***Praxis Paper:***

Our group’s lesson on The Pythagorean Theorem was created to accomplish as much student success as possible. We recognized that in order for students to succeed they need to be able to achieve maximum comprehension. We discussed different ways we could engage our students in collaborative learning while also incorporating a variety of tools that would be beneficial for different types of learners.

We begin the lesson by putting our students into groups of six and assigning each student a type of triangle (scalene, isosceles, equilateral, acute, right and obtuse). As aspiring teachers, we recognized that “The teacher’s primary concern should be how to make an assignment explicit without stifling interest or the spirit of inquiry” (Vacca, Vacca, & Mraz, p. 299). We decided to use RAFT (Role of the writer, Audience, Format, Topic) so students can approach the topic at hand from their own perspective and compare these perspectives with their classmates. Each student will learn about their type of triangle and then present it to their group, being “in the role” of that triangle. This allows the students to learn about each type of triangle, while creating purpose from using a lifelike context.

The students will then receive a handout titled “Right Angle Triangles and the Pythagorean Theorem”. We will play our multiliteracy video and have students fill in the blanks on their worksheet along with the video. Our video incorporates many visual aids and examples to help the students comprehend The Pythagorean Theorem. The video would have to be paused when it tells you to try an activity to allow students some time to problem solve. We incorporated real life examples in our video, such as crossing the street and playing basketball, and connected them to our topic. The first video displays how the hypotenuse is the shortest distance between two objects that are not directly across from one another. We showed how if one person walked the path of the hypotenuse at the same speed as the person who used the other two sides of the triangle to get to a certain point, the person who walked the path of the hypotenuse would always make it there first. We then put a triangle on the screen that was clearly colour coordinated and labelled to represent these paths to make the paths more clear. Our second and third video used basketball to show how we see triangles in everyday life. It also showed that using The Pythagorean Theorem, you could determine certain unknown measurements. The worksheet incorporated with the video could be thought of as a type of a Reading Guide since “students respond to the questions and activities in the guide as they read the text, not after” (Vacca, Vacca, & Mraz, p. 228). This helps the students develop content acquisition and promotes higher-order thinking.

Towards the end of the lesson we developed some guided questions that the students will discuss with their elbow partner to help solidify their knowledge on The Pythagorean Theorem. The students will then be given a handout entitled “Finding the Unknown Side of a Right Triangle” that they can work on for any remainder of the class with a partner or individually.

Overall, our lesson contains a large variety of literacies to achieve maximum comprehension. It includes dialogue and writing, real life examples, communication, activities, visual aids and peer learning. We believe that this lesson will ensure our students can succeed when it comes time for content analysis because they will fully comprehend The Pythagorean Theorem.

Resource

Vacca, R. T., Vacca, J., L., Mraz, M. (2014). *Content Area Reading: Literacy and*

*Learning Across the Curriculum*. Pearson Education Inc.