

# Cognitive development theory essay

[Psychology](#), [Psychotherapy](#)



A: Is the comprehension of thought processes, including remembering, problem solving, and decision-making. This includes how one thinks, perceives reason and acquires appreciation and understanding of his or her world by means of influencing and making association of inherent and learned characteristic. Cognitive development is based on research indicating that, from the time of birth, infants are aware of their surroundings and begin to actively gather, sort, and process information from around them, using the data to develop perception and thinking skills.

Some of the areas that contribute to cognitive development are information processing, intelligence. Reasoning, language development, and memory. Cognitive development can be studied in a variety of ways. One way is through Intelligence tests, such as the popularly known Stanford Bines Intelligence Quotient (IQ) test. The IQ test was first adopted in the US by Lewis Terman in 1916 from a method first used in France in 1905. The IQ method uses scoring that is based on the concept of "mental age", where an individual with an average intelligence will typically have a score that matches his or her age.

IQ tests are widely used in the United States, but they have come under increasing scrutiny for defining intelligence too narrowly and for being considered biased on the basis of race and gender. A leading cognitive thinker is Jean Piaget. Piaget introduced the concept that children think differently than adults. While working with children, he found himself intrigued with the reasons children gave when they answered questions incorrectly that required logical thinking. He believed that these incorrect answers revealed important differences between the thinking of adults and children.

Before Piaget's work, the common assumption was that children are simply less competent thinkers than adults. Piaget demonstrated that young children simply think in remarkably different ways than adults. Another leader cognitive development theorist is Lev Vygotsky. Vygotsky's theory, which has become known as Social Development Theory, emphasizes the role of environment and social interactions in children's intellectual development. Under these circumstances, the social rather than the biological factors would most influence the child. Unlike

Piaget's notion that children's development must necessarily precede their learning, Vygotsky believed that "learning is a necessary and universal aspect of the process of developing culturally organized, specifically human psychological function" (1978, p. 90). In other words, social learning precedes development. B: According to Piaget's findings, children are born with a very basic mental structure on which all of their subsequent learning and knowledge is based. Piaget was the first psychologist to make a systematic study of cognitive development.

This idea led to a transformation of how child development was viewed and evaluated. This concept led Piaget to propose a theory of cognitive development to account for the steps and sequence of children's intellectual development. His theory is often considered the most comprehensive theory of cognitive development. Piaget believed that intelligence is an aid in how one is able to adapt to the environment. Intelligence can be exhibited on a continuum and is displayed as increasingly complex responses to one's environment.

Equilibration refers to how development occurs through Piaget's stages, the process of cognitive development where children look for a balance between the information and experiences that life presents to them. Children construct an understanding of the world around them, then experience discrepancies between what they already know and what they discover in their environment (Piaget, 1957). His theory focused on development, it does not address learning of information or specific behaviors. Vygotsky approached development differently from Piaget. He believed that development is a process to be analyzed, rather than a result to be obtained.

According to Vygotsky, the development process begins at birth and continues until death, and is too complex to be defined by stages (Drills, 1994). The life long process of development was entirely dependent on social interaction and social learning is the source of cognitive development. Like Piaget, Vygotsky believes that young children are curious and actively involved in their own learning and the discovery and development of new understandings/schema. However, Vygotsky placed more emphasis on social contributions to the process of development, whereas Piaget emphasized self-initiated discovery.

Piaget's cognitive development theory is concerned with children, rather than all learners. He studied children from infancy to adolescence. His theory encompasses specific stages of development, marked by qualitative differences, rather than a gradual increase in number and complexity of behaviors, concepts, ideas, etc. The goal of his theory is to explain the mechanisms and processes through which infants, and then children,

develop into individuals who are able to reason and think independently (Piaget, 1957).

A child's cognitive development is about a child developing or constructing a mental model of the world. It was Piaget's belief that children think differently than adults and that all children go through 4 universal stages of cognitive development. According to Piaget, development is, therefore, biologically based and changes as the child matures. Cognition develops in all children in the same sequence of stages. In Piaget's model, every child goes through the stages in the same order, and no stage can be missed out, but some people do not reach the later stages.

There may be individual differences in the rate at which children progress through stages. Piaget did not state that a particular stage was reached at an exact age. He did, however, provide descriptions of the stages that often included an indication of the age at which the average child may reach each stage (Keating, 1979). Piaget believed that these stages are universal and that the same sequence of development occurs in every child all over the world, regardless of culture. Piaget considered the schema the basic building block of intelligent behavior.

When a child's existing schemas are capable of explaining what it can perceive around it, it is said to be in a state of equilibrium, or a state of cognitive (mental) balance. He emphasized the importance of schemas in cognitive development, and described how he thinks they are developed or acquired (Piaget, 1936). He believed that, as a child gets older, his or her schemas become more numerous and elaborate. Piaget viewed intellectual

growth as a process of adaptation to the world. The first step in intellectual growth is assimilation, or using an existing schema to deal with a new object or situation.

The next step would be accommodation. Accommodation occurs when the child's existing schema does not work and needs to be modified to deal with a new object or situation. Equilibration is the force that facilitates development. Piaget did not believe that cognitive development progresses at a steady rate, but rather in leaps and bounds. Equilibrium occurs when a child's schemas are able to deal with most new information through assimilation. Under Piaget's theory, the unpleasant state of disequilibrium occurs when new information cannot be integrated into existing schemas (Piaget, 1936).

Similar to Piaget's theory, Vygotsky claimed that infants are born with basic materials and abilities for intellectual development, but unlike Piaget, Vygotsky does not focus on motor reflexes and sensory abilities. He, instead, refers to a child's Elementary Mental Functions, which include attention, sensation, [http:// www. Cosmologically. Org/perception-theories. HTML](http://www.Cosmologically.Org/perception-theories.HTML) perception, and memory. Through interaction within their socio-cultural environment, these are developed into more sophisticated and effective mental processes/strategies which Vygotsky refers to as Higher Mental Functions.

Vygotsky explains how tools of intellectual adaptation allow children to use the basic mental functions more effectively/adaptively. According to his theory, these tools are culturally determined. Vygotsky believed cognitive

functions, even those carried out alone, are influenced by the beliefs, values and resources of intellectual adaptation of the culture in which a child is raised, which indicates that these functions are socio-culturally determined. According to Hoossegow's theory, intellectual adaptation would then vary from culture to culture (Schaffer, 1996).

While both Piaget and Vygotsky believe that young children are curious and should be actively involved in their own learning and the process of discovery and development of new understandings, Hoossegow's theory places greater emphasis on the contributions of society to the developmental process. Vygotsky (1978) identified an area where the most sensitive instruction or guidance should be given to allow a child to develop skills they will be able to use on their own. This will enable them to develop higher mental functions. Vygotsky calls this the Zone of Proximal Development.

He also views interaction with peers as an effective way of developing skills and strategies. He suggests that teachers use cooperative learning exercises where less competent children develop with help from more skillful peers - within the zone of proximal development (Winters & Isomir, 1995). Vygotsky (1962) identifies 2 critical roles that language plays in cognitive development. It is the primary source by which adults are able to provide children with information and language itself is an extremely powerful tool of intellectual adaptation.

He views "private speech" as a way that children are able to plan activities and strategies, which facilitates their development. According to Hoossegow's

theory, language provides an accelerator to thinking and understanding. He felt that language developed from social interactions. Since later language ability became internalized as thought and inner speech, Widgets believed that thought is the result of language (Schaffer, 1996). Whisky's cognitive development theory differs from Piglet's in a few ways.

Widgets places more emphasis on how culture affects and shapes cognitive development, which differs from Piglet's belief that all development occurs in universal stages. Widgets places more emphasis on the importance to social tattoos in cognitive development. He also places a stronger emphasis on language in cognitive development than Pigged. Piglet's theory can be helpful in a classroom setting. Discovery learning can be used to encourage the idea that children learn best through doing and actively exploring (Keating, 1979).

Based on his theory of biological maturation, within the classroom I could apply the concept of readiness to determine when certain information or concepts should be taught. According to Pigged, children should not be taught certain concepts until they have reached the appropriate stage cognitive development. This could be helpful in understanding why some students are not fully grasping concepts while others are. Within the classroom, learning should be student-focused and accomplished through active discovery learning.

My role as a teacher, according to Pigged, is to facilitate learning. Therefore, if I were to subscribe to Piglet's theories, my goals would be to focus on the process of learning, rather than the end product of it, use active methods to



teach that require rediscovering or reconstructing "truths", use collaborative and individual activities so that children are able to learn from one another, devise situations that present useful problems, and evaluate the level of ACH child's development to ensure that suitable tasks are set (Central Advisory Council for Education, 1967).

Whisky's theory would require me, as the teacher, to play an untraditional role with the students as we collaborate with each other. Reciprocal teaching could be used to improve students' ability to learn from text. Using this method, I would collaborate with students in learning and practicing four key skills: summarizing, questioning, clarifying, and predicting (Writers & Isomer, 1995). This would, in theory, reduce my role in the process over time.

Hoosegows hero is relevant in apprenticeships, where a more advanced peer or I would help to structure or arrange a task so that a student is better able to succeed.

Whisky's theory also encourage collaborative learning, suggesting that if I put students into groups where group members have different levels of ability, more advanced students will be able to help less advanced students reach their maximum potential. I would just need to keep in mind that "Joint attention and shared problem solving is needed to create a process of cognitive, social, and emotional interchange" (Haughtier, 1996). The members of the group must be on different placement levels and the higher level students should be aware of the abilities of all group members.