Chapter 1 : Learning theories application in nursing education

Learning theories and models summaries explained & easy to understand. Useful for students and teachers in educational psychology, instructional design, digital media and learning.

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 neuronsâ€"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.

Chapter 2 : calendrierdelascience.com | What is learning? Exploring theory, product and process

Learning theories are conceptual frameworks that describe how students absorb, process, and retain knowledge during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, or a world view, is acquired or changed and knowledge and skills retained.

Read examples of Social Learning Theory. Detailed information on the stages of social learning can be found here. Bandura illustrated his theory about learning via observation and imitation through his famous Bobo Doll Experiment Bandura, Bandura believes human beings to be information processors. Simply put, Bandura believes that behavior learning could not occur if not for the cognitive processes. Cognitive processes intervene the learning process which then goes on to determine whether or not a response is learned. The thought process that acts behind the scenes between the observation stimulus and actual learning response is defined as the meditational process. Learning occurs via observation and via observation of negative consequences of the behavior. This is referred to as vicarious reinforcement. There are three factors in brief that contribute to learning. Decision making in regards to performing the behavior. This is called observational learning or modeling. Individuals are not the passive recipient of information. In fact, human beings are information processors and factors like cognition; environment; and behavior; all mutually affect the process of learning. Due to this reason, SLT provides a more comprehensive explanation of human learning. However, SLT still cannot explain how individuals learn or develop thoughts and feelings. Critical Evaluation Social Learning Theory is able to explain complex behavior, but its commitment to learning through either nature or nurture has exposed itself to some criticisms. The major criticism is that SLT underestimates the complexity of human behavior and does not provide a full explanation for all behavior. SLT is particularly applicable when there is no clear role model in play for an individual to learn behavior. Recent discoveries in the field of neuroscience have provided some basis to support the theory of social learning. While the discovery of mirror neurons is in its infancy stage, it does provide a neurological basis to explain how human beings imitate behavior. According to these recent discoveries, there are neurons which fire both when an individual observes actions from a model or performs the action itself. A word from Psychestudy While Social Learning Theory cannot explain all aspects of human behavior, SLT is one of the most plausible explanations of human learning. SLT can have both positive or negative impact on an individual. Understanding of the SLT alone can lead this world to be a better place, in theory at least. For instance, parents who have properly understood Social Learning Theory can act accordingly in front of their children to contribute positive behavioral learning.

Chapter 3 : Learning Theories

Learning theory, any of the proposals put forth to explain changes in behaviour produced by practice, as opposed to other factors, e.g., physiological development.. A common goal in defining any psychological concept is a statement that corresponds to common usage.

Kolb, one of the the most influential of these, found that individuals begin with their preferred style in the experiential learning cycle see above. Activist enjoys the experience itself , Reflector spends a great deal of time and effort reflecting Theorist good at making connections and abstracting ideas from experience Pragmatist enjoys the planning stage There are strengths and weaknesses in each of these styles. Honey and Mumford argue that learning is enhanced when we think about our learning style so that we can build on strengths and work towards minimising weaknesses to improve the quality of learning. Revans argued that learning can be shown by the following equation, where L is learning; P is programmed knowledge eg traditional instruction and Q is questioning insight. Adult Learning Andragogy Malcolm Knowles , is the theorist who brought the concept of adult learning to the fore. He has argued that adulthood has arrived when people behave in adult ways and believe themselves to be adults. Then they should be treated as adults. He taught that adult learning was special in a number of ways. Adult learners bring a great deal of experience to the learning environment. Educators can use this as a resource. Adults expect to have a high degree of influence on what they are to be educated for, and how they are to be educated. The active participation of learners should be encouraged in designing and implementing educational programs. Adults need to be able to see applications for new learning. Adult learners expect to have a high degree of influence on how learning will be evaluated. Adults expect their responses to be acted upon when asked for feedback on the progress of the program. Here is a quote from Burns , p. This is the concept that lies at the heart of andragogy Adulthood as a social construction Pogson and Tennant provide a perspective of adulthood as a social construction. The question could be asked - when is maturity complete? Is there no further development after a certain stage in life? Some authors think that while children at approximately the same age are at approximately the same stage of development, the same cannot be said of adults. Adults would vary in levels of knowledge and also in their life experiences. There could be said to be tremendous variation in adult experience. Their approach to new learning contexts can be influenced by how they appraise or evaluate the new experience. It is self evident that the way the individual interprets the situation and the subsequent emotion that arises, will affect the kind of action the individual is to take. Why consider learning theories? This short paper has summarised a range of learning theories that can be applied in educational contexts. Teaching and learning activities can be designed and implemented to take principles of learning into account. Also, it is interesting to think about individual differences among learners and to work towards including activities that have variety and interest for all the learners in educational programs. Gulf Publishing Company, Book Division.

Chapter 4 : Social learning theory - Wikipedia

The theories are treated in four parts: a short historical introduction, a discussion of the view of knowledge presupposed by the theory, an account of how the theory treats learning and student motivation, and, finally, an overview of some of the instructional methods promoted by the theory is presented.

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Abstract Learning theories are the main guide for educational systems planning in the classroom and clinical training included in nursing. The teachers by knowing the general principles of these theories can use their knowledge more effectively according to various learning situations. In this study, Eric, Medline, and Cochrane databases were used for articles in English and for the Persian literature, Magiran, Iran doc, Iran medex, and Sid databases were used with the help of keywords including social cognitive learning, learning theory, behavioral theory, cognitive theory, constructive theory, and nursing education. The search period was considered from to Some related books were also studied about each method, its original vision, the founders, practical application of the training theory, especially training of nursing and its strengths and weaknesses. Behaviorists believe that learning is a change in an observable behavior and it happens when the communication occurs between the two events, a stimulus and a response. Among the theories of this approach, Thorndike and Skinner works are subject to review and critique. Cognitive psychologists unlike the behaviorists believe that learning is an internal process objective and they focus on thinking, understanding, organizing, and consciousness. Fundamentalists believe that learners should be equipped with the skills of inquiry and problem solving in order to learn by the discovery and process of information. Among this group, we will pay attention to analyze Wertheimer, Brunner, Ausubel theories, Ganyeh information processing model, in addition to its applications in nursing education. Humanists in learning pay attention to the feelings and experiences. Carl Rogers support the retention of learning-centered approach and he is believed to a semantic continuum. At the other end of the continuum, experiential learning is located with the meaning and meaningful. It applies the minds and feelings of the person. From this group, the main focus will be on the works of Rogers and Novels. Finally, it could be concluded that the usage of any of these theoriesin its place would be desired and useful. In other words, theory is a set of related propositions, which should be able to describe, explain, predict, or control the phenomena. Learning theories have tried to provide explanations about learning and their application. It is recommended to use learning theories, single or separated or a combination in the health professions including the nursing. In most countries, including Iran, nurses are responsible for the design, implementation, and procedures for promoting health training. The nurses can use this approach in the field of self-care education to the patients. Learning theories can be used individually, group-wise or at a community level, not only for understanding and learning new things, but also for problem solving, changing the health habits, constructive communication, control emotions and affecting behavior development. As it was discussed previously, patterns can be used for applying the theories. Therefore, a series of strategies and methods should be applied. They all have a solid theoretical foundation and describe the learning environment. In fact, each model is composed of all elements of teaching including the overall goal, partial goals, behavior, content, media, methods, knowledge evaluation, and the previous knowledge of the students. By its using, it is possible to prevent the effective barriers due to inequalities resulting from social and economic status and the habit of the students to assist in learning. In this article, with the goal of reviewing the existing knowledge, the learning theories and their use in nursing education have been given an overview of the available resources in this area. Searching period was between and and the followings were also considered, a number of related books about the methods, the original vision, the founders of theories, and their practical applications, especially in education and nursing training for evaluation of strengths and weaknesses. In the article, it is emphasized on the application of the theory, especially in nursing education and the basic facts of each theory. Meanwhile, it is focused on new perspectives about the learning theories too. In preliminary searching, out of all of the obtained articles due to the title and abstract analysis, about 30

papers were excluded including intervention papers, reviewed articles, and short essays for full text and structured reviews. Behaviorism, cognitive, and constructivism. Behaviorism Behaviorism has been the dominant approach in psychology researches. At the beginning of the 20th century, traditional behaviorists believed that learning is a change in observable behavior and it happens when the communication occurs between the two events, a stimulus and a response. They insist upon the importance of practice and repetition in learning. They believe that the final behavior would make it to repeat again. Accordingly, positive or negative reinforcement can be used to encourage the repetition of the behavior. Emotional response to an experience may be positive or negative. Bad experiences can lead to fear or anxiety. The fear and anxiety in the future similar situations, even after generalization, provoke in other situations as well such unpleasant feelings. What is known today as the transponders conditioning theory, classic or Pavlov has emerged from the researches of The Russian scientist Ivan Petrovich Pavlov and was performed at the beginning of the 20th century. Pavlov conducted his initial research works with the reflections and impact on their learning experience. For this reason, Pavlov called the unconditioned stimulus as the reinforcement and coupled it with the conditioned stimulus CS called as reinforcement. Therefore, learning will be to answer in the presence of conditioned stimuli. Upon CS repetition alone without the association of UCS, for several times will lead to the puniness of conditioned responses. Classical conditioning can remove the reactions of fearâ€"anxiety in such a way that they put a person gradually against small and light stages. Thus, it is possible to use this method for procedures of student training. One of the other proposed theories in this subset is the Thorndike theory, which is described as the selectivity or choosing a response among a set of organism available responses and transplant that respond to the driving position. Therefore, Thorndike learning method was named learning through trial and error. Thorndike quoted that it was brought him to a satisfying situation. This response is learned and in similar situations of learning is repeated by the learner again. Thus, by using the harmless trial and error method, the students will gain to the desired skills. Satisfying results will lead to its strengthening. Unpleasant results cause the students to find alternative answers through trial and error and eventually reach to the correct answer for each question. These results may be the observation of satisfied clients, the classmates, or the teacher applauded[17] One of the other main concepts of the Thorndike theory that have left an important educational effect is elements of the concept like learning transfer. Throughout the history of education, this question always has been always considered that what makes transferring our learning from one position to another. Before Thorndike investigations in this case, the psychology mentality carnal forces was to explain the phenomenon of learning transfer. It was believed that these forces could be strengthened by practicing. Students in a clinical setting encounter a number of different points, which need different combined forces. Therefore, it is comprehensive without being overwhelming to collateralize all the forces together. Skinner conditioning theory more than to be a scientific theory of learning is a set of principles and techniques, which noted to its use in different fields for administration of the humans. Skinner looked at the final result of the behavior, except that he knew the behavior as a voluntary action, which is formed by its outcome. Behavior therapy techniques are used for the treatment of psychological problems, methods for improvement, behavior modification conflicts, disorders and criminal behavior, and mental retardation. At first, the initial behaviors of each procedure are encouraged in order to implement the procedures fully. Then, they will be encouraged to fully understand and implement the correct procedures and gradually increase the distance of encouragements. Encouraging at this stage is desirable to establish and maintain behavioral conduct. Teachers can teach each procedure by giving information or clues to the student before starting the procedures. For example, they can remind them for having appropriate or expected behaviors for accessing to the desired behavior in less time. Computer programs that are designed to learn specific methods of patient care also use the same methods. First, they should perform the behavior in order to reinforce it and the whole process is time consuming and slow. Conversely, the undesirable results make the observers to refrain from that behavior. In these methods, enough attention is not paid to strengthen their intrinsic motivation. Their learning is more in the form of a response to stimuli with having excessive physical aspect and less attention to the process of thinking and critical thinking in students. Due to the Thorndike opinion, the main principles of educational providing include the clarity of objectives in education, organizing

the contents from simple to complex, emphasis on the evaluation process, providing correct answers to questions, preparing the students for learning in an orderly environment, creating a disciplined environment for training, repeating the correct answer and rewarding the learners after their correct answer to the questions. According to this law, if a behavior is done in the presence of a stimulus and achieves to the desired result, it will be a learned behavior and once the stimulus appears again, it will respond to it. Nursing staff in hospitals without prior planning are involved in many cases in the education of nursing students. In this theory, the environment is stimulating and enhancing. Consequently, its role is vital and the role of environment in learning is more than the role of heredity. Since behaviorists have based their work on the study of the observable behavior, therefore, determination of educational objectives and transforming them into accurate and behavioral goals is a fundamental duty of a teacher. The foundation of education is based on the behaviorism competence. They say that this type of learning cannot be observed directly and it is associated with the change in capacity and capability of the person to respond. Essentially, it does not immediately change the behavior. Fundamentalists believe that the students must be equipped to questioning skills and problem solving, so by exploration and information processing, they will be able to learn actively, solving and searching for new information, and reviewing their previous experiences for better understanding. Gestalt theory is known as the leader of learning cognitive theories. The psychologists of Gestalt theory are opposed to reducing convergence method, alternatively, analyzing the psychological phenomena. Therefore, due to this fact that the perception phenomena have the overall aspect, learning should be studied due to this holistic. They believed that the whole is greater than the sum of its parts and breaking the behavior into its components, generally destroy the whole concept of behavior. Wertheimer said that perception of the individual by using the principle of Pragnanz plan is structured or organized into simplest possible form in order to be able to understand its meaning. It is composed of four laws of understanding: Similarity, vicinity, relevance, and continuity. Kafka believed that these laws of understanding could be used as well as learning rules. Thus, it created the Gestalt theory of learning with insight. Their main difference with the behaviorists is in this key aspect that they believe that by the observation of behavioral responses, it would be possible to realize the nature of internal cognitive processes, which cause those answers. One of the issues highlighted by Wertheimer and other Gestalt psychologists was that memorizing like parrots is an ineffective method of learning and useless in real life. Instead, they argued that most of our learning in real life is done through understanding and the discovery of underlying issues principles. Nursing educators can use these principles in the training sessions to be seen as a whole not as a collection of discrete facts. For example, if a session is connected about the structure and function of the respiratory tract disorders such as bronchitis and the activities of daily life, the students can understand the anatomy and physiology, the disease state bronchitis , and its effect on the patient as a whole and not as the unrelated three units.

Chapter 5 : 3 Traditional Learning Theories and How They Can Be Used in eLearning - eLearning

Learning Theories Learning theories are an organized set of principles explaining how individuals acquire, retain, and recall knowledge. By studying and knowing the different learning theories, we can better understand how learning occurs.

Skinner delivered a series of lectures in Sunyani Fiapre, Ghana on verbal behavior, putting forth a more empirical approach to the subject than existed in psychology at the time. Under him, Neil Miller and John Dollard aimed to come up with a reinterpretation of psychoanalytic theory in terms of stimulus-response. This led to their book, Social Learning Theory, published in , which posited that personality consisted of learned habits. In his theory, the social environment and individual personality created probabilities of behavior, and the reinforcement of these behaviors led to learning. He emphasized the subjective nature of the responses and effectiveness of reinforcement types. He theorized that "human beings are somehow specially designed to" understand and acquire language, ascribing a definite but unknown cognitive mechanism to it. Bandura began to conduct studies of the rapid acquisition of novel behaviors via social observation, the most famous of which were the Bobo doll experiments. Theory[edit] Social Learning Theory integrated behavioral and cognitive theories of learning in order to provide a comprehensive model that could account for the wide range of learning experiences that occur in the real world. As initially outlined by Bandura and Walters in [2] and further detailed in , [12] key tenets of Social Learning Theory are as follows: Learning can occur by observing a behavior and by observing the consequences of the behavior vicarious reinforcement. Learning involves observation, extraction of information from those observations, and making decisions about the performance of the behavior observational learning or modeling. Thus, learning can occur without an observable change in behavior. Reinforcement plays a role in learning but is not entirely responsible for learning. The learner is not a passive recipient of information. Cognition, environment, and behavior all mutually influence each other reciprocal determinism. Observation and direct experience[edit] Typical stimulus-response theories rely entirely upon direct experience of the stimulus to inform behavior. Bandura opens up the scope of learning mechanisms by introducing observation as a possibility. An important factor in Social Learning Theory is the concept of reciprocal determinism. For example, a child who plays violent video games will likely influence their peers to play as well, which then encourages the child to play more often. Bandura outlined three types of modeling stimuli: Live models, where a person is demonstrating the desired behavior Verbal instruction, in which an individual describes the desired behavior in detail and instructs the participant in how to engage in the behavior Symbolic, in which modeling occurs by means of the media, including movies, television, Internet, literature, and radio. Stimuli can be either real or fictional characters. Exactly what information is gleaned from observation is influenced by the type of model, as well as a series of cognitive and behavioral processes, including: Experimental studies [15] have found that awareness of what is being learned and the mechanisms of reinforcement greatly boosts learning outcomes. Attention is impacted by characteristics of the observer e. In this way, social factors contribute to attention â€" the prestige of different models affects the relevance and functional value of observation and therefore modulates attention. Retention â€" In order to reproduce an observed behavior, observers must be able to remember features of the behavior. Again, this process is influenced by observer characteristics cognitive capabilities, cognitive rehearsal and event characteristics complexity. The cognitive processes underlying retention are described by Bandura as visual and verbal, where verbal descriptions of models are used in more complex scenarios. Reproduction â€" By reproduction, Bandura refers not to the propagation of the model but the implementation of it. This requires a degree of cognitive skill, and may in some cases require sensorimotor capabilities. This can require the input of others to provide self-correcting feedback. Newer studies on feedback [16] support this idea by suggesting effective feedback, which would help with observation and correction improves the performance on participants on tasks. Motivation â€" The decision to reproduce or refrain from reproducing an observed behavior is dependent on the motivations and expectations of the observer, including anticipated consequences and internal standards. Evolution and cultural intelligence[edit] Social Learning Theory has more recently

applied alongside and been used to justify the theory of cultural intelligence. Mirror neurons were first discovered in primates in studies which involved teaching the monkey motor activity tasks. One such study, focused on teaching primates to crack nuts with a hammer. When the primate witnessed another individual cracking nuts with a hammer, the mirror neuron systems became activated as the primate learned to use the hammer to crack nuts. However, when the primate was not presented with a social learning opportunity, the mirror neuron systems did not activate and learning did not occur. The activation of the mirror neuron system is thought to be critical for the understanding of goal directed behaviors and understanding their intention. Although still controversial, this provides a direct neurological link to understanding social cognition. Both the probability of being exposed to certain behaviors and the nature of the reinforcement are dependent on group norms. Miller lists both moral development and gender-role development as important areas of research within Social Learning Theory. For gender-role development, the same-sex parent provides only one of many models from which the individual learns gender-roles. Social Learning Theory also emphasizes the variable nature of moral development due to the changing social circumstances of each decision: Moral judgments involve a complex process of considering and weighing various criteria in a given social situation. For Social Learning Theory, biological factors are important but take a back seat to the importance of learned, observable behavior. Because of the highly gendered society in which an individual might develop, individuals begin to distinguish people by gender even as infants. Thoughts, beliefs, morals, and feedback all help to motivate us. Three other ways in which we learn are vicarious experience, verbal persuasion, and physiological states. Media violence research Principles of Social Learning Theory have been applied extensively to the study of media violence. Akers and Burgess hypothesized that observed or experienced positive rewards and lack of punishment for aggressive behaviors reinforces aggression. Many research studies have discovered significant correlations between viewing violent television and aggression later in life and many have not, as well as playing violent video games and aggressive behaviors. Creating social change with media[edit] Entertainment-education in the form of a telenovela or soap opera can help viewers learn socially desired behaviors in a positive way from models portrayed in these programs. Characters that support a value positive role models Characters who reject the value negative role models Characters who have doubts about the value undecided [30] Within this formula there are at least three doubters that represent the demographic group within the target population. This doubter is usually killed. At the end of the episode a short epilog done by a recognizable figure summarizes the educational content and within the program viewers are given resources in their community. Participants are asked what problems in society concern them most and what obstacles they face, giving creators of the drama culturally relevant information to incorporate into the show. Sabido spent 8 years working on a method that would create social change and is known as the Sabido Method. The classical conditioning approach to anxiety disorders, which spurred the development of behavioral therapy and is considered by some to be the first modern theory of anxiety, [33] began to lose steam in the late s as researchers began to question its underlying assumptions. For example, the classical conditioning approach holds that pathological fear and anxiety are developed through direct learning; however, many people with anxiety disorders cannot recall a traumatic conditioning event, in which the feared stimulus was experienced in close temporal and spatial contiguity with an intrinsically aversive stimulus. For example, Social Learning Theory suggests that a child could acquire a fear of snakes by observing a family member express fear in response to snakes. Alternatively, the child could learn the associations between snakes and unpleasant bites through direct experience, without developing excessive fear, but could later learn from others that snakes can have deadly venom, leading to a re-evaluation of the dangerousness of snake bites, and accordingly, a more exaggerated fear response to snakes. For example, using the technique of guided participation, a teacher says a phrase and asks the class to repeat the phrase. An extension of guided participation is reciprocal learning, in which both student and teacher share responsibility in leading discussions. This corresponds to searching for the best solution in solving optimization problems. Compared with other bio-inspired global optimization algorithms that mimic natural evolution or animal behaviors, the social learning algorithm has its prominent advantages. First, since the self-improvement through learning is more direct and rapid than the evolution process, the social learning algorithm can improve the efficiency of the algorithms mimicking natural

evolution. Second, compared with the interaction and learning behaviors in animal groups, the social learning process of human beings exhibits a higher level of intelligence. By emulating human learning behaviors, it is possible to arrive at more effective optimizers than existing swarm intelligence algorithms. Experimental results have demonstrated the effectiveness and efficiency of the social learning algorithm, which has in turn also verified through computer simulations the outcomes of the social learning behavior in human society. This algorithm is based on the social cognitive theory, simulating the process of individual learning of a set of agents with their own memory and their social learning with the knowledge in the social sharing library. It has been used for solving continuous optimization, integer programming, and combinatorial optimization problems. There also several mathematical models of social learning which try to model this phenomenon using probabilistic tools.

Chapter 6 : Theories of Learning

Action Learning is the approach that links the world of learning with the world of action through a reflective process within small cooperative learning groups known as 'action learning sets' (McGill & Beaty).

Transfer of Learning Teaching for transfer is one of the seldom-specified but most important goals in education. We want students to gain knowledge and skills that they can use both in school and outside of school, immediately and in the future. You need to know about transfer of learning in order to help increase the transfer of learning that you and your students achieve. Transfer of learning is commonplace and often done without conscious thought. For example, suppose that when you were a child and learning to tie your shoes, all of your shoes had brown, cotton shoelaces. You mastered tying brown, cotton shoelaces. Then you got new shoes. The new shoes were a little bigger, and they had white, nylon shoe laces. The chances are that you had no trouble in transferring your shoe-tying skills to the new larger shoes with the different shoelaces. This example gives us some insight into one type of transfer of learning. Transfer occurs at a subconscious level if one has achieved automaticity of that which is to be transferred, and if one is transferring this learning to a problem that is sufficiently similar to the original situation so that differences are handled at a subconscious level, perhaps aided by a little conscious thought. However, there are many transfer of learning situations that are far more difficult than shoe tying. For example, a secondary school math class might teach the metric system of units. From the math class, students go to a science class. Frequently the science teacher reports that the students claim a complete lack of knowledge about the metric system. Essentially no transfer of learning has occurred from the math class to the science class. On a more general note, employers often complain that their newly hired employees have totally inadequate educations. Part of their complaint is that the employees cannot perform tasks on the job that they "should have" learned to do while in school. Schools respond by saying that the students have been taught to accomplish the tasks. Clearly, this is a transfer of learning problem that is owned jointly by schools, employees, and employers. The goal of gaining general skills in the transfer of your learning is easier said than done. Researchers have worked to develop a general theory of transfer of learning--a theory that could help students get better at transfer. This has proven to be a difficult research challenge. At one time, it was common to talk about transfer of learning in terms of near and far transfer. This "near and far" theory of transfer suggested that some problems and tasks are so nearly alike that transfer of learning occurs easily and naturally. A particular problem or task is studied and practiced to a high level of automaticity. When a nearly similar problem or task is encountered, it is automatically solved with little or no conscious thought. This is called near transfer. The shoe-tying example given above illustrates near transfer. A major goal in learning to read is to develop a high level of decoding automaticity. Then your conscious mind can pay attention to the meaning and implications of the material you are reading. A significant fraction of children are able to achieve this by the end of the third grade. Many potential transfer of learning situations do not lend themselves to the automaticity approach. There are many problems that are somewhat related, but that in some sense are relatively far removed from each other. A person attempting to make the transfer of learning between two such problems does not automatically "see" or sense the connections between the two problems. Far transfer often requires careful analysis and deep thinking. The theory of near and far transfer does not help us much in our teaching. We know that near and far transfer occur. We know that some students readily accomplish far transfer tasks, while others do not. We know that far transfer does not readily occur for most students. The difficulty with this theory of near and far transfer is that it does not provide a foundation or a plan for helping a person to get better at far transfer and dealing with novel and complex problems. It does not tell us how to teach to increase far transfer. It usually requires a great deal of practice in varying settings. Shoe tying, keyboarding, steering a car, and single-digit arithmetic facts are examples of areas in which such automaticity can be achieved and is quite useful. In high-road transfer, there is deliberate mindful abstraction of an idea that can transfer, and then conscious and deliberate application of the idea when faced by a problem where the idea may be useful. Quoting from the Website: High road and low road transfer. In keeping with the view of Greeno et al. A relatively reflexive process, low

road transfer figures most often in near transfer. For example, when a person moving a household rents a small truck for the first time, the person finds that the familiar steering wheel, shift, and other features evoke useful car-driving responses. Driving the truck is almost automatic, although in small ways a different task. High road transfer, in contrast, depends on mindful abstraction from the context of learning or application and a deliberate search for connections: What is the general pattern? What principles might apply? What is known that might help? Such transfer is not in general reflexive. It demands time for exploration and the investment of mental effort. It can easily accomplish far transfer, bridging between contexts as remote as arteries and electrical networks or strategies of chess play and politics. For instance, a person new to politics but familiar with chess might carry over the chess principle of control of the center, pondering what it would mean to control the political center. The article listed here provides a good overview of the domain of transfer of learning and how to teach transfer. It also contains an extensive bibliography, so it is a good starting point if you want to study the research on transfer of learning. Planning Workplace Education Programs [Online]. Transfer of learning is pervasive in our everyday life at work, at home and in the community. Transfer takes place whenever our existing knowledge, abilities and skills affect the learning or performance of new tasks. But what are the principles of effective transfer of learning? How can workplace instructors design training programs to facilitate transfer? What can the shop floor supervisor do to encourage transfer of learning? How should trainees or participants prepare for transfer back on the job? Given the centrality of this topic to so many areas of workplace education, this discussion paper will draw together the results of research and some practical techniques that will help practitioners in the field. It Is organized into four parts: The report is summarized through a number of application exercises that challenges the reader to recall former workplace education experiences and interact with contents of the document.

Chapter 7 : Theories of learning

The learning theories of development are centered on the environmental influences on the learning process. Such environmental influences include associations, reinforcements, punishments, and observations.

Schemas Imagine what it would be like if you did not have a mental model of your world. It would mean that you would not be able to make so much use of information from your past experience or to plan future actions. Schemas are the basic building blocks of such cognitive models, and enable us to form a mental representation of the world. Piaget emphasized the importance of schemas in cognitive development and described how they were developed or acquired. A schema can be defined as a set of linked mental representations of the world, which we use both to understand and to respond to situations. The assumption is that we store these mental representations and apply them when needed. For example, a person might have a schema about buying a meal in a restaurant. The schema is a stored form of the pattern of behavior which includes looking at a menu, ordering food, eating it and paying the bill. The schemas Piaget described tend to be simpler than this - especially those used by infants. He described how - as a child gets older - his or her schemas become more numerous and elaborate. Piaget believed that newborn babies have a small number of innate schemas - even before they have had many opportunities to experience the world. These neonatal schemas are the cognitive structures underlying innate reflexes. These reflexes are genetically programmed into us. Shaking a rattle would be the combination of two schemas, grasping and shaking. Assimilation and Accommodation Jean Piaget ; see also Wadsworth, viewed intellectual growth as a process of adaptation adjustment to the world. Piaget believed that cognitive development did not progress at a steady rate, but rather in leaps and bounds. However, an unpleasant state of disequilibrium occurs when new information cannot be fitted into existing schemas assimilation. Equilibration is the force which drives the learning process as we do not like to be frustrated and will seek to restore balance by mastering the new challenge accommodation. Once the new information is acquired the process of assimilation with the new schema will continue until the next time we need to make an adjustment to it. Example of Assimilation A 2-year-old child sees a man who is bald on top of his head and has long frizzy hair on the sides. Sensorimotor stage birth to age 2 2. Pre-operational stage from age 2 to age 7 3. Concrete operational stage from age 7 to age 11 4. Each child goes through the stages in the same order, and child development is determined by biological maturation and interaction with the environment. Although no stage can be missed out, there are individual differences in the rate at which children progress through stages, and some individuals may never attain the later stages. Piaget did not claim that a particular stage was reached at a certain age - although descriptions of the stages often include an indication of the age at which the average child would reach each stage. Sensorimotor Stage Birth-2 yrs The main achievement during this stage is object permanence - knowing that an object still exists, even if it is hidden. It requires the ability to form a mental representation i. Preoperational Stage years During this stage, young children can think about things symbolically. This is the ability to make one thing - a word or an object - stand for something other than itself. Thinking is still egocentric , and the infant has difficulty taking the viewpoint of others. This means the child can work things out internally in their head rather than physically try things out in the real world. Children can conserve number age 6 , mass age 7 , and weight age 9. Conservation is the understanding that something stays the same in quantity even though its appearance changes. Formal Operational Stage 11 years and over The formal operational stage begins at approximately age eleven and lasts into adulthood. During this time, people develop the ability to think about abstract concepts, and logically test hypotheses. Piaget has been extremely influential in developing educational policy and teaching practice. The result of this review led to the publication of the Plowden report Discovery learning â€" the idea that children learn best through doing and actively exploring - was seen as central to the transformation of the primary school curriculum. Readiness concerns when certain information or concepts should be taught. According to Piaget , assimilation and accommodation require an active learner, not a passive one, because problem-solving skills cannot be taught, they must be discovered. Within the classroom learning should be student-centered and accomplished through active discovery learning. The role of the

teacher is to facilitate learning, rather than direct tuition. Therefore, teachers should encourage the following within the classroom: He was an inspiration to many who came after and took up his ideas. His ideas have been of practical use in understanding and communicating with children, particularly in the field of education re: Criticisms Are the stages real? Vygotsky and Bruner would rather not talk about stages at all, preferring to see development as a continuous process. Others have queried the age ranges of the stages. Some studies have shown that progress to the formal operational stage is not guaranteed. Because Piaget concentrated on the universal stages of cognitive development and biological maturation, he failed to consider the effect that the social setting and culture may have on cognitive development. Dasen cites studies he conducted in remote parts of the central Australian desert with year old Aborigines. He gave them conservation of liquid tasks and spatial awareness tasks. However, he found that spatial awareness abilities developed earlier amongst the Aboriginal children than the Swiss children. Such a study demonstrates cognitive development is not purely dependent on maturation but on cultural factors too â€" spatial awareness is crucial for nomadic groups of people. Vygotsky , a contemporary of Piaget, argued that social interaction is crucial for cognitive development. This social interaction provides language opportunities and language is the foundation of thought. Piaget made careful, detailed naturalistic observations of children, and from these he wrote diary descriptions charting their development. He also used clinical interviews and observations of older children who were able to understand questions and hold conversations. Because Piaget conducted the observations alone the data collected are based on his own subjective interpretation of events. It would have been more reliable if Piaget conducted the observations with another researcher and compared the results afterward to check if they are similar i. Although clinical interviews allow the researcher to explore data in more depth, the interpretation of the interviewer may be biased. Such methods meant that Piaget may have formed inaccurate conclusions. As several studies have shown Piaget underestimated the abilities of children because his tests were sometimes confusing or difficult to understand e. Piaget failed to distinguish between competence what a child is capable of doing and performance what a child can show when given a particular task. When tasks were altered, performance and therefore competence was affected. For example, a child might have object permanence competence but still not be able to search for objects performance. However, Piaget relied on manual search methods â€" whether the child was looking for the object or not. The concept of schema is incompatible with the theories of Bruner and Vygotsky Therefore, they would claim it cannot be objectively measured. Piaget studied his own children and the children of his colleagues in Geneva in order to deduce general principles about the intellectual development of all children. Not only was his sample very small, but it was composed solely of European children from families of high socio-economic status. Researchers have therefore questioned the generalisability of his data. For Piaget, language is seen as secondary to action, i. The Russian psychologist Lev Vygotsky argues that the development of language and thought go together and that the origin of reasoning is more to do with our ability to communicate with others than with our interaction with the material world. Object permanence in young infants: Toward a theory of instruction. Central Advisory Council for Education Culture and cognitive development from a Piagetian perspective. Egocentrism in preschool children. The moral judgment of the child. Origins of intelligence in the child. Play, dreams and imitation in childhood. Construction of reality in the child. The growth of logical thinking from childhood to adolescence. The origins of intelligence in children. The development of higher psychological processes. How to reference this article: How Do Children Think? Download this article as a PDF.

Chapter 8 : Learning Theories | CRLT

Because learning is so complex, there are many different psychological theories to explain how and why people learn. A psychologist named Albert Bandura proposed a social learning theory which suggests that observation, imitation, and modeling play a primary role in this process.

Learning and Instructional Design One of the key areas where behaviorism impacts instructional design is in the development of instructional objectives. Computer-assisted instruction was very much drill-and-practice - controlled by the program developer rather than the learner. Little branching of instruction was implemented. The systems approach developed out of the s and s focus on language laboratories, teaching machines, programmed instruction, multimedia presentations and the use of the computer in instruction. Most systems approaches are similar to computer flow charts with steps that the designer moves through during the development of instruction. Individual tasks are broken down and learning objectives are developed. Evaluation consists of determining whether the criterion for the objectives has been met. In this approach the designer decides what is important for the learner to know and attempts to transfer that knowledge to the learner. Computers process information in a similar fashion to how cognitive scientists believe humans process information: This analogy makes the possibility of programming a computer to "think" like a person conceivable, i. A trouble-shooting programs are examples of these programs. Constructivism is not compatible with the present systems approach to instructional design. With this in mind, Jonassen looks at the commonalties among constructivist approaches to learning to suggest a "model" for designing constructivist learning environments. One of the most useful tools for the constructivist designer is hypertext and hypermedia because it allows for a branched design rather than a linear format of instruction. Reigeluth and Chung suggest a prescriptive system which advocates increased learner control. In this method, students have some background knowledge and have been given some instruction in developing their own metacognitive strategies and have some way to return along the path they have taken, should they become "lost". To design from a constructivist approach requires that the designer produces a product that is much more facilitative in nature than prescriptive. The content is not prespecified, direction is determined by the learner, and assessment is much more subjective because it does not depend on specific quantitative criteria, but rather the process and self-evaluation of the learner. The standard pencil-and-paper tests of mastery learning are not used in constructive design; instead, evaluation is based on notes, early drafts, final products, and journals. In a stressful situation like combat or flying a plane, cued responses can be a very valuable tool. Unlike behaviorism, which is environment-focused, cognitivism directs instructional designers to consider the learner as the focus of the design process. Because learners are trained to perform a function the same way based on specific cues, their behavior will be consistent with others who are trained in the same manner. Content can be presented from multiple perspectives using case studies, learners can develop and articulate new and individual representations of information, and active knowledge construction is promoted over passive transmission of information. Because the learner is able to interpret multiple realities, the learner is better able to deal with real life situations. If learners can problem solve, they may better apply their existing knowledge to a novel situation. Weaknesses—related to ID Since behaviorism is stimulus — response based, instructional design is dependent on the workplace or classroom having and maintaining the appropriate stimuli to continue the intended behavior. Thus, if a certain incentive is not present or does not occur, then the expected and desired performance may not take place. Additionally, learning is a reactionary process to an environmental condition and knowledge is considered finite. Skinner realized there is a burden on the instructor to maintain reinforcement. The learner might find himself in a situation where he needs to respond, but the mental "cues" he has learned to respond to might not exist. Behaviorism does not explain some learning--such as the recognition of new language patterns by young children--for which there is no reinforcement mechanism. A major weakness of cognitivism lies in its strength. Whereas schemas help to make learning more meaningful, a learner is markedly at a disadvantage whenever relevant schemas or prerequisite knowledge do not exist. To account for this, an instructional designer will need to ensure that the

instruction is appropriate for all skill levels and experiences. Designing such instruction could be costly and time-consuming. One additional weakness of cognitivism is similar to behaviorism in the belief that there are only finite, predetermined goals. Having predetermined goals may be in fact desirable for an organization since it offers clear direction and purpose but such a fixed set of expectations can limit the potential of the learning. As with behaviorism, the learner knows a certain way to do things based upon specific cues, but that way may not always be the best, most efficient, or safest way to do something in the advent of different environmental stresses or scenarios. Since constructivism promotes individual learner interpretations and interests, this can pose an instructional problem. There could potentially be problems in adequately evaluating learning. Learners may each have different experiences within the learning process but each have valid and sufficient learning take place McLeod , n. In a situation where conformity is essential divergent thinking and action may cause problems.

Key Concepts. Behaviorism is a worldview that assumes a learner is essentially passive, responding to environmental stimuli. The learner starts off as a clean slate (i.e. tabula rasa) and behavior is shaped through positive reinforcement or negative reinforcement [2].

Top 5 Theories of Learning â€" Explained! This article throws light on the five important theories of learning, i. Each of these theories is explained in detail as following: Classical conditioning is the association of one event with another desired event resulting in a behaviour. The most well known experiments on classical conditioning were conducted by Ivan Pavlov, the Russian psychologist, who won the Nobel Prize for his experiments on this subject. Pavlov conducted an experiment on dogs and tried to establish a Stimulus-Response S-R connection. In his experiments, he put some meat in front of dogs. The dogs responded to this stimulus by salivating. This response was instinctive or unconditioned. Pavlov next began to ring a bell at the same time as the meat was presented. Ringing the bell in itself, without the presentation of meat, was not connected to any responses. But by ringing the bell at the same time as presentation of meat, Pavlov established a relationship between the two stimuli-the bell and the meat- in the mind of the dogs. By continuing this process, the ringing of bell alone was sufficient stimulus to elicit a response of salivating, even when no meat was presented. Thus, the bell became a conditioned stimulus, resulting in conditioned or learned response. The above diagram explains that the meat was an unconditioned stimulus. It caused the dog to react in a certain way i. This reaction is called the unconditioned response. The bell was an artificial stimulus or conditioned stimulus. But when the bell was paired with the meat an unconditioned stimulus , it eventually produced a response. After conditioning, the dog started salivating in response to the ringing of the bell alone. Thus, conditioned stimulus led to conditioned response. In an organisational setting we can see classical conditioning operating. For example, at one manufacturing plant, every time the top executive from the head office would make a visit, the plant management would clean up the administrative offices and wash the windows. This went on for years. Eventually, employees would turn on their best behaviour and look prim and proper whenever the windows were cleaned even on those occasions when the cleaning was not paired with the visit from the top brass. People had learnt to associate the cleaning of the windows with the visit from the head office. Classical conditioning represents only a very small part of total human learning. So it has a limited value in the study of organisational behaviour. Classical conditioning plays only a passive role. We will react in a particular way only if something happens. But in reality, the behaviour of people in organisations is voluntary rather than being reflexive. Their behaviour is not elicited in response to a specific, identifiable event but it is generally emitted. The learning of complex behaviour can be better understood by looking at operant conditioning. Operant is defined as behaviour that produces effect. Operant conditioning is based on the work of B. Skinner who advocated that individuals emit responses that are rewarded and will not emit responses that are either not rewarded or are punished. Operant conditioning argues that behaviour is a function of its consequences. Behaviour is likely to be repeated if the consequences are favourable. Behaviour is not likely to be repeated if the consequences are unfavorable. Thus the relationship between behaviour and consequences is the essence of the operant conditioning. Based upon this direct relationship between the consequences and the behaviour, the management can study and identify this relationship and try to modify and control behaviour. Hence, certain types of consequences can be used to increase the occurrence of a desired behaviour and other types of consequences can be used to decrease the occurrence of undesired behaviour. One can see examples of operant conditioning in the organisations. For instance, working hard and getting the promotion will probably cause the person to keep working hard in the future. On the other hand, if a boss assures his subordinate that he would be suitably compensated in the next performance appraisal, provided the employee works over time. However, when the evaluation time comes, the boss does not fulfill his assurance to his subordinate, even though the latter had worked overtime. Next time, the subordinate coolly declines to work overtime when the boss requests him to do so. Thus, it can be concluded that the behaviour consequences that are rewarding increase the rate of response, while the aversive consequences

decrease the rate of response. Operant conditioning techniques are extensively used in clinical and educational research, control of alcoholism and control of deviant children in a class room. The pioneer of cognitive learning theory is Edward Tolman. He developed and tested this theory through controlled experiments. Using rats in his laboratory, he showed that they learnt to run through a complicated maze towards their goal of food. It was observed that rats developed expectations at every choice point in the maze. Thus, they learnt to expect that certain cognitive cues related to the choice point could ultimately lead to food. The learning took place when the relationship between the cues and expectancy was strengthened because the cues led to expected goals. The cognitive theory recognizes the role of an organism in receiving, memorizing, retrieving and interpreting the stimulus and reacting to it. The cognitive explanation of learning differs from classical conditioning stimulus response learning and operant conditioning response stimulus learning. According to Tolman, cognitive approach could be termed as stimulus approach i. Cognitive learning is achieved by thinking about the perceived relationship between events and individual goals and expectations. Cognitive theory of learning assumes that the organism learns the meaning of various objects and events and learned responses depend upon the meaning assigned to stimuli. Cognitive theorists argue that the learner forms a cognitive structure in memory, which preserves and organizes information about the various events which occur in a learning situation. When a test is conducted to determine how much has been learned, the subject must encode the test stimulus and scan it against his memory to determine an appropriate action. What is done will depend upon the cognitive structure retrieved from memory. Today, the cognitive theory is very much alive and relevant. In organisational behaviour the cognitive approach has been applied mainly to motivation theories. Expectations, attributions and locus of control and goal setting are all cognitive concepts and represent the purposefulness of organisational behaviour. Many researchers are currently concerned about the relationship or connection between cognitions and organisational behaviour. Individuals can also learn by observing what happens to other people and just by being told about something, as well as by direct experiences. Much of what we have learned comes from observing and imitating models-parents, teachers, peers, superiors, film stars etc. This view that we can learn through both observation and direct experience has called social learning theory. This theory assumes that learning is not a case of environmental determinism classical and operant views or of individual determinism The cognitive view. Rather it is a blending of both. Thus, social learning theory emphasizes the interactive nature of cognitive, behavioural and environmental determinants. The influence of model is central to the social learning view point. Four processes have been found to determine the influence that a model will have on an individual. People learn from a model only when they recognize and pay attention to its critical features. We tend to be most influenced by models that are attractive, repeatedly available, important to us or similar to use in our estimation. After a person has seen a new behaviour by observing the model, the watching must be converted to doing. This process then demonstrates that the individual can perform the modelled activities. Individuals will be motivated to exhibit the modeled behaviour if positive incentives or rewards are provided. Behaviours that are positively reinforced will be given more attention, learned better and performed more often. The following diagram illustrates the effect of the social learning model on the individual: The learning process of individuals takes place on the job as well as prior to the job. In any organisation, managers will be concerned with how they can teach employees to behave in the ways that are most beneficial to the organisation. When an attempt is made by the managers to mould individuals by guiding their learning in graduated steps he is shaping their behaviour. A manager can shape the behaviour by systematical reinforcing each successive step that move the individual closer to the desired response. For example, an employee who chronically leaves the office half hour early starts leaving the office only twenty minutes early, the manager can reinforce his behaviour so that it comes more close to the desired behaviour to leave the office in time. The first theoretical treatment given to reinforcement in learning and the framework that still dominates today is E. The Law of Effect: It has been demonstrated time after time in highly controlled learning experiments and is directly observable in everyday learning experiences. For example, if employees who work hard to achieve the ogranisational objectives are suitably rewarded monetarily or otherwise, they will tend to repeat their efforts when new objectives are set.