



Chapter 2: The Science of Instruction: Determining What Works in Multimedia Learning

I. Analysis of illustrations in text:...

p. 33-34

Levin and Mayer (1993)

A. Concentrated...

p. 33

"The key ideas...are highlighted in both illustrations and text."

1. Concise...

p. 33

"Extraneous descriptions...are minimized in the text, and extraneous visual features...are minimized in the illustration."

a. **Correspondent...**

p. 34

Corresponding illustrations and text segments are presented near each other on the page."

(1) **Concrete...**

p. 34

The text and illustrations are presented in ways that allow for easy visualization."

(a) **Coherent...**

p. 34

"The presented material has a clear structure (e.g., cause-and-effect chain)."

i) **Comprehensible...**

p. 34

"The text and illustrations are presented in ways that are familiar and allow the learner to apply relevant past experience."

(1) **Codable...**

p. 34

"Key terms used in the text and key features of the illustrations are used consistently and in ways that make them more memorable."

II. Twelve Kinds of Instructional Methods...

p. 51

"...we have examined the effectiveness of twelve features of our

multimedia lessons:"

A. Coherence

1. Signaling

a. Redundancy

(1) Spatial Contiguity

(a) Temporal Contiguity

i) Segmenting

(1) Pre-training

(a) Modality

i) Multimedia

(1) Personalization

Definition

I. Instruction...

p. 30

"Instruction refers to the instructor's manipulations of the learning environment that are intended to promote learning."

II. Instructional method...

p. 51

"An instruction method is a way of presenting a lesson."