How to employment learning theory during virtual learning

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Abstract

Objective: Teachers play an important role in effective education of children. It seems simple but in fact complex process. This indicated the importance of understanding of learning theories that can help teachers connect to different kinds of students.

Methods: These theories describe framework and hypothesis that describe how learning take place. Aim of this study is review of most influential educational theories. Understanding of these theories and applying them in teaching is important.

Results: One of the most important issues in CORONA virus pandemic is online education which is becoming more and more important after school closure. In the other hand, e-learner students are more interested in using of different online learning tools. Applying of educational theories in online teaching during CORONA pandemic is more important to improve the quality of education.

Introduction

Pedagogy, which is the science of teaching-learning, contains a wide range of educational strategies and learning theories to facilitate students' intellectual engagement in learning. Pedagogy is the study of learning in specific situations to form an effective theory of learning. Virtual learning strategies seek to develop effective learning theories in environments that use information and communication technology. In the process of learning and evaluating curricula, many educators are unaware of which learning theories they use, and some educators, for convenience, follow the teaching methods used by other educators and are not creative.

Before starting the teaching-learning process, educators should be sufficiently familiar with this process, especially the three theories of behavior, cognition and constructivism. This awareness will increase awareness of the methods they use.

Educators need to learn how to teach in a participatory and supportive environment. Many educators still teach in lectures, and students' need for participation is ignored. Learning theories explore different aspects of the learning process and are essential for effective teaching. With the complexities created in the shadow of virtual teaching-learning for teachers and students, it is necessary to examine the applications and help of learning theories in this situation.

There are different types of learning, and some of them, which are often referred to by theorists of educational psychology, are: Behaviorism, Cognitionism, Constructivism. In the process of life, each of these types may occur depending on the situation.

But in the process of human learning, learning through cognition and insight is of particular importance. Because man discovers objects and phenomena based on the insight and thinking of public relations. Therefore, the task of educational systems will be to create favorable conditions for cultivating thinking. The purpose of cultivating thinking is scientific knowledge, creating belief and inclination towards science and practice. Cognition and belief will never be achieved through dry, stereotyped methods and meaningless exercises. Acquiring knowledge needs a suitable environment that is attractive and motivating for students and teaches them how to solve problems (Shabani, 2012). Therefore, it is necessary for educators to be familiar with learning theories and to be able to use them in the teaching process, especially in virtual education, where the conditions are somewhat more difficult due to the absence of educators and learners in one place.

In the study of learning theories and their application in education, the application of theories in the educational process, none of which alone meets the need for education (Motamedi and Norouzzadeh, 2017), in the study of theories of learning and its application in the teaching process in the humanities Introduction and application of learning theories in the teaching process (Sobhani Nejad, 2004) and also in a review article on learning theories and their application in medical education examines the application of each theory in different parts of medical education (Haghani and Masoumi, 2010)

In this study, the extent of attention paid to the educational applications of learning theories in elementary school math education films has been examined to the extent of attention of the compilers of math educational video editors to learning theories (Fathinia, 2006). In the process of virtual education, we deal with the fact that due to the closing conditions of schools during the year, it is necessary that all content is done virtually and in the best way.

research method

The research method in this article is descriptive (documentary analysis). It is a library data collection tool.

Results

Learning is one of the most important fields in psychology today and at the same time one of the most difficult concepts to define (Seif, 2006). However, due to the importance of the concept of learning, different definitions have been given to it. The most famous definition of learning is as follows. Learning is the process of creating a relatively lasting change in behavior or behavioral power that is due to experience (Seif, 1399). Theories give meaning to facts and help us interpret data. Theories help us relate facts and predict behavior. The characteristics of a good theory are usefulness, testability, behavior prediction, and inclusiveness (Katlan, 2002). Learning theories are generalized principles in the field of learning and in its conditions, that is, learning theories are in fact analysts of learning conditions (Motamedi and Norouzzadeh, 2017). The professional activities of a teacher are called education (Seif, 1399). Brown and Atkins (1991) view education as providing opportunities for students to learn. Watkins, Karnell, and Lodge (2007) identify the source of learning in the learner and consider external help only as facilitators.

Dembo (1995) defines teaching as a set of actions performed by a teacher to help create learning. Adani, Rio, and Smith (2007) also define teaching as interpersonal efforts to help learners acquire knowledge, learn skills, and understand micro-abilities. Teaching is part of education but not all. It can also be said that teaching depends on the teacher but education can take place without a teacher, which is why we have the terms distance education, correspondence education and distance education.

Behavioral learning theories

Behaviorism means that behavior should be explained by observable experiences rather than mental processes (Santrock, 2004). For behaviorists, learning to change overt behavior is, in the behaviorist view, behavior what we do and is directly observable, and thoughts, feelings, and motivations are not appropriate subjects for the science of studying behavior because they cannot be directly observed. From the perspective of behavioral psychology, the most important thing is the relationship between environment and behavior. Changes in the environment lead to changes in behavior (Adanel, Rio, & Smith, 2007 (Classical conditioning theories, trial and error, and actor conditioning are among the behavioral perspectives that have chosen this position).Shabani, 2004(

Paulfi's Responsive or Classical Theory of Conditioning

From the research of the Russian scientist Ivan Petrovich Pavlov, which was carried out at the beginning of the twentieth century. Powell's important discovery was that natural reflections or the first living thing (human or animal) could be expanded with the help of conditioning. Reflection is a simple relationship between a response and a stimulus that produces that response by affecting one of the sensory organs. Saliva secretion due to food in the mouth and narrowing and widening of the pupil due to high and low light are examples of natural reflections. According to Powell's experiments, the following steps are performed to condition the experimental animal:

1. food-like stimulus is given to an animal, which triggers a natural and automatic reaction in the body, such as salivation. The food that causes this natural reaction is called the unconditioned stimulus. In this example, it is food. The natural and automatic response of the organism to an unconditioned stimulus is called an unconditioned response in the existing example of salivation.

2. neutral stimulus, such as a ringing sound, is delivered to the organism immediately before the unconditioned stimulus. This neutral stimulus does not cause any response in the body before it is conditioned, or if it does, it is a response other than salivation such as attention.

3. After several times the unconditioned stimulus (or natural stimulus) is combined with the neutral stimulus in which the neutral stimulus always comes before the natural stimulus, the neutral stimulus alone causes saliva secretion. Now we say that the organism has become conditioned, that is, in the presence of a neutral stimulus (ringing sound) which is no longer neutral and is called a conditioned stimulus, it responds by secreting saliva. The response of animal saliva secretion to a conditioned stimulus is called a conditioned response. (Seif, 1399)

According to Fetsco and McClure (2005), classical conditioning is important for teachers because it provides useful explanations of how students' emotional responses and attitudes are generated. Children who enter the formal environment of the school or its cyberspace for the first time

do not have a specific positive or negative emotion towards the school and its staff, except for a little fear and hope. Suppose one of them is greeted warmly and with a loving smile by the teacher after entering the elementary school or the virtual space where the class is held. After repeating this behavior for a few days by the teacher, you will see that the child prepares himself to go to school early every morning and goes to school happily. The warmth and warm welcome of the teacher is an unconditional stimulus that makes the child feel happy and interested. Unconditional response). The teacher himself and other school stimuli and their memory, which were originally ineffective for the child, have become a conditional stimulus due to being accompanied by an unconditional stimulus and have caused the same response of joy and interest (conditional response) in the child. (Saif, 1399)

Tips for Using Classic Conditioning in Virtual Learning:

Bring positive and positive events along with learning assignments, such as emphasizing participation and group competition instead of individual competition. Help students voluntarily put themselves in anxious situations and succeed, such as asking students who rarely participate in class discussions to explain something to those at home, then little by little to friends and then to Present material in class. (Adapted from Wolflek, 2004. Wagon & Kavchak, 2001)

Therondic means conditioning theory

The work of the late nineteenth and early twentieth century American scientist Edward L. It is Thorndike. In this theory, learning occurs as a result of the connection between a stimulus and a response, and behavior is a means to receive reward or reinforcement (Seif, 1399). Hence, Thorndike's theory is known as the law of the work, which is his

most famous law. As a result of the desired outcome of the behavior, the link between the stimulus and the response becomes stronger. This relationship is called the reward law. On the other hand, if a behavior is performed in the presence of a stimulus that leads to an annoying consequence, the link between the stimulus and the response is weakened. This relationship is called the law of punishment. Thus, Thorndike showed that the consequences of an individual's behavior play an important role in determining his or her future behaviors (Slavin, 2006). . For this reason, the three-way learning method is called trial and error. In a learning or problem-solving situation, the subject responds one after the other, until one of the answers is appropriate for that situation (or causes the problem to be solved) and, according to Thorndike, creates a satisfactory situation for him. This answer is learned and in similar situations, the subject learns again (Seif, 1399). Thorndike and Wordworth (1901) concluded in their research that the transfer of learning or transfer of education from one situation to another depends only on the degree of similarity between the two situations. According to this theory, if there is a similarity between the two situations of content and method, what we have learned in one of the two situations will be useful in the second situation as well. For example, to simulate a virtual classroom situation in real life, it is much easier for students to learn, and it will be very useful to apply what the student has learned in a similar situation.

Skinner's Theory of Conditioning Theory

The famous American psychologist Skinner is the author of the theory of actor conditioning. Skinner (1935) divides all behaviors into active and responsive. In discussing Paulfi's classical theory of conditioning, we have said that reflective behavior is involuntary and

automatic and is evoked by preconditional stimuli (conditional or unconditional). This is the same behavior as Skinner. In contrast, the behavior of the actor is issued only from the living. Unlike the respondent's behavior, which depends on the stimulus that comes before it, the actor's behavior is controlled by its consequences. Another name for active behavior is active behavior, because unlike the respondent behavior, the organism is active in performing such behavior and acts on the environment or action. The process of conditioning the actor's behavior takes place in such a way that after the actor's behavior is performed by the organism, a favorable event follows. This desirable event can be to present something to the organism that it wants (such as a pencil or eraser or pencil sharpener) or to free the organism from something it hates (such as being kicked out of class, not attending class games, etc.). Both modes of the organism's behavior become stronger as a result of its consequences, that is, the probability of its occurrence in future similar conditions increases. In contrast, punishment weakens the actor's behavior or reduces the likelihood of its occurrence (such as slapping the palm with a ruler). (Saif, 1399)

Cognitive learning theories

Cognitive theories of learning emphasize the belief that learning is an internal process that may not manifest itself as an immediate change in apparent behavior. Another feature of cognitive theories is that, unlike behavioral theories that emphasize the role of the environment in behavior change and learning, they play a more important role for the learner in creating learning. Experts of this approach consider learning to be the result of cognition, perception and insight. In this way, a person's new learnings are integrated with his previous cognitive structures. Because learning is an internal and constant flow and man is always

searching for his living environment and discovering the relationships between phenomena, so he expands his cognitive structure. It is increased by organizing information and semantics of information.The task of teachers is to get acquainted with the method of information processing and learning of the learner. (Abolhassani, Dosti, Irani and Haqqani,1390)

Gestalt learning theory

The founder of Gestalt psychology was the German scientist Max Wertheimer, who at the beginning of the twentieth century began to research and theorize on issues of learning and perception. Gestalt psychology can be considered the forerunner of later cognitive theories, They came in some way affected by it, Gestalt (a German term) refers to a shape, idea, or design, and in Gestalt psychology it means that the whole is greater than its constituent parts, that is, the whole has properties or characteristics that are not found in its constituent parts. Learning in Gestalt psychology is the insight gained from understanding the learning situation as a whole, which is achieved by discovering the relationships between the components of the learning situation. So the main element of learning in Gestalt psychology is gaining insight. The learner gains insight when he / she can understand the wholeness of that learning situation by understanding the relationships between the components of the learning situation as an organized whole. They are as follows:
 1- The transition from the pre-problem solving stage to the problem solving stage is sudden and complete.
2– The performance of problem-solving through insight is usually a smooth, error-free performance.

3– The solution that is obtained through insight for a problem takes a considerable amount of time.

4– The solution obtained from one problem can be easily applied to other similar problems.

Gestalt theory is known as a theory of perception rather than a theory of learning. How we perceive phenomena is based on several laws or principles called the law of perceptual organization. These laws are innate abilities in human beings through which the individual organizes perceptual phenomena. Among the laws of perceptual organization: 1- The law of similarity 2- The law of proximity 3- The law of closure or completion 4- The law of good continuation 5- The law of simplicity 6-Shape and background.

The main goal of education should be to create the ability of learners to understand the content, not to put pressure on them to memorize the content parrot (Saif, 1399). According to Hill (1980), the emphasis of Gestalt psychologists on understanding matters and understanding relationships as a whole has been one of the great services of Gestalt psychology to education.

Azobel's theory of meaningful verbal learning

The theory was developed by American psychologist David Azobel, who is closely associated with school learning. In this theory, constructivism is a set of information, concepts, principles, and organized generalizations that one has already studied in one of the disciplines. In general, cognitive construction refers to a person's general knowledge in a particular scientific and educational field . According to this theory, the structure of each individual is constructed as a hypothetical pyramid in which the most general issues and concepts are at the top of the pyramid, and concepts and content that are

less general and comprehensive in the middle of the pyramid and the most detailed information and knowledge. Specific facts are at the base of this pyramid. In this pyramid or hierarchical hierarchy, each item is more general, more abstract, and more concise than the items below it. When a person's information and learning in a field of study expands significantly, it leads to the creation of such a pyramid. That is, it has an important place in Azobel's theory. Meaning depends on the existence of some kind of symmetry or mental equivalent for learning in the learner's cognitive structure. That is, meaningful material relates to previously learned material, while non-meaningful material or material that is learned in a parrot-like manner accumulates in the mind in a fragmented and unrelated manner. Thus, if the learner is able to relate new material to what he or she has already learned, his or her learning will be meaningful, but if he or she retains new information through repetition and practice without relating it to what he or she has already learned. His learning has a parrot-like aspect (Saif, 1399). In fact, the basic idea underlying meaningful learning is that the learner actively seeks to relate new ideas to existing ones (Snowman, McCawan, & Bailer, 2009). Shank (2000) has argued that learning is meaningful when new material is systematically related to what has already been learned. That is, new material expands or modifies previously learned material, so previous experiences determine whether learning is meaningful to the learner. When new material is learned in a meaningful way, it absorbs the learner's constructive pyramid. Azobel (1968 , 1978) called this absorption of content in the construction of inclusion. The process of inclusion is to relate a new concept to a concept that already existed in cognition. Azobel (1968) names two types of inclusion: derivative inclusive and correlation inclusive. Derivative inclusion occurs when the material

being learned is a specific example of a concept embedded in the constructivist, or that the material confirms and represents a general theme that has already been learned. New material is learned through correlation inclusion. In this case, the new learning material is a kind of expansion, expansion, change or transformation of previously learned material. Factors that improve the cognitive and thus increase the quality of learning and memorization are: organization, stability and clarity of the learner's knowledge in a certain field at the moment of learning. Azobel's proposed teaching method for meaningful learning is called dramatic teaching, in which the pre-organizers play a major role. Pre-organizers are provided to learners as a summary of the lesson topic at the beginning of the lesson, but they are not merely lesson summaries, but include material that organizers prepare for new learning. Pre-organizers fall into two categories: explanatory or comparative. They explain general ideas and their relationship to each other, and clarify important points that may confuse learners, but make comparisons between what students have already learned and what they are about to learn. they do . From the application of this theory, we can refer to a summary of the previous lesson and the previous material that has been learned about the lesson and the general points of the lesson that is to be taught.

Bandura Cognitive-Social Learning Theory

The founder of the cognitive-social theory of learning is Albert Bandura (2001), a Canadian psychologist. Bandura (1986) states that personal factors (including beliefs, expectations, attitudes, knowledge, strategies, etc.), environmental events (physical and social), and behaviors (practical and verbal) interact with each other, and none of these

three components. Can not be considered as a determinant of human behavior apart from other components. He called this tripartite interaction reciprocal determinism. Learning in cognitive-social theory is as follows: When the learner, the observer, observes the behavior of another person for which that person is rewarded or reinforced for doing that behavior, that behavior is learned by the observer. This type of reward or reinforcement is called succession reinforcement. For example, when a teacher reinforces one of the students in a class to solve a problem in a new way, the other students follow the student's method and try to apply the same solution to their problems. In addition to reinforcing substitution, it is also effective in learning by observing substitution punishment. For example, when a teacher blames one student for inappropriate behavior, other students become discouraged from doing so. Learning by observing is called modeling. Modeling is defined as the creation of cognitive, emotional, and behavioral changes as a result of observing the behaviors or explanations of others (Moreno, 2010). Bandura (1986) describes observational learning or modeling in four processes or stages with the following headings: (1) Attention stage: Many factors are involved in attracting people's attention, including attractiveness, reputation, merit, respect and admiration of the role model, the teacher should try to teach different subjects Draw students' attention to the sensitive and important aspects of the lesson. This can be done through clear explanations and emphasis on important points. Characteristics of the learner himself cause him to pay attention to role models and learning through observation, including these factors can be named talent and perceptual readiness and cognition, level of arousal and acquired preferences. (Seif, 1399) (2) Stage of memorization or memorization: Representation of the observed

actions is done both visually (mental image of phenomena) and verbally, and this representation is necessary for memorizing or keeping the contents in memory and subsequent use. The majority of cognitive processes that regulate behavior are mainly verbal rather than visual. Because we can store large amounts of information in memory through verbal codes, verbal representation plays a very important role in learning and remembering events (Bandura, 197). (3) Recreation stage: In this stage, the verbal or visual cues stored in the memory become obvious actions. Doing this stage by the student allows the teacher to evaluate the student's performance in comparison with what he was supposed to learn. Learning deficits will only become apparent if the teacher asks learners to demonstrate what they have observed. In giving feedback to students, the teacher can both inform them of the positive points of their performance and point out the negative points. Of course, this type of corrective feedback should not be construed as punishment. Therefore, the first actions of the learner in the production stage of observational learning require the most help and supervision from the teacher. (4) Motivational stage: If the learner receives reinforcement for performing a behavior that he has learned through observation, he will do that behavior, but if doing that behavior does not lead to reinforcement or is punishable, he will not perform the behavior that reinforcement It is effective on the motivation of the learner to perform the performance and does not play a big role in learning. One of the educational applications of this theory, the teacher must show full accuracy and competence in the presence of students. When a teacher deals decisively with law-breaking students, especially if he or she is the class leader, other law-breaking students in the classroom are likely to be deterred. Be passionate about the lesson teachers teach, do

the mental and physical actions you expect your students to do yourself (Wolfleck, 2004).

Constructivist learning theories

Constructivism is a general term that addresses a wide range of current issues in psychology, philosophy, and education. Constructivism is defined in many ways, but all of them emphasize the active role of the learner in understanding and constructing knowledge. Activities are made by the person and in his mind, not come from the outside into the mind, According to Santrock (2004), constructivism is a learning event that emphasizes the learner's activism in building knowledge and understanding. They build and shape. The most important feature or assumption of dominant constructivism is that no knowledge is absolute but all knowledge is constructive and therefore relative, and learning occurs only in a given text or context, so the notion that learning takes place regardless of the environment in which it takes place (eg local school Or work) happens unreal and imperfect. The constructivist view of learning states that meaningful learning is the creation of a knowledge structure (eg, concepts, rules, hypotheses, and associations) from personal experiences. In other words, each learner builds a personal interpretation of the world based on his or her own experiences. The constructivist view is also based on the belief that the nature of one person's knowledge can never be fully transferred to another, because knowledge is the result of personal interpretation of experiences. It is influenced by various factors such as age, gender, race, ethnic background and basic knowledge. (Seif, 1399)

The theory of psychological or endogenous constructivism

The main origin of psychological constructivism is Piaget's theory of cognitive evolution. Egen and Kawchak (2010) cognitive constructivism as a view that emphasizes the internal and individual construction of knowledge. Another name for psychological constructivism is influenced by Piaget's theory of endogenous constructivism. Ethanol, Rio, and Smith (2007) defined endogenous constructivism as follows: Making knowledge from mental constructs, not from the environment, Shank (2000) explains: Endogenous constructivism emphasizes coordination between cognitive functions. Mental structures are made up of phablen cognitive structures, not environmental information. Thus, knowledge is not a reflection of the outside world gained through experience, education, or social interaction. Knowledge is acquired through the activity of abstraction or experience, and goes through a series of predictable steps. According to Richardson (1997), the characteristics of this training are exploratory learning and practical activities; Assignments that enable learners to challenge existing concepts and thought processes; Questioning techniques that explore students' beliefs and the use of tests and exams that encourage these beliefs.

The theory of extrinsic constructivism

In exogenous constructivism, the acquisition of knowledge reflects the reality of the external world (Tuckman and Monty, 2011). This type of constructivism is based on the assumption that the acquisition of knowledge is the reconstruction of the world outside the mind by the learner. In other words, according to the theory of extrinsic constructivism, knowledge is derived from the environment. The learner therefore builds the tension by representing the buildings in the environment (O'Donnell, Rio, & Smith, 2007). Suppose

several people read real or fictional stories about climbers who have conquered a new peak with great difficulty. One reader of the story may perceive it as a story about motivating progress. Another may value it in terms of teamwork. Yet another person might think that participating in dangerous adventures strengthens the bond of friendship, and perhaps someone else sees that story as an example of the use of courage and mountaineering techniques. In this example, students are confronted with a single story composed by one person, and their reconstruction of this story involves the same basic storyline. But they have emphasized different meanings and implications. In short, in the theory of exogenous constructivism, there is a belief that there is an independent reality outside the learner's mind that can be known to the learner and the individual's knowledge is the result of internalizing and reconstructing this external reality. Processes and structures in the real world are consistent (Doolittle, 2002).

The theory of social or dialectical constructivism

There is a social constructivism in the gap between endogenous and exogenous constructivist approaches. The main concepts of this theory of constructivism are rooted in Vygotsky's ideas. Social interaction with communication between people in society (especially verbal communication) is the key to building knowledge. Hence, this kind of constructivism is called dialectics. This theory states that knowledge exists in a social context and is shared among individuals. Therefore, the main tool for building knowledge is the interaction between the learner and his social environment. This social environment can be a teacher, father, mother, sister, brother, friends or classmates. In defining social constructivism, Egen and Kavchak (2010)

have argued that it is a view according to which learners first construct knowledge in a social context and then internalize knowledge individually. Social constructivism is the most well-known and accepted type of constructivism. As we have said, this kind of constructivism originated directly from Vygotsky's theory of cognitive evolution, but it was also influenced by the ideas of Brunner and John Dewey. Vygotsky said that although learning takes place within the learner's mind, But it is the result of social interaction and meaning is created through communication, activity and interaction with others. Vygotsky believed that cognitive skills and thought patterns were the product of an individual's social activities, and that individual history was a major determinant of how he or she thought. Even the secluded scientist who lives alone in his room deals with the artifacts and tools of his culture and through them with the authors and producers of those artifacts and tools and the larger community (Swan, 2005).

The theory of radical constructivism

The most extreme theory of constructivism is to emphasize the role of the learner in constructing the knowledge of radical constructivism. Because it is a powerful theory in this respect compared to other theories of constructivism, it is also called strong constructivism. According to this theory, all human knowledge is the result of understanding that is obtained from construction based on purposeful activity. All knowledge is relative and dependent on the individual, and therefore everyone's knowledge is different from other people's knowledge. In this theory, the assumption that the learner represents a version of the universe outside the mind by learning in his mind is not accepted. In fact, it is believed that there is no other world outside of one's mental world

(Shank, 2000). According to Egen and Kawchak (2001), this view questions the existence of objective reality and says that the only existing reality is what one perceives and constructs. The followers of radical constructivism give special independence to the perception and knowledge of the individual and do not consider it as a representation of the outside world at all, and some of them even deny the reality outside the mind. Radical constructivists who do not radically deny external reality in this way also believe that this reality is not recognizable. They argue that our experience with the outside world takes place through our senses and that our senses are unable to provide an accurate representation of the outside world. Therefore, although knowledge is made from experience, what is made is not a true representation of the outside world or reality. Enable effective action in its environment (Dolatil, 2002). According to Wolflek (2013), the problem with this view is that when relativism goes to extremes, All knowledge and all beliefs will be equal, because they are the beliefs and beliefs of individuals, and this will be problematic for teachers because teachers have a professional responsibility to teach students what is right and what is wrong. For example, they should be told that honesty and justice are good values and hypocrisy and cruelty are bad things (Seif, 1399).

Comparison of learning theories of behaviorism, cognitionism and constructivism

The basic features of the theories of behaviorism, cognitionism and constructivism are described in Table 1 (Haqqani and Masoumi, 1389)

Table 1- Comparison of learning theories

Learning theories / concepts	Constructivism	Cognitiveism	Behaviorism
Highlights	Knowledge building	cognition	Behavior
theory Original processors	Vygotsky, Piaget, Bransford, Dewey	Kohler, Azobel, Brunner, Ganyee, Anderson	Watson, Thrandike, Powll,Skiner
Infrastructure philosophy	Relativism	Objectivity	Objectivity
How to earn Knowledge	Build each learner's unique knowledge by herself/himself	Transfer of external knowledge to the learner	Transfer of external knowledge to the learner
Learning process	Constructing meanings and concepts through experience in the all-encompassing mind	Internal mental processes (including information processing in memory and perception)	Behavior change
The role of the master	Facilitator, guide, participant, creating opportunities for thinking and Exploration for the learner, challenging current ideas	Creating content for learning activities, applying cognitive principles to facilitate cognitive processes	Director, stimulus presentation, hand Making the learning environment work, providing reinforcement, transmitter Information
The role of the student	Active, information selection, hypothesis building,collaboration with others,Build your own knowledge based on past experiences	Active information processor, applying cognitive strategies	Inactive receiver of information and knowledge, executor of commands
Role Peers in learning	Especially in social constructivism has a very important role	Effective in strengthening and punishing succession (not very effective in general)	It does not matter
The role of the environment In learning	Learning is strongly dependent on the real and original situation and environment	Since all sensible experiences come from the environment, so in	Because stimulus and reinforcement come from the environment, therefore its role is

Learning theories / concepts	Constructivism	Cognitiveism	Behaviorism
	(The role of environment in learning is more than inheritance)	Learning plays an essential role (the role of environment and inheritance is assumed to be the same in this approach)	very vital (the role of the environment in learning is more than inheritance)
Type	Evaluation of relative criteria and more	Evaluation of reference criteria and more	Evaluation of reference criteria and more
assessment	Formative	cumulative	cumulative
teaching methods	Problem-based learning, Collaborative learning, Exploratory learning, Discussion in groupsSmall, cognitive training, situational learning	Demonstration methods, use of pre-organizer pattern, rhetoric, use of concept map	Individual education, program education, computer-based education
The role of memory	Flexible use of existing and previous knowledge to build new knowledge and meanings	Receiving, paying attention and processing information	Behaviorists for memory They do not play much of a role
Purpose of training	Building knowledge in the all-encompassing mind	Build its capacity and all-encompassing skills to learn more	Make a change in behavior in the desired direction

Conclusions

According to studies, each of the theories has fundamental principles and the application of each of them depends on the curriculum and conditions. While teaching, the teacher can use these theories according to his art. If the teacher wants to teach new skills to learners from behaviorism, if he intends to think critically and self-centered learning and consequently lifelong learning from the cognitive approach and if he wants students and learners problem solving skills and skills

Learn to use a constructivist approach and ..... . These results and conditions can be used well during virtual teaching. In the study of learning theories and their application in education, the application of theories in the educational process, none of which alone meets the need for education (Motamedi and Norouzzadeh, 2017), in the study of theories of learning and its application in the teaching process in the humanities Introduction and application of learning theories in the teaching process (Sobhani Nejad, 2004) In a review article on learning theories and their

application in medical education, he examines the application of each theory in different parts of medical education (Haqqani and Masoumi, 2010) and in the study examines the level of attention to the educational applications of learning theories in elementary school math education films. The attention of the compilers of the mathematical educational video film to the theories of learning has been examined (Fathinia, 2006). The results of this research are in line with previous related research.

Those in charge of education are expected to learn from theories of learning and be able to apply them in their teaching process.

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