**Roadmaps session**

*Learning is…*

* “a persisting change in human performance or performance potential . . . (brought) about as a result of the learner’s interaction with the environment” (Driscoll, 1994, pp. 8-9).
* “the relatively permanent change in a person’s knowledge or behavior due to experience” (Mayer, 1982, p. 1040).
* “an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience” (Shuell, 1986, p. 412).

*Paradigms of learning (under which ‘theories’ fall)*

* Behaviorism, Cognitivism, Constructivism, Design-based, Humanism

*Learning theories*

* Allow teachers to better understand the process of learning.
* Together with the use of technology, learn theories have made a significant impact in the classroom.

*Six Primary theories*

* Behaviorism
* Cognitivism
* Social Learning Theory
* Social Constructivism
* Multiple Intelligences
* Metacognition

*Other learning theories of note*

* Andragogy (M. Knowles)
* Flow (M. Czikszentmihalyi)
* Situated Learning (J. Lave)
* Subsumption Theory (D. Ausubel)
* Conditions of Learning (R. Gagne)

***Behaviorism, cognitivism and constructivism will be the focus for this session.***

* Behaviorism: Learning is best achieved by modifying learner behavior through the use of reinforcement; if teachers act in a certain way, learners will too.
* Cognitivism: How mental processes (observing, categorizing, and forming generalizations about our environment) are influenced by internal and external factors in order to produce learning.
* Constructivism: Learners make sense of the world, from a very young age, by **actively** creating meaning while engaging texts, interacting with the environment, or talking with others.

*Strategies*

As varied as our classroom styles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theory** | **Definition** | **Key characteristics** | **Classroom** | **Critiques** |
| Behaviorism | Learning is best achieved by modifying learner behavior through the use of reinforcement | Learning is defined by the outward expression of new behaviors. Focuses solely on observable behaviors. A biological basis for learning. Learning is context-independent. | Rewards and punishments. Responsibility for student learning rests squarely with the teacher. Lecture-based, highly structured. | Does not account for processes taking place in the mind that cannot be observed. Advocates for passive student learning in a teacher-centric environment. One size fits all. Knowledge itself is given and absolute. Programmed instruction & teacher-proofing. |
| Cognitivism | How mental processes (observing, categorizing, and forming generalizations about our environment) are influenced by internal and external factors in order to produce learning | Grew in response to Behaviorism. Knowledge is stored cognitively as symbols. Learning is the process of connecting symbols in a meaningful & memorable way. Studies focused on the mental processes that facilitate symbol connection. | Inquiry-oriented projects. Opportunities for the testing of hypotheses. Curiosity encouraged. Staged scaffolding | Like Behaviorism, knowledge itself is given and absolute. Input – Process – Output model is mechanistic and deterministic. Does not account enough for individuality. Little emphasis on affective characteristics |
| Constructivism | Learners make sense of the world, from a very young age, by **actively** creating meaning while engaging texts, interacting with the environment, or talking with others | The teacher only acts as a facilitator who encourages students to explore within a given framework. Learners may collaborate with others to organize their ideas and learn from each other to construct their own knowledge. | Journaling, experiential activities, personal focus, collaborative and cooperative learning. | Suggests that knowledge is neither given nor absolute. Often seen as less rigorous than traditional approaches to instruction. Does not fit well with traditional age grouping and rigid terms/semesters. |

**Higher order and highly engaged session**

*What is engagement?*

* “student-faculty interaction, peer-to-peer collaboration, and active learning…” (Chen, Gonyea, & Kuh, 2008).
* Positive correlation with learning experience
* Social learning/
* cognitive theories (Bandura, 1977; 1986)

*Higher order thinking is comprised of three elements:*

* Critical Thinking: Variety of definitions.
  + In Educated Citizen:  …a comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating a conclusion that leads to action. It requires disciplinary skills of inquiry and analysis.
* Transfer: requires learners not only retain but also to make sense of and apply what they have learned
* Problem Solving: Learners incur a problem when they do not automatically recognize a path to a goal. Learners use higher-order thinking processes to recognize the proper path toward goal attainment

*Selected terminology for course objectives*

Apply a rule Classify Construct

Define Demonstrate Describe

Evaluate Identify Interpret

Measure Name/Order Predict

Solve Translate

*For further consideration:*

1. What specific strategies enable you to ‘engage’ the learner?
2. What specific strategies enable you teach critical thinking?
3. How do you leverage one to accomplish the other?