ADAPTING PEDAGOGICAL STRATEGIES TO ADDRESS DIVERSE LEARNING NEEDS IN INCLUSIVE CLASSROOMS

Abstract

__Introduction-__Research has shown that by incorporating cognitive and behavioural theories into educational strategies, teachers can enrich student learning by providing insights into learning and behavioural adaptation mechanisms. Curriculum changes and differentiated instruction,which involve modifying instructional materials, tests, and activities to accommodate a range of learning needs,should be given top priority in schools.

__Objectives -__ This paper aims to identifypedagogical strategies that can be adopted to meet the diverse learning needs of students in inclusive education.

__Method-__ A systematic review of research conducted in the past was analysed and inferences were drawn based upon the major findings of the respective researches.

__Findings -__ The analysis identified major inferences, including that Differentiated instruction, Universal Design for Learning (UDL), Project-Based Learning (PBL), and Cooperative Learning are some of the strategies used to adapt pedagogy for diverse learners in inclusive classrooms. These strategies emphasize varied content, process, and product delivery, flexible grouping, multisensory materials, and supportive technology.

__Conclusion-__ To meet each student's needs for academic and social development, innovative pedagogies suitable for diverse learners, along with key strategies, including providing accommodations (large print, audiobooks), making adjustments, and creating an accessible environment with high standards. Eventually, learner-centred approaches will replace teacher-centred ones.Simultaneously, teachers must continue their professional development, with an emphasis on differentiated instruction, assistive technology, and inclusive education initiatives.

__Keywords- pedagogical, adaptation, differentiated instructions, diverse, accommodations__

Introduction

The education system previously designed was more suited for a homogeneous group of learners and often struggles to accommodate individual learning needs fully. Even while inclusive education is becoming more and more important, many schools still struggle to provide these students with appropriate, individualized support that can maximize their learning achievements.Teachers frequently report difficulties in adapting pedagogical methods to meet the diverse needs of learners, mostly due to a lack of adequate training and resource support. Students with diverse learning needs will continue to experience educational disparities in the absence of a comprehensive plan that integrates pedagogical innovation with an efficient support system.

Traditional pedagogy refers predominantly to the face-to-face teaching environment and the conceptual frameworks around how people learn in that particular space. Over the past few decades,

conventional pedagogy has evolved to include other modalities, specifically, the online environment.Generally defined as the theory and practice of teaching, pedagogy refers to the methodology and process of how teachers approach teaching and learning using a specific curriculum with specific goals in mind.

According to the National Education Policy (NEP-2020),Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, and discussion-based, flexible, enjoyable." NEP,2020. **Prof. Anjum Sibia, NCERT**

Standard and widely used teaching methods include seminars, lectures, demonstration courses, and tutorials, each serving a specific educational purpose. These methods are also extensively used in inclusive classrooms, without mapping students' learning needs. Every student in the class benefits greatly from effective teaching and learning techniques, regardless of their skills, interests, or sociocultural background. However, some students require more specialised techniques to help them overcome specific learning obstacles. Teachers struggle to adapt instruction, manage diverse needs, and access resources to support inclusion (Melloria&Gaylo, 2024).

Diverse Learning Needs

Depending upon the exact context, diversity can be viewed in a variety of ways. Broadly stated, diversity can be referred to as the presence of a large variety of occurrences. In elementary education, diverse learners, those from many cultural, language, and cognitive backgrounds, demand distinct instructional methodologies.In today's educational environment, global classrooms are characterized by diversity. Due to their varied cultural, linguistic, cognitive, and socioeconomic origins, students bring special viewpoints and difficulties to the classroom.Research has shown that students absorb and retain information differently based on their preferred learning modes.

The following are the expounding bases of diversity:

- •**Culture**
- •**Race**
- **Gender**
- **Ability/disability**
- **Socio-economic status**

Research Objectives-

The present paper addresses the following concerns-

- Toidentifyvarious pedagogical strategies that can be adapted and used effectively for addressing the diversity in the classroom.
- To discuss the key pedagogical strategies for accommodating diverse learning needs in the inclusive classroom.

Rationale of the study-

The foundation of societal growth is education, yet traditional pedagogies frequently fall short of meeting the requirements of students with a range of abilities. In order to support successful learning outcomes for diverse learners, it is not only required but also practically necessary to modify pedagogical approaches. In traditional classrooms, students with a variety of abilities,including those with emotional, cognitive, or physical difficulties,often face obstacles (Tomlinson, 2017).

In traditional classrooms, students exhibiting diversity,including those with emotional, cognitive, or physical difficulties, often face obstacles (Tomlinson, 2017). **Inadequate teacher preparation** and **unavailable teaching resources** are two examples of these obstacles. Teachers can create a setting where all students flourish by customizing teaching approaches. It has been demonstrated that **technology-enhanced learning, differentiated instruction, and universal design for learning (UDL)** increase student engagement and performance across a range of needs (Hall et al., 2012).

Research shows that satisfying various learning needs still depends critically on teacher readiness, which is lacking (Owens & Wells, 2021). First teacher needs to understand the types of diversity. Various research also supports the fact that teachers need to know themselves, first their abilities, preferred methodologies, and secondly to have an understanding of the nature, needs, and learning preferences of their students. Teachers should also realise that not everyone learn in the same way. Thereafter, can employ various pedagogical methodologies during the teaching learning process.

Methodology-
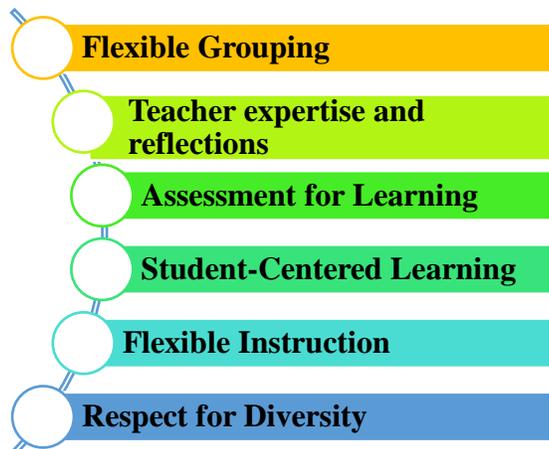
To achieve this purpose, the researcher has employed a review strategy. An extensive review of related literature has been done, and the most relevant research has been listed to draw general conclusions from particular facts.

Pedagogical foundations and differentiation-

The pedagogical foundations of the differentiation approach in education stem from the belief that every student has unique learning needs, interests, and abilities. Pedagogical strategies play a vital role in shaping the educational experience of students with diverse learning needs. These learners requirespecialised instructional methods that can cater to their unique learning needs.This approach

94   acknowledges that a one-size-fits-all teaching method is ineffective for reaching all students and

95   maximizing their learning potential. Instead, differentiation aims to tailor instruction to meet the

96   diverse needs of learners within a classroom.

97   **Here are some vital pedagogical foundations of the differentiation approach:**

- **Flexible Grouping**
- **Teacher expertise and reflections**
- **Assessment for Learning**
- **Student-Centered Learning**
- **Flexible Instruction**
- **Respect for Diversity**

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99   Learners come from diverse backgrounds and possess different learning styles, preferences, and

100   abilities. Therefore, instruction is designed to accommodate these differences and empower students to

101   take ownership of their learning. In an inclusive classroom, teachers recognize the diversity of their

102   students and collaborate with them to create a secure and supportive learning environment.

103   Continuous professional development (CPD) and reflection are essential for teachers to refine

104   their differentiation practices and meet the evolving needs of their students. By embracing these

105   pedagogical foundations, educators can create more inclusive, engaging, and effective learning

106   environments that support the success of all students.

Metric	Traditional Pedagogy	Modern Pedagogy
Role of Teacher	Lecturer	Facilitator
Student Engagement	Passive	Active
Critical Thinking	Low (Hattei, 2009)	High (Freeman et al., 2014)
Retention Rate	45% after 6 Month	65% after 6 Month

107 *Modern methods like collaborative learning increase critical thinking by 40% but require 50% more*

108 *preparation time (Johnson & Johnson, 1999).*

109   **Implications and application of cognitive and behavioural theories of learning**

110   Despite advances in education, there is an urgent need for various pedagogical strategies as

111   significant pedagogical challenges persist in the effective teaching of students with special educational

112   needs. The teaching strategies for inclusive education rest on several foundational theories that still

113 guide current practices and policies aiming to provide equitable learning opportunities for students with
114 diverse learning needs. Out of several theories, some of the most influential theories include Vygotsky's
115 Social Constructivism, Gardner's theory of multiple intelligences, and Bandura's social learning theory.

116 **Curriculum and Pedagogies as per recommendations of the National Education Policy (NEP-**
117 **2020)**

118 • Shift towards learning **how to learn**.
119 • Facilitate attaining the **potentialities /hidden abilities** of all learners.
120 • Integration of **specific sets of skills and values across domains**.
121 • Integration of **specific sets of skills and values across domains & stages**.
122 • Curriculum to focus on **core concepts,Constitutional values, and bonding** with one's country.

123 **Recent Pedagogies approach as per the research studies explored-**

1. **Cooperative teaching and learning**	2. **Problem posing teaching**	3. **Inquiry-based instructions (IBD)**
4. **Visualization as a strategy**	5. **Differentiation as a strategy**	6. **Technology-based teaching**
7. **Modelling in the classroom**	8. **Focus group teaching**	9. **Behaviour Management in the classroom**
10. **Collaborative learning in the classroom**	11. **Imagery and Visualised learning**	12. **Exemplifying in the classroom**
13. **Role Modelling in the classroom**	14. **ExperimentalLearning in classroom**	

124

125 The above mentioned pedagogical approaches attempt to address learners' diversity in all broad
126 aspects. Adapting pedagogical approaches to address the needs of students with diverse abilities is a
127 critical aspect of inclusive education. As diversity is an umbrella term and learners exhibit a wide array
128 of differentiation, the researcher has selected and discussed only those pedagogical strategies thatcan be
129 used for children with diverse abilities, ranging from gifted to developmental disorders.

130   Differentiated instruction is another widely recommended strategy, enabling teachers to modify

131   curriculum content, processes, and products to align with individual students' readiness, interests, and

132   learning profiles (Tomlinson, 2017).

133   Inclusive pedagogy is an approach to teaching that values diversity, promotes equity, and

134   creates an environment where all students feel valued and empowered to learn. Implementing inclusive

135   pedagogies effectively requires careful planning, reflection, and adherence to best practices.Below are

136   key adapted pedagogical practices/guidelines recommended for fostering inclusivity in educational

137   settings.

138   **Foster an Inclusive Classroom Environment:**

139   Creating an environment that not only celebrates diversity but also encourages open dialogue is

140   essential. Teachers should ensure and establish norms that promote respect and inclusivity among

141   learners, ensuring all students are valued and feel safe to express their perspectives. For example,

142   setting ground rules for discussions can help prevent discriminatory language and behaviours (Gay,

143   2018).

144   **Use Culturally Responsive Teaching**:

145   Culturally responsive teaching acknowledges and integrates students' cultural backgrounds into

146   the learning process. By incorporating diverse perspectives and materials into the curriculum, educators

147   can make learning more relevant and engaging for all students (Ladson-Billings, 1995). This may

148   involve selecting readings from diverse authors or discussing global perspectives on topics.

149   **Differentiate Instruction:**

150   A key component of successful inclusive education instruction is differentiated instruction (DI),

151   which stresses adjusting the learning process to each student's unique requirements, skills, and learning

152   preferences. Differentiated instruction recognizes that kids with special educational needs have

153   particular cognitive, emotional, and physical obstacles that call for a more flexible teaching method, in

154   contrast to traditional instruction, which frequently assumes a one-size-fits-all approach.Recognizing

155   that students learn differently, differentiated instruction allows teachers to tailor their methods to meet

156   varied needs. Strategies such as using multiple formats for content delivery (e.g., visual, auditory, and

157   hands-on activities) and providing alternative assessment options can help ensure equitable access to

158   learning (Tomlinson, 2014).

159   **Co-Teaching Models**:

Co-teaching strategies, where general and special education teachers work collaboratively, have been shown to enhance student outcomes in inclusive settings (Friend et al., 2010). For example, in the "**one teach, one assist"**, station teachingmodel, one teacher delivers instruction while the other supports students needing additional help.

Peer-Mediated Teaching Strategies:

Peer tutoring and cooperative learning activities encourage interaction between students of diverse abilities, fostering academic and social growth (Carter et al., 2005).Other names include **"peer teaching", "partner learning", "Peer education", "child-teach-child", and "mutual instruction"**. Like in peer tutoring, assigning roles based on students' strengths in group activities can ensure participation and build confidence. Three forms of peer tutoring are**Class Wide Peer Tutoring(CWPT),Peer-Assisted Learning Strategies(PALS)**, **Reciprocal Peer Tutoring(RPT).**

Positive Behaviour Interventions and Supports (PBIS):

PBIS involves using proactive strategies to promote a positive classroom environment, which is essential for managing behaviours in inclusive classrooms (Sugai & Horner, 2002). PBIS is a unique approach that helps to eliminate challenging behaviour and supplements it with skills and tools that help students make better choices. Clear expectations, consistent reinforcement, and individualized behaviour plans help ensure all students feel supported.

Assistive Technology:

Accessibility can be greatly improved by assistive technology and software, allowing students to more successfully interact with the curriculum and fully participate in class activities.Use of assistive technology, such as speech-to-text tools or communication devices, can significantly support students with disabilities in accessing the curriculum (Edyburn, 2013). For instance, a student with a physical disability might use adaptive keyboards to complete assignments.

Address Biases and Stereotypes:

Educators must actively reflect on and address their own biases, as these can unconsciously influence teaching practices and interactions with students. Regular professional development focused on equity and inclusion can help teachers identify and mitigate these biases (Sue, 2010).

189   **Encourage Student Voice and Agency**:

190   Inclusive pedagogy involves giving students opportunities to co-create the learning process.

191   This can be achieved by incorporating student feedback into lesson planning and allowing students to

192   choose topics or methods for assignments, fostering a sense of ownership and engagement (Freire,

193   1970).

194   **Universal Design for Learning (UDL):**

195   UDL is a framework that guides the design of learning experiences to accommodate diverse

196   learners. By providing **multiple means of representation**, **action and expression**, and **engagement**, it

197   is ensured that all students can access and participate in learning **(CAST, 2018).** A growing body of

198   research suggests that UDL can significantly enhance student engagement in inclusive classrooms

199   (Lang et al., 2012; Meyer et al., 2014). Engagement is a critical component of learning, as it

200   encompasses students' emotional, cognitive, and behavioural involvement in educational activities

201   (Fredricks, Blumenfeld, & Paris, 2004).

202   **Evaluate and Reflect**:

203   Continuous assessment of teaching practices is crucial. Educators should seek feedback from

204   students, peers, and self-evaluations to identify areas for improvement in their inclusive practices

205   (Brookfield, 2017).

206   **Teacher Expertise and Reflection**:

207   Implementing differentiation requires skilled teachers who can effectively assess student needs,

208   plan and deliver differentiated instruction, and reflect on its effectiveness. Critical reflective practice is

209   vital for enhancing teacher competencies, skills, and transforming educational systems towards

210   inclusion (Di Gennaro et al., 2014). Several key factors, such as context, teaching experience,

211   knowledge of inclusive education policies, pre-service education, professional learning, and interaction

212   with people with disabilities, affect teachers' self-efficacy for inclusive education (Wray et al., 2022).

213   The following picture depicts significant components of teaching, theirpractices,and concerns,

214   making it more thought provoking and offering opportunities for improvement and inclusion.

215   **Conclusion**

216   Understanding Diversity as**Diversity as an asset.**The findings underlined the need for diverse

217   pedagogical strategies to accommodate different learning styles, stressing that not one size fits all.

218 Additionally, it also explains that various innovative and evidence-based pedagogical approaches can
219 cater to the needs of diverse learners. Contemporary pedagogical frameworks and strategies underscore
220 the importance of inclusivity and adaptability in education. Nevertheless, the research concludes that
221 significant challenges and limitations will remain;teachers should opt for a multifaceted approach to
222 teaching by combining various pedagogical techniques to meet students' learning styles. Schools must
223 promote cooperative learning strategies enhance students' achievementin the classroom.

224 As the field of special and inclusive education continues to evolve, educators and policymakers
225 must stay informed about best practices, emerging technologies, and new research. Most importantly, a
226 teacher should have a deeper understanding of pedagogical or teaching methods and learning styles to
227 gain insights into optimising educational methods that enhance learners' ability and improve the
228 efficiency of teaching.

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