

# Theoretical Perspectives

for

Technology Integration

# What is a theory?

- Theories are organized systems of accepted knowledge that explain some aspect of the natural world. They both explain what we observe and allow us to make predictions.
- Learning theories are organized systems of knowledge that explain how individuals learn. They help us to predict if and how individuals will learn given particular circumstances.

# Major Perspectives

- Three major theoretical perspectives have influenced our understanding of learning over the past century:
  - Behavioral perspective
  - Cognitive perspective, including an information processing model
  - Constructivist perspective

# Activity



- In small groups, examine each of these three perspectives on learning. Try to answer the following questions:
  - From this perspective, what is learning and how does it occur?
  - What is the role of the teacher?
  - What is the role of the learner?
  - How might technology be used to promote learning from this perspective?

# Behavioral Perspective

What is learning?	A change in the probability of a behavior occurring.
What is the learning process?	Antecedent Behavior Consequence
What is the teacher's role?	Arrange external conditions. State objectives, guide student behavior with cues, arrange feedback and reinforcements.
What is the student's role?	Respond to arranged conditions and cues.
What role can technology play?	Organize materials and exercises into an instructional program.

# Cognitive Perspective

What is learning?	A change in knowledge stored in memory.
What is the learning process?	Attention Encoding Retrieval of information from memory.
What is the teacher's role?	Arrange conditions to support encoding and retrieval from memory. Organize information, link new information to old, use encoding retrieval techniques.
What is the student's role?	Actively process and attempt to encode information. Connect new learning to old.
What role can technology play?	Help students to organize information, link it to existing knowledge, and encode it.

# Constructivist Perspective

What is learning?	A change in meaning constructed from experience.
What is the learning process?	Continuous process of experience, reflection, and meaning-making, often in groups.
What is the teacher's role?	Model learning processes and guide students own learning. Create realistic and meaningful problems, manage group learning, model and guide.
What is the student's role?	Explore like a scientist, reflect, communicate, and collaborate in meaning-making.
What role can technology play?	Facilitate collaboration, provide complex and realistic problem-solving environments.

# What's Best?

- Which perspective do you think is correct or best?
- Is the first question the right question?



# Implications

- What do you see as some of the major implications of each of these perspectives for classroom practice?
- What do they suggest about the use of technology for teaching and learning?

# Learn More

- Learn more about major learning theorists from

The Psi Cafe	<a href="http://www.psy.pdx.edu/PsiCafe/KeyTheorists/">http://www.psy.pdx.edu/PsiCafe/KeyTheorists/</a>
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