

CLUSTER INNOVATION CENTRE (UNIVERSITY OF DELHI) M.Sc. (Mathematics Education) A Joint Degree under the Meta University Concept by University of Delhi & Jamia Millia Islamia



TEACHERS' PERCEPTION OF DIFFERENTIATED INSTRUCTION AND ITS CHALLENGES IN MATH CLASSROOMS

(A research dissertation submitted at Cluster Innovation Centre, University of Delhi) Abstract

This study explores the perceptions of mathematics teachers regarding differentiated instruction (DI) and the challenges they face in implementing DI in classrooms. The research aims to understand how mathematics teachers perceive DI strategies, identify the potential benefits and specific challenges they encounter while implementing these strategies, and evaluate their effectiveness in enhancing students' learning. The study employs a descriptive approach, involving quantitative data collection and analysis. The findings of this research indicate that while teachers recognize the benefits of DI in addressing diverse student needs and promoting engagement and confidence levels in students, they face significant challenges, including large class sizes, insufficient time for planning, limited resources, weak administrative support, and lack of knowledge of DI strategies. Teachers' self-efficacy and access to supportive training and resources emerge as critical factors influencing their ability to implement DI effectively. This study contributes to the understanding of DI in the context of Indian mathematics classrooms, highlighting the need for targeted policies and professional development programs that address the specific challenges faced by teachers. The findings have implications for educators, policymakers, and stakeholders seeking to enhance the implementation of differentiated instruction and improve educational outcomes for all students.

By

Geetika Routela

M.Sc. (Mathematics Education)