Group Literature Review Research Project

Math 1384: Foundations of Mathematics for Elementary Teachers (I)
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Purpose

• To help students grow in confidence of their mathematical knowledge and expertise.

• To help introduce the students to the exciting possibilities in mathematics education research and to encourage their curiosity to explore elementary mathematics more fully.
Specific Course Objective

• By the end of this course, I will know and understand how number concepts, operations, and algorithms are developmental and connected across grade levels (TEKS—Educator Standards).
  • I will show that I know and understand the above by researching, becoming expert in, and presenting on, one of the course topics.
Topic Choices

• Place Value
• Ways of Thinking About Addition and Subtraction
• Ways of Thinking About Multiplication
• Ways of Thinking About Division
• Understanding the Meanings of and Comparing Fractions
• Adding and Subtracting Fractions
• Multiplying Fractions
• Dividing Fractions
• Ways of Thinking About and Operating on Signed Numbers.
Overview

• Each topic will be assigned to 3-4 people.
• As part of a group research project, they will be taught how to conduct and carrying out a scientific literature review on your selected topic.
• This will culminate in a poster presentation of their findings to the class.
Step-by-Step Deadlines

- Assignment #1: Research Topic Questions (5 points) (DUE 9/4)
- Assignment #2: Literature Review Plan (10 points) (DUE 9/11)
- Assignment #3: Data Collection: Library Search (10 points) (DUE 9/25)
- Assignment #4: Data Analysis: Code Articles (15 points) (DUE 10/9)
- Assignment #5: Data Analysis: Frequency Counts (20 points) (DUE 10/23)
- Assignment #6: Report Findings and Discuss Implications (20 points) (DUE 11/8)
- Assignment #7: Create Poster and Present Research Project to Class (20 points) (DUE 11/29)
Assessment

• Each of these assignments will be graded using a rubric provided in class which outlines specific group roles for each part of the project.

• The grade will be based on both feedback from your peers (to ensure they do their fair share of each part of the project) and the instructor.

• Excellent projects (as determined by a rubric) will be invited to participate in SHSU’s Undergraduate Research Symposium and possibly other research conferences/projects with Dr. Bullock.