

Ch. 11: Modality Principle

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"People learn more deeply from pictures and spoken words than from pictures and printed words." ...

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"Modality off-loading occurs when the words in a multimedia lesson are presented as spoken text rather than as printed text."

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Implications for Multimedia Instruction

"When making multimedia presentations consisting of animation and words, present the words as narration rather than as on-screen text."

"There may be situations in which printed text can foster meaningful learning, especially when it is used in a way that is consistent with the spatial contiguity principle. Printed words may also be appropriate when learners are non-native or hearing impaired or when lessons contains hard-to-pronounce words and symbols."

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I. p. 200

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"In the animation-with-on-screen-text version, both pictures and the words enter the cognitive system through the eyes, causing an overload in the visual system. In the animation-with-narration version, the words are off-loaded onto the verbal channel, thereby allowing the learner to more fully process the pictures in the visual channel."

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"According to the cognitive theory of multimedia learning, the processes required for meaningful learning cannot be fully carried out when the visual channel is overloaded..."

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"...people scored better on transfer tests after learning with graphics and narration rather than graphics and printed text. These findings strongly support the modality principle: People learn more deeply from multimedia messages when the words and presented as spoken text rather than as printed text."

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"...preliminary evidence [indicate] that the modality principle does not apply when the lesson is slow-paced or under learner control."

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