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ABSTRACT

A lesson plan for first-grade children beginning to learn English describes an activity using manipulatives and visual aids to develop recognition of three geometric shapes (circle, square, rectangle), their names, and a few additional words in English (e.g., "bag," "table," "door"). Students are grouped at tables of four to six and provided with name-marked items of the appropriate shape. When directed by the teacher, students match the shape indicated with the corresponding item on the table, then practice pronunciation of the English word. Subsequently, students are instructed to bring the items to a central location, and are encouraged to find other similar shapes within the classroom. (MSE)



Common Geometry Shapes/Formas Geometricas: An Introductory English Lesson & Introductory Spanish Lesson

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Common Geometry Shapes/Formas Geométricas:

An Introductory-English Lesson/Un Introducción de la lección de Ingles/

Submitted to Journal of Education (1996)

By James A. Jaramillo and Angele Solano © (1996)

Population: A Spanish-speaking population that is beginning to learn English.

Grade: First grade/Novice in English.

Ambiance: Collective learning stations of four to six students per table.

Theory: Constructivism and Holism.

Teaching Techniques: Modeling, Multirepresentations, Collective learning, and Total Physical Response (TPR).

Age: Typically five to six years of age, but a beginner can apply to any age.

Principles: Student use of closure. Closure involves assigning a label to an object in a domain, and then assigning properties to the label.

Ability: A potential understanding of Van Hiele's (1986) first level of development in geometry.

1: Recognition of [a few] geometric figures (squares, etc.) via their appearance. Students can identify, name, and compare shapes.

Goal: By the end of this activity, students, using manipulatives and visual aids, should have developed a recognition of three geometric shapes, and be able to correctly pronounce these shapes and a few words. Students learn how to use these shapes to describe their surrounding world.

Prerequisites: Students need to have a working knowledge of associating objects with new words.

Materials: Each table of students should receive the following enactives:

3 Round Paper Plates with the word "Círculo" written on one

3 Round Paper Plates with the word "Círculo" written on one side in 72-size font and the word, "Circle" written on the opposite side. 1 Square box with the word, "Cuadradro" written on one side in 72-size font, and the word "Square" written on the other side.

3 Rectangular Cassette Covers with the word, "Rectangulo" written on one side in 72-size font, and the word, "Rectangle" written on the other side.

1 bag with a page stating the word,"bag" written on one side in 72-size font, and the word "bolsa" written on the other side.

4-6 pages with the word, "table" written on one side in 72-size font and the word "mesa" written on the other side.



1 page with the word, "door" written on one side in 72-size font, and the word "puerta" written on the other side.

Chalk/Markers with a chalk/markerboard.

I. Concept of Mathematics:

Teach the students an operational understanding of some geometry shapes, and some other practical words.

Initial Preparation:

- A) Draw the shapes with their corresponding English and Spanish names below them in approximately 144 size font on a marker board (see Figures 1-4).
- B) Place the correct number of enactives on each table.
- C) Tape the "bag" page to your bag.
- D) Tape a "table" page on top of each table.
- E) Tape the "door" page on the door.
- 1) Introduction: "Today, we will be learning about shapes. While displaying the three shapes' enactives, teacher says, "Here are some common shapes. Knowing what shapes are will help you to describe the things in your world."
- 2) Display a plate before students and state, "What shape is this?"
- a) "In English, we call it a "Cir/cle."
- b) Point the circle figure on the board and slowly enunciate each syllable of the word, "Cir/cle."
- c) "Now, look on your table and hold up the objects that look: like a Circle."
- d) Point to the plate, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"
- 3) Display a square shape and say, "Which shape is this?"
- a) "In English, we call it a Square."
- b) Point the box figure on the board and slowly enunciate the word, "Square."
- c) "Now, look on your table and hold up the object that looks like a Square."
- d) Point to the box, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"
- 4) Display a rectangle shape, and say, "What shape is this?"
- a) "In English, we call it a Rec/tang/le."
- b) Point the figure on the board and slowly enunciate each syllable of the word, "Rec/tang/le."
- c) "Now, look on your table and hold up the objects that look; like a Rectangle."
- d) Point to the shape, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"



II. Comprehension of the Problem:

- A) Display the tape roll, and say, "What shape is this?"
- B) Display the computer disk, and say, "What shape is this?"
- C) Display the video cassette, and say, "What shape is this?"

III. Instructions:

- 5) Walk to a table and say, "Now, I want you to stand up and bring the Circles from each table and place them in my bag/bolsa."
- 6) Walk to a second table and say, "Now, I want you to stand up Le/van/tan Se and bring the squares from each table and place them in my bag/bolsa."
- 7) Walk to a third table and say, "Now, I want you to stand up and bring the Rectangles from each table and place them in my bag/bolsa."
- IV. Directions/Execution of the Plan:
- 8) "Look around the room, what other Circles do you see? (a clock, rings, pennies, etc.)
- 9) "What other Squares do you see?" (windows, etc.)
- 10) "What other Rectangles do you see?" (door/puerta, a dollar bill/un dolar).

V. Retrospective Vision:

When students correctly associate the object with a shape's concept, this indicates that they can recognize these geometric shapes. This is based on the instructor's observations of how students handle, visualize and describe manipulatives to construct meaning from this activity.



Formas Geométricas/Common Geometry Shapes:
Introducción de la lección de Español/Introductory-Spanish Lesson
Submitted to Journal of Education (1996)
By James A. Jaramillo and Angele Solano ©(1996)

Population: An English speaking population that is beginning to learn Spanish.

Grade: First grade/Novice in Spanish.

Ambiance: Collective learning stations of four to six students per table.

Theory: Constructivism and Holism.

Teaching Techniques: Modeling, Multirepresentations, Collective learning, and Total Physical Response (TPR).

Age: Typically five to six years of age, but a beginner can apply to any age.

Principles: Student use of closure. Closure involves assigning a label to an object in a domain, and then assigning properties to the label.

Ability: A. potential understanding of Van Hiele's (1986) first level of development in geometry.

1: Recognition of [a few] geometric figures (squares, etc.) via their appearance. Students can identify, name, and compare shapes.

Goal: By the end of this activity, students, using manipulatives and visual aids, should have developed a recognition of three geometric shapes, and be able to correctly pronounce these shapes and a few words. Students learn how to use these shapes to describe their surrounding world.

Prerequisites: Students need to have a working knowledge of associating objects with new words.

Materials: Each table of students should receive the following enactives:

- 3 Round Paper Plates with the word, "Círculo" written on one side in 72-size font. 1 Square box with the word, "Cuadradro" written on one side in 72-size font.
- 3 Rectangular Cassette Covers with the word, "Rectángulo" written on one side in 72-size font.
- 1 bag with a page stating the word, "bolsa" written on one side in 72-size font.
- 4-6 pages with the word, Mesa written on one side in 72-size font.



1 page with the word, "Puerta" written on one side in 72-size font. Chalk/Markers with a chalk/markerboard.

I. Concept of Mathematics:

Teach the students an operational understanding of some geometry shapes, and some other practical words.

Initial Preparation:

- A) Draw the shapes with their corresponding Spanish names below them in approximately 144 size font on a marker board (see Figures 1-4).
- B) Place the correct number of enactives on each table.
- C) Tape the "bolsa" page to your bag.
- D) Tape a "mesa" page on top of each table.
- E) Tape the "puerta" page on the door.
- 1) Introduction: "Today, we will be learning about shapes. While displaying the three shapes' enactives, teacher says, "Here are some common shapes. Knowing what shapes are will help you to describe the things in your world."
- 2) Display a plate before students and state, "What shape is this?"
- a) "In Spanish, we call it a "Cír/cu/lo."
- b) Point the circle figure on the board and slowly enunciate each syllable of the word, "Cír/cu/lo."
- c) "Now, look on your table and hold up the objects that look! like a Círculo."
- d) Point to the plate, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"
- 3) Display a square shape and say, "Which shape is this?"
- a) "In Spanish, we call it a Cua/dra/do."
- b) Point the box figure on the board and slowly enunciate each syllable of the word, "Cua/dra/do."
- c) "Now, look on your table and hold up the object that looks like a Cuadrado."
- d) Point to the box, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"
- 4) Display a rectangle shape, and say, "What shape is this?"
- a) "In Spanish, we call it a Rec/táng/ulo."
- b) Point the figure on the board and slowly enunciate each syllable of the word, "Rec/táng/ulo."
- c) "Now, look on your table and hold up the objects that look like a Rectángulo."
- d) Point to the shape, and say, "Now, everyone tell me, what is this?"
- e) "Bien/Good!"
- II. Comprehension of the Problem:
- A) Display the tape roll, and say, "What shape is this?"



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- B) Display the computer disk, and say, "What shape is this?"
- C) Display the video cassette, and say, "What shape is this?"

III. Instructions:

- 5) Walk to a table and say, "Now, I want you to stand up and bring the Círculos from each table and place them in my bag/bolsa."
- 6) Walk to a second table and say, "Now, I want you to stand up Le/van/tan Se and bring the Cuadrados from each table and place them in my bag/bolsa."
- 7) Walk to a third table and say, "Now, I want you to stand up and bring the Rectangulos from each table and place them in my bag/bolsa."
- IV. Directions/Execution of the Plan:
- 8) "Look around the room, what other Círculos do you see? (a clock, rings, pennies, etc.)
- 9) "What other Cuadrados do you see?" (windows, etc.)
- 10) "What other Rectángulos do you see?" (door/puerta, a dollar bill/un dolar).

V. Retrospective Vision:

When students correctly associate the object with a shape's concept, this indicates that they can recognize these geometric shapes. This is based on the instructor's observations of how students handle, visualize and describe manipulatives to construct meaning from this activity.





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