MONITORING ACCURACY AND CONTROL PROCESSES DURING PROBLEM SOLVING – AN OVERVIEW

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Abstract: *Being able to accurately monitor one's own performance (i.e., keep track of learning process) is crucial for self-regulation, especially when learning from problem-solving tasks. Effective monitoring depends on students' ability to use cues that are predictive for performance. These cues may include, for example, domain prior knowledge, which have been shown to have a positive relationship with monitoring accuracy. Inaccurate monitoring can lead to ineffective control, which may be harmful to the learning outcomes. As such, both accurate monitoring and adequate control seem to be crucial for effective self-regulation when learning from problem-solving tasks. Although problem-solving tasks play an important role in education, only very few studies have investigated the link between monitoring accuracy, control decisions, and performance in the context of problem solving. This paper reviews and discusses the findings of the existing research on monitoring and control in problem-solving tasks, while exploring the limitations of these studies as well as areas for future research.*

Key words: *metacognitive judgments; self-regulation; task selection; prior knowledge*

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