

## **Thought Paper**

When asked to reflect on the semester and what I learned in IDE 621– Principles of Instruction and Learning, I have learned a lot about the theories used for instructional design and realize that I have much more to learn. As a lifelong learner, learning never stops. When learning the first principles of instruction, Behavioral, Cognitive, and Social Learning Theory and Instructional Design Theory, and their similarities and differences, I have a good understanding of these topics and realize that I have more to learn in both theory and practice.

### **Merrill's First Principles of Instruction**

Before exploring learning theories at the beginning of the semester, we first started exploring Merrill's "First Principles of Instruction." David Merrill, a professor at Utah State University in the Department of Instructional Technology, wrote a book titled First Principles of Instruction where David posited that learning is promoted when (1) it is problem-centered, (2) when its instruction activates previous knowledge, (3) when its instruction includes "demonstration," (4) when its instruction includes application, and (5) the learner can "integrate" the instruction for real-world use (Merrill, 2002).

#### **Problem-centered Instruction**

According to Merrill's writings, problem-centered instruction includes a show task where learners are provided an example of the completed job they are about to learn. Learners are then instructed and engaged at the problem and task level, all while the problem is used to understand, scaffold, and build in complexity to facilitate learning (Merrill, 2002).

#### **Activation Phase**

Merrill's activation phase includes an activity where a learner can reflect on or tap into existing knowledge to correlate what they already know with what they are being asked to learn. After contemplating past experiences, learners are then introduced to a new exciting and thought-provoking experience, like problem-centered instructions, activation phase instruction scaffolds in complexity (Merrill, 2002).

#### **Demonstration Phase**

In the Demonstration Phase, Merrill describes that when instruction is presented to learners, it is presented in the form of a demonstration that reflects the learning outcomes to the learners. After demonstrating the learning outcomes, learners receive learner guidance, including numerous ideas, concepts, and perspectives to help the learner understand the material presented, all while ensuring the media used for the instruction is relevant and supports effective learning (Merrill, 2002).

#### **Application Phase**

During the application phase, Merrill describes learners participating in a practical application where the activities used during the practical application align with the learning outcomes of the material presented. Further, coaching is reduced and eventually diminished to build learner confidence while the problems presented to the learners are varied in complexity and context (Merrill, 2002).

## **Integration**

In the fifth and final principle, Integration, Merrill describes integration of learners demonstrating and sharing what they learned through reflection and/or reflection activities. Learners are then encouraged to reflect on using what they recently discovered in the real world or everyday life. During integration, learners can tie together everything they learned and find the value and usefulness of the material presented and known (Merrill, 2002).

### **Definition of a Learning Theory**

A *learning theory* is a theory that attempts to describe, explain, and predict learning (Ormrod, 2020). A learning theory is not the same as an instructional design theory but is equally important to instructional designers. A learning theory posits how learning occurs according to each theory and then prescribes an instructional design theory used to facilitate learning as part of that each theory.

### **Definition of Instructional Design Theory**

An instructional design theory is a prescribed characteristic of instruction to support learning as prescribed in each of the three learning theories (Ormrod, 2020). An instructional design theory describes activities and events to include into the instructional design to facilitate the best learning prescribed in each of the three learning theories.

### **Learning Defined by Behaviorism**

The first learning and instructional design theory I learned is Behaviorism. Behaviorism defines learning as a near-permanent change in behavior resulting from stimulus activation to achieve the desired response and then reinforcing; undesired reactions are rejected and not supported. With Behaviorism, designed instruction includes techniques like “mastery learning,” where designed instruction includes small discrete units that follow a logical sequence. The learner demonstrates proficiency after each unit/module before proceeding to the next unit. Another instructional design theory used with behaviorism is known as “programmed instruction.” With programmed instruction, small amounts of information are introduced in segments. After presenting new information and at the end of each part, questions are asked to the learner, which they must answer before moving to the next segment. Mastery Learning and Programmed Instruction are just a few of the many instructional design theories prescribed by Behaviorism learning theory (Ormrod, 2020).

### **Learning Defined by Cognitivism**

After learning Behaviorism, the next theory I learned this semester is *Cognitivism*. According to Cognitivism, learning is change in mental representations or associations determined from past or previous experiences. The instructional design theories prescribed in Cognitivism include Advanced Organizers, Gagne's 9- Events of Instruction, and Meaningful Reception Theory (Ormrod, 2020).

### **Learning defined by Social Learning**

The final learning theory I learned this semester is Social Learning Theory. With Social Learning Theory, learning is defined as a construction of behavior patterns expected by society (Ormrod, 2020). Social learning posits fundamental principles that facilitate learning, including grabbing the learner's attention, retaining the new information, reproducing the modeled behavior, and motivating the learner to emulate the modeled behavior (Ormrod, 2020).

### **Each Theories Rejection of the Other**

Each of the three learning theories has commonalities and similarities and rejects one another by the premise. For example, Behaviorism is a near-permanent change in "observable" behavior and because the behavior is simply observable. Cognitivism is a change in mental representations that in principle reject behaviorism, which requires a change in observable behavior for learning to occur. Social Learning Theory involves the construction of new knowledge instead of the acquisition of new knowledge. Social Learning Theory rejects both behaviorism and cognitivism as social learning theory posits that learning is constructed by socially accepted "norms" that often change and are subjective.



### **My Favorite Theory**

I found Social Learning Theory as my favorite of all three learning theories. Humans are naturally social beings and tend to blend in and form/participate in social constructs. As an adult learner and my progression from an adolescent learner to an adult learner, I found myself learning best in Social Learning environments. Social Learning Theory prescribes instructional design theories like “apprenticeship,” which I am particularly fond of and find great value in building essential skills, mastery learning, and most important, learner confidence.

### **My Perspective of Other Theories**

#### **Behaviorism**

Those who have pets have likely used Behaviorism theory or principles for their training. Similarly, almost any learner who has studied Psychology in even the most minor form has heard of or learned about Pavlov and what most refer to as “Pavlov’s Dog’s.” Most people who have used Pavlov’s theory to train pets have achieved excellent results. As such, Behaviorism works but not for every learner as the sole theory used to learn.

#### **Cognitivism**

Cognitivism is my least favorite learning theory and a learning theory I find far-fetched in incomprehensible because this theory does not work for me. While studying Cognitive Learning Theory, I was asked to reflect on the idea, and my reflection was:

“I found this week's learning material as the leading cause of why most people refuse to go to a psychologist. I agree and can assimilate most of the material, but some I find to be far-fetched. Vygotsky's Zone of Proximal Development is relatable, but I don't believe I need to "talk to myself" while scaffolding in the Zone of Proximal Development. If Piaget's theory is true, I individually assess myself as proficient and a genius. Heck, I am so bright I don't need to learn. But, if I talk to a tree or the ground, I will understand this theory better as a premise of his thesis is to "encourage learners to interact with the environment. "Tolman suggests that Behavior is purposeful, goal-directed, and is effective when presented in an organized manner, and... Tolman's internal mental phenomena to explain learning is the sanest material that I read all day. I don't have to get my hand smacked with a yardstick or a dunce cap placed on my head and sent to the corner; it speaks volumes to his intellect. Now, Piaget, he's a true scholar. If only he were around today to try and make sense of "this" world we live in, he might lose hope for all of humanity. All joking aside, I most relate to Piaget and multiple points he makes, but none more significant than logical reasoning and the knowledge structure presented. There's nothing quite like attending residency to become a brain surgeon only to find out you will be operating on a foot. I joke when saying that, but I agree that you have a short amount of time to gain my attention when presenting new information before I determine it is irrelevant and focus my attention elsewhere.”

### References

Discover Learning Designs. (2021). *How to apply Merrill's instructional design principles*. <https://discoverlearning.com.au/2021/06/how-to-apply-merrills-instructional-design-principles/>

Merrill, M. D. (2002). First principles of instruction. *Educational technology research and development*, 50(3), 43-59.