

Cognitive Development - Assignment

Piaget's theory of cognitive development has been very influential in how we think about the development of thinking. One mistake that adults often make is to assume that a child can think about things in the same way that he or she does. Knowing how a child might think can allow an adult to communicate more effectively with a child.

You are to try to find 2 different children to conduct your 'experiment' on. The age of the child, will determine what experiment you will perform. The child is to be observed on at least **two occasions (if possible)**, according to the criteria stated below. Our goal is to have a variety of children observed in the different stages in order to make a valid conclusion.

Option #1 - If your child is in the **Sensorimotor Stage** (Birth – 2 years old) – you will be testing the child for **object permanence**.

How old is the child? What is the sex of the child?
Play with a toy with the child and then hide it. What is the child's reaction?

Option #2 - If your child is in the **Preoperational Stage (2-7), the Concrete Operational Stage (7-11/12) or the Formal Operation Stage (11-adult)**, then you will be testing the child for **conservation**. All four tests should be done on the same child.

How old is the child? What sex is the child?

Conservation of length

Begin with two sticks or identical pencils, which are exactly the same length. Lay the pencils parallel to each other on the table and ask the child, "Which stick is longer?" Record the child's response.

Then move one stick about a half inch to the left or right of the other. Ask the child again, "Which stick is longer?" Record the child's response.

Conservation of number

Begin with 6 identical coins. (all pennies, nickels, or dimes etc.) Place the coins in two rows of three with each coin directly above one in the other row. Ask the child "Which row has more coins in it?" Record the child's response.

Now separate the coins in one row, spacing them out to form a longer row. Ask the child, "Which row has the most coins?" Record the child's response.

You could make the task more difficult if you wish.... Put 5 coins in each row and proceed in the same manner. Then try the exercise with 8 coins.

Does the child answer correctly when the row is short but not when it is long?

Ask the child to count the coins. Often the ability to count or to assign numbers to objects is an essential skill that can come before conservation of number.

Conservation of volume

Find three transparent containers (glasses), two of which are identical. Fill the identical containers with water or another liquid to exactly the same point. Ask the child "Which container has more water?"

Record the response. (If the child does not agree that the containers contain the same amount of water, adjust by adding or pouring water out until the child feels that the two containers contain equal amounts of water. Then pour the water from one of the identical containers into one, which is a different shape – preferably shorter and wider

Ask the child again? "Which container has more water?" Record the response.

If necessary, pour the water back into its original container and try to convince the child that the two amounts are equal. A child who has not yet learned conservation of volume will continue to insist the amount of water changes as it is poured into a new container.

Conservation of Mass

This time you need a lump of a soft substance such as clay, play dough or cookie dough.

Shape the clay into two balls, asking the child to correct you until the two balls are the same. Then flatten one ball. Ask the child, "Which has more?" Record the response.

Questions

1. Once your observations/experiment is concluded, you must compare the child's responses to those expected by Piaget. Was Piaget correct or incorrect?
2. What do you now understand about a child's thought processes that you were unaware of before?
3. What was the child successful at? Why was the child successful at these behaviours (according to Piaget's description of the stage?)
4. What activities gave the child problems? What frustrated the child?