
NAVIGATING MATHEMATICAL OBSTACLES: TEACHERS' JOURNEY IN OVERCOMING PEDAGOGICAL CHALLENGES IN MATHEMATICS

***Leizel G. Chatto**

Philippines.

Article Received: 25 March 2026

*Corresponding Author: Leizel G. Chatto

Article Revised: 15 April 2026

Philippines.

Published on: 05 May 2026

DOI: <https://doi-doi.org/101555/ijrpa.6107>

ABSTRACT

This study explored the pedagogical challenges encountered by mathematics teachers and the coping strategies they employ, including the role of professional development in improving instructional practices. Using a qualitative phenomenological approach, the research examined the lived experiences of elementary mathematics teachers in the 2nd Congressional District of the Province of Cotabato. Findings revealed that teachers face multiple challenges such as diverse learning needs, students' math anxiety, conceptual difficulties, and limited resources. To address these, teachers implement differentiated instruction, integrate technology, foster growth mindset, and engage in collaborative practices. Professional development emerged as a key factor in enhancing teachers' confidence, instructional strategies, and classroom effectiveness. The study concludes that strengthening teacher capacity through continuous training, adequate support systems, and innovative teaching strategies is essential for improving mathematics instruction and student outcomes.

INTRODUCTION

Mathematics education remains a significant challenge for many learners, often resulting in low achievement levels and negative attitudes toward the subject. Teachers play a crucial role in addressing these issues; however, they encounter various pedagogical difficulties that hinder effective instruction. These include managing diverse learning abilities, addressing math anxiety, and selecting appropriate teaching strategies that align with students' needs. Despite efforts to improve mathematics teaching, performance indicators such as international assessments continue to highlight gaps in learning outcomes.

Previous studies have primarily focused on students' difficulties, leaving a gap in understanding teachers' perspectives on the challenges they face. This study addresses that gap by examining teachers' experiences, coping strategies, and the role of professional development in enhancing mathematics instruction. Understanding these aspects is essential in improving teaching practices and promoting better learning outcomes in mathematics.

METHODS

This study utilized a qualitative phenomenological research design to explore the lived experiences of mathematics teachers. It was conducted in the 2nd Congressional District of the Province of Cotabato, covering municipalities such as Antipas, Arakan, Magpet, Makilala, and President Roxas. Participants were selected through purposive sampling, with criteria including being a permanent elementary mathematics teacher with at least three years of teaching experience.

Data were gathered through in-depth interviews and focus group discussions using validated interview guides. Responses were recorded, transcribed, and analyzed using thematic analysis to identify patterns and key themes. Ethical considerations such as informed consent, confidentiality, voluntary participation, and data privacy were strictly observed throughout the research process.

RESULTS

The study revealed several major themes regarding the challenges and coping strategies of mathematics teachers. Teachers identified **diverse learning needs and pacing** as a major challenge, as students differ in abilities, prior knowledge, and learning styles. This requires teachers to adapt instruction and implement differentiated strategies.

Another key challenge is **math anxiety and negative attitudes**, where students' fear and lack of confidence hinder engagement and performance. Teachers also reported **conceptual difficulties and skill gaps**, particularly when students lack foundational knowledge needed for advanced topics. Additionally, **resource limitations and external factors**, such as insufficient materials, limited technology, and lack of home support, further complicate instruction.

To overcome these challenges, teachers employ various coping strategies. These include **differentiated and inclusive instruction**, use of visual aids and hands-on activities, and

providing remediation and one-on-one support. Teachers also integrate **technology and interactive learning tools**, making lessons more engaging and accessible. Creating a **supportive classroom environment** that fosters growth mindset helps reduce anxiety and improve student confidence.

Furthermore, **professional development and collaboration** play a vital role in improving teaching practices. Teachers benefit from training in instructional strategies, technology integration, and assessment methods. These experiences enhance their confidence, improve lesson delivery, and lead to better student engagement and performance.

DISCUSSION

The findings highlight the complexity of mathematics teaching and the multiple factors that influence instructional effectiveness. Teachers must continuously adapt their strategies to address diverse learner needs, emotional barriers, and contextual limitations. The use of differentiated instruction, technology integration, and collaborative practices aligns with modern pedagogical approaches that emphasize learner-centered education.

The study also underscores the importance of professional development in equipping teachers with the necessary skills and confidence to overcome instructional challenges. When training is relevant, practical, and sustained, it significantly improves teaching quality and student outcomes. Additionally, fostering a supportive learning environment and promoting positive attitudes toward mathematics are essential in addressing math anxiety and enhancing engagement.

Overall, improving mathematics instruction requires a holistic approach that includes teacher training, adequate resources, institutional support, and innovative teaching practices. Strengthening these areas will enable teachers to provide more effective and inclusive mathematics education, ultimately leading to better learning outcomes for students.