

COMMUNICATION AND COMMUNITY: ALGEBRA COLLABORATIONS ACROSS K-12 & UNIVERSITY

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Teacher collaboration supports sustained teacher learning, which inspires greater student outcomes and communities of professional learning among teachers (Ronfeldt et al., 2015). Using a communities of practice theoretical framework (Lave & Wenger, 1991), this research study explores the value of learning about algebra learning across K-12 and university algebra instructors in a professional learning community (PLC) that originated from an informal book study for math educators. The analysis shows development of the algebra instructors in pedagogical approaches to teaching algebra to engage students of different levels using meaningful content, emphasizing STEM activities on data and community engagement. The study informs an ongoing project that contributes to efforts to seek support of algebra learning for students who are historically lacking in mathematical development and are enrolled in remedial or developmental algebra classes. With the focus on engaging students with the value of learning math, the PLC emphasizes implementation of math tasks that engage students in communication with one another as well as application of the math to their lives beyond the classroom (Gutstein, 2012). The study asks the research question: What knowledge did K-12 and university algebra instructors gain about math learning from the PLC? Findings indicate that the instructors began to create lessons focused on noticing student understanding, adapting lessons to involve students in community engagement, and seeking community with instructors who teach at different levels to discuss curriculum, content, and pedagogy. The presentation will showcase current findings.

References

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