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September 16, 2012
ISLT 9484: Teaching Online Courses

Synchronous Instructional Session (SIS)

A. Goals

- <u>Grade Level/Content Area</u>: 7th Grade – Mathematics. The content focus will be on the measures of central tendency (mean, median, mode and range) for remediation for students who did not earn proficient (3) or higher, on the previous assessment.
- <u>Objectives:</u>
    - The students will be able to correctly find the measures of central tendency when presented with a set of data
    - The students will be able to determine the appropriate type of measure of central tendency; mean, median, mode, or range; is appropriate when determining trends in data.
- <u>General Purpose</u>: The purpose of this activity is to provide students with remediation. Measures of Central Tendency are a state required skill that students must know. It is also a heavily assessed area on the MAP assessment, and there have been several students who have not yet mastered the skill to proficiency. Because of this, students will be required to meet for a session of intervention to help bring them to proficiency on this skill.

B. Planning Considerations

- Anticipated Characteristics of the learner to be considered when planning this lesson
    - Students should have basic calculator skills prior to the lesson
    - Students have already learned about Mean, Median, Mode and Range
    - Students require more concrete and tangible lessons to learn the skills
- Prepared in advance by the teacher
    - "You be the Teacher" Worksheet
    - Illuminate Session
    - Vocabulary PowerPoint
    - Measures of Central Tendency Video
- Features of Collaboration
    - Small group discussion – students will work in groups to discuss which measure of central tendency is best for the information
    - Simulation – students will be the teacher determining how to interpret data
- Student Materials
    - Headphones & Microphone
    - You be the teacher worksheet
    - Pencil
    - Calculator
    - Mean, Median, Mode & Range Cheat Sheet
- Time – Expected for session
    - 45 – 50 Minutes for students probably less for adult learners

C. Activity Outline and Procedures

1. Introductions
   - Getting to know each other – tell me one thing about yourself and introduce each other

2. Review:
   - Review the Measures of Central Tendency Cheat Sheet
      1. Determine what does mean, median, mode and range mean
   - Watch to the "Measures of Central Tendency" Rap - http://www.youtube.com/watch?v=1jVZi0cNHls
      a. Sing the lyrics to remind ourselves about which item is which
   - Review the vocabulary – use Vocabulary PowerPoint with visual aids
      1. Mean – Mean One
      2. Median – Middle
      3. Mode – Most
      4. Range – Big minus small

3. Introduce – You be the teacher assignment
   - Students are to complete the worksheet finding the measures of central tendency for the set of data
   - Students will then work in groups to determine which is the best interpretation of the data
      1. What is the median of the class's score?
      2. What is the mode of the class's score?
      3. What is the mean of the class's score?
      4. Interpret Angela's scores – Mean, Median, Mode
      5. How does a zero affect the overall score? If a student got a 50% instead of the zero, how much would that change their mean score? Median? Mode?
      6. Your principal asked you to give him an overall picture of your class grades. Which measure of central tendency would best describe your class? Why?

4. Closing
   - Exit Ticket - http://harriganmath.edublogs.org/2012/09/23/measures-of-central-tendency-and-grades/
      1. Students will comment on an open question on the classroom blog
      2. Students must comment on one of their peers comments on the blog

D. Assessment:

1. Assess Student learning and outcomes:
   - I will assess students learning based on the closing activity "Exit Ticket". The exit ticket will allow the students to reflect and also demonstrate their understanding of the concept

2. Students understanding verified during the session
   - The teacher will be reviewing their documents and discussions in small groups to ensure learning.
   - Students will answer questions aloud or in written form that will be reinforced by the teacher

3. Assess student attitudes and engagement
   - I will assess my students attitudes by through the exit ticket when they reflect on their learning

- I will be able to assess the students engagement based off their small group discussion as well as their completion of the activity

E. **Session Details**
  - **Session will begin Sunday, September 23 at 12:00 PM CST**