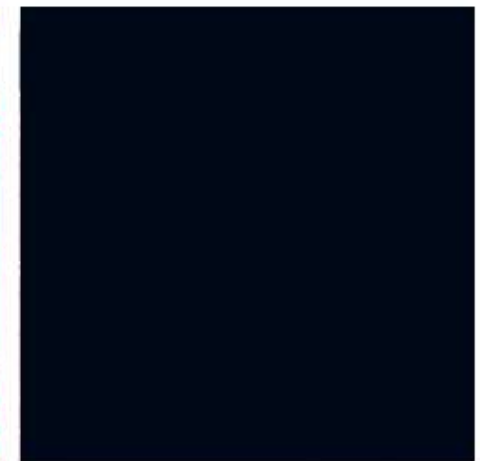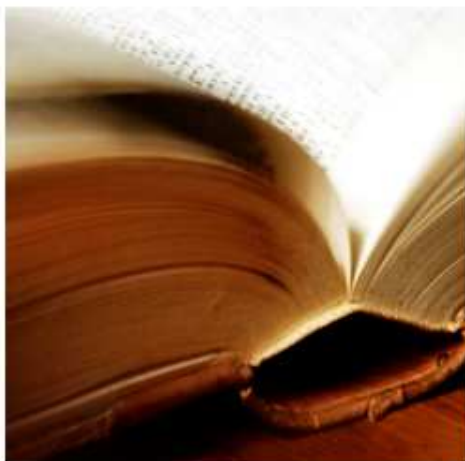# A Comparison of Two Learning Theories
Face-Face & Online Learning

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Introduction

- **Two Theories of Learning**
  - Behaviorism
  - Constructivism
- **Instructional Delivery**
  - Face-to-Face
  - Online

Behaviorism versus Constructivism

- Behaviorists support a teacher-centered classroom.
- Constructivists support a learner-centered classroom.

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' 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

Online Learning

- 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.

Impact on Instructional Design

- 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 the 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.