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# CONNECTED LEARNING AND RESEARCH ON INCLUSIVE EDUCATION (CLeaR on IE)

STRENGTHENING TEACHER EDUCATION FOR INCLUSION OF CHILDREN WITH DISABILITIES

PROJECT REPORT

*August 2022*

Founding Partner

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### CETE/2022/July/RP/CLearnIE/1

The Centre of Excellence in Teacher Education (CETE) at the Tata Institute of Social Sciences, Mumbai ([bit.ly/cetewebsite](http://bit.ly/cetewebsite)), aims to enable Right to Quality Education for all children in India by helping teachers respond to diverse and changing needs. Built around the central premise that professional qualified teachers can create lasting impact, the centre focuses on empowering teachers, improving professional development standards, supporting the teacher education ecosystem, and advocating the strengthening of policy on teaching and teacher education. Research at the centre is on the themes of quality in teaching, policy and scaling innovations, inclusion, curriculum and pedagogy, and EdTech. Academic teaching programmes include B.Ed. - M.Ed., M.A. Education, doctoral research, short term programmes through blended learning, and online offerings to enhance capabilities of teachers and teacher education faculty ([www.tissx.tiss.edu](http://www.tissx.tiss.edu)). Key field action projects are focused on improving inclusive teaching-learning at schools and employing technology thoughtfully in professional development of teachers. The Connected Learning Initiative (<https://clix.tiss.edu>), was awarded the UNESCO King Hamad Prize for the Use of ICTs in Education in 2018. CETE received seed support from the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Government of India, and TATA TRUSTS.

Cognizant Foundation was established with the vision to better the lives of economically and socially backward sections of society and improve the opportunities available to them. Over the past 16 years, Cognizant Foundation's programmes have focused on delivering quality solutions to bring about a significant change in the lives of children, women and persons with disabilities.



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**CONNECTED LEARNING AND RESEARCH  
ON INCLUSIVE EDUCATION  
(CLear on IE)**

Strengthening Teacher Education for Inclusion  
of Children with Disabilities

PROJECT REPORT

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## ABBREVIATIONS

<b>ALU</b>	Avinashilingam University
<b>BRC</b>	Block Resource Centre
<b>B.Ed.</b>	Bachelors in Education
<b>CETE</b>	Centre of Excellence in Teacher Education
<b>CLearR</b>	Connected Learning and Research
<b>CRC</b>	Convention on the Rights of the Child
<b>CRPD</b>	Convention on the Rights of Persons with Disabilities
<b>CWSN</b>	Children with Special Needs
<b>DIET</b>	District Institute of Education and Training
<b>DPEP</b>	District Primary Education program
<b>FGD</b>	Focused Group Discussion
<b>FLN</b>	Foundational Literacy and Numeracy
<b>HBCSE</b>	Homi Bhabha Centre for Science Education
<b>ICT</b>	Information and Communication Technology
<b>ICIDH</b>	International Classification of Impairments, Disabilities and Handicaps
<b>IE</b>	Inclusive Education
<b>IECOS</b>	Inclusive Education Classroom Observation Scale
<b>IEP</b>	Individualised Education Plans
<b>IERC</b>	Inclusive Education Resource Centre
<b>NCERT</b>	National Council of Educational Research and Training
<b>NCFTE</b>	National Curriculum Framework for Teacher Education
<b>NCTE</b>	National Council for Teacher Education
<b>NIEPMD</b>	National Institute for Empowerment of Person with Multiple Disabilities
<b>NIOS</b>	National Institute of Open Schooling
<b>NPE</b>	National Policy on Education

<b>OER</b>	Open Educational Resource
<b>RCI</b>	Rehabilitation Council of India
<b>RPwD</b>	Rights of Persons with Disabilities
<b>RTE</b>	Right to Education
<b>SDG</b>	Sustainable Development Goal
<b>SCERT</b>	State Council of Educational Research and Training
<b>SSA</b>	Sarva Siksha Abhiyan
<b>ST</b>	Student Teachers
<b>TLM</b>	Teaching Learning Material
<b>UDL</b>	Universal Design Learning
<b>UNICEF</b>	United Nations Children's Fund
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organization
<b>vIERC</b>	virtual Inclusive Education Resource Centre

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## **EXECUTIVE SUMMARY**

The Sustainable Development Goal on education (SDG 4) highlights the importance of inclusive education and sets a target for preparing the teacher workforce for inclusion (UN, 2014). SDG 10 focuses upon reducing the inequalities existing due to race, ethnicity, class, gender, disability, age, religion, economic or other status within a country. The United Nations Convention on the Rights of Persons with Disabilities first recognized the Right to Inclusive Education as a fundamental human right of every child with a disability (UNCRPD, 2006). Providing an education free from any barriers to ensure every child has equitable and empowering learning experiences is critical. In the Indian context, the Right of Children to Free and Compulsory Education Act, 2009 and the Rights of Persons with Disabilities Act, 2016 are the current legal frameworks that mandate schools provide quality education for all children. However, there is still little understanding of how to adapt inclusive practices in schools and there is a dearth of good quality research on inclusive education in India.

### **ABOUT THE REPORT**

The following report attempts to contribute to the field of Inclusive Education in the form of human resource development and knowledge of inclusive practices. This report documents several processes that were undertaken towards preparing teachers for the education of children with disabilities through The Connected Learning and Research on Inclusive Education (CLear) project. Tata Institute of Social Sciences in partnership with the Cognizant Foundation took up a series of interventions to understand the status of teacher preparation for inclusion, help set up inclusive education resources centres and develop a teacher education curriculum for inclusion. This report begins with the backdrop of issues in the field of inclusive education and subsequently elaborates on each of the interventions. The sections describe the desk review of literature in the national and international domains around inclusive education, based on which a competency framework was developed. The Curriculum Analysis of pre-service teacher education programs offered in seven universities across India is reported next. A survey was conducted to supplement the curriculum analysis and empirically understand how student-teachers experience inclusive education courses. Focused group discussions with teacher educators were held to gain their perspectives on inclusive education courses. In addition, an

Inclusive Education Classroom Observation Scale (IECOS) was developed to document inclusive practices in classrooms. A case study based on the classroom observation is included in the report. Drawing on the aforementioned research, the development and offering of a Certificate course on IE for prospective and practicing teachers and the design of a unique specialisation Course on IE to prepare teacher educators are reported. The last section of the report focuses on the setting up of two Inclusive Education Resource Centres (IERC) at Avinashilingam University and National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD) and a virtual IERC developed with help from the Gateway School Mumbai.

## **WAY FORWARD**

The learnings from the project indicate that the inclusive education curriculum of the pre-service teacher education program adequately highlights the required knowledge and understanding of inclusion. However, the critical components of attitudes and values for inclusion are missing. Also approaches to inclusive practices and examples of inclusion are sparse. Teacher educators and teachers do not have adequate experience in practicing inclusion within mainstream school settings. Although the state has invested considerably in setting up support structures for inclusive education, they largely operate under the medical model of disabilities. To shift the focus on IERCs for providing pedagogic support requires considerable effort on the part of the state.

Going forward, our proposed next steps include offering the advanced specialisation course in inclusive education to prepare future teacher educators with understanding and skills to adopt inclusive practices themselves and train other teachers to do so. With respect to the in-service teacher education component, the IE course will be rolled out to student teachers as an additional certification, while we continue to offer the Post Graduate Certificate course over the TISSx platform for teachers and teacher educators. The Open Educational Resources will be released on the DIKSHA platform for wider outreach. A set of case studies on inclusive practices of schools to inform teacher education will be prepared. The physical and the virtual IERC will continue to be strengthened and documented.

## INTRODUCTION

In the context of the Right of Children to Free and Compulsory Education Act, 2009 and the Rights of Persons with Disabilities Act (RPwD), 2016 schools have to ensure quality education for all children. The composition of children entering schools both in private and government schools is changing considerably. Inclusive education (IE) has therefore become necessary to meet the diverse needs of all children. However, there is still little understanding on how to adapt inclusive practices in schools and a dearth of good quality research on inclusive education in the country. Synergy between ‘mainstream’ schools and special schools also requires considerable focus.

Recognizing the gap between the policy directives and the on-ground reality of Inclusive education in the education system, the Centre of Excellence in Teacher Education (CETE), TISS Mumbai started exploring possibilities of contributing towards the particular field. The interventions planned were to be primarily carried out through research, which includes setting up of inclusive education resource centres and offering short term courses to support teachers and faculties of education in teacher education institutes. In continuation towards the effective implementation of these efforts, the Centre partnered up with the Cognizant Foundation and collaborated with the special education institutes that the Foundation is currently supporting, along with the Azim Premji School of Education, TISS, Hyderabad and The Gateway School of Mumbai for the “Connected Learning and Research on Inclusive Education” (CLear on IE) project.

The purpose of the project is to ensure a more sustainable means of contributing to the human resource development on knowledge and practice of inclusive education, with a special focus on the education of children with disabilities. Under Phase 1 of the project, the team has so far conducted a desk review of literature in the national and international publications focused on inclusive education. On the basis of the review a competency framework was developed to identify the core knowledge, skills, attitudes and values that teachers need to practice inclusion. Some other verticals covered under the project are Curriculum Analysis of pre-service teacher education programs (B.Ed.) offered in seven different Universities of India, setting up of two

Inclusive Education Resource Centres (IERC) within Avinashilingam University (ALU) and National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD) and creating a virtual IERC with the support of The Gateway School Mumbai. The Inclusive Education Resource Centres, both virtual and physical, have been set up to provide a support system to the teachers and the teacher community as a whole and improve the capacities of the teachers towards understanding and adopting inclusive classroom practices.

In addition to the above, The Gateway School, Mumbai has also developed an Inclusive Education Classroom Observation Scale (IECOS) drawing from the competency framework, to enable teachers to implement evidence-based practices for instruction and classroom management. A survey of B.Ed. students were conducted to substantiate the curriculum analysis and to understand the learning experience from inclusive education courses in the seven universities. FGDs were also held with teacher educators to understand in-service teaching practice of inclusion. Lastly, the Centre has designed and is offering a Certificate course on IE for practicing teachers and professionals. The TISS-Cognizant Foundation, Visiting Chair on Inclusive Education helped design Specialization Courses on IE for post-graduate students in Education. Through the means of these courses the need to question and recognize the fallacy of the 'normal' is being brought to the forefront. The predominant notion of defining and categorizing people on the basis of ableism is being challenged and questioned through these courses. The first part of the advanced course on IE introduces students to disability studies, and the importance of attitudinal changes towards disability in school and society. Part two of the course introduces ideas and resources for practicing inclusion.

The following report describes each of these individual components of the project and the tasks that have been completed so far under each of them.

## **1.1 Backdrop**

Education of children with disabilities has historically witnessed a paradigm shift from segregation to integration, and more recently to inclusion of all children within the mainstream educational context. The conceptualization of inclusive education began in the 1970s for students with disabilities to start attending mainstream schools. The Ministry of Welfare, Government of

India launched the IEDC scheme in 1974 but the outreach was small and the focus remained on integration. Subsequently, with the promulgation of inclusion in the international policy framework on inclusive education, the idea of inclusion gained credence in the 1990s (Kalyanpur, 2014). Consequently, in the last two decades, national policy impetus also gained momentum in this direction for raising awareness and driving education systems towards implementation of inclusive education from the perspective of human rights, dignity and equal opportunities (UNESCO, 2019).

In this context, the Salamanca Statement and Framework for Action (UNESCO, 1994), Article 24 of the Convention on the Rights of Persons with Disabilities (CRPD) (UN, 2006), and Sustainable Development Goal (SDG 4), call for acknowledgment, attention, global commitment of all countries to inclusion. Across the globe, this call has had a significant impact on the schooling opportunities and provisions for children with disabilities. However, distortions in the implementation efforts for inclusive education have surfaced different challenges in mainstream education within the contextual realities of South Asian countries (Singal, 2019). Despite the unique trajectories of development within the South Asian region, the covert and overt barriers for inclusion persist due to political, social, cultural and economic factors (Jha, Minni & Ahmed, 2020). A critical analysis of the inclusive education practices in these contexts reveals the lack of human resource development specifically as one of the deterrents for including children with disabilities in mainstream education (Mullick, Ahmmed & Sharma, 2014; Ramchand 2021).

Prominent theories by Ajzen (1991) and Shulman (2004) elaborate on the need for a commitment, ability, knowledge and pedagogic competence in teachers to make a difference in classrooms. The UNESCO definition of inclusive education emphasises the pedagogical intent by seeing it as “a process of addressing and responding to the diversity of needs of all learners through inclusive practices in learning, cultures and communities and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children” (UNESCO, 2005).

While this vision for inclusive education is transformative and more responsive to meet the

growing diversity of learners, there is little reflection on what children with disabilities are being included into. Especially in most of the countries in the Global South, it is essential to recognize that assimilation efforts for inclusion are fraught with systemic issues which remain unaddressed (Singal, 2019). Research and literature on the teacher education programs in the South Asian countries draw attention to concerns of teacher motivation and perceptions, limitations of curriculum on inclusive education, and dearth of preparation to teach in diverse classrooms (UNESCO, 2016). Furthermore, despite the reported need for a total of 15 million teachers by 2030 in Southern Asia, there is little research on how teachers are prepared for inclusive and special education (Sayed & Sarangapani, 2020). This makes it critical to revisit teacher education programs and ensure that the curriculum is responsive to societal needs and delivered by capacitated and empowered teacher educators (Ramchand, 2020).

These gaps in teacher preparedness to manage diverse learner groups including children with disabilities reflects the need for curricular and pedagogic reforms in teacher education on inclusion. For a sustainable contribution to the knowledge and practice of inclusive education, with a special focus on the education of children with disabilities, identifying a competency framework to critically analyse the curriculum of teacher education programs and assess the needs for teacher preparation is important.

## **1.2 Teacher education for inclusion**

Global recognition of inclusive education as a philosophy for attaining equity, justice and quality education for all children has translated into implementation of inclusive practices in some countries. The leverage for inclusive education practices is embraced within the policies to effectively remove barriers and create learning opportunities for all children to learn. However, in some countries, including India, factors such as lack of available funding, administrative and policy level support, and trained personnel impede the progress towards achieving inclusion (UNESCO, 2019).

While the aspects of governance raise concerns on the political impetus of the country for inclusive education, the practical implementation draws attention to consider what constitutes quality teaching for effective inclusion (Department of Education and Training - Australia,

2004). In regard to this consideration, one of the critical factors for inclusive education is the preparation of all teachers to teach children with disabilities within the mainstream setting (CRS Vietnam, 2010).

Preparation of teachers is critical for quality teaching that supports inclusion. Most Universities equip graduates from teacher education programs with fundamental knowledge of inclusive education, such as understanding needs and abilities of children (Sharma, 2018). With more focus on technical skills of teaching, some universities and colleges across different countries have inclusive education as a required core course, while others simply offer the course as an optional elective. But this has not contributed for teachers to believe, know and practice inclusion (Miller et al., 2020). Thereby, despite these efforts to support teachers' preparation for inclusive education, there is a need to revisit the curricula and promote mandating inclusive education as a compulsory subject in pre-service training programs (Forlin & Chambers, 2011).

With regards to this need for change in teacher education, a desk review of normative and empirical literature on teacher preparation for inclusive education was undertaken to develop a “competency framework”. The scope of the literature review entailed publications in the national and international contexts to identify key teacher competencies for inclusive education practices, gaps in teacher education programs and evidence from policies, practices for effective inclusive education.

### **1.3 Objectives**

The fundamental aim of this research project is to ensure a more sustainable means of contributing substantially to the knowledge and practice of inclusive education, with a special focus on the education of children with disabilities. Thereby, the study is intended to go beyond ascertaining challenges and bottle-necks in teacher preparation and focus on specific areas and needs to inform teacher education, both at the systemic level and in the classroom contexts. In continuation of the efforts and evidence from the UNESCO (2019) report, (State of Inclusive Education in India: N for Nose) the project has outlined the following research objectives to address the need for human resource development in inclusive education.

- To review international and national policies and related literature on teacher professional development for inclusive education. This will help identify the required teacher competencies and document challenges faced while practicing inclusive education.
- To undertake a curriculum analysis of pre-service teacher education programs offered by National Council for Teacher Education (NCTE) and Rehabilitation Council of India (RCI) vis-à-vis inclusive education. This will help identify how well the curriculum supports developing prospective teachers' awareness, conceptual understanding and pedagogic approaches towards inclusive education and its practice.
- To understand the experiences of select inclusive education resource teachers, prospective and practicing teachers and teacher educators in engaging with inclusive education, their perception of their roles and their needs in meeting the aspirations of inclusive education. This will help understand the ground reality of teaching of the inclusive education courses.
- To set up and document the setting up of Inclusive Education Resource Centres (IERC) in two partnering institutes for supporting inclusive education practice.

#### **1.4 Components of the Project**

The study followed an exploratory and descriptive approach. It is designed as a multi-method qualitative study to be completed in phases. Under Phase 1 of the project, the desk review of literature, curriculum analysis, empirical research (survey and case study), developing specialisation course and certificate course on IE and setting up of IERCs and vIERC has been completed so far. The following section provides a brief overview of these individual components.

##### **1.4.1 Review of Literature for developing competency framework**

A desk review of normative and empirical literature on teacher preparation for inclusive education was undertaken at the first stage. This component aimed to identify the key teacher competencies for inclusive education practices, gaps in teacher education programs and evidence from policies, practices for effective inclusive education. This stage of the study is carried out to

review the premises and findings in policy documents, academic literature, curriculum framework and technical/research reports on human resource development for inclusive education. The scope of the literature reviewed entails publications in the national and international contexts. Consequently, a teacher competency framework has been developed to inform the curriculum analysis and empirical research in the project. The methodology used for the desk review and the competency framework are further elaborated upon in section 2 of this report.

#### **1.4.2 Curriculum Analysis of the IE course in B.Ed. programs**

Subsequent to the desk review, in this stage a content analysis of the curriculum of teacher education programs recognised by NCTE and RCI has been undertaken on the basis of the framework developed in the desk review carried out previously in the study. During this stage a review of the curriculum framework of NCTE and the 2-year bachelors programs of regular B.Ed. and B.Ed. special education was carried out. The content analysis of the curricula aimed to help reveal how the regular and special teacher education programs understand inclusivity and also identify the gaps in comparison to the broader framework of teacher competency for inclusive education. The content analysis has been elaborated in section 3 of this report.

#### **1.4.3 Developing an IE course**

As part of the project, Prof. Maya Kalyanpur from the University of California, San Diego, USA was invited to be the TISS-Cognizant Visiting Chair for Inclusive Education. Prof Kalyanpur designed the curriculum for two courses on specialisation in IE and helped compile resources to teach the course. The first course is an introductory course and the second an advanced course. The courses will be offered across TISS campuses to the MA Education students.

The Centre of Excellence in Teacher Education (CETE) with the support of Cognizant Foundation has also designed and piloted two courses in Inclusive Education for teacher educators and practising teachers. The courses aim at providing an opportunity for practitioners to develop perspectives and professional skills in inclusive education. The course is designed and intended to help build perspectives on philosophy, policy and practice of inclusive education

specifically in the context of India. Further details of these courses have been discussed in section 4 of this report.

#### **1.4.5 Inclusive Education Resource Centres (IERCs)**

To reduce this gap in the vision of inclusive education in policies and its actual implementation, this component of the project proposed to set up two Inclusive Education Resource Centres (IERCs) and a virtual IERC (vIERC). The goal of the IERCs is to make education inclusive for all students by adopting various measures like creating inclusive resources for students, developing modules based on the Universal Design of Learning model etc. For developing the capacities in teachers, TISS has collaborated with two teacher education institutes: Avinashilingam University (ALU) and National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD). In addition to this, a virtual IERC is set up in collaboration with The Gateway School of Mumbai. Section 5 of the report discusses the work done under this aspect.

#### **1.4.6 Empirical research**

In this stage a survey was conducted and a classroom observation tool developed, based on which a narrative has been prepared.

#### **Survey Research**

The survey was conducted to complement the curriculum analysis and provide a comprehensive insight on the inclusive education preparation among teachers. Data was collected via a questionnaire for student teachers and focus group discussions with inclusive education resource teachers. The student teachers sample set comprises students in their final year/recent graduates of ‘special’ and ‘regular’ B.Ed. programs from 5 universities in India from among the 7 which formed the sample for curriculum analysis (one each from North, South, Central, East and West). Additionally, 12 inclusive education resource teachers formed the sample for focussed group discussions.

- The questionnaire consisted of two parts. Part A required the participants to use a Likert

scale in response to a list of statements on knowledge, skills and dispositions with regards to inclusive education. Part B provided some cases with corresponding questions that are open-ended to gain qualitative responses of the respondents.

- The FGD included points that the researcher used to guide the discussion and elicit responses from participants on their perceptions of their roles, the challenges they face and how they address them, and their needs.

Based on the preliminary report from the desk review and the draft competency framework, the tools for the survey were prepared. The tools were reviewed by a team of experts.

### **Classroom Narrative**

One classroom narrative has been included under the project to provide evidence-based practices for implementing inclusive education practices within the classrooms. The narrative captures how a teacher practices inclusion and the various ways in which the teacher adapted or modified classroom practices according to the context and needs of the individual learners. The narrative draws from a classroom observation tool (IECOS) developed on the basis of the competency framework. The narrative is from one of the classrooms at The Gateway School, Mumbai.

## **2. MAPPING THE FIELD OF INCLUSIVE TEACHER PREPARATION AND PRACTICES**

An extensive review of the empirical and normative literature in national and international policy documents, reports, and journal articles was carried out to prepare a competency framework. The purpose of creating the competency framework is to address the needs of teacher education, identify the gaps in teacher competencies and suggest curricular reforms in teacher education for implementation of inclusive education.

The larger purpose of the competency framework is to provide for a critical analysis of teacher education curriculum for the inclusion of children with disabilities in ‘mainstream’ classrooms. Thereby, the literature review has also focused on developing a frame of reference that potentially contributes to systemic as well as classroom level preparation of teachers. The key themes of the framework highlight essential competencies for inclusive teaching which are intended to throw light on the

- i. needs of teacher education for inclusion
- ii. gaps in teacher preparation and
- iii. curricular reforms in teacher education for implementation of inclusive education.

### **2.1 Methodology for Desk Review**

To carry out the desk review, a multi-step process was used for scoping relevant studies on teacher preparation for inclusive education. Drawing upon the methodological framework by Arksey and O’Malley (2005), the literature review was conducted in a series of procedural stages.

The research team collectively identified journal articles, policy documents and reports from databases such as Google Scholar, Taylor & Francis Online and Sage journals, using a combination of key terms. These terms included ‘teacher’, ‘competency’, ‘inclusive’, ‘education’. Five most relevant articles by prominent scholars in inclusive education were selected and backward snowballing (Wohlin, 2014) was adopted to use the reference list in these

articles for identification of new papers to include. In this stage, the abstracts of the literature were screened to evaluate the relevance based on the date of publication, focus of the article and nature of the publication. Most of the studies identified were published in peer-reviewed journals such as the International Journal of Disability, Development and Education, International Journal of Inclusive Education. Reports and policy documents published by national governments and international agencies such as UNESCO, UNICEF and World Bank were also included in the list of literature for review. While both normative and empirical papers were identified in relevance to this scoping, the period of publication was limited to 2008-2020 with one exception to a publication in 1999 that was repeatedly cited in most of the selected articles.

Subsequent to the identification of relevant literature, interrater agreement was conducted in the next phase to screen the articles. A research team member who was not yet involved in the search procedures reviewed the abstracts. This resulted in a 90% agreement rate of the selected articles. Some of the articles were excluded from the initial list which did not primarily focus on teacher preparation for inclusive education of children with special needs. In the remaining articles, some additional literature was included for a more generic frame of reference on teacher competencies, resulting in a total of 65 articles.

## **2.2 Analysis**

On final selection of the literature, full manuscripts were reviewed and coded to extract the information on key competencies for teacher preparation in inclusive education. This involved using a naturalistic paradigm that allowed for data to reveal themes and establish credibility through peer debriefing (Lincoln & Guba, 1985). From the broad coding of information, the research team further charted the data into relevant themes to make meaning and define the competencies arising out of the scoping review.

The compilation of themes emerging from the literature evidenced that knowledge, skills and dispositions are the three key themes that comprise a competency framework for teacher preparation on inclusive education. These broad themes were further categorised into 14 sub themes that were specifically defined based on the essential competencies for inclusive teaching practices.

Amongst the 65 articles that were studied and reviewed, it was noted that the majority of the literature on inclusive education emerged from the Global North, more specifically from the Western countries of the Global North. This was further dominated by literature from the United States and Scotland in comparison to countries such as the United Kingdom and Canada. Furthermore, reports and documents by international agencies such as UNICEF, UNESCO, World Bank and European Agency contributed to the normative literature in the desk review.

Literature from contexts in the Global South was limited, as the focus was on empirical studies. The literature review also indicated that technological knowledge and skills are insubstantially researched as a crucial component for teacher preparation on inclusive education. Also, there are a considerable number of papers and reports that discuss dispositions among teachers. However, it is noteworthy that largely normative literature was available in the Indian context.

The competency framework that was evolved from this extensive literature review for inclusive practice is given below.

**Table 1:** Competency Framework for teachers

Knowledge	Theoretical knowledge	on the philosophy of inclusion rooted in the social model of disability and rights perspective
		on the theories of teaching and learning (cognitive, social, developmental), human diversity, growth and development
	Legal knowledge	of international and national provisions that are relevant to make classrooms more inclusive
	Technological knowledge	on the components and capabilities of various technologies and the different ways in which they can be used in teaching and learning settings to provide access for diverse needs of learners
	Pedagogical knowledge	on pedagogic practices which are culturally responsive, evidence-based, and provide multiple methods of representation, engagement, action and expression
	Contextual knowledge	on the historical background of inclusive education, underpinning societal and ethical norms of inclusive schools, context of the learner’s background
	Professional knowledge	on the role and responsibilities of an inclusive teacher
Skills	Collaboration skills	for social interactions with stakeholders to create and participate in supportive learning communities
	Communication skills	to appropriately communicate using different techniques and variations according to the learner needs
	Technological skills	to adequately use technological tools for enhancing learning opportunities to all learners
	Practical skills	to use research and evidence of inclusive education in practice
	Pedagogical skills	to apply inclusive pedagogical strategies for curricular goals, lesson planning, classroom management, instructional methods and assessments

	Professional skills	to be decision-makers, critical thinkers and reflective practitioners who adapt and improve as per the need, and motivate learners
Dispositions	Values and beliefs	acknowledgement of learner diversity and acceptance of inclusive education as a responsibility
		uphold empathy, respect, cultural sensitivity and compassion towards the needs of all learners
		approach inclusion with a focus on meeting diverse needs of learners by moving away from practices that are steeped in stigma associated with labelling some learners as different
	Attitudes	adopt a strengths-based perspective and ecological systems approach towards classroom diversity
		maintain responsibility, critical sensibility, perseverance, resilience and ethical judgement towards inclusive education
		have self-efficacy, confidence and advocacy for inclusive education

### **3. RE-EXAMINING THE HEAD, HEART AND HANDS**

‘One of the concerns in teacher training is making education liberal, humanistic and responsive to the demands of inclusive education.’ (NCTE 2009)

The professional preparation of teachers has been recognized to be crucial for the qualitative improvement of education since the 1960s (Kothari Commission, 1964-66). Teachers have been identified as change agents from time to time to bring about social change.

The first step towards inclusion in India was taken by the National Policy on Education (NPE) formulated in 1986 which resulted in starting ‘Project Integrated Education of Disabled Children’ (PIED) by the National Council of Educational Research and Training (NCERT) with support from UNESCO in 1987. This was meant to strengthen the earlier scheme of ‘Integrated Education for the Disabled Children (IEDC)’ introduced in the 1970’s. PIED started with capacity building of practicing teachers in IE through a 6 weeks in-service education program. This was followed by one-year pre-service education by NCERT in 1987. This was the first cross-disability course for teachers for integrating children with disabilities in mainstream education. The teacher education program was discontinued as it was not recognized by the Rehabilitation Council of India (RCI), the statutory body established by the Government of India to regulate and monitor services for persons with disabilities, including preparing special educators. With the District Primary Education Program (DPEP) and Sarva Shiksha Abhiyan (SSA) implementing IE programs, RCI subsequently introduced a B.Ed. program in single disability to develop special educators for regular and special schools, with the landmark RTE Act and implementation of SSA for inclusion of children with disabilities in regular school.

In the year 2014, the regulatory body for teacher education National Council for Teacher Education (NCTE) revised the B.Ed. curriculum to two-years and introduced a compulsory course on inclusive education within this program. RCI also came up with a two-year B.Ed. to prepare teachers to cater to the needs of children with disabilities who are in mainstream schools. In the existing scenario of implementation of inclusive education, two regulatory bodies who come under two different ministries (RCI comes under the Ministry of Social Justice, while the Ministry of Education governs NCTE) are offering B.Ed. programs. In this context there is a

need to create a synergy between the programs by identifying appropriate teacher competencies to meet the aspirations and objectives of education for all.

Preparing teachers as agents of change to promote social justice and inclusion requires clarity not only about what teachers need to know, do and believe but how they will exercise their agency as teachers when adopting this approach (Florian, 2015). While there is some agreement in the literature about the knowledge, skills and values teachers need to be effective with diverse groups of students, little is known how these are developed for teacher *competency* in different domains of knowledge, skills and dispositions to meet the diverse learning needs of the child.

### **3.1 B.Ed curriculum analysis**

The objectives of the curriculum analysis are

- To study the curriculum of pre-service teacher education programs being offered by NCTE and RCI vis-à-vis inclusive education, in terms of developing competencies for implementing IE in the prevailing education scenario of education where children with disabilities are scattered and with diverse needs.
- To assess the gaps in competencies required and human resource development and identify areas of priority for professional development.

Seven universities were selected from east, west, north, south and central regions of India for the curriculum analysis to understand how the competencies of these universities are aligned to the competency framework developed from the literature review and reported in the previous section.

The term competency attributes to the application of professional knowledge and skills within the workplace and are underpinned by teachers' dispositions to deliver the expected in their workplace (Winch, 2004).

### **3.2 Profile of the Universities**

The universities were selected purposely. All 7 are well established and have been functioning for more than 30 years (2 of them are over a 100 years old). One is among the largest universities

in Asia and another is the first women's university to be set up in the continent.

Geographically, they are located as follows:

North - 2

South - 2

West - 2

East - 1

5 of them are public state universities. 1 is a central university and 1 is a Deemed-to-be Universities (privately established but given the academic status and privileges of a university by the Statutory body, UGC).

A detailed description of each university is given below.

## **U1**

U1 was established as an aided college by a patriot and educationist. It is now one of the largest institutions in the country to impart quality education for women at all levels. The department of Education at U1 envisions building a generation of academically brilliant inspiring teachers fired with a spirit of service and higher values. Through Teacher Education the department seeks to initiate graduates and post graduates into the profession of teaching by instilling in them knowledge, competency, skills and attitudes needed to act as agents of social change and modernization. The university's Teachers' College came into being in the year 1968 with 70 students in the B.T. course with a faculty strength of 5. The college which was affiliated to the then Madras University started with only Mathematics, Home Science and English as optional subjects and soon increased its scope by offering more optional subjects namely Physical Science, Biological Science, History and Economics. Vertical expansion was affected by introducing M.Ed. Degree course in 1973, M.Phil. (Edn) in 1986 & Ph.D. (Edn) in 1989. The year 1988 saw the College of Education coming into the fold of the newly born U1 in the name of Faculty of Education. In 2018 the Faculty of Education was renamed as School of Education. The department offers a B.Ed, M.Ed. and a Ph.D in the field of Education.

The minimum eligibility for the B.Ed. program is 3 years Bachelor's Degree/ 2 Year's Master's

Degree in the relevant subject with 55% of marks. A Master's Degree is the basic qualification for Economics. In addition to the regular B.Ed program the department also offers a B.Ed. in Special Education ( Visual Impairment and Hearing Impairment).

## **U2**

U2 is located in the Garden City of Bangalore aptly hailed as the "I.T. Capital of India ", was established in July 1964 as an offshoot of the University of Mysore, primarily to include institutions of higher learning located in the metropolitan city of Bangalore and the districts of Bangalore, Kolar and Tumkur, which eventually became a separate university. Academically, the University is structured into six faculties- Arts, Science, Commerce & Management, Education, Law and Engineering. It has 48 Post Graduate Departments, One post graduate Centre at Kolar, (started during 1994-95), four University colleges, 684 affiliated colleges and several other Centres and Directorates of higher learning and research under its purview. At present, the University offers 50 Post Graduate Courses and Employment Oriented Diploma and Certificate Courses. The University has launched the Five years Integrated Courses in Biological Sciences.

The B.Ed program offered at U2 is a two-year program specially designed for those who want to pursue their career in education or teaching. B.Ed. Program is offered in three discipline i.e. B.Ed., B.Ed. English and B.Ed. Special Education.

There are 77 affiliated colleges under U2 from where one can choose to pursue B.Ed. Program. Admission is granted on the basis of merit followed by a round of counselling. The candidates must register online via the Karnataka Government website. The entire application process is conducted online. It is recognized and approved by National Council for Teacher Education (NCTE), Bengaluru & Govt. of Karnataka. It aims to provide the quality education to the future teachers and the department empowers the aspiring teachers to propagate education through the rungs of the society so that they serve the nation while making a satisfying career for themselves. It is a co-educational department, providing regular courses in which is located in the urban part of Bengaluru, playing a pioneering role in the field of higher education.

## **U3**

U3 is an institution originally established at Aligarh in United Provinces, India in 1920 became a Central University by an act of the Indian Parliament in 1988. In 1962, the University Grants Commission declared U3 a 'deemed to be University'. Soon thereafter, the School of Social Work was established in 1967.

By a Special Act of the Parliament, U3 was made a central university of India in December 1988. In the list of the Faculties, i.e. Education, Humanities & Languages, Natural Sciences, Social Sciences. Engineering & Technology, one more Faculty - Faculty of Law, was added in 1989. Many new courses and programs at UG and PG levels have since been added. Teachers' Training Institute was established in 1938 under the inspiring leadership of a Gandhian and educationist for the purpose of training teachers for Basic Schools according to the scheme of Basic Education. Later, it was renamed as Teachers' College. With the introduction of Faculty Structure U3 in 1980, the erstwhile Teachers' College was renamed as Faculty of Education.

At present it has the following two departments: Department of Educational Studies and Department of Teacher Training and Non-Formal Education (Institute of Advanced Studies in Education). The Faculty of Education, through its two departments, runs 12 different programs to prepare professional teachers and teacher educators. The Faculty also offers M.Phil. & Doctoral program in Education. The rigorous involvement of both students and teachers provide a strong knowledge base to research in areas like teacher education, school education, higher education, educational administration and management etc. The B.Ed. is a full time two year Course for the preparation of secondary and senior secondary school teachers.

#### **U4**

U4 was established in Central India on the 12th of June 1956. Since then the University has chartered an illustrious history of 65 golden years of academic achievement and intellectual leadership. U4 offers the two year B.Ed Program at its School of Education. The admission into the course is through state counselling and the minimum eligibility criteria for admission is as per the state government norms. The course is divided over four semesters and has an intake of 100 students per year. The University covers a vast arena of disciplines and encompasses various faculties such as Science, Arts, Social Science, Commerce, Law, Management and

Education.

## **U5**

U5 is one of the largest universities in the world. The university in 2013 had 711 affiliated colleges. Ratan Tata is the appointed head of U5 advisory council. At the UG level, U5 offers B.Ed programs under five specialisations. It was established in 1857 after the presentation of a petition from the Bombay Association to the British colonial government in India. It was modelled on similar universities in the United Kingdom, specifically the University of London. Teaching departments, research disciplines, and post-graduate courses were introduced from 1904, and several additional departments were established.

Selection for B.Ed. courses are entirely based on merit scores in the qualifying exam of the last UG degree. The University offers the B.Ed. degree in two modes i.e. full time and part time. The department of Education in the University was set up in 1974. The Department conducts Post Graduate degree, diploma and certificate courses as well as Doctoral courses in Education. The vision of the department is to create a community of Excellent Teacher Educators Rooted in Tradition and equipped for the Future.

## **U6**

U6 was created by an Act of Parliament (No. 8 of 2000) and it became functional from 2nd July, 2001 in East India. The department of Education at U6 is one of the three oldest departments which was established in 1979 under another university catering to 4 north eastern states. The University has 33 functioning academic departments offering UG, PG, M.Phil. and Ph.D. programs under 8 Schools of Study. The University has 35 affiliated colleges and one constituent college. At present, the department is offering B.Ed., M.A., M.Phil. and Ph.D. programs in Education. The department of education started the B.ed program in the year 2016. The minimum eligibility criteria for admission into the course is 50% marks in either Bachelor's degree and/or in Master's degree in Science/ Social Sciences/ Humanities, Bachelor degree in Engineering or technology with specialization in Science and Mathematics with 55% marks or any other qualification equivalent.

The two year B.Ed. program, spread over four semesters, consists of 12 Core Courses (CC), 1 Soft Course (SC), and 4 Enhancement of Professional Competencies (EPC) Courses. The B.Ed. program carries 2000 marks, of which 1250 marks are for Core and Soft Course (SC) and the remaining 750 marks are for School Internship (500 Marks) and Enhancement of Professional Competencies Courses (250 Marks).

The total marks for internal and external assessment are 1000 each. The total credits for the course are 80. All of the four semesters are of 500 marks and 20 credits each. The third semester is fully devoted to the school internship. The B.Ed. program includes theory based teaching-learning activities and practicum (including Internship) on almost 50:50 bases.

## U7

U7 is the first Women's university in India as well as in South-East Asia. The University was established in 1916 for a noble cause of Women's Education. The first five women graduated in 1921 from this University. The B.Ed. program offered by the university is a set of twelve theory courses and practical work that are linked together meaningfully aiming at achieving excellence and competence in pedagogic practices and enabling the student teacher to become an efficient and effective school teacher.

In a century old existence, the university has grown into a multidisciplinary institution hosting diverse professional, technical and liberal arts programs from K12 to PhD. U7 is probably one such university where there is Nursery school as laboratory for Human Development Department, Centres for Women's Studies, Inclusion and Exclusion, Distance Education, and has affiliated institutions for doctoral programs. Unlike most universities in the country which have to have state jurisdiction, U7 is unique in terms of jurisdiction. U7 can affiliate colleges/institutions anywhere in India with prior consent from the State Government. In 1959 it got the status as a full-fledged section of B.Ed. with commencement of P.G. department in 1964. With U.G.C. grant for building construction both U.G. and P.G. departments stepped into its own separate building in 1973. In 1985 the second floor was constructed with the matching grant of U.G.C. The Program is spread over two years and four semesters with medium of instruction as hindi, english, gujarati, marathi.

### 3.3 Curriculum Analysis of Seven Universities

The curriculum analysis of seven universities is done against the teacher competency framework to study how these universities have aligned their courses, what the gaps are and identifying any additional competencies that are not present in the competency framework.

**Table 3: Highlights of IE paper offered in the seven different Universities in the B.Ed. program**

University	Credit Marks	Semester in which the IE course is taught
U1	3 credits/100 marks	Third
U2	4 credit/100 marks	Fourth
U3	2 credit/50 marks	Third
U4	100 marks	Fourth
U5	2 credit/ 50 marks	Third
U6	4 Credits/100 marks	Fourth
U7	4 credit/100 marks	Third

#### U1

The objectives of IE course offered in the B.Ed. programs are as follows with the major focus for knowledge and skill development.

- To understand the changing practices in education of children with disabilities.
- To interpret the policies and access the educational needs of children with different disabilities
- To compare and interpret the specifics need for children with disabilities
- To equip the necessary skills for universal design for learning of children with disabilities
- To design a checklist/teacher made tool to mainstream children with disabilities in

regular schools

- To initiate resource mobilization for inclusive education

The curriculum of the university has emphasized on knowledge development and provides theoretical knowledge to appreciate disability from a social justice perspective besides understanding existing scenario of diversity in classroom and the existing of different barriers to inclusion.

- Legal Knowledge is presented in terms of understanding of national policies and important international policies which facilitate inclusive education. The course also equips with the competency of interpretation of policies to access educational needs of children with disabilities. This also contributes to providing opportunities to apply acquired legal knowledge into practice or reality.
- The course enables student teachers with pedagogical knowledge for adaptations of instructions and accommodations in relation to specific needs of children with disabilities e.g., adaptations of instructional materials besides adaptations and accommodations for sensory, neurodevelopmental, locomotor and multiple disabilities, engaging gifted and talented. The course also provides with pedagogical knowledge of universal design, differentiated instructions and peer support for instructions for developing creating inclusive classroom practices.
- Practical knowledge is provided through identification of different stakeholders and to provide opportunities for teacher's responsibility and collaboration with different stakeholders including mobilization of resources.
- The contextual knowledge is provided in terms of understanding the needs of specific disabilities for undertaking necessary adaptations.
- Use of ICT for IE provides technological inputs.

## **Skills**

The university has focused on pedagogical skills covering all the components e.g., adapting

instructional strategies for teaching in mainstream classrooms applying UDL and also develops the concept of good teaching to inclusive pedagogical practices to equip teachers with inclusive education practice. U1 has offered practical skills through planning of lesson in any one subject of choice any one inclusive academic instructions which enables to apply knowledge into practice. The course also provides opportunities for professional development through for critical thinking and reflection of visits to special and inclusive schools The course has incorporated collaborative skills in terms of collaboration with various stakeholders.

### **Dispositions**

The course provides field experience to interpret and apply inclusive practices through visits to schools to develop principles for IE. The topic of advocacy provides an opportunity to interpret theoretical and pedagogical knowledge into practice.

### **Findings**

The course is built on knowledge development covering all the components with major focus on pedagogical knowledge to enable student teachers (ST) to develop an understanding of pedagogical practice. The skill component is specifically through practical where the ST have an opportunity to apply the pedagogical knowledge like developing one lesson plan and pedagogical practice in developing inclusive classrooms. The gaps in the course of U1 is in practical knowledge, collaboration and professional development. There is no significant mention of competency for developing dispositions except through school visits to interpret how inclusive education needs to be developed and advocacy for IE.

### **U2**

The course has the following objectives which is covered in two courses - Teaching and Learning and Creating Inclusive School (CIS). It also covers disadvantaged groups and girls' education. The course facilitates in engaging gifted children.

- Understand the global and national commitments towards the education of children with diverse needs.

- Develop an understanding of the concept, principles and models of inclusive education and the context of education for all.
- Identify and address diverse needs of all learners.
- Familiarize with the trends and issues in inclusive education.
- Develop an understanding of the role of facilitators in inclusive education.
- Understand the nature of difficulties encountered by children and prepare conducive teaching learning environment in inclusive schools.
- Analyze special education, integrated education, mainstream and inclusive education practices.
- Identify and utilize existing resources for promoting inclusive practice.

The course provides theoretical knowledge for IE in Teaching and learning paper besides the exclusive paper in Creating inclusive classroom, to understand the learning theories in relation to physical and cognitive development. The course develops an understanding of IE strategies and different learning styles. Technological knowledge in terms of using ICT for instructions in inclusive settings has been added. Legal knowledge in the course gives insights to International and National policies which facilitates inclusion.

The pedagogical knowledge for IE is incorporated under the Teaching and learning paper of the course to equip teachers to teach children with diverse needs i.e., Gifted, creative and educationally backward, learning disabilities which provides opportunities to teachers for better understanding of diverse needs and inclusive learning process. The course prepares teachers to understand definitions and characteristics of all children which includes disabilities and gifted and talented which is under contextual knowledge.

It provides an in-depth pedagogic knowledge of curricular adaptations, UDL and strategies needed for developing inclusive practices. Student teachers are provided with opportunities for professional or practical knowledge by submitting reports of government schemes, curricular support services, surveys regarding barrier free environment. Opportunity for practical knowledge is provided through developing teaching materials.

## **Findings**

The university emphasizes knowledge-based competencies and does not have many opportunities for skill-based competencies. Gaps are more in developing dispositions which is an important in developing inclusive practice.

### **U3**

The university develops contextual knowledge in facilitating understanding of learner's background through different models of disability starting from medical social and right based model besides an understanding of Impairment disability and handicap through the International Classification of Impairments, Disabilities and Handicaps (ICIDH). The course also provides insights on the impact of disability on the environment and has added issues like labelling which provides with the ST to understand the impact of labelling on persons with disability and societal attitudes and also barriers encountered by persons with disabilities. It also enables ST to understand special needs, identify, assess and prepare children with specific disabilities. The contextual knowledge provides them with an insight into the needs and understanding from the disability perspective. Though understanding the needs and identification of disabilities is essential, IE should also be focused on diversity and meeting the diverse needs from the educational perspective.

The university acquaints STs with legal knowledge of policy level interventions in accessing education at national and international level. The course provides insight to schemes for children with disabilities related to the policies which enables professional development in interpreting how policies are implemented through various schemes and provisions of the government to access education.

STs are provided with insights on different options to education for CwDs, not just limited to IE which develops with professional competency to take decisions for placement of children based on their needs. The course also provides insights to a number of psychosocial challenges that the child may face. The pedagogical knowledge emphasis of the course is on management and remedies of CwDs and not inclusion. The contextual knowledge and the learners background has been dealt in details within Remedies-Psycho-social issues of inclusion.

The course develops Pedagogic knowledge in terms of Collaborative teaching, Managing Inclusive classes and schools- Management of School, managing resource room, management of an Inclusive Classroom, Teaching Strategies for fostering individual needs of children, Individualized Education Program, Group Teaching Strategies, Teaching and Learning through Co-Curricular activities, adaptation for special need children and teacher's role in effective implementation of inclusion of children with disabilities.

Professional / practical skills are imparted by developing competencies for collaboration and involving stakeholders which is important for implementing IE. The course also develops teacher's responsibilities to seek support and mobilize resources e.g., initiate resource mobilization for IE.

### **Findings**

The university focuses on knowledge development and emphasises on managing special needs in inclusive classrooms. There has been no specific mention of practical in the course. Knowledge cannot be compartmentalised into specific areas e.g., theoretical or legal etc. Legal knowledge also can be applied with professional development. There are no competencies for developing dispositions for teachers in IE.

### **U4**

IE paper is developed with the following objectives and is added in Teaching and Learning and Creating inclusive school (CIS). The course also enables ST to engage with gifted children.

- a) Identify children with special needs.
- b) Understand the nature of special needs, their psychoeducational characteristics and functional limitations.
- c) Familiarize with assessment and placement procedure for children with special needs.
- d) Develop understanding about accommodating special needs in regular classrooms.
- e) Appreciate the education of children with special needs.

## **Knowledge**

Theoretical knowledge for IE is provided in Teaching and Learning paper which throws light upon individual difference based on cognitive abilities and individual differences among learners. It emphasises more on the differences rather than deficit model. The course provides insights on intellectual disabilities, learning disabilities, gifted and talented. e.g., Individual differences among learners. It also emphasizes upon understanding differences based on a range of cognitive abilities— learning difficulties, slow learners and dyslexics, intellectual deficiency, intellectual giftedness in addition to focusing upon the implications for catering to individual variations in view of ‘difference’ rather than ‘deficit’ perspective. (The focus is on understanding the differential learning needs of the learners with regard to abilities, learning styles, language, socio-cultural differences/disadvantage, learning difficulties, and their implications for classroom practices and teaching. The university prepares students with the theoretical knowledge of understanding the special needs of the children.

Legal knowledge provides information to policies of education and its implications to accessing education having diverse learning needs. TK provides information regarding emerging technologies for children with disabilities. P/practical knowledge provides with the understanding of roles and responsibilities of regular teacher and special education teacher.

## **Skills**

Pedagogical skills provide with exposure in classroom management adaptations behaviour modifications developing individualized education plans (IEP) etc. to develop teachers’ capabilities.

Practical knowledge in the course enables ST to understand the significance of collaboration for support services in inclusion. The course provides practical knowledge in terms of developing lesson plans for identification of children with disabilities and developing reports of CS.

**Dispositions:** The course facilitates respecting diversity among learners.

## **Findings**

The course primarily develops knowledge for inclusion of children with disabilities in terms of understanding, familiarizing, or appreciating the differences. There are opportunities for developing skills for creating inclusive classrooms and competency for developing dispositions is limited in the curriculum.

## **U5**

### **Knowledge**

- a) The university develops theoretical knowledge in terms of Conceptual understanding of Diversity, Disability and Inclusion. Contextual knowledge is facilitated in terms of learners and their identification. Identification of special needs; models of disability and Types of Disabilities
- b) Pedagogical knowledge is developed through comprehensive understanding of Curricular modifications, adaptations in instructional methods, evaluations, TLM; differentiating the content; recognizing individual differences between learners; usage of adaptive and assistive devices; identification and preparation of different types of teaching aids for CWSN
- c) The university has dealt in detail with the contextual knowledge from the perspective of Learner Diversity, environmental and individual diversities; child development in socio cultural context; understanding the impact of caste, class, poverty, gender on the development of the child.
- d) Practical knowledge has been introduced through developing reports and case studies in Creating Inclusive Schools; case studies on CWSN; drama and art for children with special needs, visit to resource room of SSA; micro teaching; shadow teaching; Role of classroom teacher in the context of roles of various agencies, functionaries and rehabilitation professionals

### **Skills**

- a) The university has provided with Pedagogical skills by equipping ST for different

approaches to learning instructions classroom practices etc. modifying the TLM, creating assistive devices; identification of appropriate assistive devices; preparing pedagogic materials for different subjects and modifying them according to the learner needs.

- b) Collaborative Skills Interacting with practicing teachers
- c) Practical skills School Internships, visiting SSA resource room; case study on learners with special needs, interviews with teachers in special schools.

## **Findings**

Even though the course offers Knowledge and skill development but there is a gap in developing dispositions among ST.

## **U6**

### **Knowledge**

*Pedagogical knowledge* The paper Childhood and growing: provides exposure in terms of Individual Difference and Learning difference, Diversity in Learners: Learning styles and their characteristics, understanding different learners: slow learners, gifted and creative learners The university prepares ST with theoretical understanding of learner diversity and individual differences; factors affecting individual differences; inequalities in education for the disabled; creation of differential curriculum; distinguish among concepts of special school, integrated school and inclusive school.

*Contextual Knowledge* is primarily to understand the nature and needs of different categories of disabled children; which ranges from Creative and gifted students/ Emotionally disturbed children/ intellectual disability/ physical impairment.

*Professional development:* Reading and Reflecting on text; Professional standards for teachers in inclusive school.

*Technological* competency in terms of providing understanding of ICT and assistive technology out of this university also familiarizes students with assistive technology. This is the first university which mentions assistive technology.

*Legal knowledge:* the paper on Contemporary India and Education provides insights on inequalities to persons with disabilities.

### **Skill**

Skill development is done through introducing inclusive classroom practices and developing innovative methods of teaching. The university offers with skills for analysis of policies of the government in context to implementation, studies of implementation of disability act besides critical review of special teacher curriculum.

### **Dispositions**

Study on the attitude of teachers, peers, and the community towards children with disabilities.

### **Findings**

University has dealt in detail with the knowledge development and skill development for developing teacher competency. There is a major gap in developing dispositions which is a key component in applying inclusive practice at classroom level.

### **U7**

The university has incorporated IE in childhood and growing besides exclusive paper on creating inclusive school (CIS).

### **Knowledge**

*Theoretical knowledge* in the paper Childhood and growing up prepares ST to appreciate differences in terms of intelligence and different learning styles and the paper on CIS explores the terminologies of handicap Disability and impairment as per the WHO classification. Contextual knowledge is developed by understanding the needs of different types of disabilities and understanding special needs in terms of causes characteristics etc.

*Legal knowledge,* the course prepares ST with international and national policies for IE. The course also provides information regarding the provisions under examinations which is

significant for retention and transition of these children in the education system.

*Pedagogical knowledge* The course prepares teachers with assessment and provides them with necessary knowledge in individual planning, cooperative learning etc. Technological K exposure is given regarding technological advancement for IE and use of assistive devices

### **Skills**

The university deals with pedagogical skills through individual education plan, cooperative learning, buddy support.

Practical Skill is taken up through Designing learner friendly evaluation methods. Preparation of special learning material for a student with diversity, implementation of material, evaluating effectiveness and preparing a report.

The course offers skills for collaboration by facilitating Parents as partners – developing positive relationships between school and home explain support services for inclusive education – maintain records in inclusive set up- involve community resources as a support - orient parents and peer group for support Involving community resources as source of support to teachers’ education. Besides partnership agencies for networking – setting up appropriate forms of communication with professionals and paraprofessionals.

### **Findings**

The curriculum has major impetus for knowledge development followed by skill development specifically in developing pedagogy and collaboration and practical. The major gap is in developing dispositions for ST, an equally important area for developing inclusive practices.

### **3.4 Summary of the Findings from Curriculum Analysis**

The following table summarises the analysis in terms of whether the curriculum of the teacher education programs of the seven universities include the competencies identified in the framework.

#### **Table 4: Summary of competencies developed by teacher education curriculum of the**

## sampled universities

Competencies	U1	U2	U3	U4	U5	U6	U7
<b>1 Knowledge</b>							
1.1 Theoretical	P	P	P	P	P	P	P
1.2 Pedagogical	P	P	P	P	A	P	P
1.3 Technological	A	P	A	P	P	P	P
1.4 Contextual	A	A	P	A	A	P	P
1.5 Legal	P	P	P	P	A	A	P
1.6 Practical	P	P	A	P	P	P	P
<b>2. Skills</b>							
2.1 Pedagogical	P	A	A	P	P	P	P
2.2 Collaboration	P	A	P	P	A	A	P
2.3 Communication	A	A	P	A	A	A	P
2.3 Technological	A	A	A	A	P	P	A
2.4 Professional	A	A	A	A	P	P	A
2.5 Practical	P	P	A	A	P	P	A
<b>3 Dispositions</b>							
3.1 Attitudes	A	P	A	A	P	P	A
3.2 Perceptions	A	A	A	A	A	A	A
3.3 Values	A	A	A	A	A	P	A
3.4 Beliefs	A	A	A	A	A	A	A
3.5 Principles	P	A	A	A	A	A	A

1. The IE courses offered by all 7 Universities are predominantly knowledge based. A comprehensive understanding of theoretical knowledge is provided by all universities. Barring one the rest have included legal and pedagogical and technological knowledge

for inclusion. 3 of the 7 universities have included contextual knowledge

2. Communication skills are not emphasised, except in 2 universities.
3. 4 universities have included development of collaboration skills as a learning outcome for the IE course. Only one of which has included the need for and the competences required to work with parents and professionals like counsellors, clinicians, social workers.
4. Development of dispositions such as attitudes, beliefs and values of student teachers towards inclusive education practices is missing from the curriculum of all 7.

### **3.5 CONCLUSION**

While the teacher education programs across India have incorporated courses related to IE there remain challenges that need to be addressed. A few predominant ones are listed below

- The NCTE has developed a 2 years B.Ed. curriculum framework for preservice teachers with a course on Creating Inclusive Schools. This course is a 4-credit course and translates to 100 marks. While universities have adopted the NCTE framework many are still to add components of IE in other courses as permeated.
- The course offered for IE by the universities is predominantly knowledge based. The content is based on contextual knowledge in detail and is restricted to identification and understanding the needs of children with disabilities with the purpose of ensuring classroom management. However, contexts in terms of the socio-economic backgrounds of the students and intersectionality have not been addressed in these courses.
- It is essential to provide equal weightage to components of skill development and development of dispositions for IE. This has a significant impact on the application of necessary knowledge and skills in developing effective inclusive practices. A result of the lack of the development of skills and dispositions can be that teachers don't take the ownership for the education of diverse learners and hence they will continue to be excluded in schools.

- With NEP covering IE under the SDGs it is a challenge to consider the needs of the disability and disadvantaged groups.

If IE is to be successful in India it becomes imperative to incorporate competencies under dispositions besides knowledge and to address components of IE across the courses of in-service and pre-service teacher education programs to build stronger values, beliefs and attitudes for making teachers responsive to students with diverse learning needs.

## **4. EMPIRICAL RESEARCH**

### **4.1 Survey Research**

The UNESCO report (2019) highlights that teachers who have undergone their pre-service teacher education program prior to 2015 were inadequately prepared for inclusive classrooms. The report further elaborates on this gap to note that the statutory requirements of Right of Children to Free and Compulsory Education Act (RTE), 2009 and the Rights of Persons with Disabilities Act (RPwD), 2016 have resulted in modification of the programs offered by the National Council for Teacher Education (NCTE) and Rehabilitation Council of India (RCI).

Consequently, the traditional course offerings of RCI on a single disability and optional courses on inclusive education by NCTE have undergone revisions to sensitize and build capabilities of all teachers, general and special, to meet the learning needs of children with disabilities within inclusive classrooms (UNESCO, 2019). While this has inspired an impetus for curriculum of all teacher education programs to develop pedagogical skills required in inclusive classrooms, it is equally significant to review and reflect on the teachers' preparedness for inclusion on completion of these pre-service programs. Thereby, one of the components of the project was aimed at conducting an empirical research to gather and analyse data from student teachers and teacher educators on the practical implications of the teacher preparation on inclusive education.

#### **4.1.1 Objective, research design and tool of the study**

The fundamental aim of the survey was to complement the curriculum analysis and provide a comprehensive insight on the inclusive education preparation among student teachers. The study was explorative in nature and designed as a multi-method qualitative study survey-based research design. Data for the study was collected through an online questionnaire for student teachers. The questionnaire for student teachers with both open and close ended questions elicited data from student teachers based on their knowledge, skills and attitudes towards inclusive education. The tool also helped understand their learning experience from the inclusive education course they attended as part of their teacher training program. The tool of data collection was aligned to the competency framework developed from the desk review and

curriculum review.

The questionnaire consisted of two parts. Part A required the participants to use a Likert scale in response to a list of statements on knowledge, skills and dispositions with regards to inclusive education. Part B provided some caselets with corresponding questions that were open-ended to gain qualitative responses of the respondents.

The tool was validated by five experts and practitioners in the field of education with experience in inclusive education of children with disabilities, teacher education and policy-making.

#### **4.1.2 Sample selection and size**

The sample was drawn using a purposive sampling technique from 5 universities across India (one each from North, South, Central, East and West). The sample universities were drawn from the 7 universities whose curriculum was analysed in the curriculum analysis component of the project. These universities were selected on the bases of whether they were well-established or not, how long they have been running the Teacher Education programs (considering the credibility of private colleges) and the number of students enrolled (to indicate size of the university and affiliated college). Only one university from the east was selected since proportionately Teacher Education Institutes in the east are less. The research team reached out to the Heads in the Faculty/Department/School of Education in the seven universities. Information letters were sent to the Head to inform them of the study and gauge their interest in being a participant university for the study. The first Universities from each of the regions to respond positively was selected as the sample. From these sample universities student teachers in their final year/recent graduates of ‘special’ and ‘regular’ B.Ed. programs, formed the sample for the questionnaires. The number of students teachers in each sample university as we did not get responses from all the students. In all 170 responses were received and analysed.

#### **4.1.3 Analysis and findings**

Analysis for the study was carried out using pattern matching and thematic analysis. To do this descriptive and narrative codes were developed. The section below discusses the findings that

emerged from the data analysis.

### **Recognition of IE as based on values of equality and non-discrimination but little clarity on its practice**

Findings show that there is a varied understanding of inclusive education amongst the respondents. A large majority of the respondents describe inclusive education as involving children with diverse abilities to attend the same school and be in the same classrooms. Discussing inclusive education one respondent from U3 stated,

‘It is a system which allows both children with special needs and normal children to come together within the same classroom and school setup’

Largely inclusive education is perceived as a concept that provides equal opportunities to all children without discrimination or segregation on the basis of differences amongst them. However, it was found that there is also a small section of the respondents who described inclusive education as a school setup curated especially for students with disabilities. Some of the respondents also described it as a classroom wherein students with disabilities are placed with students without disabilities to provide all students with equal learning opportunities. A large section (88.3%) of the respondents were found to strongly believe in the principles of social justice and its influence on their decision-making capabilities. 78.9% of the respondents also felt that all students regardless of their abilities should be taught in the same classrooms as opposed to 14.7% who seemed to be unsure of the viability of including children with diverse abilities in a class. Further it was found that 5.7% of the respondents were sure that inclusion of students with diverse abilities was not viable. 52.9% of the respondent believed that all students’ personal, social, moral and cultural development should be equally addressed by teachers. However, 7.5% of the respondents were unsure of this and 3.1% completely disagreed with it.

Respondents were largely found to believe they were well-versed with the policies and law related to the education of and equality for people with disabilities. Nearly 69.4% of the respondents stated that they are aware about the international policies and laws related to inclusive education and their impact on the Indian policy landscape. 25.8% of them stated that they aren’t aware of the same. With regard to the Indian laws related to people with disabilities

77% of the respondents were found to believe that they were well versed with the laws. 18.8% of them believed they lack clarity of the related laws. With regard to the respondents' perspectives related to their awareness and understanding of the theories, concepts, ideas and approaches that support teaching learning in an inclusive classroom 37.6% were confident of their capabilities and 52.9% believed in their knowledge and practice of inclusive education. Overall, the values of equality and non-discrimination are highlighted by majority of the respondents as essential towards achieving inclusion. A larger section of the respondents were found to have positive perceptions of their knowledge of theories, policies and the concept of inclusive education. However, data from the caselets show that the respondents' positive perceptions of their knowledge does not necessarily translate into skills and attitudes to practice inclusive education. Findings from the caselets show that a large section of the respondents could not demonstrate how equality can be achieved post enrolment of students with disabilities in regular schools.

A small section of the sample was found to have more clarity of the concept of inclusive education and described it as an approach where the focus is not on modifying the learners but in fact making adjustments to the environment and adapting resources in a manner to suit the needs of each and every student. Discussing her perception of inclusive education, a respondent from U7 stated,

‘The basic aim of inclusive education is acceptance and not tolerance. We accept all kinds of students with disabilities and modify and adapt our classrooms to make learning inclusive’

The predominant notions surrounding inclusivity amongst this set of respondents was that of a system which promotes equality and diversity. These respondents mentioned the availability of provisions such as providing extra time during examinations, helping students with disabilities to comprehend the question papers, support of scribes when needed etc. In addition to this, findings from the caselets show that respondents who had more clarity of the basic tenets of inclusion, offered more inclusive suggestions to the caselets. Instances of this can be seen below.

Tapping on the different learning styles and providing a multimodal style of teaching can work better in an inclusive setup’, in a classroom situation where regular teachers have to teach children with special needs. (U8, Respondent 38)

‘In inclusive education all children are in the same classroom and same school, inclusive education is opposed to giving education to children with special needs differently from normal children’ (U1, Respondent 77)

With regard to suggestions on teaching strategies to be used for a class of children with diverse needs respondent (U1, Respondent 78) stated that we should

‘avoid sensory overload. Students with autism can be distracted by unexpected things in their environment, such as bright lights, smells, and sounds. so we should use visuals, be predictable, use concrete language, teach social skills directly, and treat students as individuals’

Though findings related to the larger section of the respondents show many respondents to have a lack of clarity on the concept of inclusion and strategies to practice it. These respondents were found to have mixed the concepts of integration and inclusion and used them interchangeably. For instance, respondent U1 R 64 stated that inclusive education is a system where

‘both general and special needs students are studying in general classrooms, but special needs children go to resource rooms for some classes’

Similar lack of clarity on the use of strategies and teaching learning material to be used for catering to the needs of diverse learners was also found. U3 R-10 suggested that we should use

‘More teaching aids as it looks more attractive and also provide more games for learning’

Findings also show that not having clarity and understanding of the concepts of inclusion and integration also manifests itself in the practical implication within the classrooms. With regard to suggestions in relation to adaptations in curriculum, assessments or practices that teachers in the caselets could demonstrate there was little these respondents could offer.

In terms of the respondents’ perspectives of their capabilities to make curricular modifications through cultural response training, being familiar and using technological tools and devices that can assist teaching in diverse classrooms, and using UDL principles majority of them believed they are quite adept at these. 75.4% of the respondents agreed to be able to modify curriculum through culturally responsive teaching as opposed to 20% of the respondents who were not really sure of being familiar and using technological tools. 80.6% of the respondents believed they can

use and modify these tools to suit the individual student's need as opposed to 15.3% of them, who stated being unsure. With respect to the application of UDL principles within the classroom, majority of the respondents (85.1%) were affirmative. Findings also show that the respondents had high self-efficacy.

91% of the respondents believed that attitudes such as compassion and empathy are important and teachers should treat all learners with compassion and empathy. 94% respondents were found to agree that learning of all students in the class is the regular teachers' responsibility. 88.3% believed they could cater to diverse learning styles and needs of the students through consistent application of a wide range of teaching strategies. Only 10% of the participants were found to be unsure of their skills in this respect. 62.4% of the respondents agreed and 25.9% strongly agreed with being able to recognise the areas of content that students struggle with and being able to intervene appropriately. One of the most important prerequisites for the successful implementation of inclusive education practices is the dispositions and attitudes possessed by the teachers. The teacher education curriculums more often than not fail to address the pre-existing notions of the student's surrounding inclusivity and ultimately leads to these notions getting manifested within the practices of teachers. Findings from the study show that a majority of the respondents hold a positive attitude with regard to inclusivity, their capability to cater to the diversity of abilities and acknowledge that there will be differences amongst the learners and this needs to be addressed without any form of discrimination based on the diverse abilities. Yet when data related to the caselets was analysed in comparison to the data to the Likert scale it was found that only a small percentage of the respondents demonstrated attitudes that reflected compassion or empathy for students with disabilities. An example of this can be seen in the responses below to a caselet which has a teacher feeling frustrated in a class having a child with autism and displaying behavioural issues.

'The teacher must be frustrated because she already needs to finish her portion for her not-special children as they might lose interest due to lack of focus on them'(U2 R 03)

'I can relate with the teacher, it is very difficult to manage a special child like Umesh.'(U1 R88)

'I don't have any experience teaching students with Autism disorder. I think sometimes it will be very difficult for the teacher to deal with this kind of child'(U3 R 09)

'I kind of agree with Revathi because it will be so hard to get a hold of the whole class while also needing to give special care to Umesh. It will be loads of work for her and also the other students may get bored while Revathi attends to Umesh's needs' (U3 R 02)

'I feel for her because it will be tiresome for her to maintain discipline in such classroom setting'(U3 R 10)

### **Educating children with disabilities a collective and conscious responsibility, or not**

Findings related to who was responsible for meeting the learning outcomes of the students with disabilities it was found that 22.4% of the respondents believed that the education of these students should be a responsibility of special teachers, regular teachers and other stakeholders. As stated by the respondent (U4 R 04),

“The purpose of inclusive education is to include students with disabilities in a classroom with students that don't have disabilities. But I don't think that children with disabilities must be shouldered by special educators solely. It is a collective job of teachers, parents, therapists, doctors and the surroundings of the child which makes it easier for the child to learn. Merely dumping the responsibility on the regular teachers solely will make it very exhausting and hectic for them”.

16.9% of the respondents stated that the larger responsibility of educating children with disabilities should be with the parents. 55.7% believed that it should be the responsibility of the special teacher. These respondents stated that children with disabilities require extra attention and help within the classrooms and most of the regular teachers are not adept at managing such students due to issues such as lack of time and competencies. The predominant notion amongst the respondents is that students with disabilities should be taught by special education teachers only as they require additional support and different learning techniques which special education teachers are trained in. An interesting finding was that respondents emphasised on need-based learning. Which is essentially based on the statements by the respondents such as “Creating a space that is sensitive and accessible to learners having different educational needs” (U7 R 27), “Inclusive Education means a process in which all the students with different needs are provided

Education and resources according to their needs in one classroom” (U7 R 29). Inclusive education is thus defined as an approach which takes into account the individual needs of all the learners and not just the needs of CWSN.

Findings show that most of the respondents see education of children with disabilities to be a domain specific to special education teachers.

In terms of collaboration with itinerant teachers, speech pathologists, etc, 85.7% of the respondents believed that if the need arose, they can collaborate with other teachers to create individual lesson plans for children with disabilities. Almost 89.2% of the respondents also stated that they recognised that they would need to seek assistance from their colleagues to engage with students with disabilities. Moreover, the majority of respondents (80.6%) also believed that they feel confident about interacting and counselling parents of children with disabilities.

It was also found that the respondents that had more clarity on the concept of inclusive education see it as a collective responsibility of all the stakeholders involved. Along with this these respondents also emphasised the importance of building self-independence in themselves to be able to effectively educate students with disabilities and focus upon providing them differentiated instructions based upon the principles of UDL. These respondents highlighted that the ability to effectively implement inclusive practices within the classrooms depends heavily not only on a regular teachers’ willingness to collaborate with others but also upon their willingness to change their pre-existing notions and negative attitudes related to the learning capability of students with disability. Collaboration where teaching responsibilities are shared rather than making it the onus of the itinerant teacher or special educator was emphasised by these teachers when compared to many others who talked of the importance and openness to collaboration but were unsure of what kind of collaboration they envisaged as productive.

### **Appropriate teacher training and skill building crucial for fostering inclusive education**

Analysis of data from the caselets show that most of the respondents agree that it is difficult and hectic to manage a classroom that has students with disabilities, however quite a few respondents

stated that instead of complaining it would be better to change teaching pedagogies and seek help from co-teachers and special teachers. In this respect a respondent stated, ‘feeling stressed and almost worked up is a part of the process, however, the teacher needs to be responsive and teach the learners in their way. The way that works with one learner might not work with the other’. Quite a few respondents also reiterated that it is the responsibility of the teachers to cater to the needs of each and every student and instead of complaining it is better to get trained in providing inclusive pedagogies. Patience and optimism are considered as essential values in the teachers and were highlighted several times by these respondents. In addition to developing the skills and putting in more effort, a small number of respondents also talked about considering the student’s point of view to be able to better adapt teaching to suit the student’s needs. However, it is seen that though a significant number of the respondents empathised with the situation the teacher faced in the caselets, they were completely opposed to her quitting and insisted on her finding alternate ways of facing the situation conducive to all the students equally.

Lack of skills in engaging with children with diverse abilities was highlighted by most of the respondents. In response to the caselets they found themselves to be ill-equipped to address diverse needs in practical situations. Large class size, burden of completion of syllabus etc were also found to be reasons for apprehensions to engage productively with students with disabilities.

Findings show teachers to believe that in order to achieve inclusion it is not enough on the part of the teachers to have an attitude and willingness to adapt to the environment, but the success of inclusive education depends extensively upon the nature of training they’ve received.

In response to another caselet majority of the respondents pointed out the apparent lack of awareness amongst the parents of ‘normal’ children about diverse abilities. Thus, leading them to believe that the progress of their child will be hampered if there was a student with a disability in the classroom. One of the respondents stated that “*I think there is a concern for parents because they might feel that their children may not get enough attention from the teachers as compared to the disabled students*”. A significant number of responses also highlighted the apprehensions faced by parents of children with disabilities regarding the future of their children. Some of the participants also reflected upon the situation and pointed towards the presence of misconceptions surrounding disabilities, empathy and awareness amongst the people leading towards the creation

of such a situation. The social stigma attached with having a child with special needs is also highlighted. Quite a number of solutions were also given by the respondents for developing a positive attitude towards students with disabilities. Some of these are taking the help of parents and other stakeholders to raise awareness and sensitizing people about the benefits of inclusive education and the challenges faced by children with disabilities in accessing equal education opportunities.

The role of the government in taking up the twin areas of increasing the competencies of the teachers by providing quality teacher training and sensitizing the people about inclusive education at large were also highlighted by most of the respondents. The role of the government in mitigating the apprehension faced by both sets of parents and raising awareness about the need and benefits of inclusive education was listed as being of supreme significance.

#### **4.1.4 Discussion**

An effective teacher education program goes a long way in determining and shaping the notions of the teachers with respect to inclusive education. According to the responses on the survey, teachers need to be equipped with strategies which enable them to do a task analysis, change teaching strategies, adopt a multi modal style of teaching learning, provide easy access to experts and allow them to change teaching strategies according to the needs of individual children. Overall, the teachers should be trained well to handle an inclusive class. The importance of being intrinsically motivated to teach students with disabilities should also be incorporated within the teacher education programs. Findings from the study show that a majority of the respondents agreed that in order to bring about meaningful inclusion it should be taught to be seen as a collective responsibility rather than a sole prerogative of special education teachers. Student teachers should be given opportunities to engage with children with disabilities as part of their teacher education program. To foster principles of inclusive education student teachers should be trained in the use of assistive technology, differentiated instructions, and applying UDL principles. Additionally, the training of the teachers should be such that it teaches them to be patient, kind and empathetic. Moreover, quality time should be spent on understanding the child and then taking help of all the stakeholders involved to make the teaching learning process

interesting and easy to grasp. The survey was created to understand the curriculum relevance for teacher preparation. The questions were created covering various domains of inclusivity such as values, attitudes, theoretical and practical knowledge, Pedagogy, collaboration with stakeholders. The responses were open ended as well as based on Likert Scale. From the responses obtained it can be concluded that there exists gaps in terms of lack of understanding of the concept of integration and inclusion and most respondents consider the role of teaching children with disabilities as largely the responsibility of a special education teacher. However it was also seen that the majority of the students hold a positive attitude with respect to inclusivity, recognised the significance of catering to individual needs of the children, valued diversity and held high self efficacy beliefs with respect to adapting the curriculum, use of assistive devices and application of UDL principles. The role of government in addressing the need for awareness around inclusion and the stigma attached to disability was also highlighted by the respondents. The responses from the survey both highlight the gaps in attitudes and dearth of ideas for inclusive practice and the positive impact of inclusive education courses, in terms of greater awareness amongst the pre-service teacher education students supporting the inference from curriculum analysis on teacher preparation.

## **4.2 Focus Group Discussion**

### **4.2.1 Context**

Inclusive Education Resource Teachers (IERTs) are special educators within the government system who play a supportive role in inclusion, especially in the rural and peri-urban areas. In India, an itinerant model is adopted wherein three IERTs are appointed at the block (taluka) level and they have to cater to travel to schools in the block to provide support to children with disabilities. Alongside teachers, it is important to understand the needs of IERTs and their role in inclusion especially as studies around IERTs is sparse (UNESCO, 2019; Singal, 2009).

Nine IERTs from Tumkur, Srirangapatna and Chickballapur taluk participated in the Focused Group Discussions (FGD) and interviews were conducted with BIERTs of Dharwar and Hubli. The three talukas were selected as per the recommendations of Samagra Shikshana Karnataka. Details of IERTs' education and experience were collected by asking them to fill out an online

form. FGD was conducted with all the IERTs of these three talukas. All the FGDs and interviews were recorded with permission from the participants.

#### **4.2.2 Purpose**

The purpose of this FGD was to understand the perceptions of inclusive education resource teachers of their pre-service and in-service programs, their role as change agents as well as the opportunities and challenges they face in their work. Focused group discussions were held with IERTs of 3 talukas. There was one large group discussion with IERTs from all the three talukas together followed by discussion with the three IERTs of each of these talukas. Additionally, interviews were conducted with two BIERTs.

The focus areas of the FGD included the IERTs’:

- Perception of inclusion
- Nature and duration of Teacher Professional Development
- Perception on the school’s ability to meet the needs of diverse children
- Nature of their involvement to ensure all children learn
- Role in addressing the needs of diverse learners
- Needs for executing their duties
- Recommendations for bringing positive change in the field

#### **4.2.3 Summary of the FGDs**

##### ***IERTs’ pre-service and in-service professional development programs***

Out of 9 IERTs that were part of the FGD, 7 had completed the 2 year B.Ed in special education and 2 had diplomas in special education. During the discussion, most IERTs mentioned that they took up B.Ed special education after joining service as teachers. The participants also mentioned they had undertaken internships at schools catering to learning with special needs as part of their coursework. One of them expressed that the B.Ed in special education did not give them any real experience and did not prepare them for work in the field while another said that a lot of insights were gained in the special B.Ed. The IERTs felt that they understood and learnt about the

complexities on the ground through their work experiences as resource teachers. Some of them have certification from Rehabilitation Council of India. At least 2 participants expressed that they were not able to get RCI certification due to the problems of Karnataka State Open University. The discussion about the nature and content of the programs revealed that there was considerable variation in the orientation received by the participants.

Some of the FGD participants had also completed the 90 day training organised by the Government in collaboration with Seva in Action. FGD participants felt that this training was very comprehensive. It gave them an overview of the disabilities, imparted awareness about preliminary screening procedures and provided ideas for inclusion.

During the discussion on the nature of capacity enhancement programs for classroom teachers, the IERTs revealed that teachers were getting 3 to 5 days training sessions on inclusive education by experts in the field. Also, most in-service trainings by the government had at least one session on inclusion. The participants also mentioned that NISHTHA, a teacher capacity building program launched by the Samagra Shiksha in 2019 -20 had a module on Inclusive Education. These modules were mandated to be completed by all teachers. IERTs expressed that teachers needed more support than these training sessions for inclusion to be possible on the ground.

When a few probing questions were asked about the details of the training programs that they had attended or organised, very general answers were provided. The participants were not able to clearly articulate the objectives or specific learnings from these programs.

### ***IERTs' perceptions about disability and inclusion and RPWD Act***

IERTs focus solely on children with disabilities. They expressed that having children with mild to moderate levels of disability in a classroom was 'good for both teachers and students', but also said that it will be 'difficult' for the teacher to 'handle' these children and hence it would be better if parents of even mild to moderately disabled children accompany their wards. One IERT shared his opinion that these ('our') children need more time for learning. Lessons will be based on what these children 'know' and not with any other expectations based on their age (implying that for other children expectations are based on their age).

The IERTs' main focus was on diagnosis, impairment was given a lot of attention and nothing was said about the classroom modifications other than the teacher calling children with hearing and visual impairment to be in the front of the class. They emphasised the need for School Readiness Centre to be located within the physical space of a school. In such cases, CwSN will get 'aspiration' to get themselves mainstream and make more efforts to go to regular school. This led to the understanding that the IERTs perspective was that the onus was on the children to make changes in order to be included.

In Kannada the term 'samanvaya' is used officially for both integration and inclusion. While all participants felt that diversity is good in a classroom, they believe it will be difficult for 'regular' teachers to 'handle' everyone. The participants were of the opinion that earlier the focus in integral education was to educate CwSN in 'special' schools whereas now the efforts were being made to 'have CwSN in a regular classroom with minor modifications in the teaching process to accommodate these children.'

IERTs were aware of the 21 disabilities and difficulties mentioned in the RPWD Act. It was mentioned that the Act helps children get into the mainstream in 'life', not just education. The FGD revealed that the BIERT and IERTs were assisting families of CwSN to apply and receive the entitlement benefits that the government provides. Additionally, they were also finding ways to arrange for alternative therapy and other medical necessities, often collaborating with NGOs for the same. When asked about the nature of children's background in inclusive classrooms, it was connected only with poverty, lack of education of parents and children's lack of nutrition. The responses of the participants revealed that their idea of inclusive education was primarily about trying to mainstream children with special needs wherever possible.

### ***IERTs' perspective on children's learning***

IERTs focus exclusively on CwSN children and the challenges that are faced by them. IERTs emphasised that they cannot do what is in the curriculum or considered age appropriate activities for 'these' children as their learning was based on what they were 'capable' of doing. No academic targets were being set for CwSN. The 'drilling' method of learning appeared to be the dominant strategy for teaching CwSN. The IERTs mentioned they guide teachers to prepare

Individual Education Plans(IEP) and class teachers prepare the IEPs which contain assessment strategies. These plans are saved as part of the child's profile. The teachers also record the monthly progress of the child.

The analysis of the IEP shared by one of the taluks revealed that the plan had columns for subject, strategy, resources to be used, assessment plan, competency and therapy. The class teacher planned for language, mathematics, EVS and therapy requirements of the child. There were no indications regarding the inclusion of the child in any group activities. The plans that were shared were similar to the teacher's unit plan. Since just one plan per child was provided, it was not possible to analyse them further.

Regarding the long-term educational prospectus of children with disabilities, the IERTs responded that disabled children remain within the system till they are 18 years old. One of the IERTs said that not much learning happens once they are in higher primary school but attempts are made to ensure that children stay in the system to receive entitlement benefits. Here again, the IERTs concern regarding the basic necessities of these children being taken care of as long as possible was evident.

### ***IERTs' perceptions about their role in the school***

The resource teachers take on the responsibility of identifying or getting an expert to identify students with the 21 disabilities/special needs. They also identify children that need an escort allowance so that children can come to the SRCs. In one taluk, extraordinary effort is made by the BIERI who has learnt the technique of physiotherapy. The BIERI himself provides physiotherapy to students.

Along with this, the IERTs try to impart basic physical skills and language abilities at the SRP centres. They view SRP centre as a place where the children are able to see school going children and get aspiration to be part of the mainstream.

The IERTs think of themselves as the link between SRP centre and the school. IERTs provide information regarding inclusive education to the schools and guide teachers to prepare IEPs. They also see themselves as guides who help classroom teachers overcome the challenges they

face while dealing with special needs children. One IERT mentioned that they give advice to teachers on ‘Learning disabilities, tell teachers to believe in themselves and not to neglect CwSN’.

IERTs must visit children in home-based education programs as well and provide necessary support for entitlement benefits including therapy sessions. They interact with parents and provide guidance about proper care, nutrition and hygiene practices. They also organise events on special days such as International Day for Persons with Disabilities. They make efforts to include all children in such events. They organise sports and ensure most CwSN children participate in those. No mention was made regarding the use of teaching learning resources with HBE children or about setting academic targets for these children.

### ***IERTs’ challenges and needs***

#### Challenges faced by IERTs

- Inclusion (in the limited sense of having CwSN children in classrooms) was not happening in schools due to the fear of facing reduced enrollment
- Teachers were lacking the skills required to include children with even mild disabilities in their classrooms
- Lack of basic infrastructure in schools for inclusions
- Long travel time to reach remote locations for IERTs’ leaves very little time for any intervention
- Daunting distances makes it extremely difficult for parents to bring children to the block-level therapy centres
- Some parents are uneducated and unaware and hence IERTs reported that they spend majority of their time getting entitlements for the children
- BIERTs are assigned additional responsibilities as CRPs, as RPs for teachers’ workshops etc., which takes up a lot of their time
- The ratio of BIERTs to the number of children is very high in some taluks.

#### Needs of IERTs

- Annual refresher courses for BIERTs to share information and experiences
- Limit additional responsibilities being assigned to BIERTs so they can focus on their main task of supporting CWSN in schools
- Mandatory representation of a parent having child with special needs in SDMC should be followed
- Only girl children and boys with multiple disabilities get escort funding. This needs to be extended to poor boys also
- Increased funding to upgrade equipment and provide training support
- Need to provide transport facilities to get children to the District centres/SRP centres

They suggested that training for ‘regular’ teachers should have:

1. Practical aspects of inclusion – The awareness of complexities while practicing inclusion i.e. how to include children with different abilities, activities that can take place based on available facilities, ability to articulate the kind of support required by teachers in the classrooms, etc
2. Ensure that teachers read and become aware of inclusive practices by going through the training manual for inclusion.

The IERTs shared that when they encounter a specific problem they lack support mechanisms such as access to expert advice, helpline etc., to solve the problem. Since they are situated in remote places, they have to rely on their intuition to solve a problem. One of them pointed out, ‘It would be impossible to be trained to handle all situations, but if there are well-functioning academic networks we could go to, it would not only help in seeking solutions but also for sharing good practices.’

All of them felt they needed recognition and encouragement from the state level authorities.

#### **4.2.4 Way forward – Systemic support for IERTs**

Under the current *Samgra Shiksha* scheme, it is proposed to sensitise and build capacities of IERTs and strengthen the district, block and cluster level structures. It also suggests

supplementing them with special schools as resource centres for inclusion. While promising to fill in vacancies for special educators, it retains the itinerant model (MHRD, 2018). It remains to be seen if the local support structures are adequately resourced and their potential realised. More importantly, the system must recognise the work being done by local level functionaries and value their experience and knowledge as partners in reform efforts. The two IERCs that this project has supported have the potential to educate the system on effectively synergizing the role of IERTs. As the IERTs in this study have indicated, the resource centres can take the lead in providing them with good quality training and access to resources. IERCs can also set up a vibrant community of practice involving teacher education institutes, mainstream schools and the IERTs. A report of the two IERCs is given in the last section of this report.

### **4.3. Classroom narrative**

The classroom narrative has been included under the project to provide evidence-based practices for implementing inclusive education practices within the classrooms. Through the means of the narrative the strategies and inclusive education practices that are being implemented and the various ways in which they can be adapted or modified according to the context and needs of the individual learners, are showcased. The narrative is based on classroom observations drawing from the classroom observation tool (IECOS). The narrative is based on the observations of one of the classrooms at The Gateway School, Mumbai.

The Gateway School of Mumbai is a not-for-profit organization dedicated to serving the needs of students with disabilities. The vignette below describes how classes at Gateway are structured to be inclusive. The 10th grade English Language class of 2020-21 had eight students with disabilities ranging from learning disabilities, intellectual disabilities, and sensory impairments. Students were preparing to give their NIOS examinations. The class was conducted virtually over a video streaming platform. All students could read and write.

The topic for the day was poems. Students were preparing to read a poem about Hiroshima and Nagasaki. The focus of the class was on building background knowledge about WWII and the bombing. The class began with a brainstorming activity. Students were encouraged to write what they knew about poems on a [virtual whiteboard](#). Some wrote names of poems they had read like

## Humpty Dumpty and Tall Trees.

The whiteboard contains the following text:

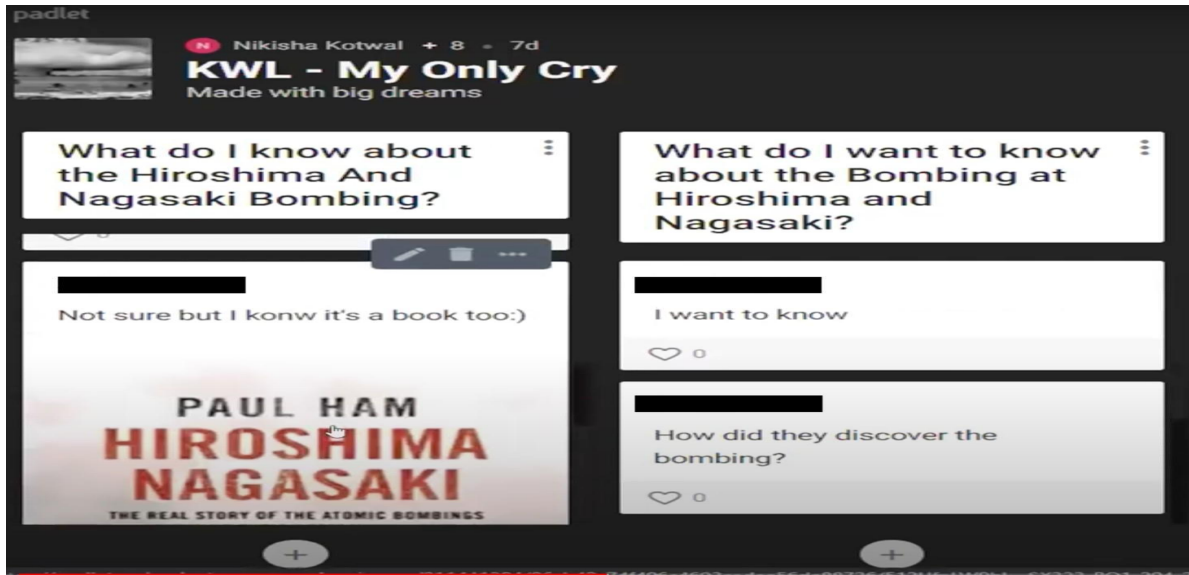
- rhyming words** (in pink)
- poems is like music that creative and sing with it. poems takes time to write a nd to make it perfect.**
- ly.** (handwritten)
- Poems are those which are rhy ming** (in pink)
- they are like a song Humpty Dumpty** (in blue)
- rhyme by: soh I Am Poem** (in blue)
- short and crisp** (in blue)
- What do I know about Poems?** (in red)
- tall tree** (in blue)
- Poems is For small c with fun ca characters and is animated.** (in red)

On the right side, there is a vertical stack of five small video thumbnails showing different students.

Others described characteristics of poems such as having a rhyme and rhythm.

Brainstorming activities are great ways to build background knowledge and help teachers assess the level of understanding of the class. The teacher used a virtual white board instead of calling on just a few students to share to ensure all students were engaged and no student felt singled out. She displayed student answers instead of having them share their answers orally. This helped students retain the information shared and also served as a springboard for further activities later in the lesson.

After brainstorming about poems in general, students then began a K-W-L (What I- K



now, What I Want to Know, and What I Learnt) activity specifically on the Hiroshima and Nagasaki bombing. K-W-L is an excellent graphic organiser to prepare students for what they are about to learn.

The 'K' and 'W' sections are done before students delve into the content and the 'L' section is completed after. Some students had no idea where or what the places were and wrote that. Others supported with what they'd heard about nuclear bombings. Students listed what they wanted to know such as when the bombing occurred, how long it took to make the bomb, what was the reason behind the bombing, and the location of the places. Students answered the 'K' and 'W' sections on padlet, a free virtual collaborative software. Using software like padlet instead of calling on individual students to answer ensures that all students have an opportunity to share their knowledge and questions and stay engaged throughout the activity.

Once students had shared what they knew, the teacher used a PPT to further build background knowledge. She included both in text and videos. She also periodically paused on the slide to explain the content. Using this Universal Design for Learning (UDL) strategy of multiple means of representation ensures that all students can access the information being shared.

Throughout the class, the teacher maintained a respectful atmosphere and kept students engaged by repeatedly praising students, using humour, and clarifying questions. When one student pasted content from the internet, the teacher responded with *Google knows a lot, but I want to*

*know what you know.*

*We are not copy-pasting.* Keeping a light tone when stating expectations, the teacher ensured the student did not feel targeted. The teacher also used the pronoun ‘we’ instead of directly mentioning the student’s name ensuring no one student feels put on the spot. The teacher repeatedly praised specific student desirable behaviour such as *Thank you for your quiet hand.* Highlighting when students use appropriate language and behaviour ensures the behaviour is maintained. The teacher made students feel comfortable making mistakes stating explicitly *There’s no right or wrong* during the brainstorming session.

The teacher capitalized on teachable moments throughout the lesson. During brainstorming, the teacher repeated words like *rhyme* and *rhythm* that one student had written, emphasizing that these words were associated with poems. When students had to write the words Hiroshima and Nagasaki on their own, she reminded them *when you have long words, break it up.* She encouraged critical thinking by ensuring students wrote their questions in the ‘What I Want to Learn’ section so they could research about it later.

Finally, the teacher kept up the pace of the lesson by setting an agenda with multiple activities and smoothly transitioning from one activity to the next. Pacing of a lesson is critical to ensure that students stay on task and are engaged.

Classroom narratives such as this and case studies have the potential to support the teaching of inclusive education courses both for teacher preparation and in-service teacher education programs. The use of case study for professional education is well recognised. But good quality cases are sparse in teacher education, especially those on inclusion to help prospective and practising teachers understand what works in what contexts, how and why.

## **5. RECOGNIZING THE FALLACY OF THE “NORM”**

Prof. Maya Kalyanpur from the University of California, San Diego, USA was invited by the Centre of Excellence in Teacher Education, TISS, Mumbai to be the TISS-Cognizant Visiting Chair to co-develop the curriculum for an introductory and an advanced course in inclusive education. She collaborated with Dr. Radhika Misquitta, from the Gateway School, Mumbai along with faculty from TISS to create the introductory and advanced specialization courses on inclusive education for Masters in Education and Integrated B.Ed.- M.Ed. course students. A brief overview of the two courses is being provided in the sections below.

### **5.1 Specialization courses**

#### **5.1.1 Introduction to IE**

This course is about recognizing the fallacy of the norm (is anyone “normal”?) and getting to know people with disabilities as human beings, as family members, as friends. It is about recognizing and cherishing the infinite variety and difference every student brings to the classroom, in terms of individual characteristics, family values and culture, and past experiences. Through videos, observations of classrooms and other educational settings, large and small group discussions, we will learn about the significance of our attitudes, behaviour and assumptions towards disability and students with differences. This is also known as disability studies and the social model. The course also focuses on how the educational, behavioural, social, ecological, transitional, and vocational needs of a variety of learners can be addressed in general education settings. Personal, family, school, community and environmental factors related to students’ academic, physical, emotional and social well-being are discussed. Assignments are based on your field experience.

#### **5.1.2 Advanced Course on IE**

This course follows the Introduction to Inclusive Education course, which introduced students to disability studies, and the importance of attitudinal changes towards disability in school and

society. It uses a disability studies lens that assumes competence in all learners, and emphasises a strengths or assets-based focus for assessing students and learning about students' and families' funds of knowledge. It underscores the role of teachers and other school personnel in facilitating these attitudinal changes and in designing and implementing inclusive environments. This course also focuses on how the educational, behavioural, social, ecological, transitional, and vocational needs of a variety of learners can be addressed in general education settings. It covers a multiplicity of class-wide strategies and techniques recommended for integrated service delivery for individuals with special needs in general education and in local communities. Assignments will be completed in class and in field placements.

## **5.2 Certificate Courses on IE**

The Inclusive Education certificate courses for teachers and teacher educators were designed with the objective of strategising the use of diversity as a resource in the classroom, critically reflecting on beliefs and biases from a social justice perspective and designing and creating an inclusive, learning environment besides building conceptual knowledge to address exclusion of all forms. The courses were initially offered for a pilot run with the enrolment from around fourteen teacher educators and on the basis of the feedback received they were later modified.

The two courses are designed and intended to help build perspectives on philosophy, policy and practice of inclusive education specifically in the context of India. Participants will gain an understanding of this through asynchronous learning from recommended readings, pre-recorded lectures and interaction on discussion forums hosted on the TISSx platform. This is accompanied by synchronous sessions with renowned faculty who have extensively worked and researched on inclusive education. The duration of both the courses is for 8 weeks and the participant engagement is through Self-study, online sessions & submission of an assignment in completion of the course, reading material and practice work for self-reflection is also made available online on TISSx platform. The courses are offered in collaboration with and sponsored by Cognizant Foundation. The courses largely received positive feedback from the participants and one of them stated that *“the TISS course was well rounded and effectively executed. The best feature was the reading material, really extensive and relevant”* , another stated that *“the course delved*

*into the diversity in an inclusive classroom, the needs of learners in such a diversity-able group, pedagogy of inclusivity and policies around inclusive education”.*

### **5.3 Development of OERs**

The National Education Policy 2020 has given a fillip to inclusive education by endorsing the Rights of Persons with Disabilities Act 2016. Inclusion in schools will work only when special schools and ‘regular’ schools and teacher education institutes have a shared interest in achieving the goals of inclusive education. However, the lack of knowledge and competencies in the teachers/ teacher educators required to implement the principles of inclusive education in the classrooms serve as a significant barrier. In lieu of this lacuna existing in the domain of human resource development for inclusive education, Tata Institute of Social Sciences (TISS), Mumbai proposes to release a set of ten Open Educational Resources on the DIKSHA platform to support and guide teachers toward effectively practising inclusion.

#### **Need for the OERs**

A brief study of the resources available over the DIKSHA platform revolving around the concept of Inclusive education reveal a major focus on inclusivity through the lens of disability. The present OERs seek to go beyond disability as a predominant domain and address a wider net of social, economic, gender, linguistic, cultural lens of inclusion. More often than not, the real voices of children facing exclusion due to various barriers are missing from the wider circle of academia and the teaching community. The present OERs will seek to bridge the gap in terms of not only addressing the competencies and knowledge of the teachers but also providing them with real life examples of children facing exclusion and how the practice of inclusivity within the classrooms can go in providing equitable learning opportunities to all.

#### **Structure of the OERs**

The OERs will provide teachers with a brief overview of various policies and rights revolving around the principle of inclusion. The structure of the OERs is largely based on Philosophy and principles of inclusive education, Perspectives on disability, Diversities in learning and development, Policies and legal provisions in India, Barriers to inclusive education, Curricular

adaptations, Inclusive pedagogical strategies, UDL in practice, Assessment modifications and TPD for inclusion.

#### **5.4 Way Forward**

Going forward, the course developed by the TISS-Cognizant Foundation Chair for preparing teacher educators will be offered for MA Education and M.Ed students across the two campuses of TISS. It will be shared with other universities who are willing to offer the course as part of their M.Ed program. The two short term courses will be offered to B.Ed students, in-service teachers, IERTs and teacher educators. Where state governments show interest, the courses will be translated in regional languages to increase outreach.

The OERs developed during the project will be put up on the Government of India's DIKSHA platform for wider dissemination.

## **6. EMBRACING INCLUSIVITY**

Every child has the right to a high-quality education that respects and promotes their dignity while enabling them to reach their full potential. In the last two decades, India has adopted a number of policies and made a number of legal commitments to ensure universal access to education and the right to education for all.

In both its original and amended (1992) forms, the National Policy on Education (NPE) of 1986 mentioned inclusion of children with disabilities in mainstream schools, but there was no emphasis on inclusion. The normative framework proposed by the UN Convention on the Rights of the Child (UNCRC), the UN Convention on the Rights of Persons with Disabilities (UNCRPD), and specifically SDG 4 under Agenda 2030 of Sustainable Development Goals influenced India's steps toward fostering inclusion in schools.

To ensure that an inclusive education approach is adopted for all the students with disabilities, SSA framework emphasised that special schools will serve as resource centres for inclusive education and provide support to IE. This resource support can take the form of teacher training, the development of materials and appropriate TLMs, the provision of support services to CWSN, and so on. It also stated that intensive teacher training should be provided to regular teachers in order to sensitize them to effective classroom management of children with special needs. All training modules at SCERT, DIET and BRC level should include a suitable component on education of children with special needs. (Ministry of Human Resource Development, 2011). The RPWD 2016 Act also provides for establishment of resource centres to support educational institutions at all levels of school education. It provides for training professionals and staff in supporting inclusive education at school as well.

However, there is a massive shortage of special educators, and resource persons, and it is difficult for the resource persons to reach out to all the CWSN. To reduce this gap of vision of inclusion in the policies and their actual implementation the setting up of two Inclusive Education Resource Centre (IERC) was proposed.

### **6.1 Objective**

The goal of the IERCs is to make education inclusive for all students by taking various measures like creating inclusive resources for students, developing modules based on the Universal Design of Learning model. The purpose of the IERC was to move beyond only creating a physical space and develop an activity-oriented centre. It is envisaged that these centres will be able to support positive inclusive practices via workshops, knowledge dissemination, creation of IE modules and TLM to support teachers in practicing inclusion within their classrooms. The IERC thus focuses on teacher education and to develop sensitivity in teachers, supporting them to develop their skills on how to ensure inclusive education in their classroom. To take this vision of the IERCs to develop the capacities in teachers, TISS has collaborated with two teacher education institutes - Avinashilingam University, Coimbatore and National Institute for Empowerment of Persons with Multiple Disabilities, Chennai. Further, considering the pandemic situation and the ensuing lockdown for extended periods, TISS with support from The Gateway School of Mumbai is setting up a Virtual IERC. The section below discusses the work undertaken with regard to the IERCs so far.

## **6.2 Collaboration with ALU and NIEPMD**

The collaboration with these two Institutes was done based on an RfP. After the two institutes responded to the RfP, a brief study of the institutes and interactions with faculty of both institutions were held. In addition to the two rounds of consultation meetings with the team leading the initiative in both the institutions, focussed group discussions with ‘regular’ and special educators from schools that these institutions cater to were held, to chart out the overall plan for IERC.

## **6.3 Focused Group Discussions**

To get an insight about the teachers’ understanding of the concept of Inclusive education, Focus Group Discussions were conducted with teachers in the first week of July. These teachers were invited by ALU and NIEPMD. Some of the questions asked in the FGD were:

- What does inclusive education mean to you? Would you describe your school/college as inclusive? How?

- What are key competencies that a teacher needs to teach a child with disabilities in an inclusive classroom? Would you say that your pre-service/in-service program prepared you with these competences? Why/why not?
- Have you had the opportunity to teach a child with a disability in an inclusive set up? If yes please share: two instances that gave you satisfaction as a teacher, two key challenges you faced. How do you address these challenges? What support do you receive from your institute/department?
- What kind of resources do you need to support your teaching? Please elaborate.
- Do you think an Educational Resource Centre will be of use to you? If yes, then how do you think it can support your work as teachers/teacher educators?

On the basis of teachers' responses, it was understood that the teachers (invited by the partnering institutions) are interested in inclusive education, some of the teachers are even using inclusive pedagogy in their schools. The teachers are supported by school administration as well; however, they need support on how to develop positive behaviour in students, especially children without disabilities. Teachers also need support in making the pedagogy and classroom environment more inclusive. For this purpose, it was proposed by Avinashilingam University to develop modules that are subject specific (English, Mathematics) and for behavioural support. It was also decided that Avinashilingam University will conduct a survey with parents about access to technology and the internet.

The teachers invited by NIEPMD also wanted to know how to bring in more inclusive pedagogy, however they also wanted to focus on the role of parents in supporting children, especially as the schools were closed during the pandemic. The NIEPMD team shared that they have resources and research learnings from previous projects on inclusive education for foundational literacy and numeracy which they will build on to support teachers' needs for practising inclusion.

Drawing on the findings from the interactions with the faculty of the two institutes and the FGDs, a Design Thinking Workshop was organised.

## **6.4 Design Thinking Workshops**

For building the understanding on how to make the UDL-integrated modules, a Design thinking workshop was planned to be conducted with the collaborating institutions, in a series of 4 sessions. The sessions were facilitated by faculty of TISS and the Gateway School of Mumbai. Faculty from ALU and NIEPMD actively participated in these sessions. These sessions focused on developing lessons based upon the Universal Design of learning model, using different inclusive resources in the classroom while keeping in mind the Design Thinking approach which focuses on creating meaningful, implementable, and contextual solutions to problems.

After the two sessions, a design thinking template and UDL-integrated sample module (in alignment in PPPA design) was shared with ALU and NIEPMD.

### **6.5 Mumbai Workshops**

In a follow up to the Design Thinking workshops conducted in the virtual mode, the teams from ALU and NIEPMD visited TISS Mumbai as part of a 2-day exposure visit and workshop held from 22 and 23 March 2022. Taking forward the vision of an activity-oriented IERC the teams from the two Institutes explored the Educational Resource Centre (ERC) at CETE, TISS Mumbai and were explained the principles on the basis of which the award-winning CLIX modules have been developed. The teams had an opportunity to explore the Open Education Resources (OER) developed by the centre. They were also introduced to various online resources and applications that can be used by teachers in their teaching to enhance the inclusive teaching learning practice and students' experiences. A visit to the TISS library, The Gateway School of Mumbai and Homi Bhabha Centre for Science Education (HBCSE) gave the team an opportunity to understand the use of materials and resources that can support IE practices in schools. The team worked on completing the FLN modules for primary school teachers for inclusive teaching. During this workshop the team was also supported to plan the development of IE modules based on the Early Literacy modules developed by the TISS-Azim Premji School of Education and published by Ekalavya. The next steps for a potential phase two such as creating the outline and proposal for Action Research were also discussed.

### **6.6 Virtual IERC (vIERC)**

The virtual IERC intends to bring in elements of supporting teacher education and the school community as a whole. The virtual IERC has been created as a space where professionals, especially general and special education teachers, can come together to understand the diversity of the students and collaborate to develop/suggest relevant curriculum and instruction processes that can be adapted to cater to the diversity. School admins, parents can also access various OERs to ensure inclusion. The virtual IERC website developed by CETE and The Gateway school of Mumbai hosts interactive features like discussion forums, space for teachers to upload resources, intended to bring in the experiences and resources developed from those experiences from the ground into the collaborative virtual space. The virtual IERC website was launched in the month of December. A virtual event was held on 21<sup>st</sup> December, 2021 in conjunction with the Director, Cognizant Foundation wherein the initial findings and contributions of the project were shared in addition to hosting a panel discussion for critical review of the first draft of the competency framework from the perspectives of policy, institutional and policy level support for inclusion of children with disabilities.

The web-site has been created to:

- Link across the two physical IERCs
- Use TISSx platform, which is open source and tailored to meet needs of educational institutions
- Strive to provide equitable use so as to be accessible to people with diverse abilities
- Provide flexibility in use by means of accommodating to a range of user preference and abilities, providing choice in methods of use and adaptability to the user's pace
- Ensure simple and intuitive use by keeping the web-site user-friendly and eliminating unnecessary navigational complexities
- Share perceptible information by conveying necessary information to the user regardless of her/his sensory abilities

- require low physical effort for maintenance through a one-time investment on efficient and comfortable design that minimises the need of sustained physical effort or repetitive actions.

The vIERC can support teachers in developing their knowledge, skills and dispositions to practice IE. It will also provide teachers with inputs on creating TLM, worksheets etc to use in their classrooms.

## **6.7 Report of work done on IERC by the partner institutions**

### **Report from ALU**

During the month of August, ALU conducted a 3-day workshop with 200 teachers on UDL and its integration in teaching-learning assessment. As a follow-up on the workshop, it was decided by ALU and TISS that a discussion will be scheduled and the same was organized at the TISS campus on 22<sup>nd</sup> and 23<sup>rd</sup>, March, 2022. The workshop was held to:

- a) Assess the scope of mentoring the teachers who took part in the workshop
- b) Share the existing modules and resources for teacher training and support with respect to inclusive education
- c) Discuss the plan the scope of Action Research

### **Report from NIEPMD**

1. NIEPMD entered into MoU with two primary schools for implementation of project components.
2. Screening tools for identifying children at risk for disabilities at inclusive schools were used.
3. Integration of the existing template of lesson planning within the design thinking template was attempted by the student teachers along with creating teaching learning resources.

Over the next two years, we will continue to strengthen the inclusive education resource centres and document their impact. A draft handbook has been prepared to substantiate the role

of IERCs and capture the processes of setting up a vibrant IERC. This can serve as a model and resource for special education institutes across the country to function as inclusive education resource centres as envisaged in the *Samagra Shiksha* plan.

## 7. LEARNINGS FROM THE PROJECT

The Project CLear focused upon several components of Inclusive education concerning the lacuna existing in the space of human resource development for IE. Some of the major learnings from the project include:

- Inclusive Education as a concept and practice is missing significantly from the Indian classrooms today, a major reason behind this is the inadequate teacher preparation and the development of teacher competencies for IE. Through the development of a teacher competency framework to critically analyse the teacher education curriculum it was seen that the pre-service teacher education curriculum largely focuses upon the theoretical and pedagogical aspects of inclusivity, and there is very little space allocated towards cultivating the dispositions, attitudes and values required for creating an inclusive classroom.
- Through the survey and FGDs conducted it could be seen that there is a clear gap between the regular and special education teachers, and a majority of the teacher educators and student teachers echoed the need for a synergy between regular and special education teachers. Recognizing the importance of the preparation in teacher education, a significant number of participants reiterated that in order to make inclusive education a reality, the need to recognize it as a combined responsibility is first and foremost, which further requires a high quality and holistic teacher education.
- The literature review revealed a significant dearth of empirical research in the Indian context and existing reports indicate a lack of support being provided to teachers for practicing inclusion.
- It was also seen during the course of this project that there are no programmes or courses being offered in the Indian universities to prepare teacher educators for inclusion. Insufficient teacher educators working in the inclusive education space is detrimental to the implementation of the inclusive education practices.
- The compulsory inclusive education course in pre-service teacher education programmes has adequately represented the knowledge domain but does not adequately address

developing dispositions and very little on developing skills for practice. Nevertheless, the survey indicates that a majority of student teachers are favourably disposed towards inclusion, but unsure about how to practice inclusion.

Going forward, our proposed next steps include offering the advanced specialisation course in inclusive education to prepare future teacher educators with understanding and skills to adopt inclusive practices themselves and train other teachers to do so. With respect to the in-service teacher education component, the IE course will be rolled out to student teachers as an additional certification, while we continue to offer the Post Graduate Certificate course over the TISSx platform for teachers and teacher educators. The Open Educational Resources will be released on the DIKSHA platform for wider outreach. A set of case studies on inclusive practices of schools to inform teacher education will be prepared. The physical and the virtual IERC will continue to be strengthened and documented.

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## APPENDICES

### **Appendix 1: The Inclusive Education Classroom Observation Scale (IECOS)**

The Inclusive Education Classroom Observation Scale (IECOS) was conceptualized as a means to operationalize competencies identified through the framework. It can serve as a reflection tool for teachers or as a coaching tool for mentors. When developing the IECOS, we reviewed several observation scales to determine what best to include. Of particular interest was the TEACH scale, a tool developed by the World Bank Group (2019) and validated in countries with profiles similar to India. TEACH is available at no cost online and users are permitted to modify the tool as needed. TEACH was developed for observation of general classrooms and not as an inclusive observation scale.

We therefore adapted the tool to incorporate elements of inclusive education. We drew from inclusive education scales developed by Jordan and colleagues (2014), Morningstar and colleagues (2015), and Sharma and Sokal (2016). Each item on the scale maps to the competency framework, ensuring the scale captures the essence of the competency framework in observable terms (see Appendix A). Three experts in the field validated the tool, ensuring that it covered all relevant areas and was contextualized to the Indian education system while retaining the integrity of the original scale as much as possible.

IECOS can be used as a teacher reflection and coaching tool. As part of the project, we piloted the tool with inclusive classroom teachers. See Appendix B for an example of one case. A first-grade teacher recorded her class and then rated herself against indicators along with her coaches. After reviewing her reflection, together, they identified strengths of her classroom teaching, and areas she could continue to work on to build a more inclusive classroom. The teacher and coach identified several areas of strengths, including how the teacher moved between languages to differentiate for different students, how she involved the parents as a support, and made lessons more practical and concrete by connecting concepts to everyday experiences of the students. The teacher and coach identified student engagement as an area to focus on including building in group responses, incorporating partner work, and giving more students opportunities to respond. Such reflections enable a teacher to build on their existing practices, gradually incorporating more strategies that support inclusive classrooms.

## **Appendix 2 Specialization courses**

The advanced specialisation for MAE and M.Ed. programs will have two sets of courses -

1. Introduction to Inclusive Education course of 4 credits. This course is about recognizing the fallacy of the norm (Is anyone “normal”?) and getting to know people with disabilities as human beings, as family members, as friends. It is about recognizing and cherishing the infinite variety and difference every student brings to the classroom, in terms of individual characteristics, family values and culture, and past experiences. Through videos, observations of classrooms and other educational settings, large and small group discussions, we will learn about the significance of our attitudes, behaviour and assumptions towards disability and students with differences. This is also known as disability studies and the social model. This course focuses on how the educational, behavioural, social, ecological, transitional, and vocational needs of a variety of learners can be addressed in general education settings. Personal, family, school, community and environmental factors related to students’ academic, physical, emotional and social well-being are discussed, alongside a critical understanding of policies and laws.

2. The second course on the Practice of Inclusive Education is also of 4 credits. It emphasizes a strengths or assets-based focus for assessing students and learning about students’ and families’ funds of knowledge. It underscores the role of teachers and other school personnel in facilitating these attitudinal changes and in designing and implementing inclusive environments. This course also focuses on how the educational, behavioural, social, ecological, transitional, and vocational needs of a variety of learners can be addressed in general education settings. It covers a multiplicity of class-wide strategies and techniques recommended for integrated service delivery for individuals with special needs in general education and in local communities. Assignments will be completed in class and in field placements.

### **Course outcomes:**

1. Apply knowledge of students, including their prior experiences, interests, and social-emotional learning needs, as well as their funds of knowledge and cultural, language, and socioeconomic backgrounds, to engage them in learning.

2. Use knowledge about students and learning goals to organize curriculum to facilitate student understanding of subject matter, and make class-wide accommodations and/or modifications as needed to promote student access to the curriculum.
3. Design inclusive environments with class-wide curricular and pedagogical modifications for a variety of learners
4. Apply theories of learning, instruction, and motivation relating to the cognitive, linguistic, social, emotional, physical, and moral development of all learners, evidenced by developmentally appropriate and challenging learning experiences implemented in an inclusive learning environment.
5. Incorporate assessment and technology in their planning and instructional strategies as a means of obtaining continual feedback used to improve student learning, classroom management strategies, and pedagogical approaches
6. Utilize and generate meaningful research on pedagogical practices, student learning, and educational issues and policies to actively investigate and consider new ideas that will improve teaching and learning and advance the profession.
7. Explore effective approaches for creating inclusive learning environments that are welcoming and accepting of diverse learners and students with learning differences who, because of gender, language, cultural background, differing ability levels, disabilities, learning approaches, and/or socioeconomic status may have academic needs that require varied instructional strategies to ensure their learning.
8. Engage in critical reflection on how their own frames of reference and potential biases impact expectations for and relationships with learners and their families.

**Assignments:** This course has several in-class assignments where students can work in pairs or small groups. In addition, students will apply their learning to assignments conducted within their field placement.

### **Appendix 3: Certificate Course on Inclusive Education**

#### **Course structure and topics -**

Credits: A 2-credit course

Mode of Delivery: Online

Duration: 8 weeks

Participant Engagement Process:

- Self-study, online sessions & submission of an assignment in completion of the course
- Reading material and practice work for self-reflection will be made available online on TISSx platform
- Assessment is based on participation in the online sessions and the written assignment

The topics covered during the course are as follows:

- Unit 1: Diversity and inclusion: Philosophy & Policy  
Classroom diversity and learners - contexts, needs and agency  
Inclusive education - policy and practical implications  
Ableism - Introduction, Assessment & Curricular implications  
Models of disability and ableism  
Rights of persons with disabilities
- Unit 2: Inclusive Education: Principles and Practice  
Introduction to UDL principles  
An inclusive teacher  
Community of practice  
Inclusive Education Resource Centre

## Appendix 4 : Snap shot of vIERC

The screenshot shows a Google Slides presentation titled "IERC" with the text "All changes saved in Drive". The first slide features a photograph of a man in a red shirt and a young child looking at a map on a table. The text on this slide reads: "To empower children at home. Parents, begin here.". The second slide features a photograph of four young adults smiling together. The text on this slide reads: "To build yourself up to stand out. Young Adults, begin here.". The Windows taskbar at the bottom shows the search bar, system tray with a temperature of 31°C, and various application icons.

The screenshot shows a Google Slides presentation titled "IERC" with the text "All changes saved in Drive". The third slide features a photograph of a woman in a green shirt pointing at a chalkboard filled with mathematical formulas, including "AREA = LENGTH x BREADTH" and algebraic equations. The text on this slide reads: "To support every student's needs. Educators, begin here.". The fourth slide features a photograph of a person's hands holding a blue spiral notebook. The text on this slide reads: "To make a school-wide impact. Organizations, begin here.". The Windows taskbar at the bottom shows the search bar, system tray, and various application icons.





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