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Exploring worked examples in tutored problem solving

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Abstract: Prior research has shown that tutored problem-solving with intelligent software tutors is an effective instructional method and that worked examples are an effective complement to this kind of tutored problem-solving. Additionally, two recent studies revealed evidence which indicates that it is desirable to adapt fading of worked examples to individual students evolving knowledge level. However, while often assumptions are made about the prolonged use of worked examples no study has actually investigated the possible effects of an all examples approach. In order to gain insight on these effects a study will be conducted which compares an all examples condition with a pure problem solving condition and an adaptive fading of examples condition. The pretest, immediate and delayed posttests will contain conceptual and procedural transfer items to fully explore the outcomes of the all examples condition and enable a rich comparison with the other two experimental conditions.