

LEARNING TO SOLVE MATHEMATICS PROBLEMS IN GROUP WORK SETTINGS

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ABSTRACT

The use of group-work settings at schools has recently become more popular compared to the individual settings. It might be due to the assumption that students need to practice working in groups as various workplaces apparently require collaborative skills. Mathematics is studied by most students worldwide. The study reported in this article aimed at testing if students could learn solving mathematics better in group-work compared to in individual settings. Worked-example instructions to learn novel arithmetic problems for seven graders, part-to-part and part-to-whole comparisons, were developed based on Cognitive Load Theory. The investigation included whether the worked-example instruction provided a powerful tool for learning mathematics in group-work settings compare to problem solving instruction. The results showed that students were benefited from learning in group-work as much as those in individual setting. Moreover, students who were provided worked-example instructions performed significantly better than those who learned solving problems without the worked-example.

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