2026 Volume: 02 Issue: 05 www.ijrpa.com ISSN 2456-9995 Research Article

International Journal Research Publication Analysis

Page: 01-03

CULTURALLY RESPONSIVE TEACHING IN ELEMENTARY SCIENCE: ADDRESSING LEARNERS' DIVERSE BACKGROUNDS

*Reinalyn Gonzaga

Philippines.

Article Received: 25 March 2026
Article Revised: 15 April 2026
Published on: 05 May 2026

***Corresponding Author: Reinalyn Gonzaga**
Philippines.

DOI: https://doi-doi.org/101555/ijrpa.9029

ABSTRACT

This study explores how elementary science teachers implement culturally responsive teaching (CRT) in diverse classrooms within the 2nd Congressional District of Cotabato. Using a qualitative phenomenological approach, the research investigates teachers' strategies, challenges, and perspectives in integrating learners' cultural and linguistic backgrounds into science instruction. Findings reveal that teachers enhance engagement by connecting lessons to students' lived experiences, local environments, and indigenous knowledge systems. However, challenges such as limited localized resources, rigid curricula, and insufficient professional development hinder full implementation. The study also identifies effective dissemination strategies, policy directions, and intervention plans to strengthen CRT practices. Overall, the research highlights the importance of contextualized science education in promoting inclusivity, equity, and meaningful learning experiences.

INTRODUCTION

Elementary science education plays a vital role in developing learners' understanding of the natural world while fostering inquiry and critical thinking. In increasingly diverse classrooms, students bring varied cultural, linguistic, and socio-economic backgrounds that influence how they learn science. Culturally responsive teaching addresses this diversity by integrating learners' experiences and identities into instruction, making learning more meaningful and equitable. Literature suggests that CRT improves student engagement, motivation, and academic achievement by linking scientific concepts to real-life contexts and community knowledge. Despite its benefits, research in this field remains limited in Southeast Asian contexts and often relies on large-scale quantitative data that overlook teachers' lived experiences. This study aims to fill this gap by examining how elementary

science teachers apply CRT in practice, focusing on their strategies, challenges, and insights in creating inclusive science classrooms.

METHODOLOGY

This study utilized a qualitative phenomenological research design to capture the lived experiences of elementary science teachers implementing culturally responsive teaching. The research was conducted in selected central schools within the 2nd Congressional District of Cotabato, involving 25 Grade 4 science teachers selected through purposive sampling. Data were collected using semi-structured interviews, allowing participants to share detailed perspectives on their teaching practices, challenges, and strategies. Interviews were recorded, transcribed verbatim, and analyzed using thematic analysis to identify patterns and key themes. Ethical considerations such as informed consent, confidentiality, and cultural sensitivity were strictly observed throughout the research process to ensure credibility and respect for participants.

RESULTS

The findings reveal that teachers implement culturally responsive teaching by connecting scientific concepts to learners' home and community experiences, using local materials, indigenous knowledge, and familiar environments as learning resources. Strategies such as multilingual support, visual aids, storytelling, and collaborative learning were used to address linguistic diversity and enhance comprehension. Teachers also integrated land-based and observational learning, narrative traditions, and community participation to make science instruction more relevant. However, challenges emerged, including lack of localized instructional materials, rigid curriculum requirements, limited professional development, and insufficient institutional support. Despite these barriers, teachers observed increased student engagement, motivation, and understanding when lessons were culturally contextualized.

DISCUSSION

The results highlight the significant role of culturally responsive teaching in improving science education by making it more inclusive and meaningful for diverse learners. By integrating local knowledge and cultural practices, teachers are able to bridge the gap between abstract scientific concepts and students' real-life experiences. However, the effectiveness of CRT is constrained by systemic issues such as limited resources, standardized curricula, and lack of training opportunities. The study emphasizes the need for policy support, including teacher induction programs, mentoring systems, and continuous

professional development focused on culturally responsive practices. Intervention strategies such as workshops, collaborative learning communities, and development of localized teaching materials are essential to strengthen implementation. Ultimately, the study suggests that institutional support and context-specific approaches are necessary to sustain culturally responsive science teaching and promote equitable learning outcomes.