Research question

How does operator position and superfluous brackets affect performance and mind wandering in simple arithmetic?

Methods

Participants solved arithmetic problems consisting of questions involving brackets and different operator positions. During the experiment, webcam-based eye tracking was used to capture eye movements. After the experiment, participants filled in questionnaires on math anxiety, visual skills, and demographic information.

Summary of findings

Superfluous brackets around high-order operators in the center promoted problem solving accuracy when students had task-unrelated thought. However, for students whose attention was on task, the presence of superfluous brackets facilitated problem solving response time regardless of high-order operator position.