

Mathematical Communication Within a Daily Small-Group Learning Environment

Abstract

In this action research study of a fifth grade mathematics classroom, I investigate how a daily small-group learning environment influenced students' ability to communicate their mathematical thinking in verbal and written form. I discovered that a small-group atmosphere provided more opportunities for direct instruction. I also found that the emphasis on communication helped students to articulate their thinking more clearly when they wrote and spoke of their mathematical ideas. Most students preferred to work in small groups because they appreciated the support of their peers. Students felt they were more likely to ask teammates for help when they had questions as compared to a traditional classroom setting. The research supports the value of small-group settings in the mathematics classroom where students work with their homework teams on a daily basis and where presentations are used as a communication tool for students to share their thinking related to specific problems assigned.