

Learning Knowledge Deeply

Findings from Cognitive Science => Reflexive Pedagogy

Traditional Classroom Practices

Didactic Pedagogy => Instructionism / Surface Learning

Knowledge Integration and Sensemaking:

- Learners relate new ideas and concepts to previous knowledge and experience
- Learners integrate their knowledge into interrelated conceptual systems
- Learners look for patterns and underlying principles

- Learners treat course material as unrelated to what they already know
- Learners treat course material as disconnected bits of knowledge
- Learners memorize facts and carry out procedures without understanding how or why

Active Knowledge Making and Multiliteracy

- Learners understand the process of dialogue through which knowledge is created, and they examine the logic of an argument critically
- Learners are the also knowledge producers, and discerning knowledge discoverers / navigators
- Multiliteracies: learners interact with new forms of media; they consume and produce multimodal knowledge artefacts (images, videos, presentations, software, etc.)

- Learners treat facts and procedures as static knowledge, handed down from an all-knowing authority
- Learner is the knowledge consumer, with passive knowledge acquisition and memorization
- Academic literacies: learners interact with traditional textbooks, assignments, and tests

Metacognition and Self-regulation:

- Learners reflect on their own understanding, and their own process of learning
- Thinking about thinking, critical self-reflection on knowledge processes and disciplinary practices

- Learners memorize without reflecting on the purpose, or on their own learning strategies.
- Focus on facts to be remembered, theories to be correctly applied.