Goal/Objective

The teacher will teach/show math teacher the effectiveness of using sorting circles as manipulative when teaching mathematics.

Math Concepts

Comparison and ordering of fractions

Materials

Sorting circles
Sorting circles labeling cards (index cards)
Fraction Cards: 2/5 5/8 4/9 7/9 3/7 5/7 3/8 9/10 3/5 2/8 5/9 2/3 5/7 2/9 1/5 1/7 (post it notes)

Management

1. Things to prepare ahead of time
   a. Make sorting circle labeling cards: circle one: “less than ½”; circle two: “more than ½”; circle three: “more than 1”.
   b. Make fraction cards by writing different fractions on post it notes.
   c. Check with principal and set a time and reserve a room.

2. Participate groupings.
   a. I will have five tables, which will be setting for five groups. Each table will represent a different color (red, yellow, green, blue, orange)
   b. Place five color tiles of each of the five colors in a jar.
   c. As participants enter the meeting room, ask them to choose a color tile from the jar without looking.
   d. The color tile the participant chooses will determine the table/group they belong.

3. Time frame
   a. The approximate time for the activity is 45 minutes.
Procedures

1. Introduction
   a. Ask teachers questions about fractions.
      What do you do to determine placement of fractions on a number line?
      How do you determine if one fraction is between 2 other fractions?
      How do you know if a fraction is equal to, less than, or greater than \( \frac{1}{2} \)?
   b. Tell teacher that today they will be sorting fractions using the sorting circles and will then order the fractions.

2. Content Activities
   a. Give each group a set of sorting circles and sorting circles labeling cards.
   b. Show teacher how to make a Venn-Diagram using all three circles
   c. Instruct groups to place a sorting circle labeling card in each the three sorting circles.
   d. Give each group a set of fraction cards.
   e. Tell teachers to work with their group members to place as many of the capacity cards in its appropriate region of the sorting circles.
   f. After all groups are complete, ask groups to tell which capacity cards they place in each region.
   g. Tell each group to order fractions in order from least to greatest.
   h. Ask group to display fractions in order from least to greatest and tell method used to determine order.

Closure

1. Ask teachers if they think their students might understand ordering of fractions after using sorting circles.
2. Ask teacher to share other math concepts that could be taught using sorting circles as a manipulative
3. Draw a name from the jar to give away a set of sorting circles as a door prize.