations

This report maps academic as well as policy literature on subjects including education, employment and empowerment of Persons with Disability. This literature review has been analysed alongside secondary data including population and employment statistics as well as primary data collected via informal means from students studying in multiple institutions of higher education in India.

This report can be understood as being rooted in the action research theory. Action research is a systematic approach to investigation that enables the researcher and subject to come together and find solutions to challenges faced in everyday life.[46] Unlike experimental or quantitative research that focuses on general explanations related to a limited number of variables, action research aims to engage in the complex dynamics of a social context and provide relevant solutions. Action research theory underpins this report, as it guides the understanding of the various challenges faced by PwDs. The adoption of this approach thus allows us to take into account the suggestions given by the PwD students themselves in promoting an inclusive and warm environment.

Within the action led research, the research design follows the triangulation method. Triangulation method refers to using more than one method to collect data on the same topic, adding depth and rigor to a study. The credibility of a report is enhanced when multiple sources of information are incorporated. The inclusion of multiple perspectives from diverse sources enables the report to provide an enhanced understanding of the topic.

The adoption of triangulation as a method allows for this research to be rooted in the socio-historical context of disability rights in the country while also forming links and connections with their on-ground realities. This integration of theory and lived experiences thus gives rise to layered understandings of the interaction between law, policy and on-ground realities in the words of the respondents themselves. Thus, the report is able to overcome the specific limitations of a literature review as well as a study reflecting only the results of primary data collection.
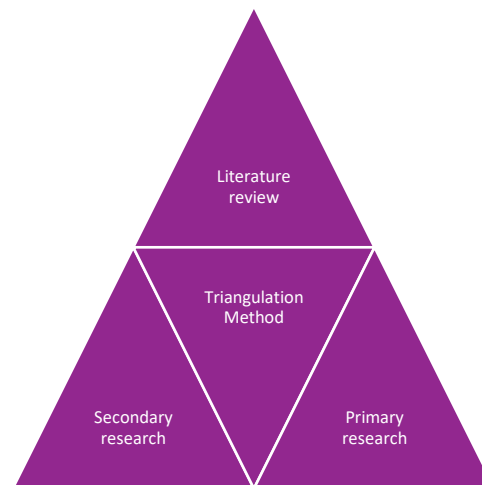


*Figure 11: Triangulation Method*

The report also adopts the Social Model of Disability[47] as an analytical lens. This model is developed within a human rights framework. The basis of the Social Model of Disability is to understand disability as being different from the physical impairment of an individual. Disability is understood to be the result of the environment interacting with society and the physical impairment to produce barriers in accessibility and inclusivity for PwDs. The Social Model locates disability not in the individual but within society. The body with disability within

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[46] For more information, refer https://research-methodology.net/research-methods/action-research/

[47] Social Model of Disability, ScienceDirect, https://www.sciencedirect.com/topics/medicine-and-dentistry/social-model-of-disability

this model is understood as "a state of the body that is non-standard" which ultimately does not allow PwDs to have the same rights as others.[48]

## 3.1 Social model as analytic lens

The social model provides an effective analytical framework due to its recognition of extrinsic factors that define an individual's experience of disability. By placing the onus of responsibility on these external environments, this model allows for a multi-pronged, solution-driven approach to ensuring accessibility and inclusion of Persons with Disability. By drawing on the voice of PwDs without holding them responsible for their experiences, this model allows for a rethinking of how we view educational spaces, pedagogy and teaching-learning material from the point of accessibility and inclusion. The social model of disability calls for disability to be viewed as a difference that needs to be "included" into the mainstream. This translates to spaces and physical infrastructure being made accessible, classrooms and pedagogy being made inclusive, and the institution being receptive and welcoming of students with disabilities.

The social model evolved as a response to the failure of the medical model of disability that saw disability as a condition in need of "fixing."[49] Under the social model, there was a clear shift away from the impairment, instead focusing on inaccessible social structures. These inaccessible social structures were often categories into three axes:

- Organisational barriers: Organisational barriers are those related to formal institutional structures. This includes policies, procedures and business practices.
- Environmental barriers: Any physical structures that are designed in such a way that they are inaccessible for PwDs can be called environmental barriers. This includes buildings, public spaces, transportation facilities and so on.
- Attitudinal barriers: Attitudinal barriers arise at the individual level. For example, stereotypes or prejudices which assume that people with disability cannot make decisions for themselves may hinder autonomy and representation of PwDs.

## 3.2 Sampling

All individuals who participated in the data collection phase of this research were students with disability currently enrolled in institutions of higher education around the country.

| Total number of students | Total number of institutes | Total number of states covered | Total number of female participants | Total number of male participants | Institutes dedicated to students with disability | Institutes catering to all students |
|---|---|---|---|---|---|---|
| 156 | 30 | 12 | 14 | 142 | 1 | 29 |

*Table 8: Data on sample*

Participants were selected via snowball sampling, a technique in which participants themselves provide referrals to recruit other participants of the study. Thus, each respondent with disability provided informal introductions to others from the same institution with disability. While the first contact was made through personal networks, the students of each institution then played a crucial role in dictating the sample size of that institution. While this was not a research study formally commissioned or approved by the institutions, a total of 156 students informally

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[48] Goering, Sarah. "Rethinking disability: The Social Model of Disability and Chronic Disease." 2015. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4596173
[49]https://www.miusa.org/resource/tipsheet/disabilitymodels

participated and spoke about their individual experiences. Institutions covered were largely those offering engineering and technical education.

| S. No. | Disability | No. of male respondents | No. of female respondents | Total |
|--------|-----------|-------------------------|---------------------------|-------|
| 1 | Orthopaedic disability | 104 | 14 | 118 |
| 2 | Visual impairment | 30 | 1 | 31 |
| 3 | Hearing impairment | 7 | 0 | 7 |

*Table 9: Respondents aggregated by disability and gender*

The sample included both men and women, students of both undergraduate and postgraduate degrees, and different disability categories. Amongst types of disability, most participants belonged to the orthopaedic handicapped category.

## 3.3 Data Collection

Data collection was carried out amongst 156 students currently enrolled in higher educational institutions around the country. Of this, 148 students were spoken to in-person through interviews. The other 8 students were contacted via phone interviews due to restrictions on travel during the COVID-19 pandemic.

## 3.4 Study Limitations

The research was carried out over the course of six months. While it is important to recognize the limitations in the research, it must also be noted that, to the best of our knowledge, these limitations did not significantly impact the quality of research.

a. Limitations of sampling technique: Given the nature of snowball sampling, primary data collected is disaggregate and does not ensure equal representation of sex, age, and educational qualifications.

b. Limitations of sample size: Due to logistical difficulties of accessing larger numbers of students, the sample per institution is not statistically relevant. Furthermore, there is gross variance in the number of students who have responded from each institution, leading to a further weakening of the statistical relevance of the sample. Thus, all responses must only be treated as anecdotal and reflective of individual experiences and opinions.

c. Limitations in sample representativeness: Once again due to the snowball sampling technique adopted, there is lack of equal representation across disabilities. Given the rates of higher education amongst PwDs, finding equal representation for all disabilities was extremely difficult. Those with orthopaedic disabilities or visual impairment constituted a majority of the sample. Further, the report only covers respondents from 11 states and has an uneven gender split of 1:11 in favour of male students.

d. Limitations in multi-stakeholder participation: This report only reflects the views and experiences of a small set of students with disability. Due to the informal nature of data collection in this study, the voices of management, administration and students without disability are not captured, limiting insights on some aspects of mainstreaming and inclusion.

e. Limitations in comparison of data: Both phases of data collection used the same data tool, with the questionnaire from Phase 1 being adopted as an interview guide for Phase 2.

However, the use of face-to-face questionnaires in Phase 1 and telephonic interviews in Phase 2 gave rise to a qualitative difference in the data, with interview respondents tending to be more descriptive and elaborate. While data from both phases added value to the research, it is both incorrect and difficult to compare the responses across both phases without accounting for these differences in data collection.

f.  <u>Limitations of time:</u> The timeframe of the project made it difficult to include a larger set of stakeholders and larger sample size. Further, the COVID-19 pandemic-induced lockdown made it difficult to travel to the field-site for collection of data and pictures from the field.

g.  While Phase 2 of the data collection adopted the tools of Phase 1, the data collection itself was undertaken by two different teams. Each team was responsible for one phase of data collection and worked independent of the other.

# 4. Organisational barriers

The United Nations' Convention on the Rights of Persons with Disabilities acknowledges and understands that disability is an evolving concept, but also stresses that disability results from the interaction between individuals with impairments, and environmental and attitudinal barriers. These barriers hinder their full and effective participation in society on an equal basis with others. Progress on improving social participation can be made by addressing these environmental barriers and increasing physical accessibility of PwDs.[50]

While the simplest understanding of barriers covers only physical infrastructure,[51] organisational barriers including policies and common patterns of carrying out business could be inaccessible in their practice as well. In the context of academic institutions, respondents revealed that organisational barriers emerge in three common aspects - challenges in academics, placements and social participation.

## 4.1 Challenges in academics

While one institution in the study sample catered only to students with disability, inclusive educational institutions catering to both students with and without disability were reported to pose a challenge to students with disability with regard to academics. From inaccessible learning materials and lack of assistive technologies to professors being unsupportive and less accommodative, students reported struggling to cope with the academic expectations of their education.

### 4.1.1 Course-specific difficulties

Courses like IT, microeconomics and mathematics were often core subjects but just as often had inaccessible content. In IT labs, students with vision impairment felt excluded during the use of software packages such as Microsoft Excel. They then had to resort to seeking assistance from their classmates to understand concepts and prepare for exams. Microeconomics as a subject is based heavily on graphical representation of information, making it difficult for students with visual impairment in the absence of equipment like 3D printers. Students with visual impairment also reported having to drop out of subjects like mathematics despite a love for subject due to a lack of adequate support and assistance. In labs, difficulty in handling devices or the inability to stand for long periods of time posed a great challenge. They constantly had to seek assistance from classmates or lab assistants for carrying out experiments or handling apparatus.

### 4.1.2 Examinations and assessments

With regard to examinations and other assessments, most institutes did not seem to cater to the needs of the students with disability. Some students with low vision or complete blindness reported not having access to electronic question papers and/or being denied permission to use screen reader laptops to type the answers. Even though the institution arranged scribes for students with disabilities, the scribes were often from unrelated fields or underqualified. This made it difficult for students with disabilities to explain concepts or graphs adequately, affecting the students' performance.

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[50]https://www.who.int/disabilities/world_report/2011/report.pdf?ua=1
[51]https://www.chs.ca/understanding-barriers-accessibility

Even though there is support from teachers and peers, in most cases, students with disabilities not only faced the usual stress but also had to put in extra effort to cope with often competitive environments in these higher educational institutions.

## 4.2 Challenges in Placements

Placements at the end of the course of education is a common challenge for many students with disability. There is a need for both institutional placement cells as well as prospective employers to be sensitised on inclusive hiring practices.

In most scenarios, students with disabilities reported difficulty in securing positions they were qualified for due to either the presence of a physical fitness criteria or the inaccessibility of the selection process. These processes often included written exams, interviews and/or group discussions. Written exams commonly had physical questions papers and individuals with sensory disabilities struggled in group discussions. Students reported feeling bias and prejudice from prospective employers and most placement cells did not have special support services for students with disability. These difficulties were particularly exaggerated for students who wished to pursue employment in key engineering roles, since environments like mines and factories did not often hire candidates with disability. Students reported a preconceived notion that they were only capable of desk jobs and noted that there were no trainings related to career guidance and interpersonal skills that could help them secure a job opportunity.

A B. Tech student mentioned his inability to get placed due to his disability:

*"We can also perform better during job placements. We need more opportunities to perform"*

This struggle in placements was reported as having a large impact on their self-confidence and social skills. Over time, this negatively impacted the number of students with disability applying for jobs via the placement cell, thereby reinforcing structures of inaccessibility amongst students with disability.

## 4.3 Challenges in participation and representation

In many institutions, students with disability were a numeric minority and experienced limited representation. This was further reinforced by an ignorance on the nuances of inclusion and accessibility by the non-disabled population, thereby perpetrating an inaccessibility of social structures and spaces.

Respondents from one institute reported an absence of a support centre on campus, resulting in a tedious process to receive any institutional assistance. Not only did this serve as an inconvenience, it also translated to many students not receiving the facilities and assistances they were entitled to, such as wheelchairs and 3D printers. Due to a lack of representation in the student council, their voices were often not heard. One suggestion to overcome this was to introduce special structures catering only to the needs of students with disability. For example, respondents from one institute mentioned that they had a dedicated scholarship cell in their institute.

Participation was another key factor impacting students with disability. Institutions very rarely conducted workshops, events, seminars, sports, and cultural activities which were accessible for students with disabilities. Even in the event that they were conducted, they were infrequent.

Many other extra-curricular and social events were often held at night or at locations that were inaccessible to students with disability. This made participation in the non-academic life of the institute difficult. Accessible sports were also another lacuna in these institutions, closing the doors on another avenue of participation.

# 5. Environmental barriers

The International Classification of Disability, Functioning and Health classifies environmental factors into five main domains.
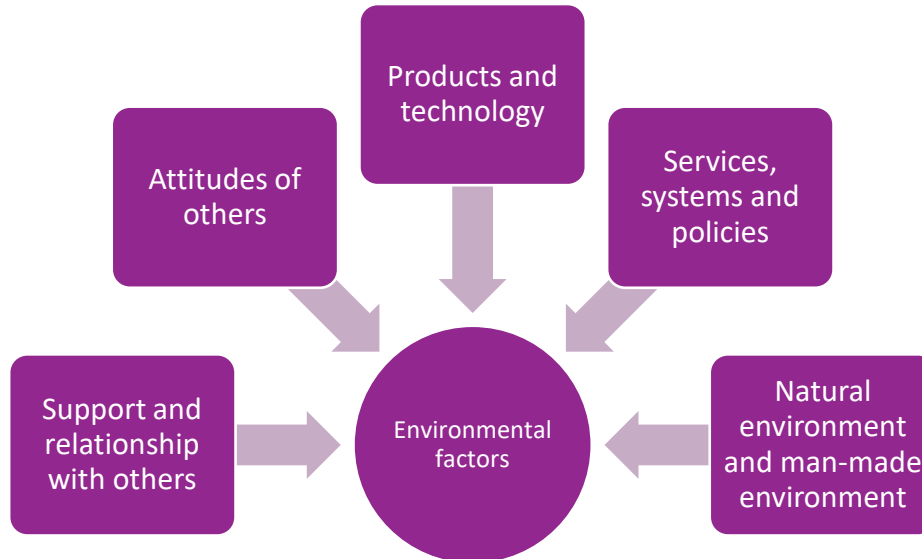


*Figure 12: Environmental barriers to inclusion*

This section focuses on accessibility in the built environment. In the context of educational institutes, the built environment includes the classrooms, buildings, labs, public spaces like gazebos, as well as spaces of leisure such as hobby rooms, amphitheatres, lawns and sports facilities. Students' accessibility to these parts of the institute are a part of their daily routine and it is of paramount importance to make sure that they are accessible to all students, including those with disability.

Feedback from respondents revealed environmental barriers in a few key areas namely mobility and transportation, academic facilities, and public spaces and activities.

## 5.1 Mobility and transportation

Mobility refers to the ability to move around freely and easily. In an educational institution, transportation refers to modes of travel within as well as to and from campus.

### 5.1.1 Accessing campus

Most of the institutes had facilities like e-rickshaws and ramps inside the college campus, but many students mentioned not having transportation to and from college.

### 5.1.2 Within campus

Participants lived both within campus in hostels and outside campus with their family. Even within the campus, many respondents said walking from the hostel to the classroom buildings often proved challenging. Since it took participants longer to reach class, they often missed out on important lectures and had to sometimes depend on their friends to help them. This increased their dependence on their friends and restricted their free movement around campus. The campus roads were not safe for travelling at night. Poor lighting, stray animals and lack of public transportation like buses and rickshaws made it difficult for PwDs to travel alone on campus. In many institutes where ramps, railings and elevators were present, they were often

36

restricted to one part of the building. There were also reports of such accessibility being absent in key spaces like the cafeteria and amphitheatre. Participants also mentioned that when there was a power outage, the elevators stopped working and they were often left with limited options. Due to the lack of transportation options, many participants avoided going to the library and cafeteria. A majority of the participants were students from technical courses like B. Tech, M. Tech, and IT, and lab classes and assessments were an integral part of their coursework. This meant that they had to spend a considerable time in labs to fulfil their academic requirements and inaccessibility of these spaces directly affected their academic performance.

While all institutes had provisions to include Students with Disabilities, this was often negatively impacted by a lack of planning and maintenance of facilities that could aid this goal.

> A B. Tech student mentioned their inability to complete lab assessments:
>
> *"It is very difficult to move around in the lab with an orthopedic disability. I need more time to complete the experiment and sometimes it is not given."*

## 5.2 Academic facilities

Facilities in the context of the institutes refers to the washrooms, ATM, hostels, availability of wheelchairs and assistive devices for studying.

### 5.2.1 Washrooms

While many institutes had accessible washrooms, it was the placement of these washrooms that was worrisome. They were often located at different parts of the campus and many participants reported incidences where they could not access these washrooms due to their non-functionality. Further, disability-specific washrooms were not available in all colleges. This made it increasingly difficult for participants as they needed assistance to access and use the washrooms available on campus.

### 5.2.2 Assistive Devices

It was noted that a majority of institutes did provide wheelchairs for students to access buildings with ramps and elevators. A few participants had also received assistive devices like crutches and magnifying glasses from their local zila panchayats.

### 5.2.3 ATMs

Many institutes do not have provisions for talking ATMs. This makes it extremely difficult for the students with visual impairment to use the ATMs, and they have to ask for assistance.

> A participant with visual impairment talked about her inability to access the ATM on campus:
>
> *"I find it difficult to use the ATM. If it was a talking ATM, it would have been much easier for me."*

### 5.2.4 Hostels and accommodation

The hostels were often not designed to include students with disabilities. Many participants mentioned the lack of a hostel facility for students with disabilities, forcing them to opt for off-

campus accommodation. Students noted that this was a hinderance to their social life on campus. Since they did not stay on campus, they often missed out on events that happened in the later part of the day.

## 5.3 Public spaces and activities

In the context of higher educational institutions, a majority of social interaction takes place outside the classroom. Thus, it is extremely important to make not just the classrooms and hostels, but the whole of the campus accessible to all.

### 5.3.1 Sports and other extra-curricular activities

None of the participants mentioned the existence of sheltered activity spaces on campus. This suggests that many of them may have found it difficult to take part in sports activities on campus. Most participants felt demotivated to join extra-curricular activities because of the inaccessibility of the facilities.

For events requiring a stage presence, like theatre and debating, some students with hearing disability required microphones and stage assistance, which was often not available. Public spaces like the cafeteria, amphitheatre and gardens were inaccessible at a majority of the campuses because of the lack of ramps and railings.

> Many students were aware of government-mandated guidelines for physical accessibility. As one said:
>
> *"Institutes should follow those guidelines. It would make our lives much easier."*

A safe, accessible and comfortable environment is important to improve the quality of life of individuals. As students spend a majority of their time on campus, it is important to ensure that it is accessible to all. The lack of an accessible environment may make students feel left out and isolated.

While institutions are inching towards making their spaces more accessible, there is a need for continued and accelerated action towards making institutional spaces more inclusive. In many institutes, there was a lack of upkeep and strategic intervention with regard to environmental barriers. While provisions have been made, it is important to understand that each disability requires different support. Students recommended following standard guidelines of architecture to make all spaces accessible and asked for grievance redressal committees to voice their concerns. Many participants suggested the development of a separate administrative unit for students with disability, even a building that was dedicated to their needs.

> Talking about having a barrier free environment, a student said:
>
> *"You don't understand the problems of a PwD unless you see them. General students should see what we need and help us, too. We have to help each other."*

# 6. Attitudinal barriers

To fully comprehend the way in which inclusion is understood from the point of view of students with disabilities, one must take into account the attitudinal barriers present. Attitudinal barriers are pervasive negative perceptions and value systems that focus on a person's disability rather than their ability and other valued characteristics. Attitudinal barriers may be present in societies, communities or in specific individuals.[52] They are behaviours, perceptions and assumptions that discriminate against PwDs. These barriers often are a result of stigmatisation and discrimination that deny PwDs dignity, equal opportunity and integration into mainstream society. Negative attitudes create disabling environments across all domains.[53] PwDs may internalise these barriers which further prevent their inclusion. These are often expressed as an inability of people without disabilities as well as people with disabilities to see past the discrimination, stereotyping, bullying and low expectations of people with disabilities. A combination of these negative attitudes often results in fear of failure, lack of confidence, and low self-esteem in PwDs.[54]

Attitudinal barriers may be understood as being part of a discriminatory cycle, one that ultimately leads to a lack of integration and representation of People with Disabilities. Figure 13 represents this cycle. Attitudinal barriers can be understood as the cause as well as the result of exclusion of People with Disabilities in educational institutes.
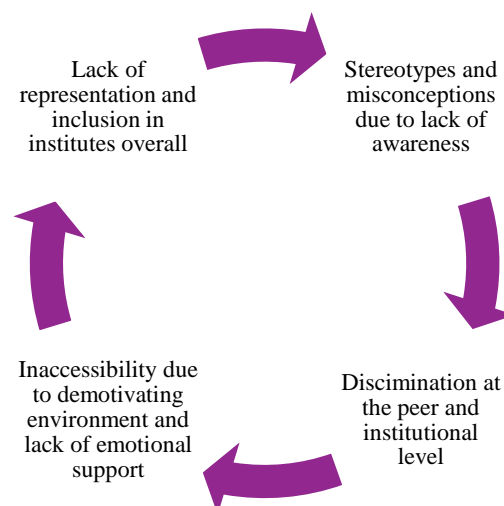


*Figure 13: Attitudinal barriers to inclusion*

From an analysis of the primary data, it can be understood that attitudinal barriers operate at two different levels – the institutional and the individual/peer levels. At the institutional level, attitudinal barriers present themselves in the form of misinformed comments from teachers, unwillingness to adjust teaching methods to include all students and lack of motivation to cater to the academic needs of students with disabilities. At the individual/peer level, these attitudinal barriers refer to mockery, purposeful isolation of social interaction, etc.

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[52]Attitudinal Barriers. In: Preedy V.R., Watson R.R. (eds) Handbook of Disease Burdens and Quality of Life Measures. (2010) Springer, New York, NY
[53]WHO and World Bank report on disability, 2011
[54]https://gsdrc.org/topic-guides/disability-inclusion/barriers-to-disability-inclusion/

## 6.1 Institutional level

At the institutional level, attitudinal barriers refer to attitudes of the institute administration, professors, lab assistants, etc. The attitude of these individuals contributes to the overall ethos of the college.

A majority of the students reported to have faced discrimination at the institutional level. Instances of non-inclusiveness in the form of dismissal of problems/grievances related to academics by professors were reported by most respondents. Students also mentioned that it took time for professors to get comfortable around them. This often led to a lack of motivation to learn about the needs of the student and thus resulted in poor academic performance. The lack of redressal committees in colleges made it difficult for students to present a collective voice and direct their concerns to a committee willing to make changes. This often-made students feel unheard and underrepresented. Due to the lack of information about the different types of disabilities and their needs in the context of an educational institute, students reported a lack of sensitisation. This sensitisation was seen as important as it would affect teaching methodologies and attitudes.

Even though students talked about discrimination, they were also quick to mention the difference between their experiences at school and in college. In college, they recognised that teachers and lab assistants warmed up to them once they settled into the routine of classes. This meant they understood that students with disability needed extra time during lab classes and often offered help in terms of academics. A majority of students also mentioned that it was a 'matter of time' before everyone on campus treated them the same way they treated non-disabled students.

> When asked what is the major challenge faced in completing the course, one respondent replied:
>
> *"At the initial stage, I was not supported by teachers and classmates. After the first year, they felt easy and comfortable with all on campus. (sic)"*

Institutional level attitudinal changes can be brought about by investing in sensitisation workshops, awareness programmes and appropriate training for all stakeholders. These suggestions are further discussed in the recommendations section.

## 6.2 Individual & peer level

At the individual and peer level, attitudinal barriers presented themselves in different ways. Social interaction in a higher education level is not just confined to the classroom. It is important to understand the importance of peer groups and the support they provide to members of the group. Peer groups form an essential part of college life and contribute equally if not more to the college ethos.

A majority of respondents talked about their negative experiences with fellow classmates. Students mentioned incidences of bullying. A lot of participants reported feeling isolated and lonely due to not being able to participate in extra-curricular and sporting events. Participants also mentioned feeling 'left out' of activities and workshops due to their inability to attend

them. Exclusionary behaviour of the peer group often led to students with disabilities feeling demotivated.

While a majority of the participants talked about their personal negative experiences, they also recognised the change between school environments and higher education. In comparison to high school, the higher education institutes were perceived as more inclusive. Participants felt that once peers were comfortable around them, the bullying stopped. This points to the need for awareness and sensitisation towards PwDs for all individuals who are a part of the educational institutes' ecosystem.

To understand inclusion in higher educational institutes better, respondents were asked to rate their college on a scale of 1 to 10 in terms of sensitivity. The numbers fell like this:
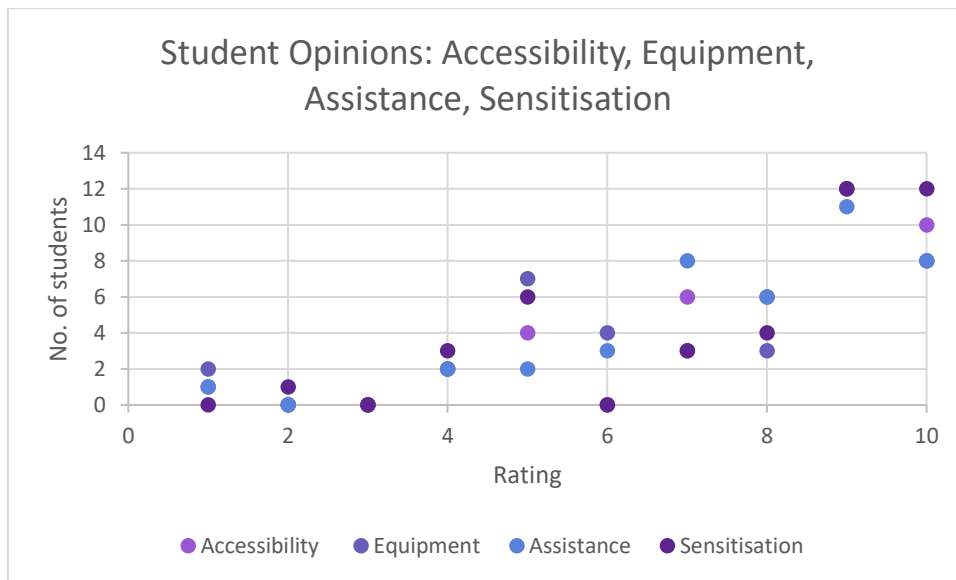


*Figure 14: Student Opinions on Accessibility, Equipment, Assistance and Sensitisation*

Not having an inclusive and sensitive college experience may lead to fear, anxieties, lack of confidence and low self-esteem. Some of the participants reported feeling lonely and a majority of them talked about not having confidence to participate in extra-curricular activities. Participants suggested that attitudinal barriers could be addressed through workshops, awareness programs, etc.

When asked about suggestions to make students with disability feel more included, one respondent replied:

*"They should know they are not worse off than anybody else. We should try to motivate them and avoid demotivation. We are all equal."*

# 7. Recommendations

A range of barriers within education policies, systems and services limit students with disability from accessing mainstream educational opportunities. To ensure that students with disabilities have equal access to education, there should be systemic change at the institute level to remove physical and attitudinal barriers and provide reasonable accommodation and support services. For any of the following recommendations suggested to be effectively implemented, it is important to establish clear administrative structures for students with disabilities to reach out in case of specific needs and challenges. These structures are important to ensure that students with disability have recourse to any assistance required and have channels of communication open to ensure accessibility and inclusion in their institutions of education. The presence of these structures will then act as impetus to encourage participation and representation of students with disability at the institute level, ensuring that the voices of and issues affecting those with disability receive due attention.

The evidence of this report suggests that many of the barriers faced by Persons with Disability can be overcome by creating structures and systems that are rooted in a culture of inclusion. This chapter details recommendations spanning both the short- and long-term for institutions looking to create more accessible and inclusive spaces for students with disability. A broad range of stakeholders – policy-makers, institute administrators, professors, families, and students with and without disabilities – can contribute to improving educational opportunities and outcomes for students with disabilities, as outlined in the following recommendations.
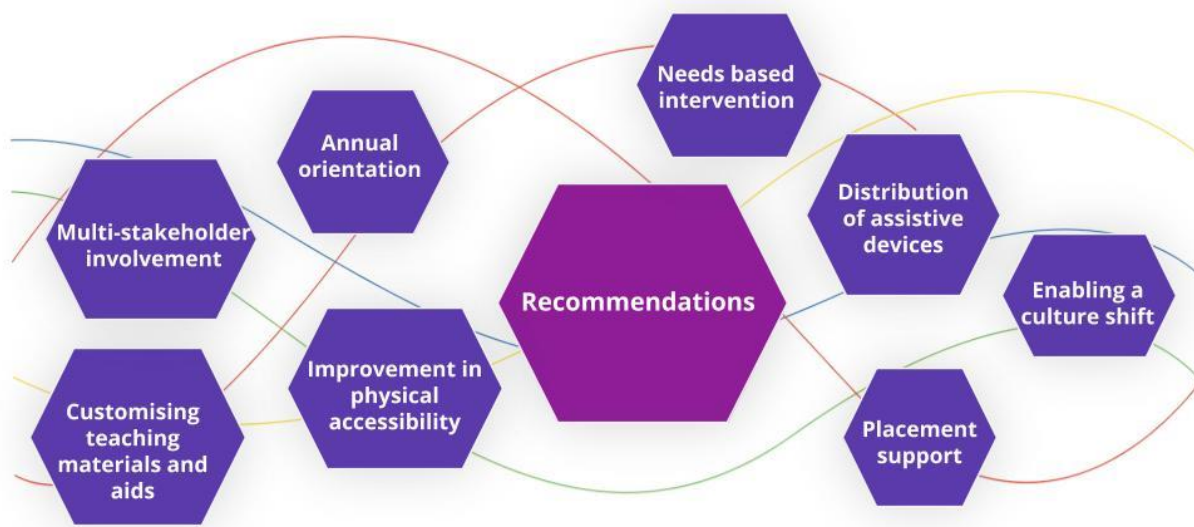


*Figure 15: Proposed recommendations for higher educational institutions*

## 7.1 Needs-based interventions

It is important to conduct a needs assessment of students with disability to ensure that they receive relevant support and accommodations from the institution. This will allow for diversity of accommodations, given that some students may require only modifications to the physical environment to gain access while others may need interventions such as counselling and accessible text. This assessment will allow institutions to make relevant changes both at the organisational as well as environmental levels. Periodic data collection of needs will ensure that the institution stays up to date in its interventions and assistances. Institutions will be well advised to incorporate these practices into their admission procedures and continue this process periodically through the duration of the students' stay on campus.

## 7.2 Annual orientations

Before the start of the academic year, all students, staff, teachers and other stakeholders including administration and placement services on campus should be oriented on the issues faced by students with disability. This orientation should include sensitisation on needs and assistances, accessibility options on campus and possible hurdles that may arise. From the primary data collected, most students with disability were unaware of the facilities available on campus and/or were not familiar with the procedures to avail these allowances. It is important to also include staff as well as students without disability in this orientation and sensitisation activity so as to ensure inclusion and awareness on the experiences of disability on campus. Regular, thorough orientations can set the foundation for an institutional culture of inclusion and ensure that there is increased awareness about the experiences of students with disability.

## 7.3 Multi-stakeholder involvement

While the orientation sessions are suggested as a means to ensure awareness on the needs of those with disability, it is also important to include other stakeholders in the conversation surrounding disability. Workshops, seminars and other events could act as platforms to spread awareness and sensitization regarding disability and discuss the challenges, needs and recommendations for improvement. These workshops should focus on non-disabled stakeholders including the larger student body as well as administration. Institutes could benefit from involving external organisations (e.g. NGOs working in the space of disability) to facilitate these sessions and encourage uninhibited conversation. These platforms will then be important tools to inculcate a culture of inclusion across the institution.

## 7.4 Customizing teaching materials, aids and methodologies

It is important to make all teaching and learning materials accessible and inclusive to all students with disabilities. In technical courses like engineering, there can be difficulties for students with disabilities to understand and learn concepts. For example, without the availability of screen-readers and other accessibility devices, IT-related classes can be difficult for students with disability. With regard to curriculum and lesson planning, it is important to train teachers to move away from a one-size-fits-all model to flexible approaches in education that can respond to the diverse abilities and needs of all learners. Where curricula and teaching methods are rigid and there is a lack of accessible teaching materials, students with disabilities

are at an increased risk of exclusion. Assessment and evaluation systems should ideally focus on individual progress rather than academic performance so that it is not restrictive for students with special education needs. Teaching assistance can also be helpful as a support for students with disabilities so that they are not isolated from students without disability.

## 7.5 Improvement in physical accessibility

Physical access in buildings is an essential prerequisite for educating students with disabilities. Those with physical disabilities are likely to face difficulties in travelling. There may be problems with stairs, narrow doorways, inappropriate seating or inaccessible toilet facilities. Based on the needs of students with disability, the administration should take necessary actions to make the buildings and other physical structures accessible. There should be ramps, lifts, Braille signage, smooth flooring and proper lighting facilities in classrooms and labs. It is also necessary to provide accessible transportation facilities to enable mobility of students with disability inside the campus.

## 7.6 Distribution of assistive devices

Assistive technologies, when appropriate to the user and the user's environment, are known to be powerful tools to increase independence and improve participation of PwDs[55]. Assistive devices for learning and mobility should be provided by institutes according to the needs of students with disability. Wheelchairs, screen readers and other specialised software, laptops, magnifiers, listening aids, crutches, Braille readers, and access to prosthetics and orthotics should be provided by resource centres in each educational institute. These assistive devices will go a long way in aiding independence and empowerment of students with disability, assisting them not only in academics but daily life as well. It is important to note that institutions should take responsibility not just for the provision of assistive devices but also in ensuring that the users are trained in their use and maintenance.

## 7.7 Placement support

It is important for educational institutions to have a centralized job placement cell to facilitate equal opportunities for all students, ensuring that students with disabilities are not discriminated against in the hiring process. Institute placement committees can also seek the guidance of NGOs and other private actors who specialise in facilitating employment opportunities for Persons with Disabilities to ensure inclusive placement practices. All job descriptions, interview calls and written exams should be accessible for students with disabilities. Dedicated orientation and training sessions to prepare students with disabilities for placements can also be arranged, with a specific focus on interview skills, interpersonal skills and presentation skills. The placement offices can also arrange alumni buddies for each student with disability to guide them in job opportunities. Placement teams can be encouraged to invite companies known for inclusive hiring while simultaneously encouraging more companies to become inclusive in their hiring practices.

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[55]https://www.who.int/disabilities/world_report/2011/report.pdf?ua=1

## 7.8 Enabling a culture shift

The physical presence of students with disabilities in educational institutes does not automatically ensure their participation[56]. For participation to be meaningful and produce good learning outcomes, the ethos of the institution – valuing diversity and providing a safe and supportive environment – is critical. The attitude of teachers and students without disability is critical in ensuring that students with disabilities experience acceptance and inclusion. For this to happen, institutes need to stress on the importance of making spaces of leisure and entertainment accessible and inclusive. This will heighten interactions between students with and without disability, and encourage a relationship of equals. These spaces include sports, extra-curricular programs as well as co-curricular platforms such as robotics and hackathons in technical institutions.

Most respondents reported feelings of discrimination and social exclusion. To overcome this, the institution administration as well as teachers and students without disability should work together to create culture of inclusion, accessibility and acceptance. With more awareness and sensitivity, there will be more inclusion.

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[56]http://journals.du.ac.in/ugresearch/pdf/Shalini%20Saksena%2020.pdf

# Annexure 1: Consent form

**Introduction**

We are asking you to take part in research study to understand the issues, challenges and practices opted by your institute for inclusion of disabled students. We will protect information about you taking part in this research to the best of our ability, all information shared by you will be kept confidential. This interview will take 45 min to 1 hour of your time, your cooperation is requested in this regard. However, you can choose to not answer any of the questions that I will ask you. Also, you may end your participation at any time. It doesn't have any implication on you by any means. There are no benefits to you for participating in this research, but your participation will help 'Sarthak' in having better understanding about disability and its perspectives across educational institutes.

**VOLUNTEER AGREEMENT**

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Place:                                                    Signature

Date:                                                     Name:

# Annexure 2: Tool for data collection from students with disability

1. Name:
2. Age:
3. Gender:
4. Nature of disability:
5. Cause of disability:
   a) Hereditary      b) By Birth      c) Accidental      d) other

6. Course and Semester:
7. Contact no.:
8. Email ID:
9. Your Previous School/ College:
   District:
10. Challenges faced by you in your daily life:
11. Special care you need in your daily routine?
12. Accessibility Checklist:

|     |                     | Yes / No |
| --- | ------------------- | -------- |
| 1.  | Library             |          |
| 2.  | Medical Centre      |          |
| 3.  | Cafeteria           |          |
| 4.  | Common Room         |          |
| 5.  | Sports Complex      |          |
| 6.  | Hostels             |          |
| 7.  | Admin Office        |          |
| 8.  | Class Rooms         |          |
| 9.  | Wash Rooms (Male)   |          |
| 10. | Wash Rooms (Female) |          |
| 11. | Auditoriums         |          |
| 12. | Seminar Rooms       |          |
| 13. | Laboratories        |          |

13. What issues do you face while commuting within hostel, to classroom, library, etc.?
14. Areas which you visit less or are inaccessible to you
15. What sort of support do you need for securing physical accessibility to different areas of campus?
16. Major challenges faced by students with disability in completing their course
17. Do all the assistive technologies available to you help you study?
    a. If yes, please provide details
    b. If no, how do you manage?
18. When you need some special equipment, where do you get it from? Please explain the process.
19. Is your education hampered by the lack of assistive equipment in your classroom, lab and libraries?

   a. If no, explain what accommodations exist.

20. Is your placement secured?

   a. If no, then why?

21. What is the special assistance provided for your placement?

22. Challenges you may face during your placement

23. Is there any special cell in your institute which provides support to students with disability like you?

   a. If yes, what support do they provide?

24. Apart from physical accessibility and assistive devices, what are the other issues faced by students with disability?

25. How do you rank your institute in context of sensitivity for disabled students?

   a. Accessibility: 1 to 10
   b. Equipment:  1 to 10
   c. Assistance:  1 to 10
   d. Sensitivity:  1 to 10

26. Have you come across any case of discrimination?

   a. If yes, please provide details about nature of discrimination?

27. When you compare your previous school/college, what is the significant difference?

28. How can discrimination be reduced in your institute?

29. Is there any awareness programme / workshop to create sensitivity among students regarding disability?

30. Which was the last workshop organized? (in detail)

31. Your suggestions for inclusion of students with disability

32. Any other suggestion for better social acceptance of students with disability

## Annexure 3: State-wise distribution of institutes and respondents

| S. No | State | No. of institutes | No. of students |
|-------|-------|-------------------|-----------------|
| 1 | Odisha | 2 | 6 |
| 2 | Assam | 2 | 14 |
| 3 | West Bengal | 5 | 61 |
| 4 | UP | 6 | 19 |
| 5 | Haryana | 1 | 1 |
| 6 | Rajasthan | 3 | 31 |
| 7 | Maharashtra | 3 | 7 |
| 8 | Delhi | 2 | 3 |
| 9 | Jharkhand | 1 | 1 |
| 10 | Tamil Nadu | 2 | 10 |
| 11 | Chandigarh | 1 | 1 |
| 12 | Bihar | 1 | 1 |
| 13 | (Unknown) | 1 | 1 |
| | **ALL INDIA TOTAL** | **30** | **156** |

*Table 10: State-wise distribution of institutes and respondents*

# Acknowledgements