

Theories of learning



Theories about human learning can be grouped into four categories:

Humanistic, Behaviorism, Social and Cognitive in which I will explain, give several different examples, and discuss theorist who worked to develop the theory as it is today.

Keep in mind that a theory is a general principle that explains or predicts facts, observations or events. It is generally accepted as having a valid repeating testing process. It can never be recognized beyond all doubt.

Cognitivism focuses on inner mental activities, which some think that we all have a little black box that needs to be opened in order to understand the human mind. To determine the process of thinking, knowing, problem solving and memory we have to have a cognitive understanding. Humans are those of action and consequence, where we respond to our environment as stimuli and rational thinkers. This process also happens through our genetic make-up.

We as humans have our own individual make-up which makes us unique. As children we are born to reach certain levels of development depending on our age, as well as cognitive and genetic developments (Olson, 2009). Jean Piaget states ??? The development of thought process, including remembering, problem solving, and decision-making, from childhood through adolescence to adulthood.??? A cognitive theorist may propose that babies use their sense of taste, to build mental pictures of the world around them. Infants on the other hand would mouth everything around them until they have learned the behavior and thus move forward into a mature world where they can interact (Boyd & Bee). The cognitive development theory was a

direct reaction toward Watson and Skinner which believes babies were born with no capacities, which meant that babies learned and did not develop. This theory says that humans are born with indigenous cognitive abilities and qualities that grow over a period of time at predictable rates at different times that may be influenced by their environment and genetics.

Cognitive processes and activities like information processing, predictions, mental representations, and expectations are central to the cognitive interpretation of learning. Most cognitive psychologists do not discount the findings of the behaviorally or operant scientists, but they believe that there are also cognitive procedures that involve how those that are of the teaching spectrum learn. Cognitive theories rose to importance in response to the early behaviorists' failure to take thoughts and feeling seriously. The movement did not reject the behavioral principles, but rather the idea was to join together mental events into the behavioral structure. Cognitive behavior also called cognitive theories are called cognitive because of the mental events that come along with them like feelings and thinking. The rise in popularity of cognitive behaviorism continues today as Cognitive-Behavior Therapy, or CBT (apa. org). Cognitive theories of learning are concerned with processes which occur inside the brain and nervous system as a person learns.

They share the point of view that people actively process through efforts of the learner. Internal mental processes include retrieving, inputting, storing, finding relationships between information and organizing. New information would then be linked to scripts, old knowledge and scheme. All of the cognitive approaches emphasize how information is processed. The early

efforts to organize the cognitive theories in the 1990s were not supported by the behaviorist work at that time.

It was years later that cognitive theorists found their strength which was after WWII (Olson, 2009). The major principles associated with cognitive development are adaptation and organization. Piaget's view of adaptation was that humans preferred a state of cognitive balance or equilibrium.

Adaptation is achieved through adjustment or accommodation. Organization was referred to as the mind's natural tendency to obtain and organize information into linked, organized structures.

The most basic of structures is the scheme. A scheme is an internal cognitive structure that provides an individual with a procedure to follow in a specific circumstance. Schemas are the little pictures you associate words with in your head when you hear or read them in a sentence (Olson, 2009). Lev Vygotsky believed that development began at the social level then moves toward individual internalization. Vygotsky viewed complex forms of thinking that have their start in social interactions instead of an individual's individual way of exploring their surroundings.

His theory was that learning came before development (Solso, 1995). His work never attained the level of reputation during his lifetime partly because his work was more than often criticized by the Communist Party in Russia, and his writings were not allowed in the Western world as well as his untimely death at a young age. John B. Watson believed that any behavior can be learned. Watson's famous quote stated: that he could take a dozen healthy infants, bring them up in his own world and then at random

train him/her to become anything that he may have selected, regardless of his talents, penchants, tendencies, abilities, vocations and race (Watson 1930). George Kelly was one of the first cognitive theorists, who was also critical of the behavioral theory. Kelly thought of the Fundamental Postulate which states that an individual's processes are expressively channeled by the ways in which he/she anticipates events.

He believed that the way an individual interacted with the world would determine his/her personality. Wolfgang Kohler took a cognitive perspective when he explained problem solving methods and behaviors with his observation of chimpanzees. Kohler believed that the animals and humans could learn to solve problems through their insights and give alternate solutions. He gave chimps boxes and sticks and hung bananas out of their reach to see what kind of solution they would come up with in order to get to the banana. Kohler thought the adaptation of objects was due to the animals having a mental insight into possible arrangements that would solve their problem (apa. org).

Edward Tolman concluded through his work with rats that learned how to navigate through mazes that animals learned about the structure of their environment without the presence of reinforcement. Tolman allowed rats to explore mazes without the presence of goal boxes when reinforcement was present. After the animals with non-reinforcement experiences of mazes were compared with rats with no maze experience for their speed of learning when reinforcing consequences were then available. Tolman learned that rats with prior investigative experience learned more quickly. He then made

reference that animals as well as human acquire a ??? cognitive map??? which represented their surrounding mentally by direct experience.

He then called his experiment latent learning because he was only able to see learning when positive rewards available (apa. com). Learning is a fairly permanent change in behavior due to experience; this refers to a change in behavior that we can observe. This is also known as a behaviorist. B.

F. Skinner coined the term operant conditioning which is learning to repeat or stop behaviors because of the consequences they bring out. Learning theories are the raw materials that are applied in training activities. It is essential that the trainer understands the theories so that he or she can design effective programs that all can take key information from. The behaviorist, humanist and cognitivists put emphasis on different aspects of the teaching-learning process in their approaches to teach others.

Behaviorist usually focus on external environmental conditions resulting in observation and considerable changes in behavior, constructivists believe that all humans have the ability to construct knowledge in their own minds through a process of problem-solving and discovery. While the humanist place emphasis on attitudes of human behavior that persuade learning and emotions (Schon, 1990).

In the approach to building a house the builder has to select different tools as different problems arise to build the home correctly. Using knowledge about how learning functions and about what happens when people process information, participants in effective training programs develop new knowledge and skills as teachers a, managers, and administrators (Smith,

1982). Learning theories provide learning organization necessary skills at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.

That is, learning theories prompt the organizational improvement. Cognitive learning teaches individual to learn by listening, reading, watching, experiencing, touching and then processing the information that was remembered. Cognitive learning is considered passive learning because there are no motor skills being used. The learner is still active in a cognitive way of processing, understanding and remembering new information as it is learned. For example in the zoo a monkey will imitate the visitors or monkeys, but most learning is obtained from studying human beings.

In a school setting a student becomes nervous during a public speaking assignment but his/her emotions change when other students do not laugh and clap at the end of the speech. In a church setting where the church does not have a church for children of the younger ages, you will see children mimicking the older adults as they clap, sing, and shouting. The children are a only watching, processing and imitating what they see as fun not knowing what is really happening. Permanent change in cognitive behavior: 1) a direct result of an individual's response to events or stimuli or a potential change; 2) an adaptation in the process of building schemes through direct interaction with their environment; 3) an assimilation where the outside world is interpreted through existing schemes; 4) an accommodation of the adaptation in which new schemes are creates or old ones adjusted to produce a better fit with the environment; 5) where assimilation is used more than accommodation; 6) disequilibrium where the state of cognitive

discomfort occurs during times of rapid change; 7) when back-forth movement between equilibrium and disequilibrium leads to the development of more effective schemes (psych. edu).

Learning is a personal act that we each place our own personal stamp on how we interpret what, when and how we learn. The learning theory provides a powerful knowledge base that offers answers to questions. This becomes the guidance in the development, design and implementation of effective training programs.

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