



## 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."