Ch. 11: Modality Principle

I. p. 200
"People learn more deeply from pictures and spoken words than from pictures and printed words."...

p. 200
"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."

p. 207
"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..."
p. 211
"...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."

p. 216
"...preliminary evidence [indicate] that the modality principle does not apply when the lesson is slow-paced or under learner control."

A. p. 218

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."

p. 203
"Modality off-loading occurs when the words in a multimedia lesson are presented as spoken text rather than as printed text."