Example for Inquiry-Based Learning

An instructor decides to use inquiry-based learning during lab work in a physics course. Instead of providing students with step-by-step instructions on how to complete the lab, students are allowed to decide what data to collect, how to collect it, and how to analyze it to explain the physics principle or phenomenon. The instructor notices that student interactions increase as students voice their opinions and facilitate decision-making with their group (Nutt, 2020).

Example for Design-Based Learning

An engineering or architectural instructor decides to incorporate design-based learning activities into scheduled class time. Each design-based learning activity begins with a class discussion of a human-focused problem and personas (people who are impacted by the problem). For example, the instructor shows a picture of a public building and asks students to identify personas who might find the building inaccessible. Students spend time empathizing and defining the personas and goals of their redesign of the entrance. Next, students begin the ideation nonverbally using an asynchronous interactive board (Padlet, Jamboard, Trello, etc.) during class and then continue to ideate over the next few weeks. In a subsequent class, the instructor guides students through a discussion to determine the top ideas for solving the problem. Each group selects one idea to design and test. Students submit the prototype and reflection on the process for feedback and grading.

Example for Problem-Based Learning

An instructor decides to use problem-based learning in a teacher education course. The instructor creates several student personas with different learning problems. Students work in small groups during class to discuss the student persona and brainstorm ideas on the student persona's learning problem based on prior knowledge. Students decide roles and the steps to complete the assessment. During the next class session, each small group explains their student persona's diagnosed learning problem and describes examples of differentiation and scaffolding to adapt instruction to improve the student persona's learning. Students receive feedback from their peers as well as the instructor.

Example for Project-Based Learning

An instructor decides to create a summative authentic assessment using project-based learning in a social sciences course. The instructor provides a list of societal issues aligned with the learning objectives that students will select from, or students have the option of submitting a different societal issue with an explanation of how it aligns with the learning objectives. Next, students will select the product or performance to demonstrate their learning. Students will then create a project plan and submit their plan to receive feedback from the instructor. Students adapt their project plan based on instructor feedback, begin research on the societal issue, and complete the product or performance to demonstrate their learning. Lastly, students present their product or performance asynchronously using a video recording tool like VoiceThread for feedback and grading.

Example for Scenario-Based Learning

An instructor decides to use scenario-based learning in a general education writing course. The instructor designs scenarios for students to understand audience-centered writing. An example of a writing scenario could involve a historical event or person, where students write a letter providing advice to a historical person or take on the role of a historical person to suggest ways to address the historical event. Another example of a writing scenario could involve a human resource problem at a company, where students are asked to create a memo or policy to address the

problem. These scenarios provide students with a real-world context for a specific audience and purpose for each formative assessment (Golden, 2018).