

Chapter 1 : Learning Theories | Behaviorism

Learning is therefore defined as a change in behavior in the learner. Lots of (early) behaviorist work was done with animals (e.g. Pavlov's dogs) and generalized to humans [3]. Behaviorism precedes the cognitivist worldview.

Varieties[edit] There is no universally agreed-upon classification, but some titles given to the various branches of behaviorism include: Radical behaviorism forms the core philosophy behind behavior analysis. Post-Skinnerian, purposive, close to microeconomics. Focuses on objective observation as opposed to cognitive processes. As proposed by Arthur W. Staats , unlike the previous behaviorisms of Skinner, Hull, and Tolman, was based upon a program of human research involving various types of human behavior. Psychological behaviorism introduces new principles of human learning. Humans learn not only by the animal learning principles but also by special human learning principles. Humans learn repertoires that enable them to learn other things. Human learning is thus cumulative. No other animal demonstrates that ability, making the human species unique. Skinner proposed radical behaviorism as the conceptual underpinning of the experimental analysis of behavior. This view differs from other approaches to behavioral research in various ways but, most notably here, it contrasts with methodological behaviorism in accepting feelings, states of mind and introspection as behaviors subject to scientific investigation. Like methodological behaviorism it rejects the reflex as a model of all behavior, and it defends the science of behavior as complementary to but independent of physiology. Radical behaviorism overlaps considerably with other western philosophical positions such as American pragmatism. In contrast with the idea of a physiological or reflex response, an operant is a class of structurally distinct but functionally equivalent responses. For example, while a rat might press a lever with its left paw or its right paw or its tail, all of these responses operate on the world in the same way and have a common consequence. Operants are often thought of as species of responses, where the individuals differ but the class coheres in its function-shared consequences with operants and reproductive success with species. With this method, Skinner carried out substantial experimental work on the effects of different schedules and rates of reinforcement on the rates of operant responses made by rats and pigeons. He achieved remarkable success in training animals to perform unexpected responses, to emit large numbers of responses, and to demonstrate many empirical regularities at the purely behavioral level. This lent some credibility to his conceptual analysis. An important descendant of the experimental analysis of behavior is the Society for Quantitative Analysis of Behavior. In an essay republished in his book *Contingencies of Reinforcement*, [24] Skinner took the view that humans could construct linguistic stimuli that would then acquire control over their behavior in the same way that external stimuli could. The possibility of such "instructional control" over behavior meant that contingencies of reinforcement would not always produce the same effects on human behavior as they reliably do in other animals. The focus of a radical behaviorist analysis of human behavior therefore shifted to an attempt to understand the interaction between instructional control and contingency control, and also to understand the behavioral processes that determine what instructions are constructed and what control they acquire over behavior. Recently, a new line of behavioral research on language was started under the name of relational frame theory. Skinner found that behaviors could be shaped when the use of reinforcement was implemented. Desired behavior is rewarded, while the undesired behavior is punished. In the field of language learning, this type of teaching was called the audio-lingual method , characterised by the whole class using choral chanting of key phrases, dialogues and immediate correction. Within the behaviourist view of learning, the "teacher" is the dominant person in the classroom and takes complete control, evaluation of learning comes from the teacher who decides what is right or wrong. The learner does not have any opportunity for evaluation or reflection within the learning process, they are simply told what is right or wrong. The conceptualization of learning using this approach could be considered "superficial" as the focus is on external changes in behaviour i. Operant conditioning Operant conditioning was developed by B. Skinner in and deals with the modification of "voluntary behaviour" or operant behaviour. Operant behavior operates on the environment and is maintained by its consequences. Reinforcement and punishment , the core tools of operant conditioning, are either positive delivered following

a response, or negative withdrawn following a response. From this study, he discovered that the rats learned very effectively if they were rewarded frequently. Classical conditioning Although operant conditioning plays the largest role in discussions of behavioral mechanisms, classical conditioning or Pavlovian conditioning or respondent conditioning is also an important behavior-analytic process that need not refer to mental or other internal processes. After a few repetitions of this sequence, the light or sound by itself caused the dog to salivate. Logical behaviorism Behaviorism is a psychological movement that can be contrasted with philosophy of mind. The basic premise of radical behaviorism is that the study of behavior should be a natural science, such as chemistry or physics, without any reference to hypothetical inner states of organisms as causes for their behavior. Less radical varieties are unconcerned with philosophical positions on internal, mental and subjective experience. Behaviorism takes a functional view of behavior. According to Edmund Fantino and colleagues: We hope that successful application of behavioral theory and methodology will not only shed light on central problems in judgment and choice but will also generate greater appreciation of the behavioral approach. It is sometimes argued that Ludwig Wittgenstein defended a logical behaviorist position [9]. In logical positivism as held, e. Gilbert Ryle defended a distinct strain of philosophical behaviorism, sketched in his book *The Concept of Mind*. But if the explanation is very complex and intricate, we may want to say not that the behavior is not rational, but that we now have a better understanding of what rationality consists in. This whole organism then interacts with its environment. Molecular behaviorists use notions from melioration theory, negative power function discounting or additive versions of negative power function discounting. Molar behaviorists argue that standard molecular constructs, such as "associative strength", are better replaced by molar variables such as rate of reinforcement. Please help improve it by removing promotional content and inappropriate external links, and by adding encyclopedic content written from a neutral point of view. March Learn how and when to remove this template message The early term behavior modification has been obsolete since the s as it currently refers to the brief revival of methodological behaviorism in the s and early s. The independent development of behaviour analysis outside the US also continues to develop. In terms of motivation, there remains strong interest in the variety of human motivational behaviour factors, e. Some, may go as far as suggesting that the current rapid change in organisational behaviour could partly be attributed to some of these theories and the theories that are related to it. Such interests include everything from developmental disabilities and autism, to cultural psychology, clinical psychology, verbal behavior, Organizational Behavior Management OBM; behavior analytic "O psychology. Applications of behavioral technology, also known as applied behavior analysis or ABA, have been particularly well established in the area of developmental disabilities since the s. Treatment of individuals diagnosed with autism spectrum disorders has grown especially rapidly since the mids. This demand for services encouraged the formation of a professional credentialing program administered by the Behavior Analyst Certification Board, Inc. As of early , there are over BACB approved course sequences offered by about colleges and universities worldwide preparing students for this credential and approximately 11, BACB certificants, most working in the United States. Modern behavior analysis has also witnessed a massive resurgence in research and applications related to language and cognition, with the development of relational frame theory RFT; described as a "Post-Skinnerian account of language and cognition". During the s, behavior analysts, most notably Sigrid Glenn, had a productive interchange with cultural anthropologist Marvin Harris the most notable proponent of "cultural materialism" regarding interdisciplinary work. Very recently, behavior analysts have produced a set of basic exploratory experiments in an effort toward this end. Understanding behavior from the informatics and computing perspective becomes increasingly critical for in-depth understanding of what, why and how behaviors are formed, interact, evolve, change and affect business and decision. Behavior informatics [48] [49] and behavior computing [50] [51] deeply explore behavior intelligence and behavior insights from the informatics and computing perspectives. Criticisms and limitations of behaviorism[edit] See also: Cognitive psychology and Cognitive neuroscience In the second half of the 20th century, behaviorism was largely eclipsed as a result of the cognitive revolution. In the midth century, three main influences arose that would inspire and shape cognitive psychology as a formal school of thought: Allen Newell and Herbert Simon spent years developing the concept of artificial intelligence AI and

later worked with cognitive psychologists regarding the implications of AI. The effective result was more of a framework conceptualization of mental functions with their counterparts in computers memory, storage, retrieval, etc. Mandler described the origins of cognitive psychology in a article in the Journal of the History of the Behavioral Sciences [55] In the early years of cognitive psychology, behaviorist critics held that the empiricism it pursued was incompatible with the concept of internal mental states. Cognitive neuroscience , however, continues to gather evidence of direct correlations between physiological brain activity and putative mental states, endorsing the basis for cognitive psychology. List of notable behaviorists[edit].

Chapter 2 : Behaviorist Theories Archives - Learning Theories

Behaviorism is a learning theory that only focuses on objectively observable behaviors and discounts any independent activities of the mind. Behavior theorists define learning as nothing more than the acquisition of new behavior based on environmental conditions.

Best practice models from throughout a variety of educational settings have confirmed the effectiveness of instructional strategies which identify these learning modes and seek to incorporate these learning processes, when applicable, into learning environments. The behavioral or psychomotor learning domain focuses upon the processes of mastery of physical skills. Physical skills have been categorized in a variety of ways, but invariably include cognitive, psychomotor, reactive, and interactive domains Romiszowski, Romiszowski stresses not only the general learning processes of psychomotor skill learning but also the instructional strategies necessary for skills development. The challenge for educators teaching physical skills is for learners to transfer knowledge of these skills into proficient practice. Therefore, the focus of cognitive learning is built upon the understanding that learners attain knowledge through a variety of interactions and processes. Or, stated another way, the affective domain relates primarily to the motivational factors involved in learning. A taxonomy of internalization from least to most includes: Affective components are strongly related to other elements of learning processes, and are at times not easily distinguishable. Collaboration has typically taken place in the classroom setting through the use of group work, etc. While traditional collaborative learning opportunities have typically been synchronous, many online instructional strategies now implement asynchronous collaborative exercises. These asynchronous collaborations are not dependent upon schedule constraints of learners or faculty. Each learning domain examined certainly clarifies important learning processes. The task for instructional designers and educators alike is to evaluate what the needs of the students are and then to employ strategies which help students meet instructional objectives. Learning together on the web. In e-Learning and the science of instruction. Affective education and the affective domain: Implications for instructional-design theories and models. Cognitive education and the cognitive domain. The development of physical skills: Instruction in the psychomotor domain. In Instructional-design theories and models: Blog , Thoughts Tagged With: For more, follow me [jasonrhode](#) or visit me online at [niu](#).

Chapter 3 : Behaviorist Learning Theory in the Classroom - HRF

Behaviorist Learning Theory Behaviorism is an approach to psychology based on the proposition that behavior can be researched scientifically without recourse to inner mental states. It is a form of materialism, denying any independent significance for mind.

About the Three Types of Behavioral Learning Both classical and operant conditioning are forms of associative learning; meaning associations are made between events that occur together. Observational learning is learning by observing others. Although rooted in behaviorism, the observational learning theory is considered to be a bridge between behaviorism and cognitive learning theories. Classical Conditioning “ Learning through association Operant Conditioning “ Learning through consequences Observational Learning “ Learning through observation Behaviorism Behaviorism is the school of thought that seeks to measure only observable behaviors. Hence, it only examines outward behavior when trying to understand if learning occurred. Behaviorism stems from the work of John Watson, B. Skinner, and Ivan Pavlov. These Behaviorism theorists believe that knowledge exists independently and outside of people. They view the learner as a blank slate who must be provided the experience. Behaviorists believe that learning actually occurs when new behaviors or changes in behaviors are acquired through associations between stimuli and responses. Thus, association leads to a change in behavior. There are two core theories that stem from Behaviorism; Classical Conditioning “ Ivan Pavlov As indicted above, observational learning is a bridge between behaviorism and cognitive learning. The Three Types of Behavioral Learning Classical Conditioning Classical conditioning is a learning process in which an association is made between two stimuli. With classical conditioning, two stimuli are linked together to produce a new learned response. One stimulus is a neutral and the other evokes a natural response. After learning the association, the neutral stimulus elicits the conditioned response. The theory of classical conditioning was introduced by Russian physiologist, Ivan Pavlov. Pavlov conducted his classic experiment involving dogs. In his experiment, he conditioned the dogs to associate the sound of a bell with the presence of food. He paired the smell of food which was the naturally occurring stimulus with the neutral stimulus of a ringing bell. Once an association had been made between the two, the sound of the bell alone could elicit a response. The dogs responded to the sound of the bell by salivating. However, by pairing the bell with the stimulus of the smell of the food, which did produce the salivation response, eventually, the bell by itself was able to trigger the salivation response. Operant Conditioning Operant conditioning is a learning process in which responses are controlled by consequences. The likelihood of a certain response occurring is either increased or decreased due to either a reinforcement or a punishment consequence. A reinforcement helps to increase a behavior, while a punishment helps to decrease a behavior. The term operant conditioning was coined by a behaviorist B. Skinner conducted experiments with rats using a device called the Skinner box. The box was a cage set up so the rats could automatically get a food reward if they stepped on a lever. The lever caused food to be released. From these experiments, Skinner observed how reinforcement could lead to increases in behaviors where punishment would result in decreases in behaviors. Reinforcement Reinforcement is a consequence that increases the likelihood a response will occur. If you are using reinforcement, you are trying to increase a behavior. There are two types of reinforcement. Positive reinforcement Negative reinforcement Positive means adding a stimulus, while negative means removing a stimulus. Thus, positive reinforcement is the addition of a good stimulus after a response in order to encourage the response to continue. An example of this would be giving someone praise after a desired behavior is displayed. In contrast, negative reinforcement is the removal of an undesirable stimulus after a response so that the response will occur more often. An example of this would be fastening your seatbelt in a car so the beeping sound will stop. Since the undesirable stimulus is removed when you fasten your seatbelt, you are encourage to fasten your seatbelt. Negative reinforcement is often confused with punishment because of its name. However, negative reinforcement involves removing a negative consequence to increase a behavior, while punishment seeks to decrease a behavior. Punishment Punishment is a consequence that decreases the likelihood a response will occur. If you are using punishment,

you are trying to decrease a behavior. There are two types of punishment: Positive punishment Negative punishment Positive punishment is the addition of an undesirable stimulus after a response so that the response will occur less or stop. An example would be to give someone extra work for misbehaving. Negative punishment is the removal of a pleasing stimulus after a response so that the response will occur less or stop. An example would be taking away television or video games from a child for misbehaving so he or she will stop misbehaving. Observational Learning Observational learning or modeling is a process in which learning occurs through observing the behaviors of others and then imitating those behaviors. Observational learning allows for learning without any direct change to behavior. This is why it is not considered strict behaviorism. It is more of a link between behaviorism and cognitive learning. Observational learning is associated with the work of Albert Bandura and his social learning theory. The social learning theory suggests that learning occurs through observation and interaction with other people. In this experiment, children imitated the actions of adults. After seeing adults hit a doll, children would assault the Bobo-doll. The experiment showed that children learned the aggressive behavior by observing it.

Chapter 4 : Learning theories Behaviorism, Cognitive and Constructivist

The theory has often been called a bridge between behaviorist and cognitive learning theories because it encompasses attention, memory, and motivation.

Saul McLeod, updated Behaviorism refers to a psychological approach which emphasizes scientific and objective methods of investigation. The approach is only concerned with observable stimulus-response behaviors, and states all behaviors are learned through interaction with the environment. Basic Assumptions All behavior is learned from the environment: Behaviorism emphasizes the role of environmental factors in influencing behavior, to the near exclusion of innate or inherited factors. This amounts essentially to a focus on learning. Psychology should be seen as a science: Theories need to be supported by empirical data obtained through careful and controlled observation and measurement of behavior. Watson stated that: Its theoretical goal is prediction and control. The components of a theory should be as simple as possible. Behaviorists propose the use of operational definitions defining variables in terms of observable, measurable events. Behaviorism is primarily concerned with observable behavior, as opposed to internal events like thinking and emotion: While behaviorists often accept the existence of cognitions and emotions, they prefer not to study them as only observable. Therefore, internal events, such as thinking should be explained through behavioral terms or eliminated altogether. There is little difference between the learning that takes place in humans and that in other animals: Therefore, research can be carried out on animals as well as humans. Consequently, rats and pigeons became the primary source of data for behaviorists, as their environments could be easily controlled. Behavior is the result of stimulus-response: All behavior, no matter how complex, can be reduced to a simple stimulus-response association. Watson described the purpose of psychology as: Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness. The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute. Radical Behaviorism Radical behaviorism was founded by B. F Skinner and agreed with the assumption of methodological behaviorism that the goal of psychology should be to predict and control behavior. Skinner, like Watson, also recognized the role of internal mental events, and while he agreed such private events could not be used to explain behavior, he proposed they should be explained in the analysis of behavior. Another important distinction between methodological and radical behaviorism concerns the extent to which environmental factors influence behavior. In contrast, radical behaviorism accepts the view that organisms are born with innate behaviors, and thus recognizes the role of genes and biological components in behavior. The History of Behaviorism Pavlov published the results of an experiment on conditioning after originally studying digestion in dogs. Watson launches the behavioral school of psychology, publishing an article, Psychology as the behaviorist views it. Thorndike formalized the Law of Effect.

Behaviorism Theory of Learning " Teachers must learn how to teach they need only to be taught more effective ways of teaching." -B. F. Skinner By: Brittane Slideshare uses cookies to improve functionality and performance, and to provide you with relevant advertising.

Posted on April 14 by On Purpose Associates Definition Behaviorism is a learning theory that only focuses on objectively observable behaviors and discounts any independent activities of the mind. Behavior theorists define learning as nothing more than the acquisition of new behavior based on environmental conditions. Discussion Experiments by behaviorists identify conditioning as a universal learning process. There are two different types of conditioning, each yielding a different behavioral pattern: Classic conditioning occurs when a natural reflex responds to a stimulus. Behavioral or operant conditioning occurs when a response to a stimulus is reinforced. Basically, operant conditioning is a simple feedback system: If a reward or reinforcement follows the response to a stimulus, then the response becomes more probable in the future. For example, leading behaviorist B. Skinner used reinforcement techniques to teach pigeons to dance and bowl a ball in a mini-alley. There have been many criticisms of behaviorism, including the following: Behaviorism does not account for all kinds of learning, since it disregards the activities of the mind. Behaviorism does not explain some learning—such as the recognition of new language patterns by young children—for which there is no reinforcement mechanism. Research has shown that animals adapt their reinforced patterns to new information. For instance, a rat can shift its behavior to respond to changes in the layout of a maze it had previously mastered through reinforcements. How Behaviorism Impacts Learning This theory is relatively simple to understand because it relies only on observable behavior and describes several universal laws of behavior. Its positive and negative reinforcement techniques can be very effective—such as in treatments for human disorders including autism, anxiety disorders and antisocial behavior. Behaviorism is often used by teachers who reward or punish student behaviors. Behaviorism is often seen in contrast to constructivism. Constructivists are more likely to allow for experimentation and exploration in the classroom and place a greater emphasis on the experience of the learner. In contrast to behaviorists, they feel that an understanding of the brain informs teaching. Soltis, Perspectives on Learning, Chapter 3.

Chapter 6 : Key elements of behavioral, cognitive, affective, and collaborative learning theories

Behavior theorists define learning simply as the acquisition of a new behavior or change in behavior. The theory is that learning begins when a cue or stimulus from the environment is presented and the learner reacts to the stimulus with some type of response.

June 3, A Description of Behaviorism Behaviorism is a learning theory which considers anything an organism do as a behavior. According to the behaviorist, these behaviors can be scientifically studied regardless of what happens in the mind psychological constructs such as thoughts, feelings. As a theory behaviorism focuses on observable behaviors and contends that there are no philosophical differences between publicly observable processes such as actions and privately observable processes such as thinking and feeling. Behaviorism main figures were: Watson who rejected introspective methods and sought to restrict psychology to experimental methods, and B. Skinner who conducted research on operant conditioning Behaviorists believe in three basic assumptions: Learning is manifested by a change in behavior. The environment shapes behavior. The principles of contiguity how close in time two events must be for a bond to be formed and reinforcement any means of increasing the likelihood that an event will be repeated are central to explaining the learning process. For behaviorists, learning is the acquisition of new behavior through conditioning. B Watson, the father of Behaviorism, defined learning as a sequence of stimulus and response actions in observable cause and effect relationships. In conducting the experiment, Pavlov noticed that the dog would salivate response , upon hearing the ringing of a bell. This occurred because the dog had learned to associate its unconditional stimuli normally feeding , with the neutral stimuli of the bell ringing simultaneously with the feeding process. Watson, believed that the stimuli that humans receive may be generated internally for example hunger , or externally for example, a loud noise. Operant Conditioning Radical Behaviorism B. Skinner expanded on the foundation of Behaviorism, established by Watson, and on the work of Edward Thorndike, by focussing on operant conditioning. According to Skinner, voluntary or automatic behavior is either strengthened or weakened by the immediate presence of reinforcement or punishment. New learning occurs as a result of positive reinforcement and undesirable behavior is discarded through negative reinforcement. Teaching and Behaviorism When applying the tenets of Behaviorism to education, Skinner contends that teaching is the arrangement of contingencies of reinforcement under which students learn. Of course students learn without being taught in their natural environments, but when teachers arrange special contingencies, this accelerates learning. The use of rewards and punishments in our school systems. The audiolingual approach to language teaching. Language acquisition was one type of learning Skinners learning theory cannot account for. There are many instances of learning that occurs without the use of reinforcements or punishments. People and animals are able to adapt their behavior when new information is introduced, even if a previous behavior pattern has been established through reinforcement. Behaviorists focus on the target, desirable behavior, that is the product. They fail to explain how humans learn, the process through which the learning takes place. Conclusion As a learning theory Behaviorism focuses on the observable behavior which they claim must be the subject of a scientific study. New learning approaches and theories appeared in the 20th century as a response to these shortcomings. Cognitivism and constructivism are the major trends of this movement. The behavior of organisms. The operational analysis of psychological terms. Science and Human Behavior. Mind, mechanism and society. Psychology as the behaviorist views it. Psychological Review, 20, " Psychology from the Standpoint of a Behaviorist.

Chapter 7 : Behaviorism - Learning Theories

Behaviorism, also known as behavioral psychology, is a theory of learning based on the idea that all behaviors are acquired through conditioning. Conditioning occurs through interaction with the environment.

Gestalt theory[edit] Cognitive theories grew out of Gestalt psychology. Gestalt psychology was developed in Germany in the early s by Wolfgang Kohler [26] and was brought to America in the s. The German word Gestalt is roughly equivalent to the English configuration or organization and emphasizes the whole of human experience. However, the lights are not actually flashing. The lights have been programmed to blink rapidly at their own individual pace. Perceived as a whole, the sign flashes. Perceived individually, the lights turn off and on at designated times. Another example of this would be a brick house: As a whole, it is viewed as a standing structure. However, it is actually composed of many smaller parts, which are individual bricks. People tend to see things from a holistic point of view rather than breaking it down into sub units. Gestalt psychologists criticize behaviorists for being too dependent on overt behavior to explain learning. They propose looking at the patterns rather than isolated events. Two key assumptions underlie this cognitive approach: Gestalt theorists believe that for learning to occur, prior knowledge must exist on the topic. When the learner applies their prior knowledge to the advanced topic, the learner can understand the meaning in the advanced topic, and learning can occur Cognitive theories look beyond behavior to consider how human memory works to promote learning, and an understanding of short term memory and long term memory is important to educators influenced by cognitive theory. They view learning as an internal mental process including insight , information processing, memory and perception where the educator focuses on building intelligence and cognitive development. Today, researchers are concentrating on topics like cognitive load and information processing theory. These theories of learning play a role in influencing instructional design. In the late twentieth century, situated cognition emerged as a theory that recognized current learning as primarily the transfer of decontextualized and formal knowledge. Bredo depicts situated cognition as "shifting the focus from individual in environment to individual and environment". Learning through this perspective, in which known and doing become inseparable, becomes both applicable and whole. Much of the education students receive is limited to the culture of schools, without consideration for authentic cultures outside of education. Curricula framed by situated cognition can bring knowledge to life by embedding the learned material within the culture students are familiar with. For example, formal and abstract syntax of math problems can be transformed by placing a traditional math problem within a practical story problem. This presents an opportunity to meet that appropriate balance between situated and transferable knowledge. Lampert successfully did this by having students explore mathematical concepts that are continuous with their background knowledge. In this way, knowledge becomes active, evolving as students participate and negotiate their way through new situations. Constructivism learning theory Founded by Jean Piaget , constructivism emphasizes the importance of the active involvement of learners in constructing knowledge for themselves. Students are thought to use background knowledge and concepts to assist them in their acquisition of novel information. On approaching such new information, the learner faces a loss of equilibrium with their previous understanding, and this demands a change in cognitive structure. This change effectively combines previous and novel information to form an improved cognitive schema. Constructivism can be both subjectively and contextually based. To design effective teaching environments, it believes one needs a good understanding of what children already know when they come into the classroom. Kolb serve as the foundation of the application of constructivist learning theory in the classroom. In scientific areas in the classroom, constructivist teachers provide raw data and physical materials for the students to work with and analyze. Transformative learning Transformative learning theory seeks to explain how humans revise and reinterpret meaning. The emotions are often involved. Habits of mind influence our point of view and the resulting thoughts or feelings associated with them, but points of view may change over time as a result of influences such as reflection, appropriation and feedback. Educational neuroscience American Universities such as Harvard, Johns Hopkins, and University of Southern California began offering majors and degrees dedicated

to educational neuroscience or neuroeducation in the first decade of the twenty-first century. Such studies seek to link an understanding of brain processes with classroom instruction and experiences. It looks at what environmental, emotional, and social situations best help the brain store and retain new information via the linking of neurons and best keep the dendrites from being reabsorbed, losing the information. The s were designated "The Decade of the Brain", and advances took place in neuroscience at an especially rapid pace. The three dominant methods for measuring brain activities are event-related potential , functional magnetic resonance imaging and magnetoencephalography MEG. Researchers expected that new technologies and ways of observing will produce new scientific evidence that helps refine the paradigms of what students need and how they learn best. In particular, it may bring more informed strategies for teaching students with learning disabilities. Formal and mental discipline[edit] This section does not cite any sources. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. March Learn how and when to remove this template message All individuals have the ability to develop mental discipline and the skill of mindfulness, the two go hand in hand. Mental discipline is huge in shaping what people do, say, think and feel. Mindfulness is important to the process of learning in many aspects. Being mindful means to be present with and engaged in whatever you are doing at a specific moment in time. Being mindful can aid in helping us to more critically think, feel and understand the new information we are in the process of absorbing. Phillips and Jonas F. Soltis provide some skepticism to this notion. Their skepticism stems largely in part from feeling that the relationship between formal discipline and the overall advancement of the mind is not as strong as some would say. They illustrate their skepticism by opining that it is foolish to blindly assume that people are better off in life, or at performing certain tasks, because of taking particular, yet unrelated courses. Theory of multiple intelligences The existence of multiple intelligences is proposed by psychologist Howard Gardner , who suggests that different kinds of intelligence exists in human beings. However, the theory of multiple intelligences is often cited as an example of pseudoscience because it lacks empirical evidence or falsifiability.

Social learning theory has sometimes been called a bridge between behaviorist and cognitive learning theories because it encompasses attention, memory, and motivation. The theory is related to Vygotsky's Social Development Theory and Lave's Situated Learning, which also emphasize the importance of social learning.

When it is applied to a classroom setting, it becomes a method of operant conditioning. It is used to not to help children understand the benefits of following the rules through a logical debate, but through the use of positive and negative reinforcement. With the behaviorist learning theory in the classroom, there are four basic types of reinforcement that can be used. This is an immediate reinforcement of a wanted behavior when it is observed. Giving a student verbal praise for a wanted behavior is a common form of positive reinforcement that teachers offer to students. Instead of offering a student a compliment, this type of reinforcement tells a student that their behavior is not wanted. This option is often used as a form of showing an entire class what will create a negative reinforcement response. If Johnny keeps yelling during story time, a teacher might bring the student up to the front of the class and then tell Johnny that his behavior is inappropriate at that moment. This may be used by removing a disruptive student with negative behaviors from the classroom. It may also be used through a period of negotiation so that a teacher gets what they want, but a student can also have something that they want. Each reinforcement opportunity has specific benefits and disadvantages that must be considered before it is implemented in a classroom setting.

Pros and Cons of Positive Reinforcement

Pros It offers an immediate reinforcement of a wanted behavior. Specific statements of praise help to reinforce the compliment being offered. Some students may hear this consequence and not want to have it themselves, which will modify their behavior. It can create immediate change within a student who is motivated by rewards.

Cons Some students are not motivated by a negative reinforcement either. It can address a specific and potentially dangerous unwanted behavior immediately. Cons It causes the student being used as a presentation to be targeted by other students. They may make fun of that student or not want to be associated with them. Some students are sensitive and may resent being used as an example toward other students, which increases the number and the aggressiveness of their unwanted individuals.

Pros and Cons of Removal Reinforcement

Pros It is a way to meet the needs of a specific student without disrupting the entire class. It may remove an unwanted behavior from the classroom immediately. Removal minimizes impact while allowing learning progression.

Cons It may encourage a student to continue offering unwanted behaviors so they can get their way. Teachers should be using all of these options when appropriate to address wanted and unwanted behaviors in the classroom. The goal should always be to avoid an unpleasant consequence, but sometimes a punishment is necessary to remove an unwanted behavior. Teachers should never belittle a student. They should always be looking for a way to generate a positive outcome. And behaviorist learning theory in the classroom works best when an individualized approach is taken. By finding the middle ground, the classroom can really become a good learning environment.

Chapter 9 : Behaviorist Learning Theory

Behaviorism (or behaviourism) is a systematic approach to understanding the behavior of humans and other animals. Behaviorism assumes that all behaviors are either reflexes produced by a response to certain stimuli in the environment, or a consequence of that individual's history, including especially reinforcement and punishment, together with the individual's current motivational state and controlling.

Skinner and Ivan Pavlov Key Concepts What is the difference between operant conditioning and classical conditioning? In operant conditioning, a voluntary response is then followed by a reinforcing stimulus. In this way, the voluntary response is reinforced. In contrast, classical conditioning is when a stimulus automatically triggers an involuntary response. Operant Conditioning Operant conditioning can be described as a process that attempts to modify behavior through the use of positive and negative reinforcement. Through operant conditioning, an individual makes an association between a particular behavior and a consequence[2]. A schoolteacher awards points to those students who are the most calm and well-behaved. Students eventually realize that when they voluntarily become quieter and better behaved, that they earn more points. A form of reinforcement such as food is given to an animal every time the animal for example, a hungry lion presses a lever[3]. Skinner, who believed that one should focus on the external, observable causes of behavior rather than try to unpack the internal thoughts and motivations Reinforcement comes in two forms: We will explain this below. Positive and negative reinforcers Positive reinforcers are favorable events or outcomes that are given to the individual after the desired behavior. This may come in the form of praise, rewards, etc. Negative reinforcers typically are characterized by the removal of an undesired or unpleasant outcome after the desired behavior. A response is strengthened as something considered negative is removed. The goal in both of these cases of reinforcement is for the behavior to increase. Positive and negative punishment Punishment, in contrast, is when the increase of something undesirable attempts to cause a decrease in the behavior that follows. Positive punishment is when unfavorable events or outcomes are given in order to weaken the response that follows. Negative punishment is characterized by when an favorable event or outcome is removed after a undesired behavior occurs. The goal in both of these cases of punishment is for a behavior to decrease. An excellent book that features chapters by leading researchers, professionals, and academicians and does a pretty comprehensive treatment of operant and classical conditioning, including relevant fundamental theory, and applications including the latest techniques. A primer of operant conditioning. Journal of experimental psychology, 38 2 ,