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Abstract

The present study investigates how to support students' creative reasoning when they need assistance in solving non-routine tasks. Two groups of 11–12-year-old students solved the same tasks, one group receiving feedback directed at the task solution and the other feedback directed at their thinking processes. The results showed that students who received feedback directed at their thinking processes expressed reasoning based on their attempts to solve tasks while the other group often repeated the researcher's suggestions for solutions. However, there were some instances in which feedback on task level entailed students engaging in creative reasoning.

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Denice D'Arcy is a mathematics teacher. Since several years she has been involved in research operationalizing theories of learning mathematics by reasoning into regular teaching. In collaboration with researchers at Umeå university and Mälardalen university she has a key-role in developing a teaching design where students learn mathematics by creative reasoning.

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