

# 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"<sup>1)</sup>). Segmentation is an attempt to reduce cognitive load imposed by this transience through **breaking animation into meaningful pieces**.

Segmentation can also serve as *temporal cuing*<sup>2)</sup>. 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 between<sup>3)</sup>

## Research status

Using segmentation can result in:

- equal performance with reduced cognitive load (more efficient learning)<sup>4)</sup>

<sup>1)</sup> , <sup>2)</sup> , <sup>3)</sup> , <sup>4)</sup>

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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