

**ZMATH 2011d.00245**

**Betts, Paul; McMaster, Laura**

**Disrupting gifted teenager's mathematical identity with epistemological messiness.**

Mont. Math. Enthus. 8, No. 1-2, 329-354 (2011).

Summary: Mathematics is widely perceived as a universal and uncontested discipline, contrary to the philosophy of mathematics literature. Other researchers have considered the potential role of philosophy in school, but there is little work with gifted students engaged with issues concerning the nature of mathematics. We developed a philosophy of mathematics unit intended to enlarge gifted students' perceptions of the nature of mathematics by exposing the uncritical and tidy rendering of mathematics within school math. Using a narrative methodology, we attended to gifted student's students' stories of relationship with mathematics, based on the premise that a person's relationship with mathematics is inextricably woven together with their identity. In this paper, we will focus on the experiences of three gifted teenagers during our philosophy of mathematics unit. We found that these students were disrupted and compartmentalized their school math and philosophy of mathematics experiences and beliefs. We conclude that substantive experiences with the nature of mathematics should be a regular component of school math.

*Classification:* C44 D54

*Keywords:* philosophy of mathematics unit; gifted high school students; mathematical identity; narrative