



LEARNING THEORIES

Reinforcement, Socialization, and Learning Style Model

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Reinforcement, Socialization, and Learning Style Model Theories

There are many different learning theories that have been developed over the centuries, by different scientists throughout the world. Some theories do a better job of explaining learning than do others. This paper will discuss three theories of learning that still influence the way people are taught today.

Reinforcement/Operant Conditioning

This theory was developed by American Psychologist B. F. Skinner in 1957. The root of the theory began when he was experimenting with pigeons in a box. The hopper feed the pigeons at regular, timed intervals, regardless of their behavior. When a particular movement of the pigeons coincidentally and was repeatedly followed by food, the pigeons mistook the behavior as being responsible for the food appearing. They interpreted it as a reward for the behavior. The behaviors were repeated by the pigeons expecting to be rewarded with more food. From this he noted the positive rewards acted as reinforcement and increased the behavior.

The theory can be summarized as whether behavior is continued is determined by consequences of that behavior. Behavior that is rewarded is more likely to be repeated, behavior that is punished is less likely to be repeated. Skinner defined reinforcement as positive or negative by the effect they had on behavior.

Reinforcement/Operant Conditioning		
Results	Add Something	Remove Something
Increase a Behavior	Positive Reinforcement	Negative Reinforcement
Decrease a Behavior	Positive Punishment	Negative Punishment

Positive Reinforcement

Anything added that increases or strengthens behavior Skinner classified as positive reinforcement. What acted as reinforcement for one being may not be for another. Some examples of positive reinforcement include giving a treat or praise after a behavior. Dogs can be trained to repeat a behavior by giving them a reward after they successfully complete a behavior.

Negative Reinforcement

Anything taken away and returned after the desired behavior, that increases or strengthens behavior Skinner classified as negative reinforcement. Some examples of negative reinforcement are taking away driving privileges of a teenager until grades improve or not allowing a child to watch TV until they clean their room.

Positive Punishment

Anything that decreases or eliminates a behavior Skinner classified as positive punishment or what is commonly simply referred to as punishment. Examples include spanking a child for acting out or verbally reprimanding an employee who misses work deadlines.

Negative Punishment

Anything that decreases behavior when it is removed, Skinner classified as negative punishment. Examples include placing a student in detention until they complete their homework or not allowing a baseball player to play until he addresses his drinking problem.

Schedule of Reinforcement

The schedule of reinforcement impacts its effectiveness. Continuous reinforcement is when the reward or punishment is given every time the behavior occurs. I expected it to be the most effective type of reinforcement, but the predictability of the stimuli may lead to it being less

effective. Knowing that they will receive the reward every time may lead to the learner only engaging in the behavior when they want the reward. A child who is given a snack for completing their homework may only do the homework when they want the snack.

Partial reinforcement is when the behavior is rewarded or punished some of the time. After the learner realizes they will be rewarded or punished only some of the time, it no longer needs to occur every time to work. If a treat is given every fourth time the behavior occurs, the reinforcement will continue the behavior.

The intervals and ratio at which the reinforcement is applied impact its effectiveness. Fixed-interval schedules reinforcement is when it is given on a set schedule, for example, once a month. Variable-interval schedules reinforcement would be giving reinforcement at random intervals. Instead of once a month every month, a reward may be given at 2 weeks, then 3 months, and then 2 months. The learner does not know when they will receive the reward. This will cause the behavior to be more frequent than when given at fixed interval because the learner does not know when they will be rewarded. Fixed-ratio schedules are when the reward is given every 'x' time. Variable-ratio schedules are when the ratio at which the reward is given changes. The learner does not know how many times they must perform the behavior to receive the reward. Variable schedules make a bigger impact on behavior.

Social Learning

Albert Bandura, a Canadian American Psychologist, published a book titled Social Learning Theory in 1977, which examined how people learn from observation and modeling. Social Learning theory can be summarized as people learn new behavior by observing its impact on others. In a process he called vicarious reinforcement, people learn by observing rewards and punishments others receive. Bandura (1977) states "Learning would be exceedingly laborious,

not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. He describes learning in five essential steps which are observation, attention, retention, reproduction, and motivation. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action.”

Observation

Children learn from observing the behavior of others in a variety of ways. Bandura called the people who are observed models. Children have influential models such as parents, peers, and teachers. Their behavior is observed and imitated.

Attention

Behavior and consequences are observed and form a mental representation. We do not take note of all the behaviors we observe, in order to be imitated the behavior must first grab attention. Attention is required for behavior to be influenced.

Retention

In addition to grabbing attention the behavior must also be remembered. Behavior that is not remembered is not imitated. Even behavior that is reproduced immediately after seeing it, must make a memory to be referred to.

Reproduction

Reproduction is the ability to perform the demonstrated behavior. Lack of physical inability will prevent the reproduction of behavior.

Motivation

There needs to be motivation to perform the behavior. If perceived rewards appear to outweigh the perceived cost the odds of the behavior being copied are more likely. If the vicarious reinforcement is not viewed as important to the observer, the behavior will not be modeled.

Learning Styles

This theory was developed by Professors Rita Dunn and Kenneth Dunn in the 1970's after years of classroom observation. The theory empowers educators and parents to analyze and motivate learners and optimizing education by using the learners learning preferences. They identified five types of student stimuli: environmental, emotional, sociological, physiological, and psychological.

Environmental

Considering the preferred learning environment is important. Do learners like learning in a library or in their room with soft lights and pillows? Environment includes sound, light, seating, and temperature. Some learners prefer loud music while learning, other prefer silence. A seat next to an uncovered window works great for learners who enjoy bright light, others need a light with a dimmer so they can turn the lights down low. One learners may prefer seating in a formal environment, another will perform better in a casual, comfortable environment. Some learners do better in a cooler or warmer environment.

Emotional

Emotions affect how people learn. Emotional factors include motivation, responsibility, task persistence, student conformity, and the type of structures the learner find helpful. Learners with high motivation have an internal drive to succeed. Others need to be encouraged with peer-

to-peer learning or a teacher. Levels of responsibility vary. Some learners are compliant and willing to follow instructions. Others resent being told what to do and do best when spoken to as an equal. Structure is how much instruction the learner likes to receive. Some learners need objectives and timelines, others need no instruction before getting started.

Sociological

How students interact with others impacts learning styles. This does not include having knowledge of socioeconomic background, it is if the student works best alone, in pairs, or groups, with certain patterns, and different degrees of guidance from the instructor. Finding the combination that works for the learner can help facilitate learning.

Some learners do best with a great degree of independence, some like to bounce ideas around with others, still others prefer to work with their peers. Some learners prefer to have an authority figure nearby, others prefer autonomy.

Physiological

Physiological concerns how the body responds to learning. How alert a student is can depend on when and what they last ate. It borrows from other learning styles and considers if the learner is auditory, visual, or kinesthetic. Things this includes are mobility, intake, and time of day. Mobility is how much moving a learner needs to move while they are learning. Some learners can sit for extended periods of time without breaks others need to stretch or move around regularly. Some learners learn best at certain times in the day.

Psychological

Psychological is how learners process and respond to ideas and information. Is the learner reflective, detail orientated or good at math? Analytical learners grasp concepts best when they are presented in a pattern of steps that lead up to a larger concept, others learn best

when the higher concept is presented first followed by the details. A learner who favors impulse learning style will dive right into tasks and learn by doing. A learner who prefers reflective learning will create a mental model before getting started.

Comparison of Theories

These three theories have commonality and differences. The Learning Styles Model and Social Learning both look at factors external to the learner, while Reinforcement/Operant Conditioning focuses on the internal motivation of the learner. Social Learning uses observation, while Reinforcement/Operant Conditioning focuses on rewards and punishment.

One of the main criticisms of Reinforcement/Operant Conditioning is that it is oversimplifies learning. Unlike Social learning and learning styles, it does not consider cognitive differences. It states the factors beyond a learner's control are responsible for their behavior. But people can think, reason, and make decisions; this theory does not take free will into account.

Most Relatable

The theory that most closely relates to learning is Reinforcement/Operant Conditioning. Of the three, this theory seems to be the easiest to administer and produce the most immediate results. It can also be used by anyone; it is easy to understand, and it does not require extensive knowledge of psychology or other fields. It can also be used with any learners, including very young children and some animals.

Personal Experience

My favorite and most used learning theory is Reinforcement/Operant Conditioning. I do not have children, but I have nieces and nephews and I use this theory with them. I have a remote-control bedframe that can be set in different positions. My youngest niece and nephew,

Maria and Daniel, love to lay in my bed, watch movies, and constantly adjust the bed. Maria is 11, 5 years older than Daniel and she constantly bosses him around. This leads to them calling each other bad names, saying mean things, and sometimes even hitting. When I tell them to apologize, they do not always comply, so I take away the remote until they apologize and correct their behavior. They correct their behavior immediately because they really love playing with the beds remote. This is an example of negative reinforcement.

Maria and Daniel, like a lot of kids today like to play games on my iPhone and iPad. I hate when we are at a family event and instead of the cousins all playing together, they are all sitting around playing games on the phone. I will say let's go outside and play kick ball, then afterwards you make your own chocolate milk. They love making the chocolate milk as much as they enjoy drinking it. I have been in commission sales for much of my life. When I meet and exceed my quota, I receive additional commission and bonuses. These are two examples of positive reinforcement.

Summary

We have examined three of the most popular learning theories, but there are many others. The fact that there are so many learning theories is in part because people learn differently. The good thing about there being so many different theories is that you can pick and choose among the theories and use what works best for you and your learners.

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