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Authors

Merrick, Megan V

Fyfe, Emily R.

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The benefits of live in person feedback on children's mathematics performance

Megan Merrick

Indiana University - Bloomington, Bloomington, Indiana, United States

Emily Fyfe

Indiana University, Bloomington, Indiana, United States

Abstract

Feedback is a necessary component of learning. Yet, variable effects of feedback remain unclear. We tested two features of feedback that may alter a learner's attention to the self and performance: (1) the modality of feedback—whether feedback is provided by a computer alone, in a hybrid fashion (computer with virtual person), or by a live person, and (2) the personalization of feedback—whether feedback contains the self-cue “you” or not. 6- to 8-year-old children (N = 150) completed a math task online via Zoom or in-person in lab. During the activity, children were assigned to different feedback conditions which varied both feedback modality and feedback personalization. Feedback modality was the only feature found to affect performance. In terms of children's accuracy, there was an advantage to having feedback from a live person. However, live in person feedback also reduced strategy variability, suggesting that it decreased children's exploratory problem-solving behaviors.