ZMATH 2016f.00289

Lesseig, Kristin

Fostering teacher learning of conjecturing, generalising and justifying through mathematics studio.

Math. Teach. Educ. Dev. 18, No. 1, 100-118 (2016).

Summary: Calls to advance students' ability to engage in mathematical reasoning practices including conjecturing, generalising and justifying (CGJ) place significant new demands on teachers. This case study examines how Mathematics Studio provided opportunities for a team of U.S. middle school teachers to learn about these practices and ways to promote them in the classroom. Findings demonstrate how CGJ readings and focused discussions, coupled with repeated cycles of collaborative lesson planning, observation and debrief, supported the development of teacher knowledge, professional community, and teaching resources. In addition, this paper explores the role school leadership played in facilitating Math Studio to ensure these learning opportunities were realised. Documenting how Math Studio features and participants contributed to teachers' ability to implement CGJ focused lessons not only provides insights into the difficulties teachers have shifting instruction, but also adds to our understanding of school-embedded professional development more generally.

Classification: C39 D39 D49
Keywords: professional development; lesson study; teacher knowledge; conjecturing; generalising; justifying
https://www.merga.net.au/ojs/index.php/mted/article/view/214