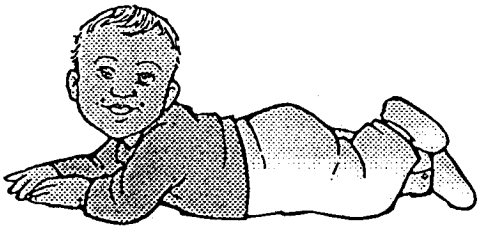
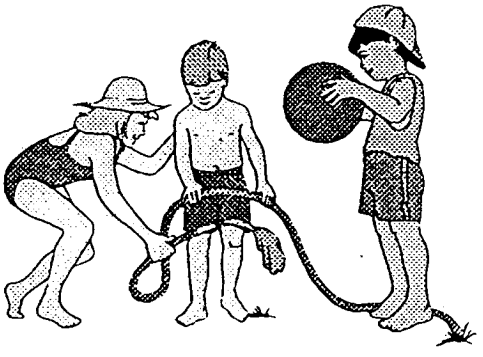
How Do Children Learn?: Responses From Experts





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HOW DO CHILDREN LEARN?: RESPONSES FROM EXPERTS

How do children learn? What are the most effective ways and means of helping them gain or acquire knowledge? When are they most receptive to teaching? These are some of the most searching questions educators and parents often ask. This they do because of the established critical relationship between early childhood training and later development (Newberger, 1997, p. 4, 5; Schwartz, 1997, p. 343; Bloom, 1964, p. 68). Additionally, it is generally believed that environmental as well as genetic factors have some influence on development (Schwartz, 1997, p. 343; Bloom, 1964, p. 68). The influence of a particular environmental factor on a child in 1970, for instance, may not be exactly the same in 1997. Different environmental factors could exert varying degrees of influence on children with the passing of time.

Further, learners today are leaders tomorrow, and the quality of their leadership will be heavily dependent on the foundation of their learning.

Because of the determinant effect of early childhood education on later development and growth, educators, parents, and the society at large should regularly review the ways our children could be given proper early training.

Response from Experts

The history of early childhood education has been traced to as early as the time of Plato (427-347 B.C.) who viewed early childhood as a period "plasticity and expression of innate goodness...." (Nourot, 1993, p. 3). Since Plato, many others have left indelible marks on early childhood education. It is beyond the scope of this paper to outline the various beliefs of these experts. Rather, this paper selects five representative samples of these experts and presents a summary of their strong convictions and some research bases concerning how children learn. In the rest of this paper, the views of Maria Montessori, Jean Piaget, Jerome Bruner, Lawrence Kohlberg, and Benjamin Bloom are summarily presented.

Maria Montessori

Maria Montessori (1870-1952), an Italian physician who later became an early childhood education specialist, "laid the foundation for early childhood education as we know it today" (Elkind, 1991, p. 12). She viewed education as a life-long process that begins at birth. As such, the child must be in touch with the right people, knowledge, and environment.

Montessori raised the idea of "sensory periods" of development (the first six years of life) during which a child must develop certain life capabilities necessary for a successful adult life. She maintained that man is a rational being and normal development could be achieved through motor, sensory, and intellectual activities (Lall & Lall, 1983, p. 40).

It was Montessori's view that the environment has a strong influence on children's development. She believed that an ordered external environment enables children to have an organized perception of the outside world. Therefore, the classrooms should be fitted with clear lights and pretty curtains, well furnished with small chairs, tables, cupboards, and other appropriate objects with which children can engage in physical activities such as stacking and connecting, opening and closing (Montessori, 1972, p. 137).

For Montessori, the children, not the teacher, are to select the materials with which to work and solve their problems. The role of the teacher is to ensure that the environment is properly prepared for learning, be a model of humility to the children, respect their individuality, and assist them only when it is necessary to do so (Nourot, 1993, p. 15).

The point that parents are the first teachers was stressed by Montessori. They begin the work of linking the children and the environment. The child, the active participant, should be allowed to teach himself, while the teacher, the passive participant, should serve as a guide that leads the child into new learning experiences. Learning materials should be introduced to the child in a gradual and progressive manner to enable him to discover things for himself. Multi-sensory approach, including the visual, auditory, olfactory, and tactile, should be used in teaching and assessing children (Lall & Lall, 1983, p. 43).

environment. From birth to two years, children learn from what they see and do.

Jerome Bruner

As a Professor of Psychology, Dr. Jerome Bruner has focused much attention on child development and the process of education. He takes the view that knowledge is based on a constructed model of the world shaped by the three stages of action, imagery, and symbolism (Lall & Lall, 1983, p. 9).

In the first stage, the action stage, the child processes one thought at a time; learning is primarily by action of doing and the attention span is short. During the second stage, the imagery stage, the child begins to develop mental pictures of how things function based on past experiences. At the third stage of symbolism, the child begins to develop the ability to consider various alternatives before arriving at a solution to a problem (Lall & Lall, 1983, p. 10).

Bruner sees the development of a child from one stage to another as a "discovery" process which motivates the child to learn. For him, knowledge is acquired through an active process and, as such, the child should be encouraged to find solutions to his problem (Lall & Lall, 1983, p. 11, 12).

Like Montessori, Bruner stresses the influence of culture on child development. He asserts that "cognitive growth in all its manifestation occurs as much from the outside in as from the inside out." (Bruner, 1966a, p. 1,2). Further, he takes the position that the sequence in which materials are presented to the child affects the difficulty in mastering the materials and that no particular sequence can serve all learners (Bruner, 1966b, p. 49).

Essentially, Bruner emphasizes that children learn the most when they are helped to discover things for themselves through active involvement, presented with materials in the appropriate sequence, and in a suitable environment.

Lawrence Kohlberg

Kohlberg's cognition model of moral development grew out of his effort to examine Piaget's theory with more modern research methods. From his study of 72 boys of age 10

to 16, he concluded that moral reasoning is developed in three levels, namely:

1. Pre-conventional
2. Conventional
3. Post-conventional (Vasta, Haith & Miller, 1992, p. 443, 444).

At the pre-conventional level, which corresponds to Piaget's pre-operational stage, children consider actions to be good if they are rewarded and bad if punished; and whatever serves one's own needs is good. In the conventional level, which corresponds to Piaget's concrete operation stage, children consider actions to be good or bad depending on the motive behind it. Consideration is given to the opinion of others; whatever is of help to others is good as well as observing social rules and order.

The post-conventional level corresponds to Piaget's operational stage. At this stage adults see actions to be morally right on the basis of societal values whether they be personal of public rights (Butterworth & Harris, 1994, p. 149). Kohlberg believes that the sequence of the stages is invariable and "the progression of the stages in universal for people of all cultures." (Vasta, Haith, & Miller, 1992, p. 444).

For Kohlberg, moral reasoning develops as an individual interacts, from childhood to adulthood, with peers and significant others in decision making situations, (Lall & Lall, 1983, p. 28; Vasta, Haith, & Miller, 1992, p. 444).

In the main, Kohlberg posits that at the very early stage children associate good with reward and bad with punishment. Later, they begin to judge actions through interaction with others and past experiences.

Benjamin Bloom

Benjamin Bloom's works emphasize the critical relationship between early childhood experiences, condition or environment of learning and intellectual growth. This he believes because certain characteristics develop very fast during the early years and any environmental change at this time will shape the formation of these characteristics. Based on his studies, Bloom found that when intelligence is measured at the age of 17, the rate of development by age 1 is 20%, by age 4, 50%; by age 8, 80%; by age 13, 92%; and the

remaining 8% is developed by age 17 (Bloom, 1964, p. 68).

According to Bloom (1976),

> Most students become very similar with regard to learning ability, rate of learning, and motivation for further learning-when provided with favorable learning conditions (Bloom, 1976. p. x).

Bloom believes that the environment has a strong influence on the child's intellectual development. He identified three variables that determine the outcomes of learning. These are **Cognitive Entry Behaviors, Affective Entry Characteristics, and the Quality of Instruction.** Of these, Bloom believes that the Quality of Instruction is of greatest importance (Bloom, 1976, p. 11).

Summarizing, Bloom asserts that early childhood learning experience and environment have a strong effect on later learning capability. The manner in which materials are presented to children is the most important factor in their learning.

Some Recent Research Findings

Besides the pioneering works on early childhood development and learning already presented in this paper, several other studies have been conducted. One of the more recent studies examined how the brain develops (Newberger, 1977). Newberger reports that the findings of this study confirm that

> (1) good parental care, (2) warm and loving attachments between young children and adults, and (3) positive age-appropriate stimulation from the time of birth really do make a difference in children's development for a lifetime//Particularly during the first three years of life, brain connections develop quickly in response to outside stimulation. A child's experiences-good or bad-influence the wiring of his brain and connections in his nervous system (p.4,5).

In another study that examined some of the factors that affect early childhood education of Hispanics in the USA, Garcia (1977) concluded that

> Development and learning have their roots in sharing expertise and experiences through multiple avenues of communication (p. 12).

Garcia suggested that teachers should know the linguistic and cultural diversity of their

students and endeavor to serve them through their unique characteristics.

These studies give further evidence that children begin to learn from birth and the kind of experiences they have during early childhood affect them throughout life. Further, children learn the most from activities that appeal to most of their senses.

Conclusion

So how do children learn? What are the most effective ways of helping them develop their knowledge? When are they most receptive to teaching? On the basis of the literature presented in this paper, it is evident that early childhood experts, backed by empirical research findings, are in agreement that:

- Children learn when people interact with them, intentionally or unintentionally, rightly or wrongly.
- The most effective ways of helping children to learn is by
  - (a) presenting appropriate materials or lessons for their age in the right sequence (increasing order of difficulty), in a gradual manner, and in a conducive environment;
  - (b) actively involving them in the learning process;
  - (c) presenting lessons with learning materials and activities that appeal to most or all of their senses.
- Children are most receptive to teaching/learning and to their environment from birth to about 8 years. During this period they develop about 80% of their intelligence and whatever experiences they go through-good or bad-have lifelong effect on them.

  With the awareness of how children learn, parents, educators, and the society at large will have to assume the responsibility of providing the right knowledge and environmental experiences at the right time. To apply these measures would be to "proceed in the way we wish to finish" (Andreoni, 1977, p. 42)-adequately preparing our children for the future.

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