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Abstract

Students' independent mathematical inquiry is often endorsed as a valuable teaching method. In this article, we scrutinise in what ways these independent situations entail the students' development of mathematical reasoning. We study the cognitive conflict in one fifth-grade class participating in an inquiry-based intervention study. The findings indicate that cognitive conflicts can support the students' reasoning processes and that the environment has an important role in retaining the conflicting positioning by making the cognitive conflicts available for discussion and scrutiny. The students' processes of resolving cognitive conflicts are stretched over time and involve different routes and exploring approaches and understandings.

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