

Using Identity to Frame Mathematics Educational Learning Experiences of Historically Marginalized Students

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The goal of this study was to illustrate how notions of identity could be used as an analytical tool to account for such diverse perspectives along with issues of power in the context of Latinx and Native American students. Interviews and classroom observations revealed an array of perspectives regarding what counts as mathematics within a classroom, yet is reflective of an ongoing assimilationist practices that have negatively impacted Indigenous peoples for centuries. I argue for the need for mathematics educators to identify dehumanizing practices in mathematics by seeking the perspective of Indigenous educators.

Key words: Diversity, equity, identity, sociocultural, sociopolitical, Indigenous, Latinx

The underrepresentation of students in historically marginalized groups are often illustrated and framed in the research as an achievement gap in STEM between students from these underrepresented groups and students from white backgrounds (Gutiérrez, 2008). However, research centered on closing such achievement gaps relies on narrow notions of learning and equity (Gutiérrez & Dixon-Román, 2010). I seek to answer the research question: to address the research question: How can we use identity to better understand the various forces impacting the mathematical learning experiences of Native American and Latinx students? This study utilizes the notions of *normative identity* and *personal identity* (Cobb, Gresalfi, & Hodge, 2009) as well as Martin's (2000) multilevel framework that seeks to describe the interaction of influences from both inside and outside the classroom on students' mathematical learning experiences by considering the agencies made available to and exercised by students, school level forces, community and family, and sociohistorical influences.

Semi-structured interviews and classroom were collected from Native American and Latinx students and their classroom, their mathematics teacher, the parent of one of the students, and an assistant principal in order to account for the multiple influences on a student's mathematical learning experiences. Analysis of the interviews from the teacher, parent, and assistant principal reflected strong influences from top level government and educational policies and a historical disconnect between the perspectives of students' communities and their schools.

I draw upon the findings of this study to argue for greater integration of perspectives from Indigenous education researchers. In particular, I argue for the need for frameworks in research in undergraduate mathematics education that incorporate notions of identity while accounting for multilevel sociopolitical and sociohistorical forces on mathematical learning experiences to better describe the damage of assimilationist practices in higher education.

References

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