Unit 18

DEVELOPING COGNITIVE ABILITIES AND UNDERSTANDING CONCEPTS

By: Prof. Rekha Sharma Sen
Symbolic Thought and Fantasy

- The preschool age child can think symbolically, she can hold mental representation of objects and events. The child can now imagine instead of knowing just those things which she can see or hear. She can therefore infer the cause of things.
- Learning language and drawings also show the child’s ability to think symbolically.
- Development of fantasy as well.
- Pretend play in the beginning of preschool years are simple. Later they become elaborate.
- Preschoolers also narrate imaginary stories to others.
- Some also invent imaginary playmates.
Taking another person’s perspective: Preschoolers see things entirely from their own perspective—Egocentric thinking.

Whether or not child is able to take another person’s perspective depends upon the situation. There are individual differences as well. The preschool age child is not completely egocentric but is more tied up to her own perspective as compared to older children.
Preschoolers have the ability to match. Hence, they have discriminate between ‘same’ and ‘different’ things. It is an important skill for literacy. Preschoolers can identify common relations/properties between to objects which are not identical. They may be opposites like up and down, hot and cold, or shoes and socks, comb and hair, flowers and vases. Cause and effect relationship- cloud and rain. This gives the child an understanding of one-to-one correspondence.
Conservation

- Conservation means being able to understand that the quantity or the amount of a certain substance remains the same, even if its shape is changed or if it is transferred from one container to another and nothing is added or subtracted from it.
- Preschoolers are unable to conserve.
- Piaget’s experiments related to conservation of substance, volume, number, length.
Piaget’s Explanation

- Preschoolers cannot reverse their thinking.
- They have a tendency to centre. They pay attention to single striking feature and neglect others.
- They have a tendency to be dominated by their perceptions.
- Later research: Preschoolers conserve only under special conditions -- when there are no distractions and when the situation is familiar.
Classification/Grouping

- Piaget found that 2-3 yr old cannot classify.
- For 4-5 yr old children, the criteria for classification does not remain stable or consistent.
- Classification requires child to identify what several items have in common. In classification, none of the objects may be exactly same.
- Recent research: preschoolers can classify if tasks made simple.
Seriation

- It is the ability to arrange items in terms of gradation of size.
- Piaget found that preschoolers are unable to seriate.
- Recent research: if four sticks are used, instead of ten then preschoolers are able to seriate.
- This ability helps in developing the concept of number.
Preschoolers can reason and determine the possible effects of events.

The preschoolers are developing reasoning skills— they can conserve, take another person’s perspective, do simple classifications and seriation tasks— if the situations are simple, distractions are removed and clues are provided.

Piaget showed that preschoolers think differently from older children and adults.
Animism

- Preschoolers believe that all things are living and have feelings and intentions just as we do.
- They believe in magic.
Concept of number:
Being able to recite number names is not same as being able to count.
Children need to develop the abilities of matching, grouping, seriating and being able to set up one-to-one correspondence before they can count. These abilities are called pre-number concepts.
The child should understand that every number signifies a certain quantity and also one-to-one correspondence.
One-to-One Correspondence

- Preschoolers are unable to count exact number of objects because they do not understand one-to-one correspondence.
- The 4-5 yrs old children just concentrate on the space occupied by the objects. They do not arrange objects according to one-to-one correspondence.
- In second stage, children do arrange objects in one-to-one correspondence, but if objects piled up or placed farther apart again, they then concentrate on space.
- Finally at age 6-7 yrs, children acquire a stable concept of conservation of number.
- Achieving number conservation is in 3 stages: no conservation, transitional stage and finally conservation.
Other Concepts

- Children develop the concepts of those things and events which they have experienced - hot, cold, plants, flowers, trees, day, night, seasons and festivals, shape and size, concept of space, concept about people of different types of occupation - the farmer, fruit seller, doctor, policeman etc.
- The concept of time is difficult for preschooler to grasp.
- The 3-4 yr old can refer to and talk about the immediate past and future. They can vividly recall events that took place a month or two ago. They do not grasp short stretches of time, like minutes. They understand morning, evening and night.
- The preschoolers are able to sequence events as they occur in time.
The Emerging Reasoning Skills

- Preschoolers learn about things while conversing/interacting with others and doing activities.
- They can reason about everyday problems.
- They use information and suggest creative solutions.
- They are acquiring and developing problem-solving skills. They are in an elementary manner learning about hypothesis testing.
- Their understanding of cause and effect also grows.
- To a preschooler anything big is powerful.
When Reasoning is not Logical

- Preschoolers see two things happening at the same time and assume that one is the cause of the other.
- They may relate two unconnected events. This shows that their reasoning skills are not mature.
- They are unable to concentrate on a thing for long.
- Their memory improves markedly for tasks and situations that they find meaningful and interesting.

All this discussion would help you in planning appropriate play activities for children.
Thank You