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topic:Introduction to Learning Theories and Technologies
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Learning Theories and Technologies

#ILE   #lecture

From Introduction to educational technologies

How #Learning is happens ?

1. #Behaviourism : change in behaviour (Conditioning , Reinforcement , punishment) , ex: Classroom management , Programmed Learning , Drill and Practice , Games and Gamification
2. #Cognitivism : Internal part of learning (Information processing Theory [memory -> short-term memory ->long-term memory] and Cognitive Load Theory)

- The Cognitive Theory of Multimedia Learning : explains how people learn from multimedia presentations , learning occurs when people actively process information presented in multimedia formats, such as text, images, audio, and video
    1. "Pictures + words > pictures + words + sounds": This means that presenting information using both pictures and words is more effective for learning than adding sounds to the combination of pictures and words.()can often be distracting and overload the learner's cognitive capacity
    2. "Narration + graphics > animation + text": This example suggests that presenting information through a combination of narration (audio) and graphics (visuals) is more effective for learning than using animation (moving visuals) along with text.
    3. narration + graphics > narration + graphics +text : adding on-screen text that duplicates the narration can cause cognitive overload as learners must process

#ACT-R (Adaptive Control of Thought - Rational) , John Anderson

- understanding and simulate human performance and behavior, on various cognitive tasks, such as problem-solving, decision-making, and learning
- ACT-R Application : Education , Human computer interaction , cognitive psychology ..

3. Constructivism :learning occurs as an individual interacts with the environment and constructs , ex : web searching; complex simulations; constructive projects
4. Social Constructivism:social interaction is a crucial part of the learning process , ex : Collaborative learning; Peer learning; Project-based learning

5. Connectivism :learning and knowledge could exist outside the person in a complex web of people and information sources , ex : Social Media ,Transmedia problem-based learning

- the media cube : emphasizes three key dimensions of media: richness, interactivity, and accessibility.