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Triggering situational interest by decorative illustrations both fosters and hinders learning in
computer-based learning environments.

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Summary: Do decorative illustrations in computer-based learning environments trigger interest and engagement in learning or do they distract? In a pre-study ($N = 87$ 8th grade students) we tested the effects of decorative illustrations on situational interest and we selected highly interesting illustrations for our main study. In the latter study ($N = 52$) we tested the influence of interesting decorative illustrations on immediate learning outcomes in geometry (near and far transfer) and on further learning. Decorative illustrations hindered near transfer for students with low prior knowledge; students with very high prior knowledge levels profited from this kind of illustrations. Although, we did not find an overall effect on far transfer, decorative illustrations foster far transfer via enhanced situational interest. There were no effects on further learning. Overall, our findings suggest that the dominating cognitive interpretations of multimedia effects should be supplemented by considering the interplay between cognitive and motivational factors.

Classification: U53 U73 C33 G43

Keywords: learning with media; situational interest research; seductive details; computer-based learning environments; cognition; affect

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