International Journal of Science and Research Archive
eISSN: 2582-8185
Cross Ref DOI: 10.30574/ijsra
Journal homepage: https://ijsra.net/

(REVIEW ARTICLE)

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Building inclusive classrooms for students with intellectual disabilities

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International Journal of Science and Research Archive, 2025, 14(01), 1605-1609

Publication history: Received on 13 December 2024; revised on 23 January 2025; accepted on 26 January 2025

Article DOI: https://doi.org/10.30574/ijsra.2025.14.1.0259

Abstract

In the recent past there is a dramatic progress towards access to education with the Right to Education Act (RTE 2010) in India. The Government of India (GoI) could progressively succeed in achieving high enrollment of students in schools across India this is followed with the provision of midday meals, clean toilets, drinking water facility and various other schemes. The grappling issue is the quality in basic education still remains as a dream. Older students from rural government schools of grade Vth to VIIth still fail to read simple sentence in English or perform a three digit division sum in Mathematics (Annual Status of Education Report - ASER 2016). Inclusive education is arduous for students with Intellectual Disabilities (ID) who have gross challenges in learning the mainstream school curriculum. To overcome the barriers of learning, technical strategies of inclusive education should be practiced in inclusive classrooms. The present paper focuses on essential elements of inclusive classroom for students with ID which includes individualized education program, functional curriculum, assistive technology, curricular modifications, and accommodations.

Keywords: Inclusive Education; Intellectual Disabilities; Individualized Education Programs (IEP); Functional Curriculum; Assistive Technology; Curriculum Adaptations

1. Introduction

Enrollment for the age group 6-14 has been 96% or above since 2009. This proportion increased from 96.7% in 2014 to 96.9% in 2016. Nationally, reading levels in standard VIII show a slight decline since 2014 (from 74.7% to 73.1%). Then and now, three out of every four children enrolled in standard VIII can read at least Std II level. The ability to do division among standard VIII students has continued to drop. This declining trend has been observed since 2010. The proportion of standard VIII students who could correctly do a 3-digit by 1-digit division problem was 68.4% in 2010, this number dropped to 44.2% in 2014, and has further declined to 43.3% in 2016 (ASER 2016).

This often is resulting in the drop out of the students with ID in some or the other grade (classroom). According to findings from out of school report, out of 2.9 million children with disabilities in India, 990,000 children aged 6 to 14 years (34 %) are out of school. The percentages are even higher among children with intellectual disabilities (48 %). "India has made tremendous efforts to make its education system more inclusive. Under the Right to Education Act, all children have the right to go to school. To accommodate a greater number of children with disabilities, further progress is needed," (Fixing the Broken Promise of Education for All, UNESCO, 2015, UNICEF and UIS, 2014d). The progress is therefore expected in quality educational services for students with intellectual and other disabilities in better inclusive classrooms.

1.1. Individualised Educational Programs

Individuals with intellectual disability (ID) experience a mismatch between their personal competency and environmental demands, which creates support needs for individuals (Thompson et al., 2009). There is a need to

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provide reasonable accommodation according to the individual's requirements. Also provide necessary support Individualised or otherwise in environments that maximize academic and social development consistent with the goal of full inclusion. Chapter III, Education (iii) and (iv) The Rights of Persons with Disabilities Act, 2016 (RPwD 2016).

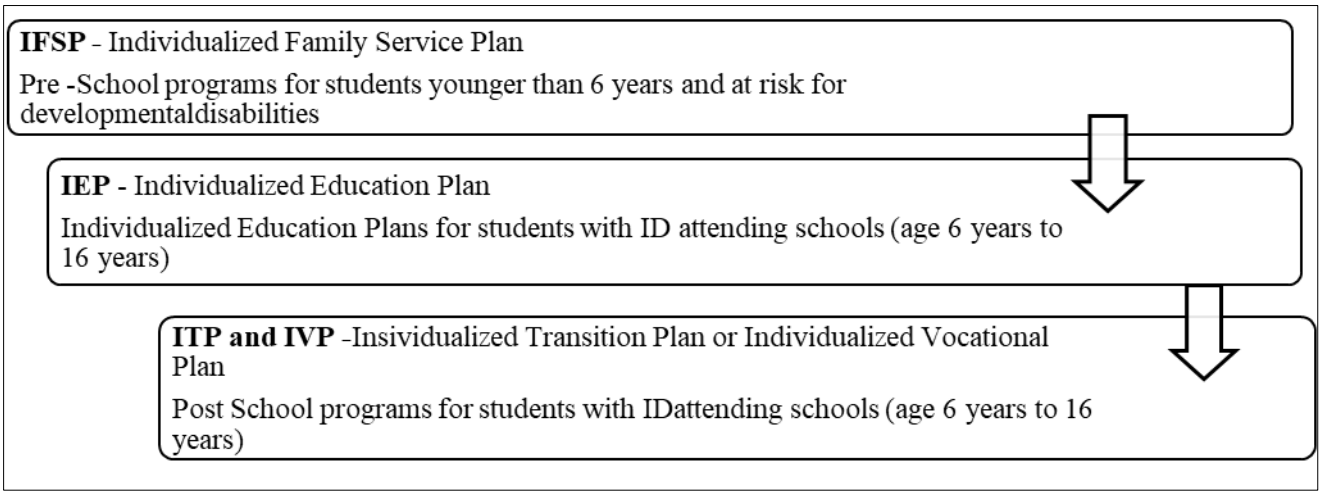

Figure 1 Individualized Education Programs for Students with Intellectual Disabilities across Ages

1.2. Universal Design of Learning

Universal Design for Learning (UDL) refers to a process in which a curriculum (goals, methods, materials and assessments) are intentionally designed to offer flexible and inclusive approaches that can be customized and adjusted for individual needs. The key components of UDL are to ensure flexibility and accessibility in the ways information is presented, the way students respond or demonstrate knowledge and skills, and the way they are engaged in the learning process e.g. with the course content, interactions with peers, and instructors etc.

1.3. Curricular Adaptations, Modifications and Accommodations

Curriculum modification strategies, particularly curriculum adaptations and augmentations, have been identified as an important strategy to enable learners with disabilities to achieve access to and progress in the general curriculum. There is, however, relatively little research on the effect of these strategies with students with intellectual disabilities. Here are few evidence based practices of curriculum augmentation and adaptations for students with ID in inclusive environments.

- **Graphic organizer types:** Flow chart, semantic maps, webs, computerized programs.
- **Chunking:** Chunking is basically the process of "combining related elements into units. Chunking is a curriculum augmentation strategy in that students learn to 'chunk' material to make it more manageable and to improve memory and recall
- **Mnemonic strategies:** Mnemonic strategies are systematic procedures for enhancing memory by providing effective cues for recall as a "cognitive cuing structure" such as word, sentence, or picture devices.
- **Student-directed learning strategies and self-determination:** Promoting and enhancing self-determination equips students with disabilities with skills that, in turn, will enable them to succeed in the general curriculum. Self-determination is achieved through its component elements (goal-setting, problem-solving, self-regulation and other skills)
- **Goal setting:** As an augmentation to the general curriculum, teaching students with intellectual and developmental disabilities to set and attain goals can enable them to better regulate their behavior as it relates to their academic progress by providing them with an established criterion in which to compare their current level of performance.
- **Problem-Solving:** Problem-solving is a process used to identify available information and design solutions to a problem to achieve one's goal.

2. Focus on Functional Curriculum

A curriculum focused on skills needed for daily life, such as domestic, vocational, community, and recreation (Browder et al., 2004). A key feature of functional curriculum involves a curriculum focused on skills needed to function in adult

life (Bouck, 2009). A functional curriculum is multifaceted and typically considered to be composed of the following components (Patton, Cronin, & Jairrels, 1997):

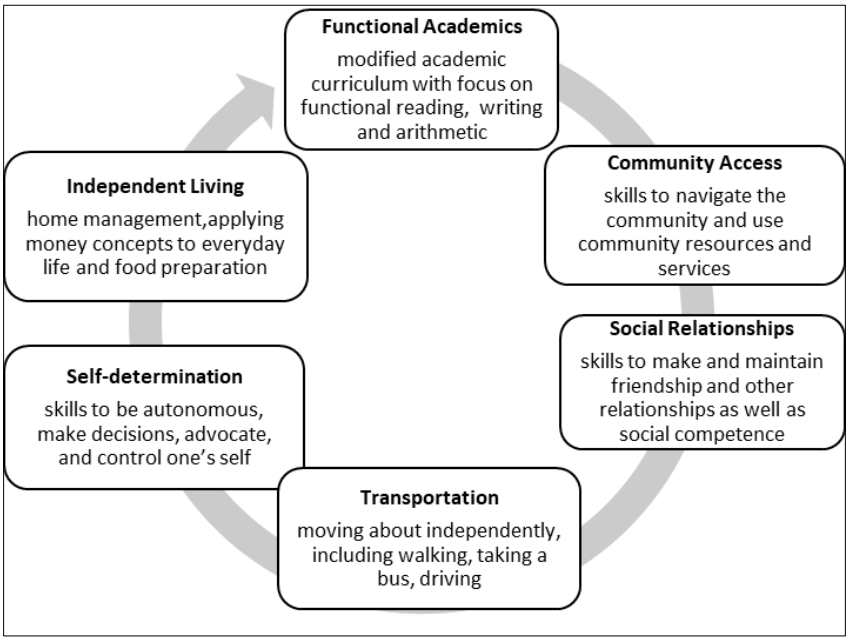

Figure 2 Components of Functional Curriculum

The lack of research on a functional curriculum, particularly for secondary students with mild intellectual disabilities, may be related to the lack of appropriate models existing for this population. (Bouck, 2009). The regular school curriculum of state, central and international boards (SSC, CBSE, ICSE and NIOS syllabus) * in India is high in standards for students with ID particularly in elementary and high school which may lead to frustrated academic learning.

2.1. Co Teaching Methods

Many a time, the regular teachers and special educators are not prepared for inclusion. Therefore, their lack of knowledge and skills result in their resistance to change. It is essential for all teachers to follow Co-Teaching methods in inclusive classrooms which include:

Interactive Teaching - Teachers alternate roles of presenting, reviewing, and monitoring instruction.

Alternative Teaching - One person teaches, re-teaches, or enriches a concept for a small group, while the other monitors or teaches the remaining students.

Parallel Teaching - Students are divided into mixed-ability groups, and each co-teaching partner teaches the same material to one of the groups.

Station Teaching - Small groups of students rotate to various stations for instruction, review, and/or

Figure 3 Source: Walther-Thomas et al., 2000

2.2. Peer Tutoring and Cooperative Learning Group

A peer is an individual of the same social gathering. In an inclusive classroom peer means a fellow student. Peer tutoring, thus, means students teaching each other on one-to-one basis. (Teaching in Inclusive Classrooms Inclusive Classrooms, National Council for Teachers Education- NCERT, Chapter 4, 2007). Students work together in small groups and learn through interaction with each other while the teacher coaches the process. In cooperative learning, students work together in small groups on a structured activity. Here are few examples.

Table 1 Cooperative Learning Groups in Inclusive Classrooms

Group	Group Formation
Whole group	All students are assigned to participate in the class.
Small group (same ability)	Three to eight students with similar knowledge and skills are grouped. Students can be regrouped regularly based on the needs.
Small group (mixed ability)	Three to eight students with varied strengths and interests are grouped. Can be cooperative groups or student-led groups. Group members can change regularly.
Pairs/ partner	Cross-age pairs allow older students to tutor younger students. Same age pairs allow students to co-teach. Progress monitoring data is used to assign students to pairs.

2.3. Assistive Technology (AT)

Assistive technology is the term used to describe devices used by people with intellectual disabilities and/or other disabilities that help compensate for functional limitations and increase learning, independence, mobility, communication, environmental control and choice. This term also refers to direct services that assist individuals in selecting, acquiring or using such devices. AT can be any object or device that provides a student with more access to the curriculum. However, range from low technology devices like pencil grippers, visual cards to mid technology devices like computer, laptops, augmentative communication devices and high technology devices like mobile applications, computer assisted instructions (CAI) and software's. One such CAI software series is designed by National Institute for the Empowerment of Intellectually Disabled (NIEPID), Secunderabad, many such are required in future. Recently Center for Development of Advanced Computing, Bengaluru, India (CDAC, 2014) designed 'E-Saadhya' an e-learning environment for students with mild intellectual disability and mobile application 'SWAR' for students ID. All these AT can be used inclusive classrooms for students for ID.

3. Conclusion

The bigger challenge of government schools (Sarva Siksha Abhiyan-SSA schools) is they accommodate students with all disabilities in one class or the resource center with pull in and pullout academic support. There is heterogeneity in their age and educational functional level. Presently the education, training and rehabilitation of students with intellectual disabilities in inclusive schools are happening in isolation leading to chaos in the progress and promotion of school grades from one stage of schooling to the other. Unlike students with sensory disabilities who can cope with general curriculum having plus curricular facilities and exemptions, for board exams, the most disadvantaged are students with developmental disabilities i.e., students with autism, learning disabilities and particularly intellectually disabled because majority of them show low academic performance in inclusive environments. National Institute for Open Schooling is also an option for students with ID, though it has many choices of electing courses/subjects, extension of course period and exam timelines, even this has regular curriculum.

It has been observed that resource teachers and special educators often lack effective communication with regular classroom teachers regarding the education of students requiring additional support. This lack of coordination hinders collaboration between educators, ultimately undermining the goal of inclusive education. To ensure successful and seamless inclusion, it is crucial that all stakeholders are adequately prepared and work cohesively towards this shared objective. Alternatively, it is difficult to have a standardized functional curriculum for students with ID as it may not work across the severity levels child each child differs in their current functional level of educational performance. Also, functional curriculum varies geographically, culturally, and socially on a multilingual and multicultural country like India. There is also a buzz among special educators, parents, care givers and other professionals that a full-time special class having homogenous set of students within the school which is also known as self-contained class in the western inclusive schools can benefit particularly students with intellectual disabilities in school inclusion with learning regular and functional curriculum. In conclusion students with intellectual disability can better learn in inclusive classrooms with good support which is functionally appropriate, socially relevant and which leads them to seek a self-reliant livelihood. Stakeholders, parents, other professionals and especially teachers and special educators can make the difference in near future by BUILDING QUALITY INCLUSIVE CLASSROOMS!

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