A Comparison of Two Learning Theories
Face-Face & Online Learning
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Introduction

• Two Theories of Learning
  – Behaviorism
  – Constructivism

• Instructional Delivery
  – Face-to-Face
  – Online
<table>
<thead>
<tr>
<th>Behaviorism versus Constructivism</th>
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<tbody>
<tr>
<td>• Behaviorists support a teacher-centered classroom.</td>
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<tr>
<td>• Constructivists support a learner-centered classroom.</td>
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What is Behaviorism?

• Skinner and Watson
  – believed behavior could be predicted and controlled.
  – studied how learning is affected by changes in the environment.
  – believed that all students can learn in the right environment.
  – concerned with how behavior is affected by external sources.
**What is Constructivism?**

- Constructivists viewed learning as a search for meaning.
- Constructivists Piaget and Vygotsky believed that knowledge is constructed by the learner.
- Learners develop their own understanding through personal experiences.
Focus of Presentation

• Details of both theories will be reviewed in relationship to
  – How students learn
  – How behavior is affected
  – How curriculum and instruction work with these theories to promote learning
  – How educators view learning with respect to both theories
  – How these theories are applied to face-to-face and online learning
Educational Technology

- Skinner developed a teaching machine using a basic computer software program
  - Students respond to multiple choice questions
  - Students’ responses are judged as correct or incorrect

- Skinner’s teaching machine provides a connection to the digital world of today.
Constructivist Learning Theory

• Piaget and Vygotsky
  – Studied cognitive development.
  – Provided the foundation for the psychological theory of constructivism.
  – Believed that children develop knowledge through active participation in their learning.
Constructivist Learning Theory

- Piaget’s Theory of Cognitive Development
  - Comprised of two major elements
    - Ages
    - Stages
  - Students need to construct their own knowledge to create mental images.
  - Role of teacher to motivate students to create their own knowledge through personal experiences.
Constructivist Learning Theory

- Vygotsky’s Theory of Social Constructivism
  - Placed importance on the social context of learning
  - Believed in active engagement, inquiry, problem solving, and collaboration
  - Believed teacher should be a facilitator and co-explorer
Constructivist Learning Theory

• Constructivists Learning Theories
  – Helped build the foundation for curriculum design
  – Hypermedia and multimedia are examples of online instructional approaches
  – Emphasis on problem solving
  – Continuous shift toward students actively constructing their own knowledge base
  – Increased popularity in using instructional technologies
School Setting

• Behaviorists
  – rely on positive and negative reinforcements to either reward or punish student behavior
  – rely on extrinsic motivators such as grades, prizes, and privileges
  – present lessons in a linear fashion and provide hints and cues to guide students
  – use direct methods of instruction
    • lecturing
    • teaching skills in isolation
• Behaviorists believe that online learning cannot provide the same positive learning results as face-to-face learning.
• Constructivists use discovery learning and critical learning activities which is done synchronously.
Impact on Curriculum Development

- Behaviorists focus on observable behaviors.
- Behaviorist teachers dictate an interpretation.
- Constructivists focus on actively engaging students in learning.
- Constructivist teachers engage students in actively participating in giving meaning and organization to experiences.
• Behaviorists believe instructional goals are framed in specific, behavioral, and observable terms.

• Behaviorism in online instruction uses educational software and computer assisted instruction.

• Drill and practice tutorials support behaviorists views of how students learn.
Impact on Instructional Design

• Constructivists believe that learners construct their own understanding based on their unique experiences.

• All instructional goals specify
  – the kinds of learner problems addressed
  – the kinds of controls learners experience in their learning environments
  – the ways that learners reflect on their learning
Conclusion

• Debate in education continues between behaviorism (through teacher direct instruction) or constructivism (through student active engagement).

• Constructivism is used more frequently in today’s education models and education practices.

• Often instructors utilize both methods to match student learning styles.