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Investigating the Benefits of Pre-Questions on Lecture-Based Learning

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Abstract

Prior laboratory research has shown the positive benefits of answering pre-questions on learning. Specifically, pre-questions have been shown to increase learning from subsequent pre-questioned material presented either in a reading or in a lecture format compared to a non-pre-questioned group. However, it is not yet clear whether these learning benefits translate into larger lecture-based classrooms and whether they can facilitate transfer to non-pre-questioned material. Moreover, there are few classroom studies, utilizing pre-questions, that explore these effects. We investigated the effect of pre-questions on learning during a large lecture course. Students who received pre-questions performed better on end of lecture quiz questions compared to students who did not receive pre-questions. Consistent with prior laboratory and classroom studies, this effect was primarily for the pre-questioned information and there was no immediate effect on non-pre-questioned information. We discuss the implications of the results for theories of learning and applications to education.