The Segmenting Effect

Theory

The segmentation effect means that learning should be more efficient if a continued animation or narration would be split into more smaller parts (segments). Motivation for introduction of segmentation is the transitive nature of animations (*"information presented at one moment makes place for new information presented at next moment"*¹⁾. Segmentation is an attempt to reduce cognitive load imposed by this transience through **breaking animation into meaningful peaces**.

Segmentation can also serve as *temporal cuing*²⁾. Unlike visuo-spatial signaling or cuing (see: signaling effect) segmentation can be used to help students be aware of components (parts or segments) of a process stimulating them to self-assure they understood what each component does or is used for.

Practice

In order to achieve segmenting effect animation or video should be divided into meaningful segments. For example:

• a 2 minute animation was divided into 5-7 segments with 2 sec breaks between³⁾

Research status

Using segmentation can result in:

• equal performance with reduced cognitive load (more efficient learning)⁴⁾

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Spanjers, I. A.E, P. Wouters, T. Van Gog, and J. J.G van Merriënboer. An expertise reversal effect of segmentation in learning from animated worked-out examples. Computers in Human Behavior 27, no. 1: 46–52. 2011.

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