

Michaela Mabe      Challenge #5      5/28/23      EDCI 60002c      Summer '23	
<b>SUPRA-BADGE:</b>	Design and Development
<b>SUB-BADGE:</b>	Instructional Design And Development Process
<b>CHALLENGE:</b>	Modify the instructional design process as project parameters change.
<b>ARTIFACT:</b>	EDCI 531 Designing With The Theories Paper
<b>CRITERIA:</b>	<p><b>Criteria for successful completion of this challenge:</b> Evidence of adjusting steps in the instructional design process (ADDIE, Dick and Carey, Assure, Arcs, etc.) as projects change (rearranging steps, changing scope, deliverables, budget, goals, etc.).</p> <p><b>Reflection must address:</b> Which steps in an instructional design model you modified or adjusted and why.</p>

### Competency and artifact identification

My **EDCI 531 Designing With The Theories Project** provides the evidence for the sub-badge, Instructional Design, And Development Process, and the challenge, “Modify the instructional design process as project parameters change”. This artifact provides evidence that I can reflect on and change instructional design processes as the project parameters change. I had to change how I would create a learning activity for different learning theories. I was able to change and adapt the process of how I created the activities based on the different theories.

### Description of how the artifact supports the competency

The Designing With The Theories Paper revolves around creating lesson plans and activities based on the core components of the theories. I was able to create a learning activity and Possible Learning Experiences for 5 different theories; Behaviorism, Cognitivism, Cognitive Information Processing, Constructivism, and Gagne's Theory of Instruction. This fits the competency because I was able to use my knowledge of the different instructional design theories to create learning activities and experiences. I was able to change them based on my peer's discussion post replies to create this document.

### Competency alignment with prior knowledge and experience

This aligns with my prior knowledge and experience because I have adapted and changed strategies to help me make more quality products. In my classroom, I need to adapt lesson plans and activities all the time when I am losing engagement from the students or the students aren't able to retain the material. In instructional design, I am learning about instructional design theories and processes and the best ways to utilize them to create engaging and quality products.

### Reflection on experiences

Overall, this challenge was a good way to see how I can change and adapt the instructional design process based on changing project parameters. It is important to know your audience, the subject matter experts, and the stakeholders to make sure the product fits the parameters while also being a quality instructional design product. This is something I'm still not super proficient with since the classes

mostly focus on one instructional design process at a time and the parameters don't change too much once the assignment starts. I feel like this is a skill I will get more experience with when I am in the instructional design field.

## **Designing With The Theories Project**

Skill: Acrylic Painting

### **Behaviorism**

#### Primary Theorist

- Edward L. Thorndike, Ivan Pavlov, John Watson, and B.F. Skinner

#### Original Definition of Theory

- Behaviorism focuses on a stimulus and response to learning a skill or concept. The stimulus and response must be conditioned to get the desired behavior from repetition and reinforcement.

#### Learning Activity

- Using Behaviorism to teach acrylic painting to young adults or adults, the easiest way to begin is to instruct the learners to paint different lines and shapes using different brushes to build the basic skills. I will teach from the front of the room, with each student having the same paint, brushes, canvas, and other materials, and give the same exact instructions to everyone. There will be specific techniques taught for each skill taught and will be reinforced throughout the lesson with verbal correction and modeling. It can also be filmed from the instructor's perspective so that it can be posted for the learners to refer back to at a later time. To assess the learner's ability and show their skill demonstration, I will give them the materials and a blank canvas and ask them to return with the lines and shapes learned in class to ensure they have mastered that skill. This skill will be reinforced by the instructor through verbal praise and through their peers in the class by doing a turn and talking with a partner pointing out something good about their peers painting. Then, we can move on to more intermediate skills.

#### Possible Learning Experiences

- Current Job (Middle School Special Education)
  - Utilizing a group or individual incentive for the students to complete a task (Fun Friday or time doing a preferred activity)
- Instructional Design
  - Include a game/quiz activity in a learning module where the students can earn points/rewards that they can utilize in the learning module (customize a character or get a pet or get the most points in their class)

## **Cognitivism**

### Primary Theorist

- Albert Bandura, Jean Piaget

### Original Definition of Theory

- Cognitivism focuses on using models and looking at how people learn and store the skills or information they learn in their brains. This can be done by working with students to build their self-efficacy, creative and critical thinking, and problem-solving skills to learn and apply information. In Chapter 4 of *Learning Theories: An Educational Perspective*, "Learning occurs through observation and performance." (Schunk, p. 129)

### Learning Activity

- Teaching acrylic painting using Cognitivism, there would need to be a significant focus on creating an environment that supports the learners and allows them to build their own goals and improve their self-efficacy skills. There would also need to be a lot of paintings in the environment for the learners to observe, learn, and apply painting skills to their own products. This would also allow them to see models to help them choose the skill they want to work on. For this lesson, I would be working with young adult learners who sign up for this class to learn more about painting in an art studio with different classes based on the skill they want to see modeled and to practice. For example, the learner can set a goal to improve their landscape painting skill, so they take a class modeling each step of the painting so they can build those skills in a scaffolded way. I would also use a lot of positive reinforcement with the learners to support their confidence. As an assessment between classes, I would have the learners create their own landscape using constraints to invoke their critical and creative thinking and problem-solving skills. Some examples of constraints could be only using one color, black and white, only using one brush, or using a non-conventional canvas such as cardboard. I would have a model for this ready and have the students observe it and talk about what they thought my constraint was when I created my painting. They can also reflect on how they learned the skill during the class and during the assessment between classes to see if they met their goal or if they need to identify a different skill to work on.

### Possible Learning Experiences

- Current Job (Middle School Special Education)
  - Make a goal at the beginning of the day (academic or behavior) and do a reflection/discussion at the end of the day (utilize a visual goal sheet or board)
- Instructional Design
  - Create a learning environment that the learners can access to help engage and motivate them to want to explore and learn more (like a museum kiosk)

## **Cognitive Information Processing**

### Primary Theorist

- Richard C. Atkinson, Richard Shiffrin, George Miller

### Original Definition of Theory

- Cognitive Information Processing focuses on how your brain takes sensory information, encodes it, stores it in short- and long-term memory, and retrieves it to use in different environments. It consists of multiple theories about the brain and information. The brain, in this theory, is like a computer that is able to take in, organize, and process information.

### Learning Activity

- Teaching acrylic painting using cognitive information processing would be, to begin with, a quick assessment of the learner's prior knowledge of skills that we've already worked on to assess where each student is and see what type of scaffolding they may need during the lesson. Then to gain the learner's attention, I would use a sensory hook to allow the students to explore their materials (paint, canvas, paintbrushes, etc.). I can also include different materials for the students to utilize as a canvas, such as wood, paper, glass, plastic, or metal. From there, I would go through the steps of the painting process so the students can have it in their working memory. From there, the students can rehearse the skill multiple times with the steps to move it into their long-term memory. For example, I could teach a step-by-step painting like the teaching model used at a paint and sip class to help guide the learners. This also helps the learners because it chunks the skills in each step to help avoid too large of a cognitive load. After the class, as an assessment, I can have the students create a similar painting at home and write their steps down as if they were the instructor to transfer the skills even more to long-term memory and help the learners elaborate on their learning.

### Possible Learning Experiences In Education Technology

- Current Job (Middle School Special Education)
  - Science experiment! The students will gather their materials, make and test their hypotheses, and talk about how it proves the science we are talking about (Egg drop)
- Instructional Design
  - Create a learning module that will guide the learners through a science simulation (PhET) and answer questions about the simulation to make sure the information is encoded in long-term memory

## **Constructivism**

### Primary Theorist

- Jean Piaget, Lev Vygotsky, Jerome Bruner

### Original Definition of Theory

- Constructivism is a learning theory revolving around the learner constructing their knowledge and building new knowledge based on the parts and pieces of information the learner already knows, working with their peers collaboratively to develop their knowledge together, and using motivation and inquiry to stimulate new learning. I see it as a big puzzle of knowledge and getting new pieces of the puzzle as you learn new information.

### Learning Activity

- To use constructivism to teach acrylic painting, I would introduce the lesson with a see, think, and wonder about certain materials or paintings to get the students interested and curious about the upcoming lesson. The students can even guess the painting the class will be working on based on the activity. I will also show a motivational video from a painter to encourage the students who may be having trouble getting motivated. From there, the class will start a KWL Chart (What I Know, What I Want To Know, What I Learned) to discuss their prior knowledge before beginning to paint. Then we will start our painting and halfway through, the students will collaborate with a peer and do a private speech activity together going through their painting to discuss the progress. At the end of the lesson, we will finish the KWL Chart and complete a reflection as a class or with the peer that they worked with while they were painting. Then they can make a goal for the next class to use the skills and knowledge they learned and apply it to the following lesson.

### Possible Learning Experiences In Education Technology

- Current Job (Middle School Special Education)
  - Create a guided inquiry lesson with my students in a unit I teach and based on an area of their interest that we can learn more about, then they can create a project based on a choice board and do a presentation about that subject (Space Unit to Learning more about Saturn's rings)
- Instructional Design
  - Create a learning journey module that the students can go through (gamification) so that the learners can choose the path they want to follow and the knowledge they want to learn

## **Gagne's Theory of Instruction**

### Primary Theorist

- Robert Gagné

### Original Definition of Theory

- Gagne's Theory of Instruction follows a set of nine events that need to be included in instructional material to ensure the learners understand the content that is taught. These events are similar to a lesson plan template, a checklist that teachers can use to make sure they include all of the necessary components for all of the lessons they teach.

### Learning Activity

- Project: My goal was to create a learning experience on Nearpod because I want to use them more in my classroom and learn about creating them. Also with all of the different components you can use on Nearpod, I thought it would be good to go along with Gagne's Events of Instruction. Attached is the learning activity :)
- <https://app.nearpod.com/presentation?pin=0A8EDEF6D72EF0C0EFC0533584261AF-1>

### Possible Learning Experiences In Education Technology

- Current Job (Middle School Special Education)
  - Utilize Nearpod to create a lesson that includes all nine events of instruction as I did in the learning activity above
- Instructional Design
  - Create a learning module that goes through each of the events using skills such as math, ELA, or typing skill that can be introduced and practiced in an online format