

Why does signaling enhance multimedia learning? Evidence from eye movements

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Abstract

Previous studies have suggested that signaling enhances multimedia learning. However, there is not enough evidence showing why signaling leads to better performance. The goal of this study was to examine the effects of signaling on learning outcomes and to reveal the underlying reasons for this effect by using eye movement measures. The participants were 40 undergraduate students who were presented with either signaled or nonsignaled multimedia materials. Labels in the illustration were signaled by temporarily changing the color of the items. The results suggest that the signaled group outperformed the nonsignaled group on transfer and matching tests. Eye movement data shows that signaling guided attention to relevant information and improved the efficiency and effectiveness of finding necessary information. (C) 2009 Elsevier Ltd. All rights reserved.