The following is a summary of multimedia principles for E-Learning presented by Richard E. Mayer

People learn better when multimedia messages are designed in ways that are consistent with how the human mind works and with research-based principles

People learn better from words and pictures than from words alone.

Design effects are stronger for low-knowledge learners than for high-knowledge learners. Design effects are stronger for high-spatial learners than for low-spatial learners.

Principles for managing essential processing

People learn better when a multimedia lesson is presented in learner-paced segments rather than as a continuous unit.

People learn better from a multimedia lesson when they know the names and characteristics of the main concepts.

People learn better from animation and narration than from animation and on-screen text.

Principles for reducing extraneous processing

People learn better when extraneous words, pictures, and sounds are excluded rather than included.

People learn better from animation and narration than from animation, narration, and on on-screen text.

People learn better when the words include cues about the organization of the presentation.

People learn better when corresponding words and pictures are presented near rather than far from each other on the page or screen.

People learn better when corresponding words and pictures are presented simultaneously rather than successively.

Principles based on social cues

People learn better when the words are in conversational style rather than formal style.

People learn better when words are spoken in a standard-accented human voice than in a machine voice or foreign-accented human voice.

People do not necessarily learn better from a multimedia lesson when the speaker’s image is added to the screen.