

1 VIDEO #1

One to One Correspondence; Comparing

Overview

The early childhood teacher must provide opportunities for the child to perform activities on objects and to practice in a meaningful context the mathematical concepts of our particular culture. The source of mathematical knowledge is in the child. It is constructed by coordinating relationships that have their origins in mental and physical actions of the child.

In this module you will see teachers and children exploring the concept of **one to one correspondence** and **comparing**. The children engage in those activities which are most interesting to them. The teachers support their learning by asking open-ended questions and using the appropriate vocabulary when the children demonstrate they have grasped the concept.

Questions to Consider

1. How do children learn one to one correspondence, and to make comparisons?
2. What do teachers do to help children learn these concepts?
3. What does it mean when children stay with an activity?

Vocabulary

Read these terms with their definitions before viewing the program.

Comparing examining so as to perceive sameness or difference.

Matching placing together two things that correspond.

One to one correspondence matching one item to another.

Instructional Objectives

When you have successfully completed this module, you will be able to:

1. Define concepts: one to one correspondence and comparing.
2. Match each concept with materials and/or activities appropriate to learning the concept.
3. Describe how children learn the mathematical concepts one to one correspondence and comparing.
4. Analyze the teacher's role in children learning to match and compare.
5. Recognize children's behavior which indicate level of interest in math activity.

Self-Test

After studying the objectives and watching the video take the self-test to check your progress.

1. Define the following concepts:
 - a. one to one correspondence
 - b. comparing
2. Next to each material or activity write the math concept being learned.
 - a. setting the table _____
 - b. reading *Caps For Sale* _____
 - c. filling and emptying cups of sand noticing how each feels _____
 - d. making loud and soft sounds _____
 - e. playing with shape box _____
 - f. pairing up cars and trucks according to function _____

Select the phrase which best completes the statement.

- ___ 3. Children may show lack of interest in an activity if
 - a. it is too difficult
 - b. it is too easy
 - c. it is no longer challenging
 - d. all of the above
- ___ 4. Children learn to compare in the following order, by matching
 - a. object to object, picture to picture, picture to object.
 - b. object to object, object to picture, picture to picture.
 - c. picture to object, object to picture, object to object.
 - d. object to picture, picture to object, picture to picture.
- ___ 5. To learn one to one correspondence when setting the table the child should match
 - a. the plates to the chairs at all the tables.
 - b. only one item to the chairs at one table.
 - c. plates, utensils and napkins to each chair at one table only.
 - d. none of the above.

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- ___ 6. When talking to the children as they explore materials the teacher should
 - a. ask open ended questions such as "How are these alike?, How are they different?".
 - b. provide the terminology before the child has grasped the concept.
 - c. begin questioning before the child has played with material.
 - d. all of the above.

 - ___ 7. When providing math materials and activities for learning one to one correspondence and comparing the teacher should
 - a. organize the room so children can find and put away materials easily.
 - b. include a variety of activities which encourage hands-on explorations.
 - c. provide experiences with each concept in all areas of curriculum.
 - d. all of the above.

Write T if statement is true, F if it is false.

- ___ 8. Simple home made materials are appropriate to learn to make comparisons.

- ___ 9. Children learn to make comparisons only through teacher's direction.

- ___ 10. Children demonstrate their understanding of one to one correspondence when they match one doll to one truck.

- ___ 11. Acting out *Caps For Sale* reinforces learning the concept of one to one correspondence.

- ___ 12. Children compare only one aspect of a material such as sand as they play.

Path to Math

Self-Test Answer Key

Video #1 - One to One Correspondence; Comparing

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|---|------------------------------|------|-------|-------|-------|
| 1. a. Match one object to another. | e. one to one correspondence | | | | |
| b. Finding a relationship between two things. | f. comparing | | | | |
| 2. a. one to one correspondence | 3. d | 4. b | 5. c | 6. a | 7. d |
| b. one to one correspondence | 8. T | 9. F | 10. T | 11. T | 12. F |
| c. comparing | | | | | |
| d. comparing | | | | | |

Video #2 - Classification and Seriation

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|---|---------------------------|-------------------|------|-------|
| 1. a. Organize things into groups based on some characteristic. | c. length - long to short | | | |
| b. Comparing more than two things and arranging them in order. | d. width - thin to fat | | | |
| 2. a. classification | b. seriation | c. classification | 5. b | 10. F |
| d. seriation | e. seriation | f. classification | 6. d | 11. T |
| 3. a. color | b. shape | c. size | 7. a | 12. T |
| d. function, texture, pattern | | | 8. d | 13. F |
| 4. a. pitch - high to low | | | 9. c | 14. T |
| b. size - short to tall | | | | 15. T |

Video #3 - Shape; Parts and Wholes

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|---|---------------------|----------|-------|-------|-------|
| 1. a. Recognize and name outward form of an object. | 3. b | 4. c | 5. d | 6. a | 7. c |
| b. Recognize that portions of something make a total. | 8. b | 9. d | 10. F | 11. T | 12. F |
| 2. a. parts and wholes | b. shape | c. shape | 13. T | 14. T | 15. F |
| d. parts and wholes | e. parts and wholes | f. shape | | 16. T | |

Video #4 - Space, Measurement

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| 1. a. recognizing the relationships (direction, position, distance) and uses (pattern, organization, construction). | 9. The teachers provided a variety of experiences and materials. If no climbing equipment was available they made an obstacle course using tables and chairs. They commented appropriately about what the children were doing by using <i>space</i> words referring to the child's direction and position. They asked open-ended questions which encouraged children to think about their own actions and gave teachers insights into children's thinking processes. | |
| b. determining the dimensions of anything. | They appreciated that younger children used materials more manipulatively. They asked children to make predictions, to test them, and to draw conclusions. They did not correct children's mistakes, allowing the children to find their own solutions. | |
| 2. a. space | b. space | c. measurement |
| d. measurement | e. measurement | |
| 3. a. length, height | b. weight | c. volume |
| d. quantity, width | | |
| 4. Children are learning direction - up and down; position - high, middle, low; distance - near, far. | | |
| 5. Children are learning to make patterns with the blocks, they are organizing the space when they make enclosures, and they are constructing using space as part of their structures. | | |
| 6. d | 7. c | 8. b |

Video #5 - Number and Counting; Numerals

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| 1. a. a collection of units. | 2. a. numerals | b. number | | |
| b. counting in order from memory. | c. numerals | d. number, numerals | | |
| c. attaching numeral names to specific number of objects. | e. number | f. numerals | | |
| d. a symbol used to express a number. | 3. b | 4. d | 5. c | 6. a |
| | 7. T | 8. T | 9. F | |
| | 10. T | 11. F | 12. F | |