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ETEC 544, Group 5

Team Production Process Design Document

-Teaching Trigonometric Ratios

Complete a **Team Production Process Design Document** using the example provided in Chapter 4. Note your group will only focus on the following areas. Each group will complete the following five sections based on the team project. The completed team design document will be posted on **each** group member's website.

1. Project Scope

   Goal - Students will use trigonometric ratios and the Pythagorean theorem to solve right triangles.

   Audience - Secondary education students in the mathematics classroom, typically Geometry and/or Trigonometry.

   Design Time and Milestones - The complete design will take approximately 6 weeks. Analysis will take 1 week, objectives 1 week, material development will take two weeks. Training will take 1 week.

2. Delivery

   Content -The content will be based on the California Math Standards.

   Method - The initial topic will be taught using direct instruction, followed by guided practice using whiteboards and markers. Students will then practice using online homework problems. These problems will be assessed for accuracy. An online discussion explaining the concepts covered will assess student comprehension. Online video tutorials such as Khan Academy and EdPuzzle will reteach concepts. The training will be followed by a test in order to assess comprehension.

3. Training Time

-Training will take place over the course of 6 class periods. Each period is approximately 45 minutes in duration. Training time does not include time to test the mastery of the goal. This will take another class period.

4. Problems and Opportunities

-Poor student attendance can interfere with the proposed timeline and interrupt the continuity of the training. Students lack the technology necessary to complete the training. Other problems that we may encounter are classroom interruptions and unexpected schedule changes.

5. Objectives

-Students will use the sine, cosine and tangent ratios.

-Students will solve real-life problems involving sine, cosine and tangent ratios.

-Students will use inverse trigonometric ratios.

-Students will solve right triangles.

-Students will properly calculate trigonometric ratios, inverse trigonometric ratios, and follow the order of operations with calculator in use.

4. Training Materials

-Training material needs include:

- Online textbook
- Promethean Board
- Google Classroom
- ChromeBooks
- Calculators
- EdPuzzle
- Khan Academy
- White Boards and Markers

5. Involvement

-The classroom teacher will develop and implement the training.