Educational Technology: Paradigms, Theories and Applications

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Eclectic Paradigm

- Combines some elements from each of other paradigms
- Educators must know when to use the right "tool" from the right paradigm at the right time

Postpositivism/Objectivism Paradigm

- There are universal, discoverable facts
- Reality is external to human mind
- Knowledge transmission is teacher directed

Interpretivism/Constructivism/Relativism Paradigm

- Knowledge construction is based on experience
- Knowledge is contextually based
- Collaboration

Critical Theory Paradigm

- Critical, skeptical
- Produce socially active students
- Interested in power relationships
- Educators should be activists for social change

Behaviorism

- Begin with one concept and gradually increase knowledge by building on prior knowledge
- Operant Conditioning (Skinner): stimulus-response-consequence

Cognitivism

- Information Processing Theory
- Schema Theory: assimilation and accommodation as means of fitting experience into existing schema
- Neuroscience
- Metacognition
- Gagne's Events of Instruction
- Cognitive Training Model

Constructivism

- Learning is social activity
- Learning by doing
- Multiple intelligences
- Situated cognition

Educational applications
Social action projects, peace diaries, voices of youth, digital divide initiatives

Educational applications
Drill and practice, programmed instruction, direct instruction, computer aided instruction, programmed tutoring, personalized system of instruction

Educational applications
Concept mapping, audiovisual media, digital multimedia, visual learning, auditory learning,

Educational applications
Case-based instruction, collaborative learning, mindtools, simulations, telecollaborative activities, anchored instruction, problem-based learning