Information and Communication Technology

General Component

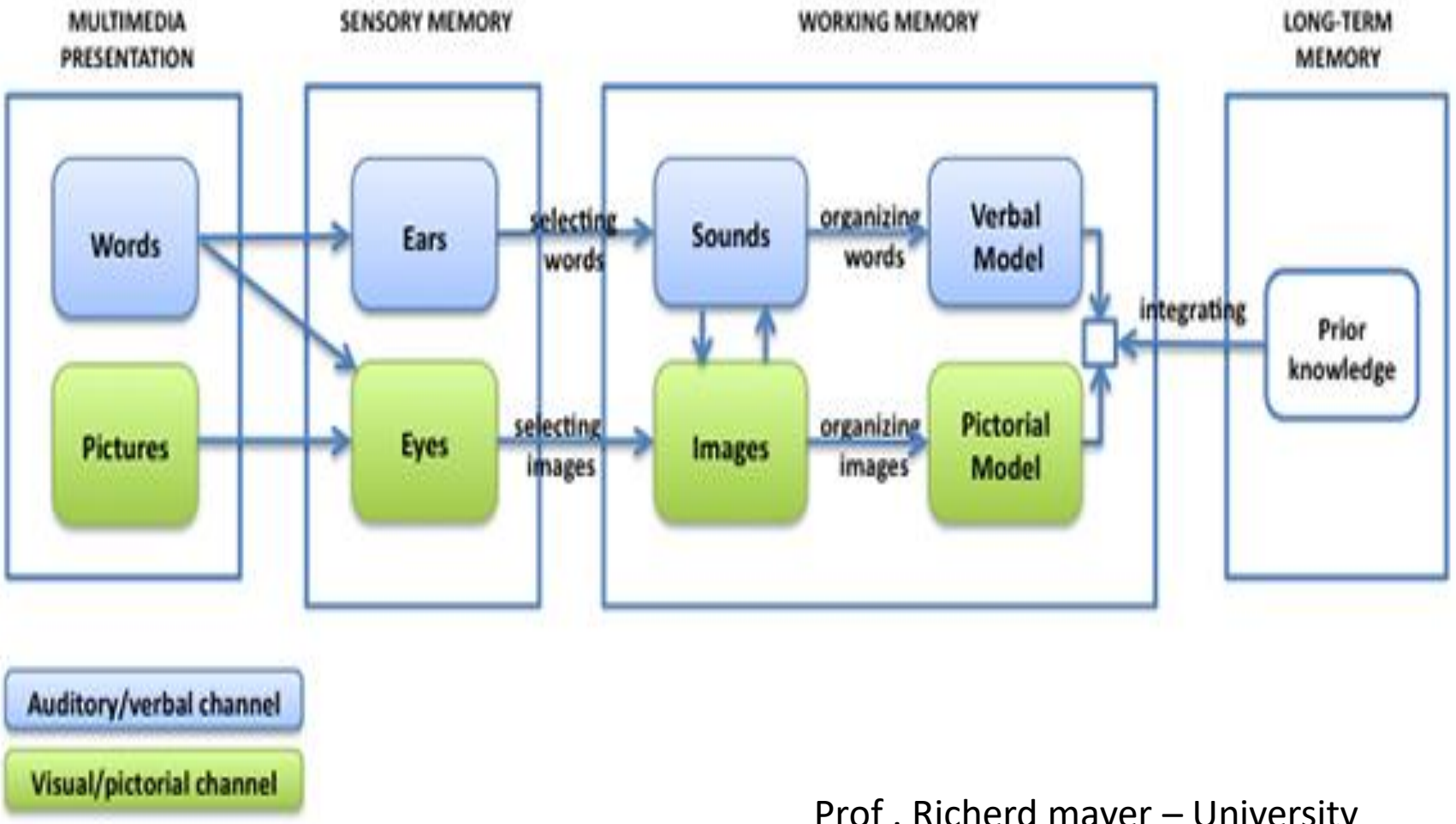
G.P.O.B.Prera. - Lecturer (ICT)

Cognitive Theory of Multimedia Learning

Competency 2.Develops Information and Communication Technology based materials for the instructional process and educational management

2.1 Applies instructional principles in the development of material

Cognitive theory of multimedia learning



Prof . Richerd mayer – University of Califoniya.

Assumptions

1. There are two separate channels for processing information
   I. Auditory
   II. Visual
2. Each channel has limited capacity
3. Learning is an active process of filtering, selecting, organizing, and integrating information based upon prior knowledge.

Multimedia Instruction

- **Multimedia Instruction** consists of **instructional** messages that contain words (such as printed or spoken text) and pictures (such as illustrations, diagrams, photos, animation, or video).
- The rationale for **Multimedia Instruction** is that people can learn more deeply from words and pictures than from words alone

Modality Principal

- Student learn better from animation and narration than from pictures and on screen text
- present words as speech rather than on-screen text (Clark & Mayer, 2011)”.

Modality principal

- In the animation-with-on-screen-text version, both the 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.