



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



**STUDENTS' READINESS TO ESTABLISH CONNECTIONS BETWEEN
THEORETICAL MATHEMATICS
CONCEPTS AND THEIR APPLICATIONS IN REAL-LIFE STUDY**

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

Abstract

This research study explores students' readiness to establish connections between theoretical mathematics concepts and their applications in real-life scenarios. The findings indicate a relatively poor overall performance and limited comprehension among ninth-grade students in applying mathematical principles to real-world situations. The study emphasizes the need for curriculum reevaluation, focusing on practical applications and specialized support for students who struggle in this area. Incorporating real-life contexts in mathematics education is highlighted as significant, as students appreciate the inclusion of real-life applications, which enhance engagement, understanding, problem-solving skills, and critical thinking abilities. Teachers play a crucial role in designing meaningful and authentic mathematical tasks that connect abstract concepts to real-world scenarios. By adopting innovative teaching methods and presenting interdisciplinary examples, educators can promote a growth mindset and inspire a lifelong appreciation for mathematics. Understanding mathematics as a practical tool empowers individuals to solve problems, make informed decisions, and connect with other disciplines, fostering communication and collaboration. The research underscores the importance of mastering mathematical concepts beyond the classroom, as they play a vital role in problem-solving, critical thinking, and decision-making processes. The study concludes that a sizable portion of students struggle in understanding and apply mathematical principles to practical problems, highlighting the need for targeted interventions to improve mathematical abilities and provide the necessary skills for real-world success.

by

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