

Individual and Collaborative Learning from Text and Pictures: A Task Analysis

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Abstract: This study focused on the cognitive processes involved in learning from text and pictures, when learning both individually and collaboratively. We designed a task in which learners actively engage with text and pictures in a lesson about mitosis, followed by a test of knowledge gained from the task. During the task, think-aloud protocols were collected. Preliminary results show that learners actively engage in cognitive processes that are thought to be essential to learning from text and pictures: selecting, organizing, and integrating (Mayer, 2001). The verbal protocol allows for a more detailed task analysis of these processes, as well as a correlational analysis between engagement in these steps and test performance, to be presented at the conference. Furthermore, while individuals and collaborating learners scored similarly on the knowledge test, their metacognitive strategies differed drastically. These results are important in understanding how students learn from popular interactive media involving text and pictures.