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Exploring How Mathematics Teachers in Indonesia Perceive Culturally Responsive Pedagogy (CRP) in Mathematics

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While contextualising mathematics is suggested to make learning more relevant, implementation often falls short, with contexts being superficial or culturally irrelevant. This issue is pressing in a culturally diverse nation like Indonesia, where regional achievement gaps persist. The problem is compounded by a common perception that mathematics is a culturally neutral discipline, limiting cultural integration to narrow applications of ethnomathematics.

This study addresses this disconnect by exploring how Indonesian teachers perceive and implement cultural integration in a Mathematics classroom. A qualitative design was employed, using in-depth interviews with two experienced high school teachers purposefully selected from contrasting regions (Maluku and East Java) that mirror the national achievement gap. Thematic analysis of the data revealed a significant divergence in perceptions and practices. Neither teacher was familiar with Culturally Responsive Pedagogy (CRP). Both initially defined "culture" as limited to ethnic traditions. One teacher (T1) perceived mathematics as culturally neutral, believing it had no connection to culture since government regulations did not require such considerations. This view reflects Bishop (1990) finding that many mathematics teachers still regard the subject as detached from cultural contexts. Ironically, a perspective identified more than three decades ago remains prevalent today. Such a stance causes teachers to overlook students' cultural differences, assuming these have little influence on academic performance. Yet, research shows that many low-achieving scores come from students with minority backgrounds, whose distinct cultural experiences significantly shape their learning (Abdulrahim & Orosco, 2020). The other teacher (T2) expanded her definition of what counts as culture to include students' everyday environments, aligning more with CRP's aims (Ladson-Billings, 1995). Pedagogically, their approaches also differed: one used a teacher-centric, "one-explanation-fits-all" model, while the other used a student-centric, problem-based approach that encouraged productive struggle.

We conclude that teachers' understanding of culture, reinforced by policy that treats math as culturally neutral, leads to teacher - centred practices that risk student disengagement. The findings highlight an urgent need for professional development to broaden teachers' understanding of what counts as culture and implement student-centred pedagogies that leverage lived experiences to make mathematics more equitable and meaningful.

References

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For more information, please refer to the following paper presented at the 47th Annual Conference of MERGA in July 2025.
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