The Coherence Principle

Theory

The coherence principle (also called *seductive details*[1] effect) claims that extraneous material that may be interesting or motivating but is irrelevant for learning objectives generally wastes learning resources and **hinders learning of important material**. This assumption is grounded in the fact that human cognitive resources are limited. Still, cognitive load theory predicts this effect will only occur if the cognitive load imposed by important learning material is high enough.[2]

Practice

Seductive details can appear in virtually any format, but often as

- text, or
- external links.

Research status

A number of studies on the effect of seductive details have demonstrated:

- negative effects on learning of important material[3]
- lack of negative effects on learning of important material.[4]

[5][6].

[1]

Garner, Ruth, Mark G. Gillingham, and C . Stephen White. Effects of 'Seductive Details' on Macroprocessing and Microprocessing in Adults and Children. Cognition and Instruction 6, no. 1: 41. 1989.

[2]

Park, Babette, Roxana Moreno, Tina Seufert, and Roland Brünken. Does cognitive load moderate the seductive details effect? A multimedia study. Computers in Human Behavior 27, no. 1: 5-10. January 2011.

[3] , [4]

For details see: Park, Babette, Roxana Moreno, Tina Seufert, and Roland Brünken. Does cognitive load moderate the seductive details effect? A multimedia study. Computers in Human Behavior 27, no. 1: 5-10. January 2011.

[5]

Moreno, R., Mayer, R., Spires, H. and Lester, J. The case for social agency in computer-based teaching: Do students learn more deeply when they interact with animated pedagogical agents?. Cognition and Instruction, 19(2), 177-213. 2001.

[6]

Mayer, R., Heiser, J. and Lonn, S. Cognitive constraints on multimedia learning: When presenting more material results in less understanding. Journal of Educational Psychology, 93(1), 187-198. 2001.

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