What's the Principle?

Overview

What's the Principle? is a problem and inquiry-based active learning approach where students identify the principle/approach that is underlying a given problem or scenario. Such approaches have been shown to improve students' critical thinking skills and academic performance.

By identifying the problem, most students can recognize the resources and information they need to formulate a solution. However, this skill is one that is honed with time. Help your students learn to identify the principle, and how it is applied, by using this activity soon after covering a fundamental concept/principle in class.

What's the Principle? is ideal for: practice in identifying underlying concepts/principles/approaches, multiple approaches to address similar concepts/principles, and multiple concepts that are overlapping/commonly mistaken for each other.

What's the Principle? meets the following WSU Learning Goals: critical and creative thinking, scientific literacy, information literacy, diversity, and depth, breadth, and integration of learning.

Group size: 1-3 **|** **Active Time**: 15 mins **|** **Prep. Time:** Medium

Active time is an estimate and may vary depending on your class.

Implementation

Suggested Tech Tools: Blackboard Discussion Boards, Google Forms, Padlet, Poll Everywhere, TopHat, Kahoot

Instructor:
Provide students with a problem. It can be helpful to provide students with an example or to have them complete a practice principle identification.

Students:
1. Identify and state the conceptual principle underlying the stated problem.
2. Present the solution to the problem.

Variations & Tips:

➢ For **face-to-face** and **large-enrollment** courses, students can work in pairs or small-groups and report out or vote using Google Forms, Padlet, or Poll Everywhere.

➢ To allow students to work in small groups in **online** and **video conference (VC)** courses, use Blackboard Discussion Boards or Blackboard Collaborate Ultra.

➢ Practice a series of problems which approach the same concept/principle in varied ways.

➢ Create distinct answer choices that are representative of likely student conceptual or reasoning difficulties and follow up with discussion of all solution(s)—correct and incorrect.

➢ Reinforce solutions by having students vote on the correct solution by using Poll Everywhere or Google Forms.

You may also be interested in:

Ranking Alternatives
Think-Pair-Share
Defining Features Matrix

Resources:

The effectiveness of problem-based learning
Meta-Analysis of Inquiry-Based Learning

Let's explore the possibilities together!

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To find more activities, visit the LI website and select Teaching Tool Boxes.