Adoption of Universal Design for Learning for Meaningful Inclusion

Tanmoy Bhattacharya
Centre for Advanced Studies in Linguistics
University of Delhi
tanmoy1@gmail.com

ABSTRACT

Inclusion, as codified in all the relevant Acts and policies in India, including the most recent, Rights of Person with Disabilities Act, 2016, are enumeration mostly of the *artefacts* of inclusion, rather than the spirit. That is, the acts do not in any way suggest overhauling of the educational set up, for obvious reasons that acts being instruments in the hands of the establishment, cannot instigate any radical alteration in the education system of the country, that too, for the sake of a group of people who are still perceived as an insignificant minority, notwithstanding the recent Statist efforts to alleviate them by providing illusory labels. This paper suggests that we can play by their own rules and include yet another artefact of inclusion, namely, Universal Design for Learning, and take that crucial step towards meaningful inclusion in the sphere of education of disabled children/ students.

1   Introduction

Although neither the Persons with Disabilities (Equal Opportunities, Protection of Rights, and Full Participation) Act of 1995, nor the National Policy for Persons with Disabilities (NP), 2006, made any reference, or made only passing reference, to students with disabilities in higher education, inclusive education provisions are indicated in spirit in PwD,1995 in Chapter V, Article 26(b),(f-h), and IIB(20), (21) in NP, 2006 and several other educational policies of the government at the school level. For example, an early programme like IEDC (Integrated Education for Disabled Children) saw the presence of 1.24 lakh children over 20,000 mainstream schools; SSA (Sarva Siksha Aviyan) has over the years managed to get over 14 lakh children enrolled; IECYD (Inclusion in Education of Children and Youth with Disabilities), and various NPEs (National Policies on Education) similarly make direct or indirect reference to the idea of inclusive education (see Bhattacharya, 2010a, b).

1.1   RPwDA 2016

With the passing of the Rights of Persons with Disabilities Act (RPwDA) 2016 on 27th December 2016, inclusive education has become more than just a rhetoric. For example, section 16 of Chapter 3 of the RWPDA, is clearly built around inclusive education:

> The appropriate Government and local authorities shall endeavour that all educational institutions funded or recognised by them provide inclusive education to the children with disabilities and towards that end shall ---

However, what it lists after this are more geared towards "structural" changes and provisions, for example, admission, accessibility, reasonable accommodation, individual support, appropriate language (Sign Language and Braille), monitoring, transport facilities, survey, teacher training, etc. Though all of these are necessary to bring about inclusive education, they do not collectively define inclusive education. However, the preamble, clearly defines inclusive education as follows:

(*m*) "inclusive education" means a system of education wherein students with and without disability learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities;

As with many other sections of the final Act, many things from the Bill that have been circulated and improved upon, or sometimes completely ignored, have been simply dropped. In case of education, the part of the Bill that emphasized the role of the classroom and curriculum have been surgically removed. This becomes evident if we take the following provisions from the Bill of June 30, 2011 (italics mine):

(i) Develop and establish an inclusive undergraduate and postgraduate degree in education which trains all teachers to cater to the needs of a child with disability in an inclusive *classroom*

(ii) To develop an inclusive *curriculum* based on the principles of non-discrimination and appreciation of diversity and tolerance

(iii) To suggest measures for the adoption and integration of the inclusive *curriculum* in mainstream education and to monitor its progress

1.2 Draft National Policy on Education

From 2015 onward the central government has initiated through its Ministry of Human Resource Development, a consultation process for a draft National Policy on Education (NPE). When it comes to education of disabled students, there is no visible improvement from NPE 1986, modified in 1992; it still talks about special education and home-based education and uses the same, medicalised language. For example, at one point, the draft has a sentence which includes the following (italics mine):

" ... CWSN (Children with *Special Needs*) can *overcome* many *incapacities* to learn ..."

(Draft NPE, 2016, 6.11.8)

Although, it does talk about one goal of inclusive education being all students learning together, there is no understanding about disability as an epistemology that has the potential to transform education. As far as any 'benefit' that children without disability are deemed to accrue from inclusive education is concerned, the Draft is of the view that they can learn to respect and be tolerant towards disabled children, any possibility of ever learning anything from the other is ever admitted or even envisaged; this has been the story of *all* policies and documents of the government till date, there is no exception.

The Draft is, like other such documents (though not NPE 1968, see Bhattacharya, 2010), employs the expected stylistics of suggested an ever expanding ring of procedures through newer and newer committees; this is the favourite modus operandi of all governmental instruments, it is the most common strategy employed to appease minorities where the establishment is only *seen* to be taking steps but it is not in reality *moving*. Thus, the Draft installs an expanding ring of procedures by talking about at least four such structures (all italics mine): (i) setting up of an Independent Board under the state Education Acts to oversee to the scheme, whatever *the* scheme is, (ii) inclusion of an organisational structure for managing this segment of children at the district level in the State Educational Acts, (iii) central government goading the states to establish a nodal entity under the State School Acts to oversee the *problem* of learning disabilities in schools, (iv) government to also make

available setting up of *part-time* expert-cum-oversight Committees who can offer expert guidance.

Thus, none of the acts or policies that are in operation really talk about classrooms/ curriculum; without an accessible classroom and curriculum, inclusion is not meaningful. With regards to accessibility in general, several notifications have been issued from UGC in the past (see D.O.No.F-6-1/2006(CPPII), F.No.6-1/2012(SCT)) and there have been notifications with regards to relaxations in examinations (see No.F.6-1/2006(CPP-II/SCT), F.No.6-1/2011(SCT)) but *none regarding an accessible curriculum*. In this light, drafting a policy document on how to design a universal curriculum attains importance. In this paper, I will outline the importance of adopting something like the Universal Design for Learning or UDL to prepare the grounds for inclusive education.

The Draft clearly absolves the government from any responsibility of teacher training by saying that "(P)roviding special training to every teacher will neither be feasible nor cost-effective" (Draft NPE, 2016, 6.11.4). One wonders why is it not possible to include compulsory training in inclusive for every teacher by incorporating a module in the B.Ed. (Bachelor of Education) curriculum. Instead, the Draft deflects the responsibility to NCERT's (National Centre for Educational Research and Training) 2009 document National Curriculum Framework for teacher education (NCFTE), 2009.

NCFTE, 2009 is a pertinent document addressing the issue of inclusive education within the larger social exclusion context; however it still shies away from understanding the true nature of inclusion by radically overhauling the process of knowledge construction (Bhattacharya (forthcoming a)). In the schema for Teacher Education Curricular Areas, the word inclusive is mentioned only once, under the column titled 'Curricular Aspects", which is one of the major components of foundation of educations areas, called "Learner Studies". However, the schema has many other curricular aspects under different major components where inclusive practices can be incorporated. However, NCFTE, 2009 is more an aberration rather than the norm among policy documents.

Note that I have pointed out above, in connection with the RPwD Bill of June 30, 2011, that the acts and policies make reference only to structural requirements or changes that are necessary to bring about inclusive education, which collectively do not define what inclusive education is. This is mainly because of a failure to understand the *spirit* of the philosophy of inclusion – for an elaborate enunciation of which, see Bhattacharya (forthcoming) – on the part of the law-makers but also because laws and acts talk about "things" and measures, they do not, in general, talk about spirits or underlying philosophies. Therefore, it might be a good idea to play their own game and suggest ways to talk about "things" that will nevertheless make a stronger case for inclusion; sometimes the architecture itself induces behavioural changes, and UDL is such an architectural proposition.

2   Background

Currently, literacy means the literacy of reading and writing of printed text. Therefore our curricula usually places prominence to learning to read and write. For example, most reviews of textbooks and also among the issues that are most often brought up by practising teachers of primary classes, emphasise a great deal on writing skills, and provide worksheets to improve such skills. Thus classroom literacy focuses exclusively on the written text and ways to deal with such texts. However, it is inevitable that there is a shift towards a form of literacy *out there* that is much richer in terms of types of media than just reading and writing.

Within this context, the "treatment" meted out to a disabled student includes primarily a focus on intervention in the form of special education; as is well-documented, the attempt is to "fix" the learner, i.e. remediation centres on fixing students not curricula. This indirectly contributes to the violation of articles 24 of the UNCRPD advocating inclusive education for disabled students.

Any teacher of any classroom will know that variation in learning in fact is the reality, homogeneity is not. Even a so-called mainstream classroom will consists of learners who learn differently; therefore, exactly like in all other spheres of life in general, for some reason, it is very difficult for anyone to understand that difference is the norm, homogeneity is not. Yet, all cultural and social practices are geared towards establishing exactly that: homogeneity. The road roller of homogeneity in its mad rush crushes all differences under its wheels, little realising that all of us are *naturally* different and that the challenge is to find ways to yet coexist harmoniously; my proposal of *Integrative Difference* is meant to achieve that (see Bhattacharya 2014a,b,c,d and forthcoming).

2.1 The Miracle of Attunement

In Bhattacharya (forthcoming b), I make a novel claim with regards to a particular psychological basis for inclusion in a student-teacher dyad, typical of a classroom context, where a "Miracle of Attunement" can be brought about only when both the *do*-er and the *do*-ne are active and are transformed by the 'availability' of the other. This way, both the *do*-er (the teacher) and *do*-ne (the student), acquire new identities and transform their selves. This acquisition thus leads to possibility of a subjectivity, an agenthood; the student is no longer a docile body. The signs that mark both the *do*-er and the *do*-ne are redistributed as a result of the transformation referred to above as the miracle of attunement; true inclusion, I show, therefore must raise the question of how to define a body, and echoing Latour (2004), the question is not 'What a body is' but rather 'What a body does to other bodies' and 'What a body let other bodies do to it'.

I further conjecture that in a teacher-student dyad if we want to bring about a learning that gives the chance for not one but two entities to be active or two identities to coexist and co-evolve, we should desist from deciding the causal and effectual identities, or the affecting and the affected. Rather, a faith on behalf of the teacher in the positive and affirmative outcome of education for a (disabled) student is what makes the entities available to the event of 'miracle'. If a teacher believes that a (disabled) student can be taught, both become available to a becoming, bypassing the question of 'Who' or 'What' that are made available thus. The classroom here is a part and parcel of what it is to have a body, and a classroom with UDL materials in all their multiplicity, affects the learner whereby the world is understood in more subtle and sensitive ways. Note that this should be true for all learning contexts. Thus, when one says "She/ he is quite a brain", one could theorise (à la Latour) that along with acquiring a body part (a brain) 'world-counter-parts' are understood in newer ways, since the different aspects of the same world now make different sense.

3   What is Universal Design for Learning (UDL)?[1]

Learning, in general, is very person specific, as unique as a person's genetic wiring. 'Universal design' is an architectural concept that focuses on the design of products, buildings, or environments so they can be used as they are by the widest possible range of users. It is mandated by Article 2 of the UNCRPD. In the longer run, the argument goes, it is more cost effective than retro-fitting:

> "Universal design" means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed.
>
> (UNCRPD, 2006)

UDL is a framework for teaching and learning that exploits various flexible options in modern technologies to address the needs of a wide range of students by removing or reducing barriers for learning for all students. A method that exploits the reality of variation in learning, is also addressing one possibility of decentralising dominant ableist practices in learning, which places reading and writing at the centre of teaching and evaluating practices.

Neuroscience research indicates that there are three distinct areas of the brain that engage in three distinct networks -- Recognition, Strategic, and Affective (National Centre on Universal Design for Learning, 2011b):

Recognition Network (The WHAT): To gather facts and categorise things we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks
Strategic Network (The HOW): Planning and performing tasks. How we organise and express our ideas. Writing an essay or solving a math problem are strategic tasks
Affective Network (The WHY): How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions

Table 1: Neuroscientific Networks behind UDL

In consonance with the three networks as above, a student is hoped to gain knowledge, skills, and enthusiasm for learning, and an accompanying curriculum will match all three requirements. Since *one size does not fit all*, designing a curriculum that suits all learners is a challenge; especially, when we wish to make learning outcomes, classroom deliveries, and evaluation apply equally to all. This idea is used to design a flexible curriculum so that it benefits the maximum number of participants. For example, it is well-known that when something is designed for disabled persons, everyone benefits; ramps help those with mobility issues as well as those who find walking/ climbing difficult due to injury, arthritis, or old age; subtitles help those who are D/deaf, people learning a language or even learning to be literate, people in crowded noisy places (or homes), people wishing to watch TV with low or no volume. It is then but only makes sense to commit to universal design.

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[1]Parts of this and the next section contain a few modified points from my submission to the University Grants Commission, as a convenor of the Expert Committee entitled on "Review and Revise the Rules, Schemes and Provisions concerning the Disabled Students and Teachers" (July 2012- July 2014).

In addition to taking the steps to attain universal design goals, the need for going beyond universal design for genuine learning to take place must be recognised. Genuine learning requires, therefore, in addition, *cognitive* access as well. Providing digital texts in classrooms with built-in vocabulary or comprehension supports go beyond the traditional means of representation (viz., printed/ soft text) and can be used for cognitive access. So a text reader feature can be used by students with visual impairment or dyslexia, while comprehension support can assist a student who needs cognitive access. In the comprehension support, difficult concepts can be highlighted, translations can be provided for foreign language words, or comprehension questions can be answered with graphics or animations. At the end, such supports increase opportunities for meaningful participation because multiplicity of sources is at the heart of learning in such cases.

3.1   Three broad foundational principles

In this section, I will talk about the significance of the three founding principles based on the distinct brain-related networks summarised in Table 1; together they define a shortcut to strategies to be employed by any institution that intends to initiate learning in an inclusive setting. That is, these form the essential infrastructure for implementing inclusion, they must be seen as the starting points for gathering resources and personnel that may eventually make up an inclusive setting. The three principles are as listed below:

(i)   Multiple means of representation
(ii)   Multiple means of actions and expression
(iii)   Multiple means of engagement

(i) Providing multiple means of representation:
As discussed earlier, learners vary in their capacity to process information in different media and formats. With the digital explosion of the last few decades, the flexibility of digital technology provides more options for presenting information, creative expression, and engagement; this in turn, significantly lessens reading performed by seeing and decoding words.

Some of the examples of providing multiple means of representations are listed below (from NCUDL, 2011a):

Read aloud, highlight phrases, listen to audiotape, text-to-speech, built-in talking glossary, built-in language translation, links to background knowledge, searchable dictionary and thesaurus; learners can convert the "source file" to create a Braille version, a DAISY Book version with human voice read aloud and synchronised text highlighting, or a large print version.

(ii) Providing multiple means of action and expression:
The strategic network is about how do learners express what they and how do teachers evaluate them. Given that UDL is committed to multiplicity at all the network levels, here too, multiplicity of means of expressions is suggested.

Some examples of providing multiple means of action and expression:

Written response, verbal response, response with visual art, dramatic response, *iMovie*, *PowerPoint*, *VoiceThread* (a form of web-based tool for creating composition that encourage students not only to write, but to speak, draw, illustrate with video, and comment on each other's work in different ways, NCUDL, 2011a).

Similarly, evaluation of learner can take place in multiple ways as well, in parallel to the above forms of expression. For example, learners who are good at dramatic expression could be evaluated on their dramatic skills rather than their verbal or written or visual art skills.

(iii) Providing multiple means of engagement:
The Affective network is about engagement, how do learners remain engaged with the material that successfully achieved learning. The question that this network raises is how to connect students' environments to their goals, their desires; in short, how does the affect take place and transform learner (as well as the teacher, see discussion in section 2.1).

Some examples of providing multiple means of engagement are as follows:

> using archived resources; using *Texthelp* (which has learning supports such as a highlighter to highlight and export the highlighted text into a simple content editor for organising, options to use the page navigation menu and move linearly through the article, or click on a key idea in the concept map and jump to that particular section of the article), organising information into a concept map; keeping a personal journal, etc.

3.2   Higher Education and UDL
Research shows that adopting UDL principles (based on neuroscientific evidence as discussed above) in higher education (HE), resulted in reaching a broader range of students and in more positive student perception of the learning material presented.[2] The use of technology in HE is increasing as newer generations of students possess greater digital literacy. In this context, the use of teaching approaches that infuse digital tools and resources, such as those incorporated in UDL, are essential to engage today's students, at the school and university levels.

Within the Indian context, the Higher Education & Research Bill, 2011[3] (HERB) drafted by the National Commission for Higher Education and Research (NCHER) and presented to the Parliament for consideration include, among others, the following objective:

> (d) taking measures to enhance access and inclusion in higher education.

Such an objective however can only be achieved if meaningful participation from students with disabilities in higher education is ensured. One of the ways – in addition to accessible physical environment – to achieve true participation is by adopting UDL strategies in teaching/ learning methods in HE. Following good practices elsewhere (see Table 2), the HERB, if and when it is implemented, can easily integrate an UDL component to ensure full participation of students with disabilities in HE.

Universal Design for Learning is included in the Higher Education Opportunity Act of 2008 (HEOA) in the US. Signed into law, UDL is defined as a scientifically valid framework for guiding educational practice that:

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[2] Spooner, Baker, Ahlgrim, Delzell, Browder, and Harris (2007), and Schelly, Davies, & Spooner, (2011).
[3] This Bill was withdrawn by the present Government in September, 2014.

A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students with limited proficiency in English.

Table 2: UDL as a part of Higher Education

4   Specific Recommendations

In this section, I will broadly outline two recommendations, for adopting UDL in our national curricula; these recommendations are as follows:

(i) <u>Legislation</u>: Legislation in the form of setting accessibility standards in text books can ensure that articles 9(2)f,g of the UNCRPD are not violated (see below).

(ii) <u>Faculty Improvement Programmes</u>: Integrate the use of UDL strategies in teacher and faculty preparation/ improvement programmes and bring about newer/ more relevant teaching practices based on UDL and academic reforms based on redesigning curricula at all levels.

(i) Legislation

As the history of disability movement in India has shown, without successful change in legislation, rights of disabled persons will not be addressed; legislational changes, though do not bring about a total transformation, provide channels for rights-based actions. The fundamental basis for justifying legislational changes in educational policies for disabled students is set of the articles 9(2)f,g of the UNCRPD:

> Article 9 (Accessibility):
> 2. States Parties shall also take appropriate measures:
> (*f*) To promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information;
> (*g*) To promote access for persons with disabilities to new information and communications technologies and systems, including the Internet;

In order to remediating disabilities in the curriculum or to "de-standardise" it, as discussed above in terms of UDL, targeted advocacy by various interest groups is required to bring in legislation in line with similar legislation in other countries (e.g., the National Instructional Materials Accessibility Standard in the US, Tale 3). Such regulation will have to make it mandatory for all textbooks to be available not only in print, but also in an alternative format that can act as a digital "source file," an electronic version of the textbook that could be transformed easily into various formats.

Sec. 300.172 Access to instructional materials.
(a)   General. The State must--
(1) Adopt the National Instructional Materials Accessibility Standard (NIMAS), published as appendix C to part 300, for the purposes of providing instructional materials to blind persons or other persons with print disabilities, in a timely manner after publication of the NIMAS in the Federal Register on July 19, 2006 (71 FR 41084);
NIMAS is a technical standard used by publishers to produce source files (in XML) that may be used to develop multiple specialised formats (such as Braille or audio books) for students with print disabilities.
The source files are prepared using eXtensible Mark-up Language (XML) to mark up the structure of the original content and provide a means for presenting the content in a variety of ways and styles. For example, once a NIMAS fileset has been produced, the XML and image source files may be used not only for printed materials, but also to create Braille, large print, HTML, DAISY talking books using human voice or text-to-speech, audio files derived from text-to-speech transformations, and more. Source: http://aim.cast.org/learn/policy/federal/what_is_nimas

Table 3: NIMAS

(ii) Faculty Improvement Programmes (FIP)

The *World Report on Disability* (2011) emphasises the importance of appropriate training for mainstream teachers if they are to be confident and competent in teaching students with diverse educational needs. The report notes that teacher education programmes should be about attitudes and values, not just knowledge and skills.

Currently, Teacher Education (TE) means "programmes of education, research or training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and includes non-formal education, part-time education, adult education and correspondence education", as per the National Council of Teacher Education (NCTE) Act of 1993. However, the logic of including university teachers as part of TE is visible in several existing formulations:

As per the National Curriculum Framework of Teacher Education of 2009, prepared by National Council for Teacher Education (NCTE), New Delhi, one of the important recommendations was that all programmes of teacher education should be part of the University system. Going back to the report of the Education Commission in 1964-66, it was recommended even then that the entire teacher education system be brought under the university or higher education system as the teacher education curriculum was suffering because of its isolation from the higher education system. A new legislation is felt to be in order, to bring in teacher education as a component of professional education of teachers under the umbrella of higher education system.

Although "Teacher Education" within the Indian contexts only includes teacher training for preparing teachers to teach in schools, the recent attempt to subsume NCTE within the ambit of NCHER, indicates teacher education has a role to play in HE as well, although it must be pointed out that nowhere in the proposed Bill, this extended function of NCTE is mentioned.

Among the various roles of the NCTE are included the following, which can be incorporated in a revised Bill if it were to integrate principles of UDL:

(i) Undertaking surveys and studies relating to various aspect of teacher education.
(ii) Coordinating and monitoring teacher education and its development in the country.
(iii) Laying down guidelines for minimum qualifications for employment of teachers.
(iv) Training in teacher education, starting new courses or training etc.
(v) Recognising institutions offering course or training in teacher education.

For example, the surveys and studies could have a component focusing on teacher education that integrates UDL principles, so that we have data on such practices which can further be built into effective teacher training modules. Coordinating and monitoring of TE can also build in a component of UDL teaching practices. Similarly, the minimum qualifications could include training in UDL methods. Training and starting new courses can include UDL based training as well and finally, UDL training practices can be a requirement for recognising institutions offering courses on TE.

The Academic Staff Colleges (ASC) were established by the UGC for conducting specially designed orientation programmes for newly appointed lecturers and refresher courses for in service teachers. While the Orientation programme is intended to inculcate awareness of the social, intellectual and moral environment/ problems of the Indian society and the role of education, higher education leaders and educators in the resolution of these problems to achieve desired goals in national development, the Refreshers Course is designed to provide opportunities for serving teachers to exchange experiences with their peers and mutually learns from each other, as a forum to abreast oneself of the latest advances in the subjects, technological applications, etc.

Both these courses (Orientation and Refresher) can build a component of UDL teaching practices as an integral part since disability in HE is part of the social-intellectual fabric of Indian HE as well as an opportunity for in-service teachers to refresh their teaching practices in terms of technological applications and of adding to their own epistemological bases.

In the Report of the Working Group on Higher Education for the 12th Five-Year Plan, among the objectives, the following can be found which clearly mandates faculty development as an integral part of improving quality of education, and as is clear from the discussion here, in improving equity in HE:

(v) To enhance plan support for infrastructure and *faculty development* in the institutions of higher learning and to attract talent towards careers in teaching and research.

In the same document, academic reforms at the institutional level are suggested to be the necessary conditions for the improvement in quality. A number of academic reforms have been initiated which also include the following, both of which have relevance for bringing about reforms to include UDL practices in teaching-learning and of imparting targeted, qualification enhancing training for in-practice teachers at the universities (as suggested under TE/ Faculty Improvement/ Preparation via Orientation/ Refresher Course, Recommendation (ii) above):

(i) Innovations in Teaching-Learning Methods

(ii) Teachers to continuously upgrade qualifications and knowledge

The said document though mentions that ASCs do not connect their existence and function to FIPs. However, if a module on UDL teaching practices can be built in these programmes, as suggested above, and an attempt to honouring a commitment to academic reforms can be brought in in the form of UDL compliant teaching-learning materials, then the spirit of FIPs can be honoured in addition to universal participation in higher education.

Having seen that FIP is justifiably an integral part of higher education, it is recommended that university teachers participating in the programme be provided with skills related to: (i) universal design for learning; (ii) utilising accommodations for instruction and assessments; (iii) collaborating with special educators and related service providers; (iv) appropriately utilising technology and assistive technology for students with disabilities; and (v) training modules on good practices for accommodating and supporting students with disabilities, which may include UDL practices.

The following may be specifically built in within such programmes:
  (i)   Training in the effective use of technology to develop innovative and efficient teaching strategies in line with UDL principles
  (ii) Training in customised and general technical assistance, including use of assistive and educational technology
  (iii) Incentives for attending workshops, summer institutes, etc. and for acquiring related training through distance learning

5   Conclusion

The artefacts of UDL, as outlined above, are based on the basic assumption of multiplicity of sources, expressions, and affects. Multiplicity, in general, is a good way to subvert the overwhelming homogeneity and linearity that our education system is beset with. Thus, UDL as a practice, suggested in the form its integration in legislation and teacher training programmes, is a subversive strategy to bring about a radical change in the way learning/ teaching takes place. Although, disabled students are the primary beneficiaries of any such fundamental change, the essential point remains --- it is only through a subversion of linearity and homogeneity as necessitated by a disability-oriented epistemology that we can bring about a radical change in the general education system of our country.

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