### Behaviourism vs. Constructivism

What is the Difference?

### Today's Outcome

 Students will be able to compare and contrast the difference between Constructivism and Behaviourism when it comes to learning.

### Define Constructivism

- Constructivism root word is construct.
- Constructivism is when you build, or interact with real life experiences to build learning. Fits in with project based learning/challenge based learning and self-directed learning.
- Constructivism is student directed. Learning without necessarily being taught
- Teacher is the guide on the side very much like Socrates.
- The foundation for some of the constructivist beliefs can be found in the work of Jean Piaget (1896 1980) Known for Cognitive Constructivism
- Vygotsky is known for Social Constructivism.

## Piaget

#### **Stages of Cognitive Development**

Stage	Characterised by
Sensori-motor (Birth-2 yrs)	Differentiates self from objects  Recognises self as agent of action and begins to act intentionally: e.g. pulls a string to set mobile in motion or shakes a rattle to make a noise  Achieves object permanence: realises that things continue to exist even when no longer present to the sense (pace Bishop Berkeley)
Pre-operational (2-7 years)	Learns to use language and to represent objects by images and words  Thinking is still egocentric: has difficulty taking the viewpoint of others  Classifies objects by a single feature: e.g. groups together all the red blocks regardless of shape or all the square blocks regardless of colour
Concrete operational (7-11 years)	Can think logically about objects and events  Achieves conservation of number (age 6), mass (age 7), and weight (age 9)  Classifies objects according to several features and can order them in series along a single dimension such as size.
Formal operational (11 years and up)	Can think logically about abstract propositions and test hypotheses systemtically  Becomes concerned with the hypothetical, the future, and ideological problems

Atherton J S (2011) Learning and Teaching; Piaget's developmental theory [On-line: UK] retrieved 15 September 2012 from <a href="http://www.learningandteaching.info/learning/piaget.htm">http://www.learningandteaching.info/learning/piaget.htm</a>

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### Constructivism Defined

 Vygotsky's theory defined – Zone of Proximal Development <a href="http://youtu.be/0BX2ynEqLL4">http://youtu.be/0BX2ynEqLL4</a>

 An example of a constructivist activity that we are presently doing in class would be our portfolios.

### Define Behaviourism

- Behaviourism is defined as a teacher directed approach. We were all the products of this type of teaching.
- Sage on the Stage
- Teacher delivers the information to the students.
- Drill and practice software
- Put forth by B.F Skinner

### Madeline Hunter

- Guru of lesson plan design
- Behaviorist approach
- Lesson plan has 7 to 9 steps depend
- Modeling to demonstrate
- Example template and also posted on the website under resources
  - http://template.aea267.iowapages.org/lessonplan/

# Sheldon shaping Behavior the BF skinner Way!

http://www.youtube.com/watch?v=qy\_mIEnnlF4

# Where did the Behaviorist Theory come from?

- B.F Skinner's study with rats
- Concluded that behaviors were dependent upon what happened after the response - Operant Behavior.

## What are the basic tenets of Behaviourism?

- Teacher-centered
- Teacher as expert
- Teacher as dispenser of information
- Learning as a solitary activity
- Assessment primarily through testing
- Emphasis on "covering" the material
- Emphasis on short-term memorization
- Strict adherence to fixed curriculum

### Behaviourism

- Often lots of repetition.
- Rewards both positive and negative for responses. Positive work better.

### Think/Pair/Share

- Think about a time when you were in school and your teacher used the Behavioral Theory to get you to do what she wanted.
- Turn to the person next to you and share your story.
- <u>Click here</u> to watch the kindergarten teacher in action. Where is the behavioral theory present.

## What are the basic tenets of constructivism?

- Learner-centered
- Teacher as member of learning community
- Teacher as coach, mentor, and facilitator
- Learning as a social, collaborative endeavor
- Assessment interwoven with teaching
- Emphasis on discovering and constructing knowledge
- Emphasis on application and understanding
- Pursuit of student questions highly valued

### Constructivism at Work

 <u>Self - Directed Learning</u> - Video of East Horace Mann Magnet Middle School, in Little Rock, Arkansas

# Can you name some software that is Behaviorist or Constructivist in Nature?

### **Behaviorist**

- Drill and Practice Types of Software
  - -Number Muncher
  - Reading Rabbit
    - Typing tutor
  - Creating a template

### Constructivist

Create your own knowledge

- Sim City
- Oregon Trail
- Video Games
  - Inspiration
- Voice Thread
  - Prezi

There is a time and place for both types of theory!

### Compare and Contrast

- Go to <a href="http://tinyurl.com/cgwtz2s">http://tinyurl.com/cgwtz2s</a> to enter your thoughts on the Google Docs.
- Teacher will assign you a number
- Go to that line on the table to place your words that describe behaviourism and constructivism.
- When finished go to our <u>discussion page</u> on our website and answer one of the questions posted.

### **Next Class**

• Bring your textbook as we will need it when we discuss the different learning styles.