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Effects of interim testing and feature highlighting on natural category learning

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Abstract

Previous studies have suggested testing and feature highlighting each facilitates category learning. We investigated whether the beneficial effects of interim testing change with the presence of feature highlighting in natural category learning. Participants learned various rock categories that were divided into two sections. They studied a series of rocks with or without feature descriptions highlighted on each image and either took an interim test or not between the two sections. On the final test, participants classified studied and new rock exemplars from both sections. The testing group outperformed the no-testing group for both sections, indicating both backward and forward effects of testing. Such beneficial effects of testing occurred regardless of whether the feature highlighting was provided or not. The feature highlighting, however, showed negative effects on learning of both sections, suggesting that provision of explicit instruction may impede learning when it is not appropriately embedded in the learning material.