

International and Non-International Students' Experiences in Chavrusa-Style Mathematics Courses

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A significant group within increasingly diverse U.S. classrooms is international students, whose learning success involves social elements such as ensuring feelings of belonging, respect for one's knowledge, and creative, effective, and confident participation in one's learning environment (Ryan and Viete, 2009). Collaborative learning methods are effective pedagogical techniques to address these needs as they allow learners to interact with each other and build a sense of belonging while exposing each other to varied socio-cultural perspectives (Huijser et al., 2008; Barkley & Cross, 2014). Chavrusa-style learning, modeled after Jewish Talmudic instruction, is a pedagogical technique where students are paired long term and asked to construct understanding from learning materials through debate (Pace, 1992; Kent, 2010). Research by Flint & Mei (2020) indicated that when implemented in mathematics courses, students felt chavrusa-style learning (MathChavrusa) broke down classroom barriers and improved the overall course experience. Due to the heavily social nature of MathChavrusa, it was hypothesized that this method may impact international and non-international students differently. Thus, the purpose of this research was to understand the experiences of international and non-international students in chavrusa-style mathematics courses.

Method

Participants consisted of a total of six international (3) and non-international (3) students who had taken graduate mathematics courses using chavrusa-style learning in the Fall 2021 semester. Data collection consisted of one online semi-structured interview for each participant and eight optional in-person classroom observations. The interview covered participant's impressions of MathChavrusa and perceptions of how it impacted their learning and socialization experiences. Classroom observations focused on partner interactions and were recorded using field notes. Data analysis consisted of coding interview transcripts and field notes using provisional and in vivo coding to develop themes of participants' learning and socialization experiences.

Findings and Future Research

International and non-international students perceived MathChavrusa to be beneficial when developing their mathematical understanding as it provided students with easily accessible sources of support when grappling with new material. Social and schedule compatibility of MathChavrusa partners were issues raised by all participants. The former was influenced by the mode in which MathChavrusa was implemented (i.e., in-person, hybrid, and online learning), with participants noting hybrid learning particularly undermined collaboration and socialization. A benefit noted exclusively by international student participants was that the long-term nature of partnerships allowed them to more easily build relationships that extended beyond the classroom and course. The poster will provide more granular descriptions and discussions of participants' experiences, including the impact of modes of instruction, participant pairings, and individual preferences. In the future, we hope to examine differences in MathChavrusa when used in specific modes of instruction.

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