

## Reframing Curriculum Differentiation as an Essential Teacher Competency in Diverse Classrooms

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### ABSTRACT

Increasing learner diversity has become a defining feature of contemporary classrooms, demanding pedagogical approaches that go beyond uniform curriculum transfer. In this context, curriculum differentiation has emerged as a core teaching competency rather than an additional instructional strategy, enabling facilitators to respond effectively to variations in learner readiness, abilities, interests, learning styles, linguistic backgrounds, and socio-cultural contexts. In the Indian context, particularly within CBSE and State Board schools' settings in India, this chapter critically examines curriculum differentiation as an essential professional competency. Drawing evidence explore the role of pre-service teacher preparation, subject-specific differentiation strategies in Mathematics, Language, and Science, and key instructional practices such as flexible grouping, tiered tasks, and learner choice. The chapter further highlights that assessment and documentation practices that support differentiated teacher education and classroom practice are essential for promoting equity, inclusion and improved learning outcomes.

**Keywords:** Curriculum Differentiation; Teacher Competency; Learner Diversity; Inclusive Education

### 1. Introduction

The present-day classroom has become a dynamic space characterised by definite social, cognitive, and cultural diversity. Students differ commonly in their prior knowledge, pace of learning, motivation, linguistic proficiency, learning preferences, and socio-economic experiences. In such heterogeneous learning atmospheres, uniform curriculum transfer and standardized instructional practices are gradually insufficient to address the diverse needs of all learners. Research advocates that rigid pedagogical approaches often contribute to disconnection and unequal learning outcomes, particularly for students from marginalized or linguistically diverse backgrounds (Tomlinson, 2014).

Curriculum differentiation provides a pedagogical framework that recognizes learner diversity and ensures reasonable access to meaningful learning experiences. It emphasizes adjusting instructional content, processes, learning products, and classroom environments to align with learners' readiness, interests, and learning profiles, while continuing common curricular goals (Tomlinson, 2017). Complete differentiated instruction, facilitators are better situated to create

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inclusive classrooms that support learner engagement, academic growth, and holistic development.

In the Indian educational context, both CBSE and State education systems are progressively encouraging learner-centred pedagogy, competency-based education, and inclusive teaching practices. The National Education Policy (NEP) 2020 obviously emphasizes the need for flexible and adaptive teaching approaches that respond to individual learner needs, thus reinforcing curriculum differentiation as a core professional teaching competency (Government of India, 2020). Against this background, the present chapter conceptualizes curriculum differentiation as an essential teacher capability and examines its application across school contexts, pre-service teacher education, and subject-specific domains, with a focus on Mathematics, Language, and Science education.

**Table 1: Policy Alignment of Curriculum Differentiation**

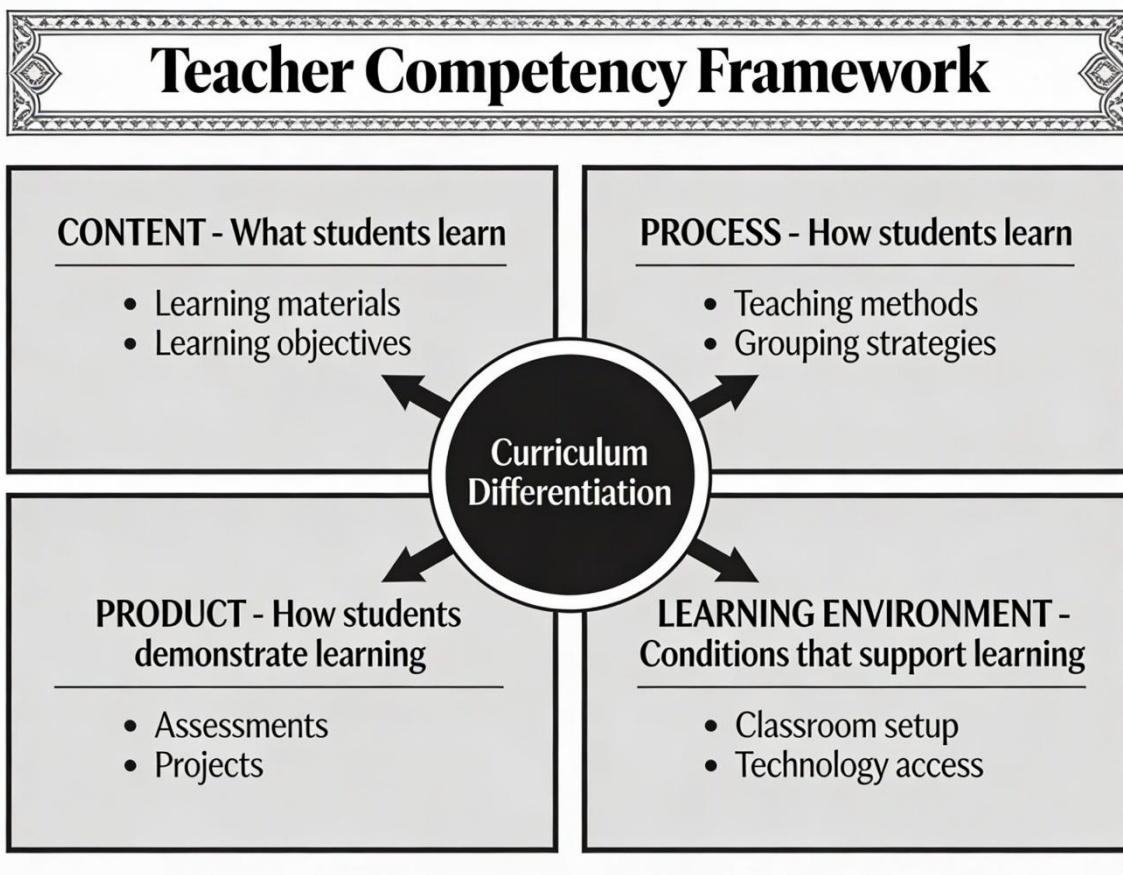
Policy Document	Key Provision	Application in This Chapter
NEP 2020	Emphasis on learner-centred, competency-based pedagogy	Differentiation as a core teacher competency
NCFSE 2023	Flexible pedagogy, UDL, multilingual classrooms	Subject-specific differentiation strategies
NCF-TE / ITEP	Extended practicum & competency sequencing	Differentiation is integrated across the 4-year ITEP

### 2. Conceptual Framework of Curriculum Differentiation

Curriculum differentiation refers to the planned and systematic variation of teaching and learning processes to address learner diversity without compromising curricular standards or learning outcomes. It is a proactive pedagogical approach in which the facilitator plans and implements various learning experiences based on students' readiness levels, interest and learning profile (Tomlinson, 2017). Relatively differentiation emphasises flexibility in curriculum design to ensure equitable learning opportunities for all students.

The conceptual framework of curriculum differentiation is commonly organised around four interrelated dimensions. Content refers to variations in what students learn, allowing teachers to adjust materials, resources, or depth of learning. Process involves modifying how students engage with learning experiences through diverse instructional strategies and activities. Product focuses on varied ways in which students demonstrate their learning and understanding, while the learning environment encompasses the physical, social, and emotional conditions that support learning (Tomlinson, 2014; Tomlinson, 2017).

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*Figure 1: The Four Dimensions of Curriculum Differentiation Framework*

### 3. Curriculum Differentiation in CBSE and State Schools: Evidence from Practice

CBSE institutes have increasingly adopted pupil-centred and competency-based pedagogical approaches, thereby creating a supportive environment for the implementation of curriculum differentiation. The importance of experiential learning, formative assessment, and flexible instructional practices enables teachers to respond effectively to variations in learners' abilities and interests. Instructional strategies such as project-based learning, art-integrated pedagogy, activity-based tasks, and case-based learning provide structured opportunities for teachers to modify instruction in alignment with learners' readiness levels and learning preferences (CBSE, 2023). These practices demonstrate an institutional commitment to fostering inclusive and responsive classroom environments.

In contrast, State board schools often operate under more challenging conditions, including large class sizes, limited teaching-learning resources, and examination-oriented curricular frameworks. These constraints, evidence suggests that teachers in State schools normally engage in adaptive and contextually responsive instructional strategies. Practices such as peer tutoring, peer learning, multilingual explanations, contextualized examples, and graded questioning are commonly used to address learner diversity and support comprehension among students with varied academic and linguistic backgrounds (NCERT, 2021). Such familiar yet effective differentiation practices demonstrate teachers' pedagogical ingenuity and commitment to inclusive teaching.

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Collectively, these findings indicate that curriculum differentiation is not solely dependent on institutional resources or policy frameworks. Relatively, it is significantly shaped by teachers' professional competence, pedagogical awareness, and willingness to adapt instruction to pupil needs. The evidence from both CBSE and State board contexts highlights the central role of teacher agency in translating differentiated pedagogy into meaningful classroom practice.

### Case Illustration: Differentiation in a Grade-VIII Government School, Chhattisgarh

A Grade-VIII classroom in a government upper-primary school in rural Chhattisgarh comprised 55 students, many of whom were first-generation learners from agrarian families. The medium of instruction was officially Hindi; however, most students spoke Chhattisgarhi at home, resulting in limited comprehension and low classroom participation. The science teacher introduced curriculum differentiation to address this diversity by forming flexible peer-tutoring groups that mixed high-, average-, and low-achieving learners. Tiered worksheets were prepared for a unit on "Crop Production," with basic vocabulary-rich tasks in bilingual format (Hindi-Chhattisgarhi) for emerging learners and concept-application tasks for advanced students. Visual aids and local agricultural examples were integrated into lessons to enhance relevance. Within six weeks, classroom observations indicated a marked increase in participation among previously disengaged students, particularly first-generation learners, who began volunteering answers and collaborating actively in group work. Informal formative assessments showed improved conceptual understanding across ability groups, demonstrating that low-cost differentiation strategies can significantly enhance engagement and equity even in large, resource-constrained Indian classrooms.

### 4. Pre-Service Teacher Training and Differentiation Competency

Pre-service teacher education plays a dynamic role in developing curriculum differentiation competency, yet many more traditional programmes still prioritise subject knowledge over adaptive and responsive pedagogy, leaving beginner teachers underprepared for diverse classrooms. Research shows that when differentiation is explicitly fixed in pre-service training, prospective teachers develop greater instructional confidence, pedagogical flexibility, and responsiveness to learner diversity (Darling-Hammond et al., 2017). Current preparation includes introduction to diverse learner profiles, opportunities to design and implement differentiated lesson plans, practice through micro-teaching and simulated classrooms, and the development of assessment literacy with an emphasis on formative assessment. Analytically participating in curriculum differentiation into B.Ed. and D.El.Ed. programmes is therefore essential to prepare future teachers with the skills needed to manage diverse classrooms, promote inclusive teaching practices, and ensure equitable learning opportunities for all students.

### 5. Subject-Specific Differentiation Strategies

Curriculum differentiation is particularly effective when applied within specific subject areas, as learners demonstrate varied readiness, understanding, and skills across disciplines. Subject-specific differentiation allows teachers to align instructional strategies with the distinct pedagogical demands of Mathematics, Language, and Science, thereby supporting meaningful and inclusive learning experiences.

**5.1 Differentiation in Mathematics:** Mathematics classrooms often reflect wide differences in learners' numerical understanding and problem-solving abilities. Differentiation through

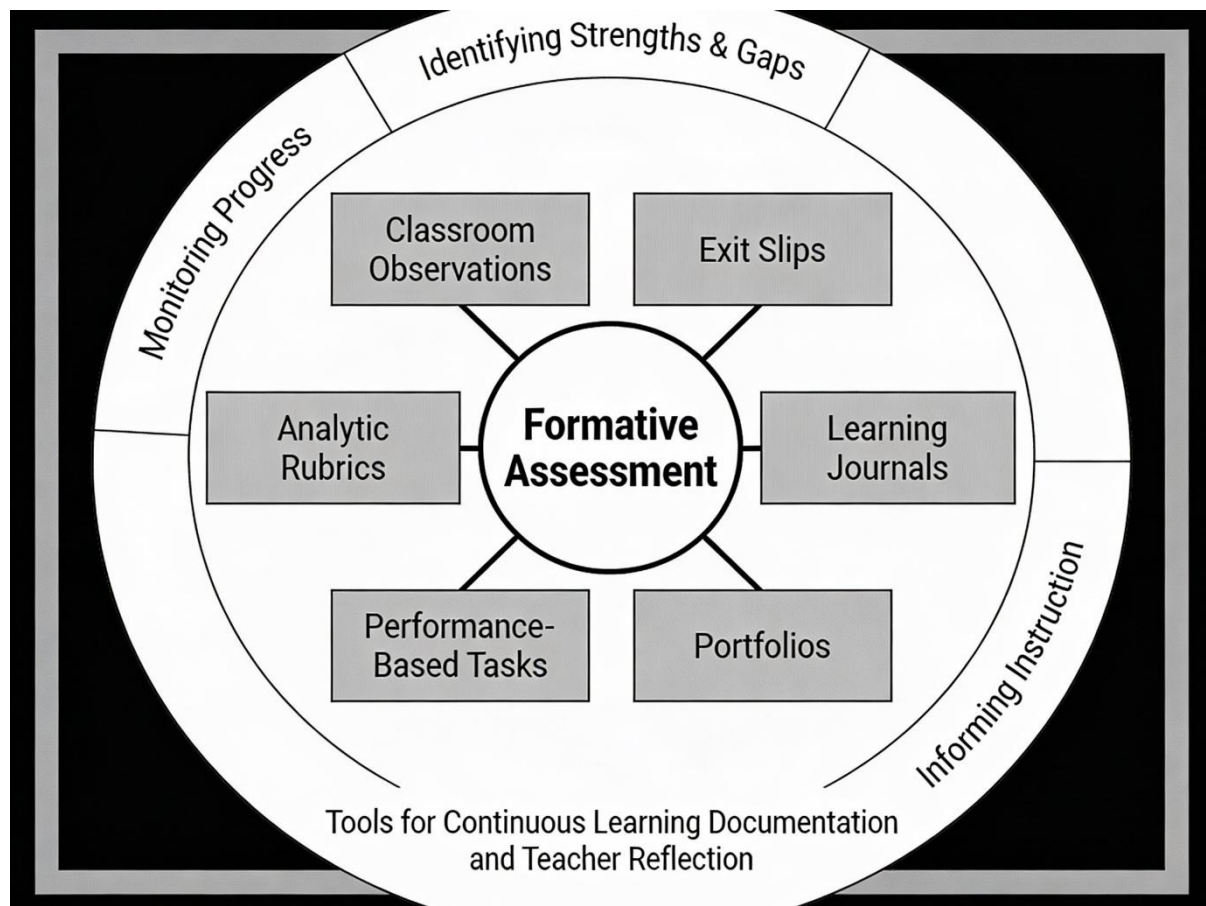
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multiple representations, tiered tasks, and varied solution strategies helps address these differences effectively. The concrete-representational-abstract (CRA) approach supports conceptual development by moving pupils from hands-on experiences to symbolic understanding, reducing anxiety and promoting deeper mathematical comprehension (Boaler, 2016).

**5.2 Differentiation in Language Education:** In multilingual and culturally diverse classrooms, differentiated language instruction is essential. Teachers can support learners through level-appropriate reading materials, scaffolded writing tasks, and multiple modes of expression, while also valuing pupils' home languages to enhance comprehension. Such strategies promote language development, communicative competence, and linguistic equity (Cummins, 2014).

**5.3 Differentiation in Science Education:** Science differentiation involves adapting inquiry-based activities to accommodate diverse learning needs. Varying experimental complexity, using visual aids and simulations, and offering choice in projects enable learners to engage with scientific concepts meaningfully. These practices support conceptual understanding, inquiry skills, and scientific reasoning among diverse learners (National Research Council, 2012).

### 6. Instructional Strategies for Curriculum Differentiation



*Figure 2: Assessment and Documentation Practices*

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### **6.1 Flexible Grouping**

Flexible alliance involves restructuring students based on task, interest, or readiness. Unlike fixed ability grouping, it allows students to move between groups, promoting equity and collaboration (Tomlinson & Moon, 2013).

### **6.2 Tiered Tasks**

Tiered tasks are planned at changing levels of difficulty while targeting the same learning outcomes. This ensures that all students work toward common goals, but at a proper level of challenge.

### **6.3 Learner Choice**

Providing learner choice in topics, formats, or methods enhances motivation and autonomy. Choice-based learning aligns with constructivist principles and improves engagement (Ryan & Deci, 2020).

## **7. Assessing and Documenting Differentiated Learning**

Assessment and documentation are central to the current implementation of curriculum differentiation, as they enable teachers to continuously monitor learners' progress, identify individual strengths and learning gaps, and make informed instructional adjustments. In differentiated classrooms, emphasis is placed on formative assessment observations such as classroom observations, exit slips, learning journals, portfolios, performance-based tasks, and analytic rubrics, which provide ongoing and meaningful evidence of pupil learning (Black & Wiliam, 2009). Systematic documentation through learner profiles, anecdotal records, and reflective notes supports reflective teaching and helps instructors assess the effectiveness of differentiated strategies while planning targeted interventions. Within the Indian educational context, the CBSE's shift toward competency-based assessment aligns closely with the principles of differentiated instruction by prioritizing continuous evaluation, mastery of competencies, and learning progression over rote memorization, thereby strengthening inclusive and pupil-centred assessment practices (Black & Wiliam, 2009).

## **8. Challenges and Implications**

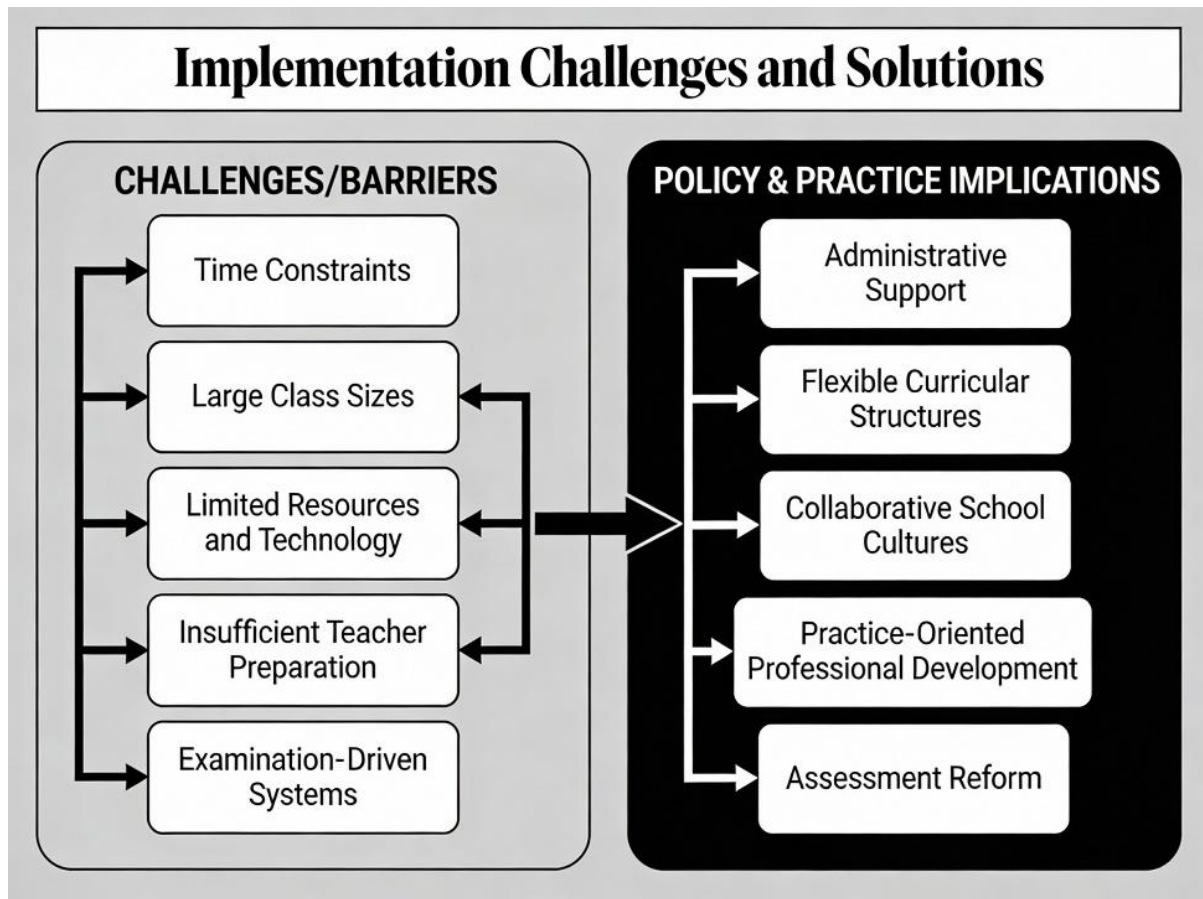
While curriculum differentiation offers significant pedagogical benefits, its effective implementation in school classrooms is constrained by several practical and systemic challenges, particularly in diverse and resource-limited contexts.

- Time constraints remain a major barrier, as differentiated lesson planning, material preparation, and continuous assessment demand considerable effort within rigid timetables and examination-driven systems.
- Large class sizes, especially in State board schools, further limit individualized attention, flexible grouping, and formative assessment, while inadequate access to teaching-learning resources and technological support restricts the effective use of differentiated strategies.
- Insufficient pre-service preparation and limited in-service professional development reduce teachers' confidence and practical competence in addressing learner diversity, and

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assessment systems that emphasize summative examinations often discourage instructional flexibility.

These challenges highlight important implications for policy and practice, including the need for strong administrative support, flexible curricular structures, collaborative school cultures, and sustained, practice-oriented professional development. At the policy level, knowing curriculum differentiation as a core teacher competency is important for ensuring responsibility and promoting inclusive, equitable, and high-quality education.



*Figure 3: Barriers to Implementation and Policy Implications*

### 9. Future Research Directions

Although curriculum differentiation is widely advocated as a cornerstone of inclusive pedagogy, systematic evidence on its long-term impact within Indian school contexts remains limited. Future research should therefore prioritise longitudinal studies that track cohorts of learners across multiple grades to examine how sustained exposure to differentiated instruction influences academic achievement, learner engagement, school retention, and socio-emotional outcomes, particularly among first-generation and marginalised students. In addition, there is a need for experimental and quasi-experimental studies that evaluate the effectiveness of specific differentiation strategies such as tiered instruction, flexible grouping, and learner-choice models, enabling researchers to establish causal relationships between pedagogical interventions and learner performance. Finally, given the prevalence of overcrowded classrooms in India, large-class Universal Design for Learning (UDL) implementation studies

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should explore how differentiation frameworks can be realistically operationalised in settings with 50-60 learners, limited infrastructure, and multilingual student populations. Collectively, these research agendas will strengthen the evidence base for policy formulation and teacher education reform in inclusive schooling.

### 10. Conclusion

Curriculum differentiation is a vital component of effective and inclusive teaching in today's diverse classrooms. As learners differ in their abilities, interests, and learning styles, uniform instructional approaches are insufficient to ensure meaningful learning for all. Evidence from CBSE and State board schools indicates that differentiated instructional practices enhance learner engagement, conceptual understanding, and academic achievement by addressing individual learning needs while maintaining common curricular goals.

The development of curriculum differentiation as a core teaching competency requires systematic integration into pre-service teacher education, subject-specific pedagogy, and classroom practice. Strategies such as flexible grouping, learner choice, and formative assessment enable teachers to adapt instruction responsively and promote active learning. Recognizing curriculum differentiation at institutional and policy levels strengthens educational equity, instructional quality, and curricular relevance. Therefore, inserting differentiated instruction within teacher preparation and school practices is essential for meeting contemporary educational demands and fostering inclusive, pupil-centred education.

### References

- A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. National Academies Press, 2012. DOI.org (Crossref), <https://doi.org/10.17226/13165>.
- Bank, Asian Development. *Innovative Strategies for Accelerated Human Resources Development in South Asia: Teacher Professional Development: Special Focus on Bangladesh, Nepal, and Sri Lanka*. Asian Development Bank Institute, 2017. Innovative Strategies for Accelerated Human Resource Development Ser. *K10plus ISBN*.
- Black, Paul, and Dylan Wiliam. 'Developing the Theory of Formative Assessment'. *Educational Assessment, Evaluation and Accountability*, vol. 21, no. 1, Feb. 2009, pp. 5-31. DOI.org (Crossref), <https://doi.org/10.1007/s11092-008-9068-5>.
- CBSE. (2023). Teacher handbook on competency-based education. Central Board of Secondary Education, Ministry of Education, Government of India.
- Mazza, Nicholas. Poetry Therapy: Interface of the Arts and Psychology*. CRC Press, 1999. *Innovations in Psychology*. *K10plus ISBN*.
- NCERT. (2021). Learning outcomes at the elementary stage. National Council of Educational Research and Training, Ministry of Education, Government of India.
- Rawekar, Alka, et al. 'Formative Assessment in Practical for Indian Postgraduates in Health Professions Education: A Strategic Initiative towards Competency-Based Education'. *Journal of Family Medicine and Primary Care*, vol. 9, no. 7, 2020, p. 3399. DOI.org (Crossref), [https://doi.org/10.4103/jfmpe.jfmpe\\_185\\_20](https://doi.org/10.4103/jfmpe.jfmpe_185_20).
- Simms, Victoria. 'Mathematical Mindsets: Unleashing Students' Potential through Creative Math, Inspiring Messages and Innovative Teaching'. *Research in Mathematics Education*, vol. 18, no. 3, Sept. 2016, pp. 317-20. DOI.org (Crossref), <https://doi.org/10.1080/14794802.2016.1237374>.
- Tomlinson, Carol A. *How to Differentiate Instruction in Academically Diverse Classrooms*. 3rd edition, ASCD, 2017. ProQuest Ebook Central. *K10plus ISBN*.

## Reframing Curriculum Differentiation as an Essential Teacher Competency in Diverse Classrooms

Tomlinson, Carol A. *The Differentiated Classroom: Responding to the Needs of All Learners*. 2nd edition, ASCD, 2014. Ebrary Online. *K10plus ISBN*.  
UNESCO. *A Guide for ensuring inclusion and equity in education*. UNESCO 2017, 2017. *Open WorldCat*.

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### ***Conflict of Interest***

The author declared no conflict of interest.

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