

# TechQuest Classroom

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This lesson won the 2025 AECT Teacher Education Division PK-12 Lesson Design Competition. It was not peer-reviewed.

## OVERVIEW

Learners read through a classroom scenario and try to align technology choices with learning theories. Behaviorism, Cognitivism, and Constructivism are the foundational learning theories introduced to preservice educators as they begin exploring learning theory. Using a narrative-based story line, learners test their understanding of how these basic learning theories can use technology tools to support students and learning.

Topics: Technology in Education, Learning Theory

Time: 20 minutes

## MATERIALS

- Computer or tablet with internet access
- [TechQuest Classroom Genially link](#)

## SETUP

Classroom setup should only take a few minutes. Students need a device connected to the internet to access the material with a link. Students can interact with the material in groups to discuss choices if desired.

Genially includes a simplified template of the branching scenario. Project development moves quickly if the learner pathways are mapped out before working within the tool. Genially has a free plan available. Paid versions of Genially allow teachers to require a login for students to access the resource and collect data about student use of the resource.

## CONTEXT-AT-A-GLANCE

### Setting

An undergraduate course on technology in education for pre-service PreK-12 teachers at a public university in the Southeastern United States.

### Modality

In-person or synchronous

### Class Structure

This activity is a 20-minute review. Students meet once a week for 15 weeks. Each class is one hour and forty minutes.

### Learner Characteristics

Students in the course represent a range of experience from those who are in their first semester of courses in the college of education to those who are about to graduate to the classroom. Although the culminating project for the course requires basic knowledge of learning theory, not all students have completed courses that cover the topic.

### Lesson Rationale

Approaching learning theory and technology integration simultaneously allows preservice teachers to think critically about what applied theory can look like while also developing a better understanding of their own knowledge base.

### Technology Rationale

The assessment was created using Genially. The tool allows the use of narrative-based storylines to engage students with real world scenarios that allow students to test their understanding and receive immediate feedback. Genially is a presentation tool that has enhanced interactivity features, such as assessment and gamification tools, which are built into the tool (allowing speedy development of material that is accessible via a shared link). Learners can access the tool and review the material as often as they feel necessary.

## STANDARDS AND OUTCOMES

The following International Society for Technology in Education (ISTE) Standards for Students (ISTE, 2016) and for Educators (ISTE, 2017) align with this activity:

### ISTE STUDENT

Empowered Learner

1.1.c Feedback to Improve Practice

Students use technology to seek feedback that informs their practice and to demonstrate their learning in a variety of ways.

### ISTE EDUCATOR

Citizen

2.3.a Create Positive Experiences

Educators create experiences for learners to make positive, socially responsible contributions and build inclusive communities online.

Designer

2.5.b Design Authentic Learning Activities

Educators design authentic learning activities that incorporate technology to advance student outcomes and develop opportunities for students to apply their knowledge.

Analyst

2.7.b Use Tech to Create Assessments

Educators use technology to design and implement a variety of formative and summative assessments that accommodate learner needs, provide timely feedback to students and inform instruction.

## COURSE LEARNING OUTCOMES

By the end of the activity, the learner will be able to:

- Identify the three learning theories covered: Behaviorism, Cognitivism, and Constructivism.
- List characteristics of the three learning theories.
- Provide examples of activities supported by each learning theory.
- Select technology tools that support the characteristics and goals of each learning theory.

## LEARNING REPRESENTATION

The culminating project for preservice teachers in the Technology for Education course is the creation of a video that describes their process for creating a technology-integrated lesson plan. In the video, they introduce the lesson standard and objectives covered, demonstrate the material they have developed for the lesson, and discuss the theoretical foundations that support their choices throughout the lesson. This includes describing the learning theory or theories that are evident throughout the lesson. However, the course focus is on technological aspects and there is little room in the curriculum for teaching learning theory. For this reason, it was critical to design a learning experience that would facilitate student engagement with the material. It was also important that the assessment do more than assess basic declarative knowledge for a grade. The assessment needed to help the students better understand their own knowledge about the topic.

For this reason, a choice-based assessment that positioned basic learning theories within real world technology integration scenarios was created. The use of narratives that describe realistic events provides students with the opportunity to test their ability to apply what they have learned in class. Scenario-based practice promotes critical and higher order thinking skills (Agarwal & Joshi, 2025; Temiz, 2020), the application of existing knowledge to new situations (Temiz, 2020; Wong et al., 2017), and knowledge retention over time (Agarwal & Joshi, 2025; Campanaro et al., 2022), especially when compared to studying traditional education materials (Wong et al., 2017).

The 'Choose Your Own Adventure' style question and answer design allows the creation of an assessment that both tests student knowledge and provides opportunity for knowledge improvement. This assessment specifically encourages learners to make multiple attempts while providing guidance for decision making.

## REFERENCES

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## ABOUT THE AUTHOR

**Crisianee Berry** is an Assistant Professor in Instructional Technology Education at East Carolina University. Her background includes K-12 classrooms, instructional design in industry, and medical curriculum development. Her research areas include emerging educational technologies, currently practical application of AI in teaching and learning, educational gaming, and professional development.