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# LEARNING AND CHILD DEVELOPMENT THEORISTS

## Unit Overview

Think about a newborn. They are born not knowing the meaning of any word, they cannot sit, walk or stand, and they are not skilled at talking. Through the months and years after their birth a person learns many, many things. This unit is going to look at how learning takes place and explore some the theories that have been developed through the years.

## Intellectual Development

Intellectual development deals with thinking, solving problems, and remembering what you have learned in the past. In order for a person to grow intellectually their brain needs to grow and develop from where it was at the time of birth into a more detailed brain. Connections have to be made in the brain which requires neurons, or brain cells to connect with each other. These connections between neurons are called synapses. Connections which are not used or reinforced die. This is why children who are not stimulated do not develop to their full potential.

Memory is an indication that intellectual development is taking place. Researchers feel babies as young as three days old begin to remember things that happen over and over.

## Ways of Learning

Young children through the age of three learn by four different methods. The first method is imitation. By watching others and imitating what they have observed, children learn a lot. Parents need to realize they are modeling behaviors their children are learning. Repetition helps children to learn. Children begin to predict outcomes because they have seen something happen before and anticipate what the outcome will be. Trial and error allows a child to try something several times until he gets the results he wants. The child simply happens on to something and finds out if he takes a certain action there is a result. For example, if the baby picks up a rattle and shakes it, there is a noise. The fourth method is incidental learning or learning that is not planned.

As a child grows older additional learning methods are used. Each person has their own learning style or method of learning that works best for them. Visual learners prefer to see the information and write it down in order to remember it. They also like to see things demonstrated. Auditory learners discover they learn best by hearing the information and repeating it to themselves.

## Factors Affecting Learning

There are two major factors which influence the person a child becomes. These factors are environment and heredity. Environment is the child's surroundings, home life and the attitudes of those around the child. A child's family is the

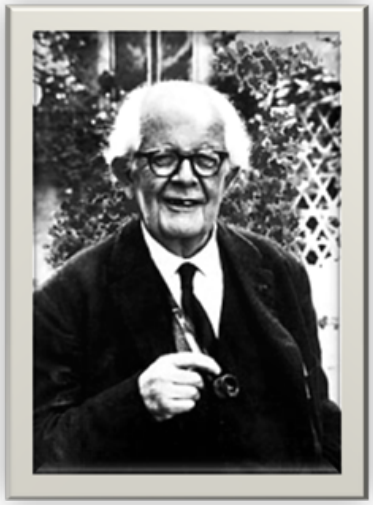
part of the environment that has the most influence on the child. The child acquires there beliefs, attitudes, and habits from those around them. The society the child lives in also affects the values and way of life a child experiences. The financial circumstances of the family will have an influence on the child but it is not necessary for the family to be wealthy. Having a positive environment with encouragement and motivation from the family is extremely important. Resources such as medical care will help the child to develop to his fullest potential. Heredity is the traits that are conveyed from the parents to the child. Both of these factors affect the child's intellectual ability.

Many definitions exist to describe learning. But in all situations, learning involves the individual's brain, his environment and his nervous system.

David Hume, an 18th-century philosopher believed that all information was acquired by observing what is going on around you and by experiences that you have. Observation and experience put to use your senses: seeing, hearing, tasting, smelling and touching. If a person was not able to use their senses they would be like a lifeless thing and unable to learn.

## Theories

During the 20th century people began studying children and theorizing about factors they felt helped or hindered a child's development. These theories are unproven ideas which explain an observed behavior. We are now going to take a look at a few of these theorists and what they believed.



Jean Piaget

## Jean Piaget

Jean Piaget, a Swiss psychologist, felt learning took place as a child interacted with his environment. He felt adults should put children in situations which would engage their mind. Adults working with preschoolers do this by planning hands-on play activities. Piaget organized intellectual development in children into four different periods with each being more advanced than the one before it. The periods happen in the same order and at approximately the same age with each child.

### Sensorimotor Period

The first period, lasting from birth to two years old, is known as the sensorimotor period. Children learn about the world around them through their senses: touching, smelling, seeing, hearing and tasting thus the first part of the term sensory. Motor is added as they move or motor around. The child begins to understand object permanence which means they know an object still exists even though they are not able to see it at the moment.

Piaget further divided this period into six stages:

- **Stage 1** occurs from birth to one month of age. Reflexes or automatic responses to stimulation are the main way babies learn. For instance, if you stroke an infants cheek they will turn their head, open their mouth and start sucking. This is a reflex and not a result of something the baby has learned.

- **Stage 2** is one to four months of age. Babies begin to sort out things about their surroundings and make certain actions on purpose.

- **Stage 3** is four to eight months of age. Babies begin controlling objects and start to learn cause and effect. Cause and effect means that the child realizes if I do this, this will happen. Activity boxes give the child an opportunity to push buttons or twist knobs and learn what happens.

- **Stage 4** is eight to twelve months. Because the child motor skills are growing they are more able to explore the world around them.

- **Stage 5**, which begins at about twelve months is called the "little scientist" stage because the child is exploring his world.

- **Stage 6** is before the child turns two and is the start of symbolic thought. Symbolic thought is the ability to use symbols to represent items and experiences. The child realizes that words represent objects. For example, the word ball represents the round toy they have in their hand.

### Preoperational Period

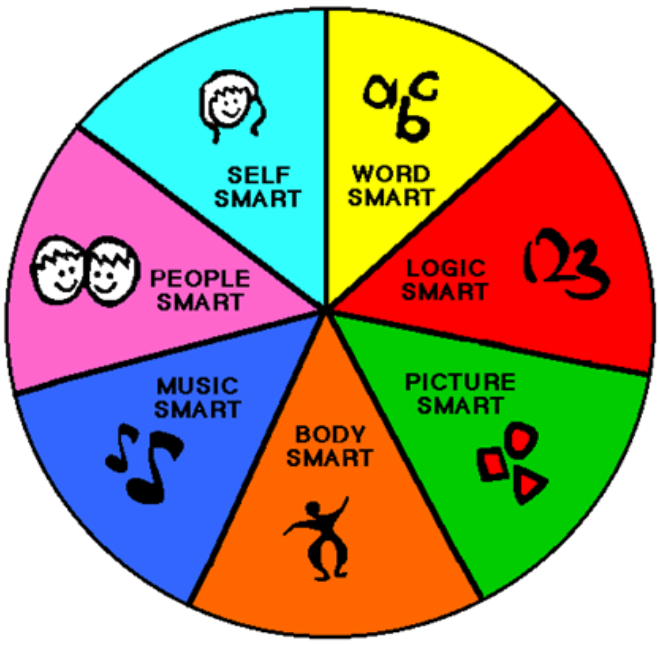
The preoperational period goes from age two to seven. Children learn to organize information into concepts, or general mental categories. Because two things are alike in some way they are placed into a category together, this is called classification. Seriation is organizing items by size or number. Symbolic thinking is also developing. For example, if the child sees you pick up a baseball glove, he gets the idea that you are going to play ball.

### Period of Concrete Operations

Concrete operations period begins after the preoperational period. The thinking involves concrete or real objects. Logical thinking is developing. Conservation and reversibility are now concepts the child can understand. Conservation means that an object's physical characteristics remain the same even if its appearance changes. Reversibility means changing an object back to the way it was.

### Period of Formal Operations

The period of formal operations begins around age eleven. The child can now predict what he thinks will happen in different situations. He is beginning to reason things out and to solve problems.



## Howard Gardner

Intelligence is your ability to acquire and use new information. Howard Gardner, a Harvard professor, believed that a person's brain has eight different areas of intelligence. One area of intelligence may be stronger in one person while another area is stronger in someone else. His areas of intelligence and what they include are:

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| **Linguistic** | capability to be taught and utilize languages |
| **Bodily-kinesthetic** | using your whole body to learn something or solve a problem |
| **Naturalist** | capability of recognizing living things |
| **Musical** | the ability to hear patterns and think musically |
| **Intrapersonal** | understanding yourself |
| **Interpersonal** | understanding other people |
| **Spatial** | ability to represent the spatial world in the mind |
| **Logical-mathematical** | understanding mathematic and scientific principles |

In 1983 Gardner suggested that people experience multiple intelligences rather than just one intelligence.

A Montessori classroom anywhere in the world will have happy and busy children engaged in purposeful work. The classroom itself is distinct; typically beautiful and enticing, but also characterized by the carefully prepared environment designed to reinforce the child's independence and natural urge toward self-development.

## Maria Montessori

Maria Montessori believed learning took place in three stages. These stages were:

1. being introduced to a concept
2. processing the information
3. knowing the information well enough so you could explain it to someone else

Montessori schools which are based on her beliefs use a wide range of hands-on learning tools.

## John Dewey

John Dewey, an American philosopher, felt education should be student-centered and focused on critical thinking rather than on simply memorizing facts. Dewed believed education should provide experiences for the child and not be provided by abstract thoughts. He thought education should be based on the needs and interests of the child.

## Johann Heinrich Pestalozzi

Swiss educator Johann Pestalozzi believed education should progress from what is familiar to the child to things which are new. His idea of education was focused on group rather individual activities and included a number of hands on activities such as singing, drawing, physical exercise and field trips.

## Arnold Gesell
Arnold Gesell believed each child progressed at his own rate based on his heredity. Gesell developed a way of evaluating a child's language, physical, and social development and the child's ability to get used to new situations.

## B. F. Skinner
B.F. Skinner theorized that a child's behavior is predictable. He felt learning could be structured by identifying objectives for the learning and providing the child with positive reinforcement. He felt the teacher should be in charge of the learning which occurred through memorization and repetition.

## Lawrence Kohlberg
Moral development was studied by Lawrence Kohlberg. He believed moral development occurs in three levels with the first occurring between the ages of six and ten. At this stage children follow rules merely because they are told to do so by someone else. The second level is in adulthood where a person follows rules because society expects it. The final level finds adults making decisions because they care about how their actions will affect other people.

## Sigmund Freud
Sigmund Freud felt there are three separate facets of thought and feeling calling the id, the ego, and the superego. These are levels of awareness affecting a child's emotions and how he handles his emotions. The id is present in the infant at birth and focuses on the need to satisfy physical needs such as hunger. From ages one to four, the ego appears and involves reasoning. The superego appears at age five and is the child's conscience which knows the difference between right and wrong.

## Parents as Motivators
What can parents do to help their child develop to his full potential? Children like learning. To a child learning is fun and exciting. By also being excited by learning, parents encourage their children to try new things. When children are interested in something, parents can help by encouraging their child explore that area. Answering a child's questions is important to the child's growth. If a parent does not know the answer to the question, they may simply tell the child they do not know but they will find out. Praising children as they learn new skills is also a motivator for the child. By making use of "teachable moments" parents help their child to learn in almost any situation.

A child younger than age seven can only classify objects in one way. For example, they can pick the blue hats out of the box but they will also pull out the blue gloves. In other words they focus on everything within the box that is blue. Identifying and sorting shapes allow the child an opportunity to look at ways the items are different and ways they are alike. This skill helps to prepare the child to learn to read. Helping a child learn to count, tell time and name the days of the week are basic skills and easy for the parent to do.

As a child's thinking processes develop they remember things, process information and learn to solve problems. Parents can encourage a child's use of his memory by reading a story to him and then asking questions about the story. Parents can encourage their child's problem solving by asking the child how they think something should be handled. For example, "What story shall we read while we wait for dinner to be ready?" As the child get older parents may help decision making by asking their child what is good about a situation and what is bad about the same situation, or the pros and cons.

Children are inquisitive or curious and they wonder about things in their world. Imagination and creativity help children as they solve problems. Parents can encourage this in their child by demonstrating it, using their own imagination and creativity.

Children, as young as six months of age, can recognize vowel sounds of their own language. They are not yet able to form words but they do chatter and make noises of their own. Parents can encourage language development by reading to and talking with their child. By the time a child is one year old, he will begin to use simple words. At the age of two he forms two word sentences and by three he is saying more complex sentences. A two year old has a vocabulary of approximately fifty words and this grows to about twenty-two hundred by the time he reaches the age of five. Parents can encourage their child in his language development by listening to him.

Mastering the skill of reading will help the child in school as well as his adult life. Parents can encourage their child to read by reading to them. Children love to hear the same books read over and over. Taking a child to the library and participating in story hour will also encourage his learning to read. Books for children should have an uncomplicated plot, have pictures that show what is happening in the story and are sturdy so the child may handle the book without causing damage to it.

Exposure to music is beneficial to children. Researchers have found connections between music and math. It is believed that the neurons used for music strengthen the connections needed for math. Giving children opportunities to move to the music helps with their physical development and their learning about rhythm.

Providing a variety of supplies helps the child develop his creativity through creating art projects. Parents can help by encouraging the child but they should refrain from creating art projects for the child to copy. Allowing the child to create his own projects gives him a feeling of accomplishment.

## Unit Conclusion

Learning happens in a variety of methods and can be aided by parents, other people and the environment around the child.


Now answer questions 1 through 49.


Below are additional educational resources and activities for this unit.

Unit 13 Theorists (Fill in the Blank) Worksheet

Unit 13 Learning and Child Development (Missing Letters) Worksheet