

Instructional Consequences of the Transiency of Spoken Words

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Abstract : In multimedia learning, written text is often transformed into spoken (narrated) text. This transient information may overwhelm limited processing capacity of working memory and inhibit learning instead of improving it. The paper reviews recent empirical studies in modality and verbal redundancy effects within a cognitive load framework and outlines conditions under which negative effects of transiency may occur. According to the modality effect, textual information accompanying pictures should be presented in an auditory rather than visual form in order to engage two available channels of working memory - auditory and visual - instead of only one of them. However, some studies failed to replicate the modality effect and found differences opposite to those expected. Also, according to the multimedia redundancy effect, the same information should not be presented simultaneously in different modalities to avoid unnecessary cognitive load imposed by the integration of redundant sources of information. However, a few studies failed to replicate the multimedia redundancy effect too. Transiency of information is used to explain these controversial results.

Keywords : cognitive load, transient information, modality effect, verbal redundancy effect

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