

ACCESSIBILITY GUIDELINES FOR TEACHER EDUCATION INSTITUTIONS





Message

It gives me immense pleasure to share with you the Accessibility Guidelines for Teacher Education Institutions. These comprehensive guidelines include aspects related to Accessibility of Infrastructure, Accessibility of Content and Training of teachers. The National Education Policy 2020 is committed to ensure inclusive and equitable quality education and promoting lifelong learning opportunities. In consonance with the RPwD Act 2016, it states that children with benchmark disabilities shall have the choice of regular or special school. It recommends that adequate infrastructural facilities should be provided to ensure a safe and inclusive learning environment for persons with disability.

Accessibility Guidelines for Teacher Education Institutions will be a guiding document to provide inclusive education in Teacher Education Institutions. There is a dire need to make teacher education accessible to persons with disabilities and reorient itself to make it more inclusive for all types of teachers. This will be an added boon to ensure inclusive education at schools and Teacher Education Institutes. Teachers are the ones who truly shape the future of our nations; therefore, they are put at the center of the educational reforms by NEP 2020.

The National Council for Teacher Education emphasizes Quality and Inclusive Practices in Teacher Education. These guidelines, in its First Chapter, provide insights into policy perspective in the context of inclusive education and guideline for inclusive teacher education. The Second Chapter is about Inclusive and Accessible Infrastructure. This includes a guideline for accessibility to the physical environment. It also gives recommendations for library facilities, classroom infrastructure, hostel accommodation facility, inclusive campus and administrative spaces. Chapter Three is all about making an inclusive teacher education curriculum and provides guidelines for the accessibility of content, adaptation of the curriculum and assessment of teaching and learning. Digital inclusive education guidelines and ICT accessibility is provided. In the last Chapter Four is laid down the Principles and Guidelines related to Universal Design for Learning made by National Council for Teacher Education.

(Prof. Dinesh Prasad Saklani)
Chairperson, NCTE



Message

I am happy to inform you that NCTE is bringing out its Comprehensive Accessibility Guidelines for Teacher Education Institutions. As per National Education Policy 2020, the global educational development agenda reflected in Goal 4 of the 2030 Agenda for Sustainable Development seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The NEP 2020 especially emphasizes that the teachers must be at the center of the fundamental reforms in the education system to support and foster learning for all.

When we discuss diversity in education, it can only be understood in the context of Inclusion. It is the diversity that brings in the advocacy for equality and justice for each person in the group irrespective of abilities, disabilities, religion, caste, class and so on.

It is important to recognize learner diversity with respect to cultural/linguistic backgrounds/learning styles for teachers and what becomes necessary is to value each culture and also include the prior experiences and knowledge the learner brings from the respective culture and linguistic backgrounds in the classroom. The environment should be flexible enough to include all children irrespective of diverse contexts.

According to Mel Ainscow, there can be no quality education without being inclusive and responsive to diverse learning and other aspects of differences. Inclusive education is a model of quality education for all and developing a positive attitude towards acceptance, respect and celebrating the diversity which adds value to the education for all. Inclusive education is based on the belief that education makes a powerful contribution to the social construct of an inclusive community and society.

The National Council for Teacher Education aims at improving the participation and learning experience of prospective teachers by reflecting the needs of teachers to be equipped with 21st century skills and educational needs of SEDGs which includes gender identities, socio-cultural identities, geographical identities, disability, language and socio-economic conditions.

NCTE acknowledges the contribution of Shri Abhimanyu Yadav, Section Officer NCTE and Ms. Harshita, Academic Consultant NCTE, along with all sub-committee members for their valuable inputs in framing of these guidelines.

(Ms. Kesang Y. Sherpa IRS)
Member Secretary NCTE



Preamble

The National Council for Teacher Education has come up with various initiatives to revamp Teacher Education such as ITEP, NMM and NPST. NCTE has developed these guidelines to ensure equal participation of persons with disabilities in Teacher Education Institutions.

An expert sub-committee was constituted under the Chairpersonship of Ms. Kesang Y. Sherpa IRS, Member Secretary, National Council for Teacher Education, New Delhi on 14th March 2022 to look into the recommendations made by Javed Abidi Foundation before the Hon'ble Supreme Court in the matter of W.P. (C) No. 600/2021 and suggest recommendations to provide inclusive digital education in compliance with the directions of the Inter-Ministerial Meeting in this regard.

The objective of this expert sub-committee was to provide technical inputs on disability-specific issues and more importantly to recommend interventions in creating accessible environments/systems related to the digital education process in the field of Teacher Education. Most of the suggestions made by Javed Abidi Foundations have been covered in the recommendations of the committee.

The National Education Policy 2020, approved by the Union Cabinet of India on 29th July 2020, also talks about making the teaching-learning process more and more inclusive in several instances throughout the policy document: -

Para 6.14. “The awareness and knowledge of how to teach children with specific disabilities (including learning disabilities) will be an integral part of all teacher education programmes, along with gender sensitization and sensitization towards all underrepresented groups in order to reverse their underrepresentation.”

Table of Content

S. No.	Tittle	Page No.
1.	1. Accessibility in Teacher Education Institutions: An Introduction 1.1 Introduction to Inclusive Policy Perspective 1.2 Making Teacher Education Inclusive 1.3 Teacher Education Institutions to ensure accessibility	1 – 6
2.	2. Inclusive and Accessible Infrastructure 2.1 Guidelines for accessibility of Physical Environment 2.2 Infrastructure 2.3 Library Facilities 2.4 Classroom Infrastructure 2.5 Hostel & Accommodation Facility 2.6 Accessible Signage in the Campus/Buildings 2.7 Administrative Spaces	7 – 13
3.	3. Guidelines for Inclusive Teacher Education Curriculum 3.1 Understanding Curriculum from an Inclusive perspective 3.2 Guidelines for Delivering Accessible Curriculum 3.3 Guidelines for Adaptation of the curriculum 3.4 Assessment for Teaching and Learning 3.5 Digital Inclusive Education	14 – 23
4.	4. Universal Design for Learning 4.1 Universal Design for Learning and Principles 4.2 Implementation of UDL in Classroom 4.3 Guidelines for Universal Design for Learning 4.4 Role of Teachers	24 – 32
5.	Annexure Suggestive checklist for monitoring and evaluation	33 – 47

LIST OF ABBREVIATIONS

CWSN	:	Children with Special Needs
DI	:	Differentiated Instructions
ICT	:	Information and Communication Technology
ITEP	:	Integrated Teacher Education Programme
NCTE	:	National Council for Teacher Education
NEP	:	National Education Policy
NMM	:	National Mission for Mentoring
NPST	:	National Professional Standards for Teachers
PwD	:	Persons with Disability
RPwD	:	Rights of Persons with Disability
SEDG	:	Socio- Economically Disadvantaged Groups
SDG	:	Sustainable Developmental Goal
TEI	:	Teacher Education Institution
UDL	:	Universal Design for Learning
UNESCO	:	United Nations Educational, Scientific and Cultural Organization



CHAPTER 1:

ACCESSIBILITY IN TEACHER EDUCATION INSTITUTIONS: AN INTRODUCTION



Chapter - 1

1. Accessibility in Teacher Education Institutions: An Introduction

Teacher Education needs to play an indispensable role in developing teachers who understand and implement inclusive education in India. There is also a requirement to make teacher education accessible to persons with disabilities and to re-orient itself to make it more inclusive for all types of teachers. There have been policy recommendations to make teacher education inclusive and accessible for prospective teachers.

1.1 Introduction to Inclusive Policy Perspective

- **RPwD Act 2016**

The Rights of Persons with Disabilities (RPwD) Act 2016 defines inclusive education as a *'system of education wherein students with and without disabilities learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities.'*

In section 16 it has laid measure to ensure inclusive education, namely: -

“(a) to conduct survey of school going children in every five years for identifying children with disabilities, ascertaining their special needs and the extent to which these are being met: Provided that the first survey shall be conducted within a period of two years from the date of commencement of this Act.

(b) to establish adequate number of teacher training institutions.

(c) to train and employ teachers, including teachers with disability who are qualified in sign language and Braille and also teachers who are trained in teaching children with intellectual disability.

(d) to train professionals and staff to support inclusive education at all levels of school education.

(e) to establish adequate number of resource centres to support educational institutions at all levels of school education.

(f) to promote the use of appropriate augmentative and alternative modes including means and formats of communication, Braille and sign language to supplement the use of one's own speech to fulfill the daily communication needs of persons with speech, communication or language disabilities and enables them to participate and contribute to their community and society.

(g) to provide books, other learning materials and appropriate assistive devices to students with benchmark disabilities free of cost up to the age of eighteen years.

(h) to provide scholarships in appropriate cases to students with benchmark disability;
(i) to make suitable modifications in the curriculum and examination system to meet the needs of students with disabilities such as extra time for completion of the examination paper, facility of scribe or amanuensis, exemption from second and third language courses.

(j) to promote research to improve learning; and

(k) any other measures, as may be required.”

- **National Education Policy (2020)**

The National Education Policy 2020, approved by Union Cabinet of India on 29th July 2020, also talks about making the teaching-learning process more and more inclusive in several instances throughout the policy document: -

Para 3.3, *“Trained and qualified social workers from civil society organizations/departments of Social Justice and Empowerment and government functionaries dealing with empowerment of Persons with Disabilities at the State and district level, could be connected to schools, through various innovative mechanisms adopted by State/UT Governments, to help in carrying out this important work.”*

Para 3.3, *“Adequate and safe infrastructure, including working toilets, clean drinking water, clean and attractive spaces, electricity, computing devices, internet, libraries, and sports and recreational resources will be provided to all schools to ensure that teachers and students, including children of all genders and children with disabilities, receive a safe, inclusive, and effective learning environment and are comfortable and inspired to teach and learn in their schools.”*

Special Educators

Para 5.21. *There is an urgent need for additional special educators for certain areas of school education. Some examples of such specialist requirements include subject teaching for children with disabilities/Divyang children at the Middle and Secondary school level, including teaching for specific learning disabilities. Such teachers would require not only subject-teaching knowledge and understanding of subject-related aims of education, but also the relevant skills for understanding of special requirements of children. Therefore, such areas could be developed as secondary specializations for subject teachers or generalist teachers, during or after pre-service teacher preparation. They will be offered as certificate courses, in the pre-service as well as in-service mode, either full time or as part-time/blended courses - again, necessarily, at multidisciplinary colleges or universities. Greater synergy will be enabled between the course curriculum of NCTE and RCI to ensure adequate availability of qualified special educators who can handle subject teaching as well.”*

Para 6.10. *Ensuring the inclusion and equal participation of children with disabilities in ECCE and the schooling system will also be accorded the highest priority. Children with disabilities will be enabled to fully participate in the regular schooling process from the Foundational Stage to higher education. The Rights of Persons with Disabilities (RPWD) Act 2016 defines inclusive education as a ‘system of education wherein students with and without disabilities learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities. This Policy is in complete consonance with the provisions of the RPWD Act 2016 and endorses all its recommendations with regard to school education. While preparing the National Curriculum Framework, NCERT will ensure that consultations are held with expert bodies such as National Institutes of DEpWD.*

Para 6.11. *To this end, schools/school complexes will be provided resources for the integration of children with disabilities, recruitment of special educators with cross-disability training, and for the establishment of resource centres, wherever needed, especially for children with severe or multiple disabilities. Barrier free access for all children with disabilities will be enabled as per the RPWD Act. Different categories of children with disabilities have differing needs. Schools and school complexes will work and be supported for providing all children with disabilities accommodations and support mechanisms tailored to suit their needs and to ensure their full participation and inclusion in the classroom. In particular, assistive devices and appropriate technology-based tools, as well as adequate and language-appropriate teaching-learning materials (e.g., textbooks in accessible formats such as large print and Braille) will be made available to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers. This will apply to all school activities including arts, sports, and vocational education. NIOS will develop high-quality modules to teach Indian Sign Language and to teach other basic subjects using Indian Sign Language. Adequate attention will be paid to the safety and security of children with disabilities.*

Para 6.12. *As per the RPWD Act 2016, children with benchmark disabilities shall have the choice of regular or special schooling. Resource centres in conjunction with special educators will support the rehabilitation and educational needs of learners with severe or multiple disabilities and will assist parents/guardians in achieving high-quality homeschooling and skilling for such students as needed. Home-based education will continue to be a choice available for children with severe and profound disabilities who are unable to go to school. The children under home-based education must be treated as equal to any other child in the general system. There shall be an audit of home-based education for its efficiency and effectiveness using the principle of equity and equality of opportunity. Guidelines and standards for home-based schooling shall be developed based on this audit in line with the RPWD Act 2016. While it is clear that the education of all children with disabilities is the responsibility of the State, technology-based solutions will be used for the orientation of parents/caregivers along with wide-scale dissemination of learning materials to enable parents/caregivers to actively support their children’s learning needs will be accorded priority.*

Para 6.13. *Most classrooms have children with specific learning disabilities who need continuous support. Research is clear that the earlier such support begins, the better the chances of progress. Teachers must be helped to identify such learning disabilities early and plan specifically for their mitigation. Specific actions will include the use of appropriate technology allowing and enabling children to work at their own pace, with flexible curricula to leverage each child's strengths, and creating an ecosystem for appropriate assessment and certification. Assessment and certification agencies, including the proposed new National Assessment Centre, PARAKH, will formulate guidelines and recommend appropriate tools for conducting such assessments, from the foundational stage to higher education (including entrance exams), in order to ensure equitable access and opportunities for all students with learning disabilities.*

Para 6.14. *The awareness and knowledge of how to teach children with specific disabilities (including learning disabilities) will be an integral part of all teacher education programmes, along with gender sensitization and sensitization towards all underrepresented groups in order to reverse their underrepresentation.”*

1.2 Making Teacher Education Inclusive¹

UNESCO Asia-Pacific Regional Bureau for Education has advocated inclusive teacher education and mentions its benefits. There are important benefits to more comprehensively incorporating inclusive education into pre-service teacher education. For instance:

“• Inclusive education can be used as a framework to better align and strengthen the complementary relationship between pre-service and in-service teacher education.

• It is more cost-effective and efficient to educate teachers about inclusive education before they start work than to invest in efforts to change their attitudes/practices later on. However, in-service teacher education will be necessary for updating or supplementing teachers' learning on inclusive education, sharing of experiences, valuing teachers as lifelong learners, etc.

• Pre-service teacher education for inclusive education increases the likelihood that a greater number of schools and classrooms will become more inclusive, as more teachers will have been prepared for inclusive education (pre-service teacher education has the potential to reach more student teachers, in greater depth, than in-service teacher education).

¹ UNESCO (2013) *Promoting Inclusive Teacher Education*.

• *If teachers experience inclusive education from day one of their teacher education, they are more likely to see it as their basic duty as a good teacher, not as an extra burden.*

• *There are long-term benefits of educating potential future school leaders in inclusive education so that inclusive education is increasingly valued, embedded, and developed in schools and society. (UNESCO 2013, P 7)*

In-service teacher education offers vital opportunities for developing inclusive learning and practices. Indeed, inclusive education should be a focus of in-service teacher education, not only because teachers' inclusive practices benefit from ongoing professional support, but also because many existing teachers have little or no experience of inclusive education.” (UNESCO 2013, P 7)

1.3 Teacher Education Institutions to ensure accessibility

- a) The Teacher Education institutions are directed to provide short-term courses on various disability including teaching and learning of Braille wherein expertise of blind teachers working in schools should be consulted in developing an effective and meaningful teaching module.
- b) NCTE, through its National Mission for Mentoring, provides an opportunity for school teachers to leverage cross-learning and technical support on disability-specific issues and the potential mentors will contribute towards realizing the SDG4 for our nation.
- c) While developing the competencies in the NPST document, the NPST Committee may also consider the competencies that would have to be assessed differently in case of teachers with specific disability.
- d) Teacher Education Institutions will put in the structure of having a compulsory internship in inclusive/special schools. This will create in teachers a better understanding of CWSN and will create a more empathetic relationship with them.
- e) NCTE is working on sensitizing the pre-service teachers (ITEP) on inclusive education by incorporating 4 credit courses on Inclusive Education and a 3-credit course on Emerging Technology in Education for Digital Interventions.
- f) To sensitize the teachers about the 21 types of disability/ cross-disability for early identification and prevention through a short course in all Teacher Education Curriculum by collaborating with experts in the field.
- g) Teacher Education Institutions should emphasize how to develop e-content which can be used as a supplement to enhance learning and not as an alternative to the learners' education.

- h) It is recommended that in the process of recruitment of teachers, the component of disability/Inclusive education should also be a component in all stages of selection including TET, specific subjects etc.
- i) Building mechanism of support for teachers within the school complex to discuss the challenges and share strategies for accommodation and modification of curriculum to create an Inclusive Education System.
- j) Teacher Education Institutions should provide training in Augmentative and Virtual Reality.



CHAPTER 2:

INCLUSIVE AND ACCESSIBLE INFRASTRUCTURE



Chapter - 2

2. Inclusive and Accessible Infrastructure

2.1. Guidelines for Accessibility of Physical Environment

- a) The Teacher Education Institutions are directed to follow accessibility guidelines such as Barrier Free Infrastructure.
- b) The Teacher Education institutions are directed to provide support and hostel accommodation to prospective teachers and faculty with disabilities so that they can discharge their duties effectively. It is also suggested that the hostel accommodation should be on the ground floor with wheel-chair friendly toilets.
- c) The Teacher Education institutions are directed to provide support to prospective teachers with disabilities such as scribe, extra time, accessible assessment formats and modified assessments, as per individual needs.
- d) Introducing Student Toll-free Helpline number/ app for facilitating Children with disabilities. (Awareness be given in DIET, SCERT, and DDRRC)
- e) Teacher Education curriculum prospectus on the website must include Indian Sign Language interpretation of the admission process for facilitating hearing impairment students.

2.2. Infrastructure

Planning of Infrastructure in TEIs and their campuses involves the overall planning of educational environments which needs to sensitively respond to a human-centric approach incorporating the principles of universal design from the beginning itself. Universal accessibility needs to start from the point of campus entrance to the total experience of being on campus and in every facet of it - be it mobility, learning, recreation or any other form of activity. For accessibility of built infrastructure, the standards provided under Rule 15 of the RPwD Rules along with the National Building Code (as updated from time to time) shall be followed. It shall be mandatory for TEIs, universities and colleges to build environment accessibility standards, as above, for recognition from NCTE.

A wide range of elements require designing and planning for accessibility through site planning. Some of them include curbs, curb ramps, sidewalks, open spaces, walkways, parking, levels, signage and campus maps, street crossings, street furniture, tactile pathways, public washrooms, drinking water etc. Harmonized Guidelines and Standards for Universal

Accessibility in India, 2021 may be followed to understand the various accessibility aspects of these elements.

Academic purpose infrastructure extending into other learning spaces as an integrated whole shall be made universally accessible, focusing on spaces like classrooms, lecture theaters, seminar rooms, tutorial rooms, laboratories of all kinds along with all interactive spaces (both indoor and outdoor) across TEIs. The academic spaces shall provide easy access to different levels in the built environment through ramps and lifts and sufficient circulation spaces to maneuver and turn for people using mobility devices or assistive technologies and equipment such as walkers, wheelchairs etc. Various controls should be provided at reachable heights and seating, working and learning tables providing knee clearances of 680-700 mm, and space for approach and use of 900 mm x 1350 mm.

2.3. Library Facilities

The teaching boards shall be preferably with an adjustable height feature or low height so that a teaching faculty using a wheelchair or one with a short stature could also easily use it. Raised Platforms for faculty should be avoided, where possible, and safe and convenient ramped access provided, where unavoidable. The seating in the class should be designed to accommodate students of varied learning styles and abilities. It should be ensured that there is adequate maneuvering space for wheelchairs in the aisles of the classroom.

A typical wheelchair turning diameter is assumed to be in the range of 1500 to 1800 mm for all general purposes of spatial planning. The library and knowledge resource centers shall ensure access for all. This involves having accessible entrance features along with other aspects of the library facilities and equipment should be accessible, and all open book stacks should be placed at or able to be pulled down to accessible heights for persons with disabilities. Aisle spaces shall ensure wheelchair maneuverability in library spaces. Inclusive infrastructure and spatial arrangements should be made for people with hearing and vision disabilities who need assistance while reading. Wherever library infrastructure poses limitations to reasonable accommodations, it needs to be ensured that library services are then rendered to the students /persons with disabilities.

2.4. Classroom Infrastructure

Classroom Acoustics Hearing and understanding are important parts of the learning process. A noisy classroom or a learning environment can make these tasks difficult. The class design should incorporate elements to ensure that the background noise can be kept to a minimum to facilitate the teaching-learning. Students with hearing disabilities can struggle even in rooms with the best acoustics. A good acoustic environment in classrooms requires to be created through:

- (a) Architectural design of classroom
- (b) Use of appropriate materials for indoor surface treatment (preferably sound absorbing materials like soft boards, etc.).
- (c) Use of appropriate technologies for sound emission, like speaker systems, microphones etc. especially for large classrooms or lecture theaters.

To ensure the inclusion of persons with hearing impairments in classrooms, TEIs should therefore, install and provide for:

- (a) Appropriate state-of-the-art technologies to augment hearing loss e.g. Loop Induction Systems, Digital Interfaces with transcriptions, Speech to Text translations etc.
- (b) Sign Language Interpretation for all activities academic or non- academic in learning spaces like classrooms, laboratories, auditoriums, meeting halls, conference rooms etc.

Vertical Circulation in TEIs shall ensure that all buildings including their different floors that are open to use by faculty, staff, or student teachers are accessible through ramp/lifts and all level changes are addressed for universal accessibility. For vertical rise or level difference up to 150 mm, curb ramps or slope ramps without the need of handrails will be provided. For level differences over 150 mm, ramps shall accompany handrails on both sides at two levels (700mm, 900mm) that provide the continuous grip/ hold during the entire incline including at landings. Many ambulant persons with disabilities negotiate steps more easily and safely. Hence, it is preferable to provide accessibility by both steps and ramps. Where the horizontal run of the approach ramp exceeds 9000 mm length, an alternative stepped approach, in addition to the ramp approach, should be provided for people with ambulatory disabilities. The ramp gradients (ranging between 1:12 to 1:20) and width (ranging between 1200mm-1800mm) shall be in accordance with the vertical rise being addressed by the ramp, as per the approved standards. Steps/stairs provided shall have a uniform tread and riser of 300mm and 150mm respectively, with handrails on both sides at two levels to cater to people with different heights. The stair edges shall be provided with a 40mm colour contrasting band to make the level change discernible to people with vision disabilities. Tactile warning pavers shall be provided 300mm before and after the ramp/stair run.

In all TEIs, it needs to be ensured that an accessible unisex toilet is made available at all strategic locations wherever the washrooms for both genders are also made available. Accessible toilets should always be signposted with international signage of accessibility. The accessible toilets and others shall follow the Harmonized Guidelines and Standards for Universal Accessibility in India, 2021 for the same. Further, it needs to be ensured that persons with sensory disabilities (visual or hearing), persons with neuro diverse conditions and several other disabilities may also require to use the general washrooms with adaptive features like low height washbasin, low height urinal with grab rails, adapted Indian with grab rails and other supporting features including baby changing stations. Independent entry and door opening

outside should be provided at all locations where general toilets are provided. The unisex toilet should be designed to also meet the needs of persons with high support needs and those with multiple disabilities. It is recommended to use double action doors which can open in both directions especially for the accessible unisex toilets. In the single-sex toilets (male and female), one toilet cubicle meeting the requirements for ambulant disabled users should be provided (with an internal dimension of 900mm x 1500mm) with a door opening outside.

2.5. Hostel & Accommodation Facility



2.5.1. Creating a climate of inclusion

Students residing in inclusive campus must ensure the participation of civic and community engagement in the inclusive environment. Creating environment which can be easily accessible for Persons with Disabilities must include adequate space in the campus, easily accessible to roads and other amenities in the campus. Proper signboard embedded titles, for Visual Impairment students will be more helpful for inclusive environment.

The TEIs should incorporate accessibility based on universal design in the campus residential accommodation and hostels such as step-free entrance, wider doors, accessible toilets, lowered controls. Existing accommodation should be made accessible by retro-fitting and preference be given to allot ground floor accommodation to persons with disabilities on the campus.

Accommodation facility for faculty and students with disabilities should have ramp, curb facilities in the housing unit. Car Parking, Playground, Common Public Stations should

have adequate space as per **Rule 15 of the RPWD Rules along with the National Building Code (as updated from time to time)**.

2.5.2. Guiding Principles for an Inclusive Campus

Each TEI should adopt and declare guiding principles of inclusion that promote equity, access, opportunity and the rights of persons with disability in teacher education and contribute to reducing discrimination against them.

The TEIs should be guided by the principle that all persons who experience disability have:

- the right to access and participate in education.
- the ability to learn.
- the right to exercise their voice, choice and control in managing their own educational experiences.
- the right to develop to their fullest potential and to be active valued citizens in the community.
- the right to an appropriate and adequate allocation of resources to enable their right to access and participate meaningfully in education.
- the right to be safe – physically, emotionally, culturally and socially and to be treated respectfully.

2.6. Accessible Signage in the campus/buildings



People need clear information about the purpose and layout of spaces to maintain a sense of direction and independent use of a building. Often visual and tactile information is reinforced by audible information. Information may take the form of visual information e.g. signs, notice boards, audible information e.g. public address and security systems, induction loops, telephones and infrared devices or tactile information e.g. signs with embossed lettering or Braille).

To enhance orientation and way finding on campus, all TEIs should get a signage audit done for their campus covering the following areas:

- a. the location, accessibility, layout and height of signs.
- b. the type of fonts, size of lettering, symbols and their reading distances.
- c. the use of tactile letters and symbols and Braille.
- d. visual contrast and lighting/signage illumination.
- e. the finished surfaces of materials used for signs and symbols.
- f. the simultaneous use of audible cues.
- g. integration with any other communication systems.
- h. tactile maps and models for orientation.

The International Symbol of Accessibility must be displayed at all accessible entrances. If an entrance is not accessible, directions to an accessible route, including the symbol, must be provided. Similar guidelines refer to elevators, evacuation and refuge areas, restrooms and bathing facilities etc. Tactile maps or models should be provided to help the visual disabilities users who may be unable to read signs and people with hearing disabilities who may not be able to understand verbal directions for navigating around a building. The signage material should be non-reflective, preferably a matt finish. It should have a non-glary and non-glossy surface. Natural and artificial light should be such so as not to produce a glare on the signage surface. The material of all signage should be chosen to reduce wear and tear and possible damage by vandalism and at the same time easy to maintain.

2.7. Administrative Spaces

The administrative spaces in the TEIs should also be accessible to Persons with Disabilities. Means of access through step-free entrances or through ramps and /or lifts complying with the gradients and specifications should be made. Accessible reception counters along with assistance and accessible seating and desks should be provided in administrative offices, among other things. Further, offices of administrative staff shall also ensure accessibility through doorways, maneuvering spaces, furniture types etc. besides sensitivity to administrative staff towards persons with disabilities and others with diverse needs.



CHAPTER 3:

GUIDELINES FOR INCLUSIVE TEACHER EDUCATION CURRICULUM



Chapter - 3

3. Guidelines for Inclusive Teacher Education Curriculum

3.1. Understanding curriculum from an Inclusive perspective

"Education is the most powerful weapon which you can use to change the world" - Nelson Mandela

Inclusion has been defined as *"The acceptance of all pupils within the mainstream education system, taught within a common framework, and identified as the responsibility of all teachers."* (Thomas, 2003)²

"Inclusive education means the education of all students, where all students are equal participants in the learning process. The provision of inclusive education involving students with disabilities is based on the principle that those PwD should not have to depend on specialized services alone, to benefit from educational resources, activities, and practices that are otherwise available to them. Inclusivity is maintained when all members of the group are able to participate in its activities, which means, provisions made are considerate of all members and not just those from specific groups, special abilities/disabilities or needs"(NCERT, 2015)³

3.1.1 Guidelines for the Accessibility of Content

- a) A mandatory training should be provided before using e-content or platforms so that teachers are trained to use the content in accessible format using various devices and technology which leads to a holistic digitally inclusive environment and caters to the diverse needs of the learners.
- b) TEIs should follow the guidelines in Development of e-content for School and Teacher Education Version 3.0 for Inclusive digital education.
- c) TEIs must include a screen reader and other accessibility features in the website for facilitating students with visual impairment and its compatibility with assistive devices used by different categories of learners as per the guidelines of the RPwD Act.
- d) The Teachers Education programs will cater to the new school structure 5+3+3+4, grounding in innovative pedagogical strategies such as using Digital pedagogical

² Thomas. G (2003), *Inclusive schools for Inclusive society*

³ National Council for Educational Research and Training, (2015) *Inclusion in Education*

tools in flipped classrooms and facilitating switching to alternative modes of learning (face-to-face, ODL, Online learning and hybrid mode).

- e) NCTE is developing guidelines for adapting the curriculum to the diverse needs of learners including gifted children.
- f) NCTE will include an appropriate module on awareness and knowledge of how to teach children with specific disabilities using alternative and compatible assistive devices (including learning disabilities) in the TEI curriculum.
- g) The TEIs are directed to provide reading materials, in accessible formats, such as Braille and large prints both as a part of digital inclusive education and physical classroom education.
- h) NCTE will include apps shortlisted by NCERT, for the training of teachers for configuration/re-configuration of such apps to suit learners' special needs, in the Teacher Education Curriculum.
- i) Special school should be given a vital role in assisting and its teachers should be consulted such as blind teachers for developing a meaningful modules and assessment of visually impaired learners.
- j) It is recommended that in the process of recruitment of teachers, the component of disability/Inclusive education should also be a component in all stages of selection including TET, specific subjects etc.

3.1.2 Accessibility guidelines that prospective teachers can opt for

- i. **Extra Time:** Additional time of 20 minutes per hour of the examination for each of the subjects is to be given, if the medical condition requires short breaks, a break of not more than 10 minutes per hour will be permitted.
- ii. **Scribes:** Candidate with certified impairments are provided with this facility. When applying for the scribe facility, the candidate should specify the language the scribe should be comfortable using.
- iii. **Additional Help:** Depending on the nature of examination, Lab assistant or reader may also be appointed to assist the candidate during the examination.
- iv. **Non-Professional support personnel:** Care givers may be required to help the candidate into the examination hall to motivate and comfort.
- v. **Use of Computers:** Candidates with the impairments (learning disability, cerebral palsy, autism) can use computers in the examination after a written request is made to the concerned authority.

3.2. Guidelines for Delivering Accessible Curriculum

The Accessible curriculum ensures Quality Education and participation for all. The NEP 2020 has placed teachers at the center of the fundamental reforms in the education system, as teachers are the backbone of any education system and truly shape our next generation. The

global educational development agenda is reflected in SDG 4 which seeks to “*ensure inclusive and equitable quality education & promote lifelong learning opportunities for all*”. Thus, this reflects that there is a need for teachers who teach and manage the classroom to understand the philosophy of inclusive education and to be sensitized and oriented to the different kinds of interventions that schools have to make in terms of infrastructure, curriculum, teaching methods and other school practices to cater the diverse needs of learners. In line with this, NCTE is working on its modalities and interventions for Digital Inclusive Education in the domain of Teacher Education.

3.2.1 Adaptation of the Curriculum

Adaptation can be defined as adjusting the assessments, materials, curriculum and classroom environment to accommodate the diverse needs of the learners, in order to achieve the teaching-learning goals and ensure the participation of all. Through Adaptation, diversity can be celebrated as a resource and not a deficit in the classroom. Adaptation of the curriculum is an ongoing process that changes the regular prescribed curriculum by modifying and accommodating it in terms of the content and delivery of instruction to cater to the needs of diverse learners. It is done to simplify and reduce the content to ensure that all learners get access to quality and meaningful learning experiences.

Adaptation can be done in the forms of Accommodations and Modifications of the content into accessible formats. For any Adaptation to be effective, the teacher should understand the following aspects of it:

- F**- Fit into the classroom environment
- L**- Lend themselves to meeting individual student needs
- O**- Optimize the understanding for each student
- W**- work well with activities planned for learners

Accommodation can be defined as changing’ **How**’ the diverse learners are learning. It occurs when teachers differentiate instructions, assessments and materials in order to create a flexible learning environment.

Modification can be defined as changing “**What**” the diverse learners are learning. It occurs when teachers modify content, instructions and assessment-related decisions in order to cater to the need for individualized learning goals and outcomes.

3.2.2 The Nine Types of Adaptations⁴

- **Input:** Adapt the way instruction is delivered to the learners by providing multiple experiences with materials such as visual aids and hands-on experience for different learning styles.
- **Output:** Adapt how the learner can respond to instruction by providing flexibility in assessing and evaluating, such as alternatives to written assignments.
- **Size of the content:** Adapt the number of items that the learner is expected to learn or complete by reducing the content to the most critical portions to ensure maximum learning for each individual.
- **Time:** Adapt the time allotted & pace differently for learning by giving frequent breaks and additional instruction time. Furthermore, reduce the number or nature of questions or give extra/extended time to complete assignments and tests.
- **Difficulty level:** Adapt the skill level and problem type by understanding the limitations and difficulty level of a learner, provide support and appropriate aids on how the learner may approach the work to reduce the difficulty to ensure maximum learning.
- **Participation:** Adapt and ensure that activities done in the classroom must ensure active and equal participation of all learners.
- **Level of support:** The level of support will depend on the nature of difficulty faced by the learner in terms of physical, cognitive or sensory issues by increasing the amount of personal assistance with specific learners.
- **Alternative Goals:** Adapt the goals or objectives, though the content is the same.
- **Substitution of the curriculum:** Provide different instruction and materials to meet individual learners' goals.

3.3 Guidelines for Adaptation of the curriculum

The following principles should be considered for adapting the curriculum:

- (a) The adaptation should not change the original concept of the curriculum used because the objective of adaptation is to provide the same learning experiences to all.
- (b) For providing the same learning experiences, compensatory activities should be planned in such a way that the learner gets a holistic picture of the concepts taught in the regular classes.
- (c) The objective of the instructional material should remain the same for all learners.

⁴ Rehabilitation council of India (2018), Curriculum Accommodation and Adaptation, *Advanced Certificate in Inclusive Education (Cross Disability)*.

- (d) Modification in the instructional material should aim to facilitate maximum participation of person with disabilities (PwD) in such a way that it also motivates all learners.
- (e) Along with developing the guidelines for making e-content accessible available in the public domain, it would be important to run training programs for teachers and principals on how to use them to make materials accessible.
- (f) The contents of the education module may be prepared in consultation with the teachers and experts in the special education field so as to ensure alternative or modified curricula wherever required in an accessible format.
- (g) It is recommended that in the process of recruitment of teachers, the component of disability/Inclusive education should also be a component in all stages of selection including TET, specific subjects etc.

3.4. Assessment for Teaching and Learning:

Assessment of learning should be flexible, and it would use required accommodation, adaptations or modifications. For accommodating the diverse needs of a student, a specific tool or a device or a strategy should be used. The use of Braille, large print, screen reading devices in pedagogical subjects as well as teaching aids are a few examples that ensure equitable participation in the assessment process in teaching skills. Furthermore, adaptations or modifications are changes in the level or method of instruction that a student receives as a result of his or her specific disability. To make assessment more realistic, sufficient attention must be given. The Following methods have to be followed:

- (i) Accessible test items (Mathematics, Science, Social Science, and Language Subjects)
- (ii) Items amenable to accommodation,
- (iii) Simple, clear and intuitive instructions and procedures,
- (iv) Maximum readability and comprehension ability,
- (v) Maximum legibility.

3.4.1. Enabling Assessment Process Accessible

To make the assessment process of teaching-learning accessible, change in test procedure or material, timing, classroom setting, scheduling, teaching classroom presentation or response format is required. The use of assistive devices should be permitted and encouraged in the assessment of students with disabilities needs to consider several conditions for a realistic assessment.

If the student performs poorly due to limited accessibility, then develop the accessing skill or modify the test item. For example, assessment of pedagogical subjects may place a high burden on comprehensive and analytical skills and subsequently cause access problems due to writing difficulties rather than teaching skills.

If the student performs poorly due to inappropriate task presentation itself due to the design flaws related to an error in a test item, inconsistencies, omission or insufficient instruction, then assessment/test should have been properly vetted/ moderated for flawless design and accessibility.

If the students lack the necessary capabilities to have access to test items, then due to certain disabilities they may not be able to respond to the task. So, the students should be provided training on how to develop accessing skills.

Accessible assessment should be an integral or inbuilt feature of any assessment. For example, students with visual disabilities have access to the test using a screen reader or students can personalize their view of the questions e.g. font type, sizes or colours, or text-to-speech software can read out questions aloud. This may help students who are dyslexic or with vision disabilities to independently access the meaning of questions or accompanying resources.

3.4.2. Existing Provisions for Concessions in Examinations for Students with Disabilities

The facility of Scribe/Reader/Lab Assistant should be allowed to any persons with benchmark disabilities as defined under Section 29(r) of RPwD Act, 2016 and has limitations in writing including that of speed if so desired by him/her (Blindness, Locomotor Disability [both arms affected- BA and cerebral palsy]).

Compensatory time (i.e., extra/additional time) should not be less than 20 minutes per hour of examination for the candidates who are allowed to use Scribe/Reader/Lab Assistant.

Candidates should be allowed to use assistive devices like talking calculators in examination (in a case where calculators are allowed), tailor frame, Braille slate, abacus, geometry kit, Braille measuring tape and AAC devices like communication chart and electronic devices.

Examining body should also provide reading materials in Braille or e-text or on a computer having suitable screen reading software for open book examination. Similarly, online examination should be in accessible format i.e., websites, question papers and all other study materials should be accessible as per the international standards laid down in this regard.

Proper seating arrangements (preferably on the ground floor) should be made before the commencement of the examination to avoid confusion or distraction during the day of the examination. Examination center also should be accessible to persons with disabilities.

Persons with benchmark disabilities should be given as far as possible, the option for choosing the mode for taking an examination i.e. in Braille or the computer or in large print or even by recording the answers, as the examining bodies can easily make use of technology to convert question paper in large print, e-text, Braille, or they can also convert the Braille text in English or regional languages.

TEIs may consider further support for the candidates with disabilities to make the assessment process maximum accessible and flexible. It may be noted that the support provided or reasonable accommodation extended to a person with disabilities will be on a case-to-case

basis and will be based on the specific need of the person and not on the degree or percentage of disability of the person. This means a person who may not be a benchmark disability (above 40% disability) may be extended such reasonable accommodation/relaxation based on their specific assessed needs.

To prepare the student for the examination by giving a pre-test one or two days before the final test or to make the student confident and comfortable for an examination, there may be practice tests in pairs or small groups.

3.5 Digital Inclusive Education

Information and Communication Technologies (ICTs) play a vital role in today's learning environments and in enhancing accessibility to information. As a guideline, it is recommended that all TEIs shall strive to integrate the best possible ICTs and other means of communication to ensure access to information to diverse users including ones with visual and hearing impairments. Introducing digital means of Inclusive Education involves a change in pedagogy & not merely the introduction/addition of more assistive technology. The new Pedagogy should augment the existing one.

Digital Training Application labs are essential in every Teacher Education Institution. Different apps, available for different special needs of children, should be introduced. It should be project-based training for teachers in these labs. Digital Training Application labs are essential in every Teacher Education Institution. Different apps, available for different special needs of children, should be introduced. It should be project-based training for teachers in these labs. Clear directions and framework need to be designed for the e-content creation. A common platform needs to be created where all kinds of remedial teaching content and interventions are available and easily accessible.

Along with developing the guidelines for making e-content accessible available in the public domain, it would be important to run training programs for teachers and principals on how to use them to make materials accessible.

3.5.1. Guidelines to ensure ICT Accessibility

Section 42 on Access to Information and Communication Technology of the RPWD Act 2016 makes it mandatory for all educational institutions to make their environment including ICT infrastructure accessible for persons with disabilities.

All education institutions shall ensure that following the universal design principles, all e-content (online or offline) adheres to the e-content accessibility guidelines issued by the Department of Education, Government of India. For example, a scanned image of a document is not readable with screen reading software. Similarly, if an Indian language digital document is prepared using a font that does not comply with Unicode standards, then such document is

also not accessible with Assistive Technologies. Therefore, it is essential that digital documents have editable text in fonts compliant to Unicode standards.

All the various online resources and the various portals that the government has set up and plans to set up need to be audited for their accessibility. For effective learning, the parents/ caregivers of children with special needs play a big role. Therefore, NCTE should include a subject on parents/ homebound training. The technology-based solution is to be used for the orientation of parents/caregivers along with wide-scale dissemination of learning materials to enable them to actively support the CWSN learning needs. Teacher Education Institutions should provide training in Augmentative and Virtual Reality.

3.5.2 Service to convert instructional materials into an accessible format

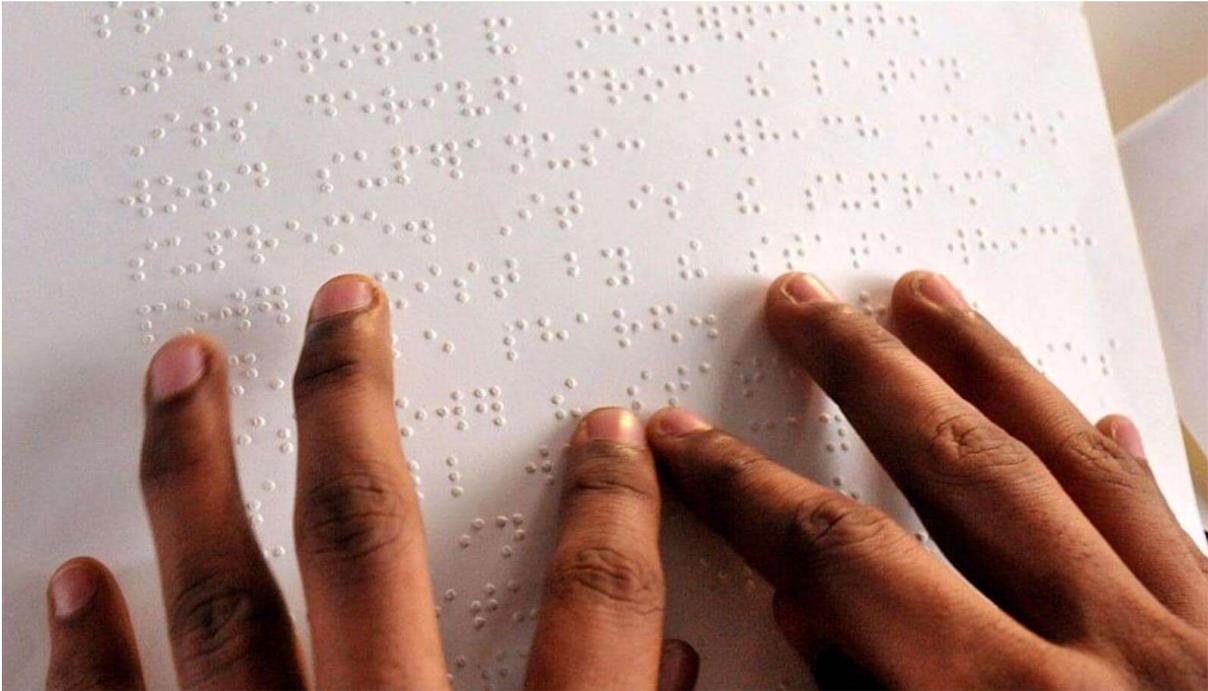
Instructional materials such as prescribed books, recommended readings, books suggested by faculty to their students, or the handouts provided by them etc. need to be in a format that persons with disabilities could read themselves. It is the responsibility of the institution to convert the instructional materials into accessible format if the original format of the materials is not accessible. For example, hard copy print books or photocopied materials are not readable by persons with blindness, low vision, dyslexia etc. If such learners are in the classroom, then institutions need to provide a service to make all required instructional materials in accessible formats such as accessible EPUB, Braille, large print, audio, easy to read, plain language, and sign language etc. Choice of the format would depend not only on the disability but also on the availability of assistive technology or skill level of persons who need such accessible materials or the choice of learners with disabilities.

It is also preferable that persons with disabilities are provided with assistive technology such as computer/smart phone with screen reading software, refreshable Braille display, DAISY player etc. so that institutions can focus on the conversion of materials in accessible digital format. This digital document will then become audio, Braille or large print on the device of the person with disability. For example, if a person with blindness needs his/her materials in Braille, then it would be preferable to provide such students with a refreshable Braille display along with the digital text readable on it. Similarly, for persons with hearing disabilities, the material should be provided through sign language or evolving technologies for Indian sign language translation.

Today there is a theory subject on Digital Education for B.Ed. and Special. B.Ed.: however, nowadays teaching Digital Education has moved from theory to practice. Therefore, teachers should be introduced to the latest apps and Virtual and Augmented Reality classrooms and encouraged to explore their usefulness in their class

3.5.3 Suggested workflow for institutions is:

1. Faculty and students with disabilities determine required instructional materials in an accessible format.
2. Requirement is given to the designated person of the institution.
3. Designated person organizes accessible format copy of the instructional material through-
 - (i) Searching resources of accessible format books and, if not available in an accessible format already, then:
 - (ii) Get material converted to accessible format through book conversion facility within the institution, or
 - (iii) Get the book converted through external resources such as conversion companies or NGOs providing such services on paid or voluntary contributions.
4. Upload the accessible book on Sugamya Pustakalaya (national repository of accessible format books).
5. Deliver the book in the desired format to persons with disabilities or inform them that their book has been made available on Sugamya Pustakalaya from where they can download the book.





CHAPTER 4:

UNIVERSAL DESIGN FOR LEARNING



Chapter – 4

4.1 Principles of Universal Design for Learning

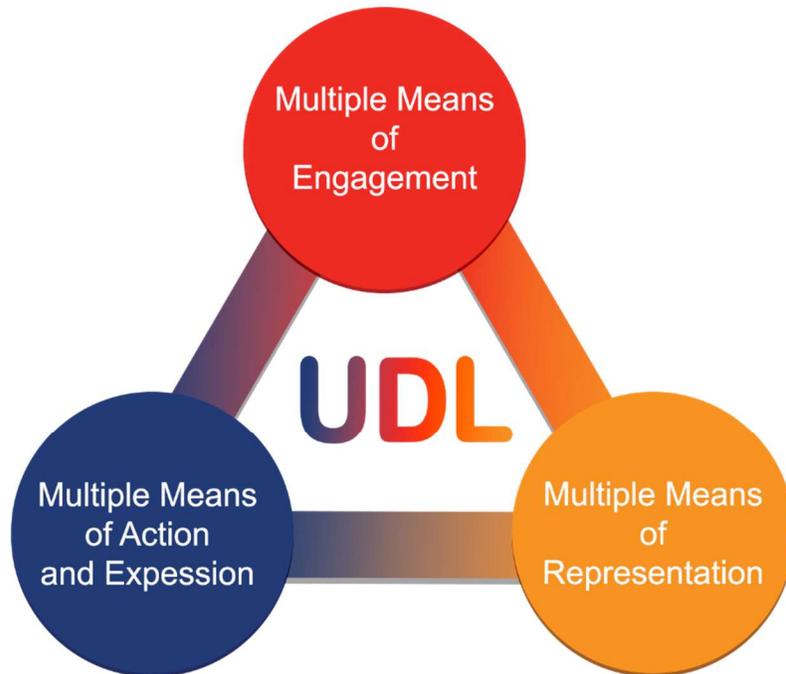
Universal Design for Learning (UDL) is a framework that guides the design of learning environments making them accessible for all. The ultimate goal of UDL is to support all learners of diverse backgrounds and abilities. UDL aims to change the design of the learning environment rather than to change the learner. The learning environments are being carefully and systematically designed to reduce barriers, so as to engage all the learners in conceptual and meaningful learning.

Universal Design for Learning ensures that teaching-learning is designed in such a manner that is based on the strengths of all the students and to meet their needs. The Universal never implies that there exists one optimal solution for everyone. However, it reflects awareness of the unique nature of each student; and, therefore, the need to accommodate differences and create learning experiences that suit individual learners and maximize their ability to progress. This means learning opportunities have to be devised that will extend the learning of all students irrespective of their level of achievement and help everyone reach their potential. This reflects the **why** of the learning, the **what** of learning, and the **how** of learning.

The concept of Universal Design includes the design and composition of an environment or a service that can be assessed understood and used to the greatest extent possible by all people regardless of their age, class, ability or disability. The principles of UDL help reduce and eliminate barriers from the onset and provide options for all learners. In addition to encouraging digital accessibility, UDL principles also ensure that courses are designed for learners with various cognitive abilities and various motivational orientations ⁵

⁵ Burgstahler, S., & Cory, R. (2008). *Universal design in higher education: From principles to practice*. Cambridge, MA: Harvard Education Press.

PRINCIPLES OF UNIVERSAL DESIGN FOR LEARNING



- **Multiple Means of Representation:** Learners differ in the ways that they perceive and comprehend information that is presented to them. Learning and transfer of learning occurs when multiple representations are used because they allow students to make connections within, as well as between, concepts.
- **Multiple Means of Expression:** Learners differ in the ways that they can navigate a learning environment and express what they know. It should also be recognized that action and expression require a great deal of strategy, practice and organization, and this is another area in which learners can differ.
- **Multiple Means of Engagement:** There are a variety of sources that can influence individual variation in effect including neurology, culture, personal relevance, subjectivity and background knowledge, along with a variety of other factors⁶.

UDL Principles guide the instructional design of courses for variability and inclusivity, in which all learners can have the opportunity to participate, engage and learn effectively. By providing multiple avenues and options for learners to reach the same goal, instructors can help

⁶ Takacs, S., Zhang, J (2020). Universal Design for Learning: A Practical Guide. Centre for Teaching, Learning, and Innovation. Justice Institute of British Columbia

reduce barriers to learning and develop learners who are motivated, resourceful and goal directed. The three basic principles of UDL are to:

1. Support affective learning and, provide multiple, flexible options for engagement
2. Facilitate recognition learning, provide multiple, flexible methods of presentation
3. Ensure strategic learning, provide multiple, flexible methods of expression and apprenticeship

Universal Design for Learning is student-focused and also instructor-focused because UDL is a curriculum design, development and delivery framework that focuses on creating expert learners. Learners do not exist alone in a classroom. Classroom ecology is a network of students and instructors who are embedded in that design. Strong curriculum design should account for student experience and instructor experience, the interactions between student and instructor, and how the design supports a rewarding and engaging learning climate.

The UDL framework is the idea of creating expert learners. Often, our goal as instructors is to help students become experts in the content we are teaching. But expert learners are not content experts. They are experts in understanding how they learn, under what conditions they learn, what their preferences are, where they are likely to fail, who they should team up with, and when to ask for help.

UDL provides a framework for you to identify areas for improvement and Design Thinking offers a human-centered approach to problem-solving. Applying the Design Thinking methodology will help you design and implement user-centered solutions in your classroom.

According to the Institute of Design at Stanford University (2018), there are five stages of the design thinking process: Empathize, Define, Ideate, Prototype and Test. To begin with here is a very brief introduction to each stage:

Empathize: The first stage is to gain an understanding of how your users think, behave and feel. Empathizing with people requires you to gather information and develop knowledge about users' experiences, motivations and needs. Common methods include interviews, observation and/or immersing yourself in the environment.

Define: The second stage is to analyze your findings and synthesize them to define problems. In fact, you may be able to identify multiple problems in the define stage but it is critical to identify and prioritize THE PROBLEM you want to start with.

Ideate: At this stage, you start brainstorming solutions to the problem statement you've identified. It is beneficial to work as a team so your solution takes different perspectives. Also, visualizing your solutions through a simple sketch is an effective strategy to communicate your ideas.

Prototype: Prototyping means making your ideas tactile in a way that is inexpensive and rapid. Most people use the term low fidelity during this stage to emphasize the simple and low-cost nature of the prototype. Prototyping could still be difficult because it usually requires a team effort.

Test: This is the stage where you conduct user testing and gather data for improvement. The design thinking process is iterative and the results generated during the user testing are often used to inform how people think, behave and feel.⁷

4.2 Implementation of UDL in Classroom

UDL is a teaching approach that works to accommodate the needs and abilities of all learners and eliminates unnecessary hurdles in the learning process. UDL curriculum in formal and informal settings “*reflects an awareness of the unique nature of each learner and the need to address differences*” by offering. Teacher Education it’s to meet the needs of every learner in a classroom. It can be helpful for all learners including learners with learning disabilities, or diverse learners; but UDL takes careful planning by teachers.

In order to incorporate the principles of UDL into lesson planning, it requires relooking at the curriculum by starting with a manageable curriculum unit, being clear in the goals of the lesson and on what learners need to do mastery and, determining the instructional barriers for a range of the learners and what tools would help them to overcome, and identifying more flexible methods, materials and assessments. The following are a few examples of how UDL can work in a classroom.

(a) Display the Goal

The first and foremost in UDL is forming of goals and displaying goals by which it would help learners to know what they are working to achieve. That is why goals are always made apparent in a UDL classroom. Learners might also write down or insert lesson goals in their notebooks. The instructor refers to lesson goals during the lesson itself.

(b) Option for Assignments

In a common a classroom, there may have only one ways for a learner to complete an assignment, which can be an essay or a worksheet. Introducing the universal design for learning, there are multiple ways and options. For example, learners may be able to create a video or a digital audio file (make available as a podcast) to show what s/he knows. There are thousands of possibilities for completing assignments if learners meet the lesson goals.

(c) Flexible Space for work

Flexibility in the learning environment is a vital role in UDL which promotes and supports the learners. There are flexible workspaces for learners which includes spaces for quiet individual work, small and large group work and group instruction. If learners need to

⁷ Rose, D. H., Harbour, W. A., Johnston, C. S., Daley, S. G., & Abarbanell, L. (2006). Universal design for learning in postsecondary education: Reflections on principles and their applications. *Journal of Postsecondary Education and Disability*, 19(2), 135-151.

tune out noise, they can choose to wear earplugs, earbuds or earphones/headsets during independent work.

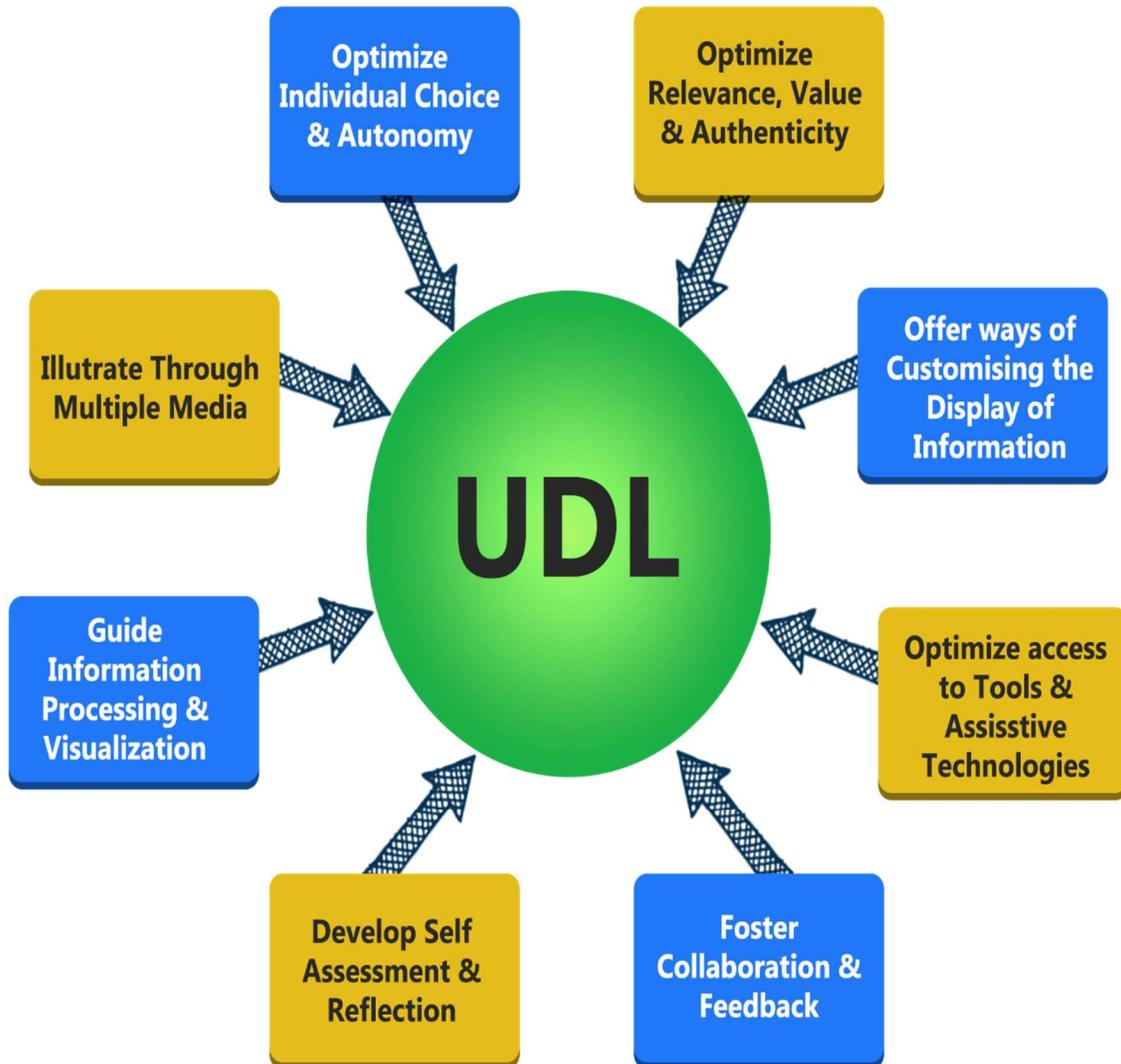
(d) Regularity in Feedback

Feedback is a method self-assessment which could be helpful for learners in UDL. Learners can get feedback often every day on how they are doing. At the end of a lesson, teachers may talk with individual learners about lesson goals. Learners are encouraged to reflect on the choices they made in the class and whether they have met the goals. If learners did not meet the goals, they are encouraged to think about what might have helped them to do so.

(e) Use of Technology, Digital and Audio Text in a UDL

In ICT, classroom concept materials are accessible for all types of learners as UDL recognizes that if learners cannot access information, they cannot learn it. Learners should have many options for reading including print, digital, text to speech and audiobooks. For digital text, there are also options for text enlargement along with choices for screen color and contrast, videos with captions and transcripts for audios.

4.3 Guidelines for Universal Design for Learning



4.4 Role of Teachers

Teachers can use strategies to create a more nurturing, equitable, and inclusive environment. UDL is a technique to enhance the learning of all students in an inclusive manner. This curriculum design allows students to spend more time together in a learning environment, fostering a sense of inclusivity that ultimately benefits all students. It also allows special needs students to see and hear content presented in a variety of ways, which may improve their ability to absorb the material, as all students learn in a variety of ways. These include the three UDL principles:

- Multiple means of representation to provide learners with multiple ways to acquire information and knowledge.
- Multiple modes of expression to give students options for demonstrating what they know.
- Various modes of engagement to tap into learners' interests, provide appropriate challenges, and boost motivation.

Differentiated instruction is supported by a universal design for learning. Differentiation entails thoroughly knowing your learner and doing whatever it takes to maximize learning, as in the whole-class method of instruction approach. The goal of differentiation of instruction is to ensure that each learner is challenged with work that is challenging but not too difficult and to assist each learner in becoming an independent learner. This also helps to prepare learners to deal with anything that is not differentiated in their current and future lives, allowing them to become their own learning advocates.

Once a teacher understands their students' skills and knowledge levels, interests and preferred learning styles, they can combine that with the essential understandings, skills and objectives that they want their students to achieve when planning differentiated instruction. The following are the three basic components of differentiated instruction (DI):

Content - What the teacher intends to teach is referred to as the content.

Process- Why the teacher selects a particular method, strategy, or approach to teaching content/skills to a specific group of students.

Product- how students respond to information presented to them and how they will be evaluated

In Teacher Education Institutions, UDL as an approach should be encouraged by using a variety of teaching and learning materials that represent all modalities i.e. that use all senses, use different media etc. There should be the use of multiple modes of presentation at varying levels of difficulty as deemed appropriate for the class's students e.g. present information using visual, auditory and kinesthetic formats during instruction which includes auditory as well as a visual mode of language including Sign Language. Varied use of space should be there to ensure flexible learning models. It should be ensured that students have access to a variety of information and communication technology tools to aid learning, as well as adequate space and a minimum of distractions so that they can focus on instructional elements. It is critical to

creating a caring and secure learning environment in the classroom. Teachers must act as facilitators and are encouraged to step outside of their comfort zone to focus on listening to learners with diverse needs, reflecting on experience while doing teaching-learning adjustments for all students, including students with diverse needs, and rethinking to improve the teaching-learning process on a regular basis.

These are the suggestive checklists for ensuring accessibility in education from the perspective of different stakeholders.

Suggestive Checklist for Monitoring and Evaluation with respect to Accessibility

Evaluation Form for Universal Design for Learning (Student Teachers)

You are requested to evaluate the given Instructional pedagogy in terms of Learning Plans, Lesson delivery, Classroom dynamics, Effective communication, and Assessment of, for & as learning. This Scale includes statements for evaluating “**Inclusive Practice and Competence of the Teachers**”. You are requested to give your comments against each statement. Your responses will be helpful for improving teaching quality and inclusive practices. Scale is from I to V, where I is for Strongly Disagree, II for Disagree, III is Neutral, IV is Agree and V is Strongly Agree. Try to be as objective as possible during the Evaluation.

S. No.	STATEMENTS	SCALE				
		V	IV	III	II	I
1.	Engages students in framing learning objectives before beginning the topic.					
2.	Discusses what the students already know before introducing the topic.					
3.	Takes students’ opinions before beginning the topic.					
4.	Does not provide materials to students for working in small groups.					
5.	Uses activities in the classroom for linking familiar concepts with new concepts					
6.	Does not discuss students’ day-to-day experiences before introducing the text.					
7.	Does not encourage students to ask questions during the discussion					
8.	Groups students based on their learning interest/ abilities					
9.	Asks questions to maintain the student’s interest.					
10.	Engages learners in building new concepts using different materials and aids (Audios, Videos, PPT, Models)					
11.	Organizes activities and resources to establish a safe learning environment in the classroom					
12.	Does not encourage interaction to maintain discipline in the classroom.					

13.	Involves students in deciding rules and sequence of the learning					
14.	Creates a positive learning environment to promote students' wellbeing					
15.	Does not encourage students to share their opinion and experiences without fear					
16.	Takes initiative and responsibility for catering to the diverse needs of the learners					
17.	Creates a positive and cooperative learning environment in the classroom					
18.	Gives students the appropriate time to recall information and experiences					
	Designs concepts map for introducing the text					
19.	Decides the routine and rules for the classroom.					
20.	Creates rules with students to facilitate effective teaching and learning in the classroom					
21.	Engages students in the planning and assessment of their own learning					
22.	Utilizes classroom spaces for reflection on appropriate positive behavior in the classroom					
23.	Always acknowledges responses and efforts to ensure a learning-focused environment.					
24.	Always makes clear instructions using at least two languages					
25.	Encourages students to express themselves in their own comfortable language to build confidence in them					
26.	Frequently uses hand gestures and builds eye contact while teaching.					
27.	Does not facilitate learning and encourage learners' engagement					
28.	Provides opportunities in the classroom on the basis of students' assessment scores					
29.	Does not take the regular assessment.					
30.	Offers choices in the assignments such as oral, written, and quizzes using technology					
31.	Shares clear, relevant, and measurable assessment criteria with students					
32.	Creates choices for assessment strategies based on students' learning needs					
33.	Provides the inquiry and collection-based home task					

34.	Encourages all students to participate in the classroom discussion.					
35.	Creates assessment activities to assess the learning of each individual.					
36.	Encourages students to assess themselves and their peers					
37.	Does not discuss the components of assessment with students					
38.	Does not provide feedback regularly					
39.	Regularly monitors assessment data on student performance using ICT/ technology and track their progress					
40.	Discusses assessment results with students and provides support					
41.	Does not provide scope for improvement					
42.	Regularly involves learners and provides feedback about their performance					
43.	Frequently organizes meetings with individuals					
44.	Uses assessment data for addressing the learning gaps with students and parents					

S.No.	DOMAINS	No. of ITEMS	TOTAL No. of ITEMS
1.	Lesson Delivery	Items 1 to 7, 9, 10 & 19	10
2.	Classroom Components & Dynamics	Items 8, 11 to 18, 20, 21, 23, 24 & 35	14
3.	Effective Classroom Communication	Items 25 to 28	4
4.	Assessment of, for & as learning	Items 22, 29 to 34 & 36 to 45	17

Evaluation Form for Universal Design for Learning (Parents)

You are requested to evaluate the given Instructional pedagogy in terms of Learning Plans, Lesson delivery, Classroom dynamics, Effective communication, and Assessment of, for & as learning. This Scale includes statements for evaluating. **“Inclusive Practice and Competence of the Teachers”**. You are requested to give your comment against each statement. Your responses will be helpful for improving teaching quality.

Scale is from I to V, where I is for Strongly Disagree, II for Disagree, III is Neutral, IV is Agree and V is Strongly Agree. Try to be as objective as possible during the Evaluation.

S.No.	STATEMENTS	SCALE				
		V	IV	III	II	I
1.	Discusses previous topics to support students’ learning					
2.	Discusses what the students already know before introducing the topic.					
3.	Does not use strategies to promote the holistic development of students					
4.	Takes students’ opinions before beginning the topic.					
5.	Doesn’t provide materials to students for working in small groups.					
6.	Uses activities in the classroom for linking familiar concepts with new concepts					
7.	Does not encourage students to participate in classroom discussion					
8.	Does not encourage students to ask questions during the discussion					
9.	Groups students based on their learning interest/ abilities					
10.	Asks questions to maintain the student’s interest.					
11.	Does not maintain an inclusive and positive learning environment to promote students' wellbeing					
12.	Encourages students to share their opinion without fear					
13..	Sometimes uses Technology to make content relevant and meaningful					
14.	Does not encourage students’ interaction to maintain discipline in the class					
15.	Always takes responsibility for students learning					
16.	Discusses the assessment results and provide support to students and parents					
17.	Works with students to establish the rules of the classroom					
18.	Facilitates the students for effective teaching and learning					
19.	Offers choices in the assignments such as oral, written and quizzes using technology					

20.	Regularly engages with parents and provide appropriate feedback about students' performance					
21.	Provides assessment criteria/rubrics with the students and parents before conducting the assessment					
22.	Ensures learning-focused environment					
23.	Provides opportunities for students to participate in different ways					
24.	Always acknowledges responses and efforts to ensure a learning-focused environment.					
25.	Always makes clear instructions using at least two languages					
26.	Ensures all students feel safe at school					
27.	Uses Technology to make the learning meaningful					
28.	Encourages students to share their opinion without fear and take responsibility for their learning.					
29.	Ensures that all students receive feedback in a timely manner.					
30.	Does not provide relevant homework to students					
31.	Gives students the appropriate time to recall information and experiences					
32.	Does not provide appropriate time for completing the task and homework					
33.	Encourages students to express themselves in their own comfortable language to build confidence in them					
34.	Encourages students to assess themselves and their peers					
35.	Does not provide feedback regularly					
36.	Regularly monitors assessment data on student performance using ICT/ technology and track their progress					
37.	Frequently organizes the meetings with individuals					
38.	Does not provide scope for improvement					
39.	Regularly involves learners and provides feedback about their performance					

S. No.	DOMAINS	No. of ITEMS	TOTAL No. of ITEMS
1.	Lesson Delivery	Items 1 to 6, 10, 13 & 27	9
2.	Classroom Components & Dynamics	Items 7 to 9, 11, 12, 14, 15, 17, 18, 22, 23, 26, 28 & 31	14
3.	Effective Classroom Communication	Items 24, 25 & 33	3
4.	Assessment of, for & as learning	Items 16, 19 to 21, 29, 30, 32 & 34 to 39	14

Evaluation Form for Universal Design of Learning (Peers/Mentors/Teacher Educators)

You are requested to evaluate the given Instructional pedagogy in terms of Learning Plans, Lesson delivery, Classroom dynamics, Effective communication and Assessment of, for & as learning. This Scale includes statements for evaluating “**Inclusive Practice and Competence of the Teachers**”. You are requested to give your comment against each statement. Your responses will be helpful for improving teaching quality.

Scale is from I to V, where I is for Strongly Disagree, II for Disagree, III is Neutral, IV is Agree and V is Strongly Agree. Try to be as objective as possible during the Evaluation.

S. No.	STATEMENTS	SCALE				
		V	IV	III	II	I
1.	Applies appropriate learning goals and outcomes for students to support their learning using the curriculum framework.					
2.	Creates lesson plans stating clearly the sequence of learning.					
3.	Designs Learning plans incorporating the individual needs of learners.					
4.	Creates specific and achievable learning goals for effective course design to support students learning using curriculum framework					
5.	Incorporates differentiated activities in the learning plans to meet curriculum requirements					
6.	Lesson plans incorporates the ICT in the subject/teaching area to meet curriculum requirements					
7.	Performs need-based analysis before formulating Learning Plans					
8.	Does not stimulate learner reflection on prior content knowledge as it consumes time					
9.	Engages learners in linking new concepts to familiar concepts, and learners' experiences					
10.	Organizes facilities and resources to establish a safe learning environment in the classroom					
11.	Discusses what the students already know before introducing the topic.					
12.	Applies relevant policies in creating and maintaining a Safe, Inclusive, and conducive learning environment					
13.	Creates a positive learning environment to promote students' wellbeing					

14.	Does not encourage students to share their opinion and experiences without fear					
15.	Takes initiative and responsibility for catering to the diverse needs of the learners					
16.	Applies classroom management approaches in managing the classroom and positive learning environment					
17.	Engages with students to establish and execute clear routines and instructions					
18.	Decides the routine and rules for the classroom.					
19.	Creates rules with students to facilitate effective teaching and learning in the classroom					
20.	Engages students in the planning and assessment of their own learning					
21.	Does not encourage student interactions in the classroom.					
22.	Utilizes classroom spaces for reflection on appropriate positive behavior in the classroom					
23.	Always delivers instructions using at least two languages to facilitate teaching and learning					
24.	Applies effective verbal and non-verbal classroom communication strategies.					
25.	Does not provide materials to students for working in small groups.					
26.	Applies an experiential learning approach in the classroom					
27.	Designs activities in the classroom for linking familiar concepts with new concepts					
28.	Does not discuss students' day-to-day experiences before introducing the text.					
29.	Does not encourage students to ask questions during the discussion					
30.	Designs assessment activities to assess the learning of each individual.					
31.	Evaluates student learning using different types of assessment strategies and tools to meet the requirements of the curriculum					
32.	Groups students based on their learning interest/ abilities					
33.	Gives students the appropriate time to recall information and experiences					
34.	Designs concepts map for introducing the text					
35.	Regularly records assessment data on student performance using ICT and track their progress					

36..	Applies assessment data in setting learning outcomes and in planning lessons.					
37..	Implements different strategies to communicate assessment data to students for improvement					
38.	Regularly involves parents to provide effective and appropriate feedback about student's performance					
39.	Reflects on learning plans and incorporate feedback					
40.	Always apply positive behavior management approaches to ensure a learning-focused environment.					
41.	Does not provide reference materials for reading.					
42.	Applies effective verbal and non-verbal classroom communication strategies.					
43.	Does not Facilitate learning and encourages learners' engagement as it saves time					
44.	Uses Formal and Non-formal strategies for assessment.					
45.	Applies assessment of, for, and as learning to support student learning					
46.	Creates appropriate assessment strategies based on students' learning needs					
47.	Faces difficulty in classroom management					
48.	Designs different assessment strategies and tools (observation, portfolio, quizzes, rubrics etc.)					
49.	Shares clear, relevant, and measurable assessment criteria with students and parents					
50.	Encourages students to assess themselves and their peers					

S. No.	DOMAINS	No. of ITEMS	TOTAL No. of ITEMS
1.	Learning Plans	Items 1 to 7 & 39	8
2.	Lesson Delivery	Items 8 to 11 & 25 to 28; 32 & 34	10
3.	Classroom Components & Dynamics	Items 12 to 19; 21, 22, 40, 43 & 47	14
4.	Effective Classroom Communication	Items 23, 24, 33 & 42	4
5.	Assessment of, for & as learning	Items 20, 30, 31, 35 to 38, 41, 44 to 46, 48 to 50	14

**Evaluation Form for Universal Design for Learning (Institution Heads/
Experts/Administrators)**

You are requested to evaluate the given Instructional pedagogy in terms of Learning Plans, Lesson delivery, Classroom dynamics, Effective communication, and Assessment of, for & as learning. This Scale includes statements for evaluating “**Inclusive Practice and Competence of the Teachers**”. You are requested to give your comment against each statement. Your responses will be helpful for improving teaching quality.

Scale is from I to V, where I is for Strongly Disagree, II for Disagree, III is Neutral, IV is Agree and V is Strongly Agree. Try to be as objective as possible during the Evaluation.

S. No	STATEMENTS	SCALE				
		V	IV	III	II	I
1.	Creates specific and achievable learning goals for effective course design to support students learning using curriculum framework					
2.	Creates relevant and time-based lesson plans incorporating the individual needs of learners.					
3.	Plans Lessons based on students' learning styles					
4.	Creates learning plans well in advance for a month					
5.	Lesson plans incorporate differentiated activities using Technology in the subject/teaching area to meet curriculum requirements					
6.	Performs need-based analysis before formulating Learning Plans					
7.	The lesson plans reflect the continuity and clarity of concepts					
8.	Does not stimulate learner reflection on prior content knowledge					
9.	Engages learners in linking new concepts to familiar concepts, using learners' experiences					
10.	Engages students in framing learning objectives before beginning the topic.					
11.	Discusses what the students already know before introducing the topic.					
12.	Takes students’ opinions before beginning the topic.					
13.	Does not provide materials to students for working in small groups.					
14.	Uses activities in the classroom for linking familiar concepts with new concepts					

15.	Does not discuss students' day-to-day experiences before introducing the text.					
16.	Does not allow students to ask questions during the discussion					
17.	Asks questions during lesson delivery to maintain the student's interest.					
18.	Engages learners in building new concepts using different materials and aids (Audios, Videos, PPT, Models)					
19.	Groups students based on their learning interest/ abilities					
20.	Creates a positive learning environment to promote students' wellbeing					
21.	Does not encourage students to share their opinion and experiences without fear					
22.	Involves students in deciding rules and sequence of the learning					
23.	Takes initiative and responsibility for catering to the diverse needs of the learners					
24.	Gives students the appropriate time to recall information and experiences					
25.	Designs concepts map for introducing the text					
26.	Applies classroom management approaches in managing the classroom and positive learning environment					
27.	Engages with students to establish and execute clear routines and instructions					
28.	Reflects on learning plans and incorporate feedback					
29.	Creates rules to facilitate effective teaching and learning in the classroom					
30.	Engages students in the planning and assessment of their own learning					
31.	Does not encourage interaction to maintain discipline in the classroom					
32.	Always delivers instructions using at least two languages to facilitate teaching and learning.					
33.	Always applies positive behavior management approaches to ensure a learning-focused environment.					
34.	Does not provide suggestive and reference material for reading.					
35.	Applies effective verbal and non-verbal classroom communication strategies.					

36.	Does not Facilitates learning and encourage learners' engagement					
37.	Uses Formal and Non-formal strategies for assessment.					
38.	Applies assessment of, for, and as learning to support student learning					
39.	Creates appropriate assessment strategies based on students' learning needs					
40.	Faces difficulty in classroom management					
41.	Designs different assessment strategies and tools (observation, portfolio, quizzes, rubrics etc.)					
42.	Analyzes assessment activities to assess the learning of each individual.					
43.	Evaluates student learning using different types of assessment strategies and tools to meet the requirements of the curriculum					
44..	Rarely applies rubrics to grade assessment/exams and provide feedback					
45.	Regularly monitors assessment data on student performance using ICT and track their progress					
46.	Applies assessment data in setting learning outcomes and in planning lessons.					
47.	Offers choices in the assignments such as oral, written, and quizzes using technology					
48.	Encourages students to assess themselves and their peers					
49.	Discusses assessment results with students and provides support					
50.	Allows students to express themselves in their own comfortable language to build confidence in them					
51.	Shares clear, relevant, and measurable assessment criteria with students and parents					
52.	Implements different strategies to communicate assessment data to students for improvement					
53..	Regularly involves parents to provide effective and appropriate feedback about student's performance					
54.	Frequently organizes the meetings with Individuals					

S. No.	DOMAINS	No. of ITEMS	TOTAL No. of ITEMS
1.	Learning Plans	Items 1 to 7 & 28	8
2.	Lesson Delivery	Items 8 to 15, 17, 18 & 25	11
3.	Classroom Components & Dynamics	Items 16, 19 to 24, 26, 27, 29 to 32, 34, 37 & 41	16
4.	Effective Classroom Communication	Items 32, 35, & 50	3
5.	Assessment of, for & as learning	Items 34, 37 to 39 & 41 to 49 & 51 to 53	16

OFFICE ORDER

An expert committee is constituted under the chairpersonship of Member Secretary, NCTE to look into the recommendations made by Javed Abidi Foundation before the Hon'ble Supreme Court in the matter of W.P. (C) No. 600/2021 and suggest recommendations to provide inclusive digital education as per the 1st Inter-Ministerial Committee formed in compliance of the above order. The composition of the committee is as follows –

S. No.	Name and Organization	Contact Details	Designation
1.	Ms. Kesang Y. Sherpa, Member Secretary, National Council for Teacher Education, New Delhi	Email: cp@ncte-india.org ms@ncte-india.org 011-20893266	Chairperson
2.	Dr. Simmi Mahajan, Chief Human Resources Officer, Sri Aurobindo Society, Rupantar	Email: simmi@aurosocietyv.org	Member
3.	Dr. Arun Banik, Director AYJNISHD, Mumbai	Email: ayjnihhmum@nic.in 9869233620	Member
4.	Dr. Himanshu Das, Director, NIEPVD Dehradun	Email: directorniepvd@nivh.gov.in Himangshudas25@gmail.com 70423117744	Member
5.	Sh. Ram Kumar Dy Director NIEPID, Secunderabad	Email: dir@nimhindia.gov.in 9848311992	Member
6.	Sh. Nachiketa Raut, Director NIEPMD, Chennai	Email: niepmd@gmail.com 9940124537	Member
7.	Sh. Dipendra Manocha, DAISY Forum and National Association for the Blind, Delhi	Email: dipendra.manocha@gmail.com 9818094781	Member
8.	Ms. Merry Barua, Action for Autism, Delhi	Email: actionforautism@gmail.com 9810225923	Member
9.	Sh. Arman Ali Executive Director, National Centre for Promotion of Employment for Disabled People (NCPEDP)	Email: secretariat.ncpedp@gmail.com 011-26221276/26221277	Member

Cont. 2/-

जी-7, सेक्टर-10, द्वारका, नई दिल्ली -110075
G-7, Sector-10, Dwarka, New Delhi - 110075

Phone : +91-11-20893266, Fax : +91-11-20893270 Email : ms@ncte-india.org
Website : www.ncte.gov.in

10.	Sh. A.S Narayanan, President, National Association of Deaf, Delhi	Email: as_narayanan@hotmail.com 9810234165	Member
11.	Sh. S.K Rungta, General Secretary, National Federation of Blind (NFB), Delhi	Email: nfbsec.g@gmail.com 9312607540	Member
12.	Cdr. Shrirang Bijur, (Retd.) President, Parivaar - National Confederation of Parents' Organization, Pune.	Email: parivaarnepo@gmail.com	Member
13.	Sh. Abhimanyu Yadav, Section Officer, National Council for Teacher Education, New Delhi	Email: yadavabhimanyu99@gmail.com	Convenor
14.	Ms. Harshita, Academic Consultant, National Council for Teacher Education, New Delhi	Email: aroraharshita43@gmail.com 7011307633	Co-convenor

2. Terms of Reference (ToR):

- i. To make digital education inclusive to all in teacher education institutions as per the recommendation of NEP 2020 and Javed Abidi Foundation for the supreme court.
- ii. To recommend interventions in creating accessible environments/ systems related to digital education in the field of teacher education.
- iii. The chairperson of the committee may co-opt other experts to the committee as per need.
- iv. The NCTE shall provide secretarial assistance for holding virtual and face-to-face meetings of the committee and arrangements for payments of TA /DA /Sitting charges as per NCTE norms.

3. This has the approval of the Member Secretary, NCTE.


(Abhimanyu Yadav) 14/03/2022
Section Officer/Convenor

Copy to:

1. PS/SO to CP/MS for information, please.
2. Deputy Secretary /Under Secretary Admin/Academics/Accounts, NCTE
3. Copy to all concerned members etc.
4. Guard /Office file.

QUALITY AND INCLUSIVE PRACTICES IN TEACHER EDUCATION



www.ncte.gov.in

G-7, Sector-10, Dwarka, New Delhi - 110075