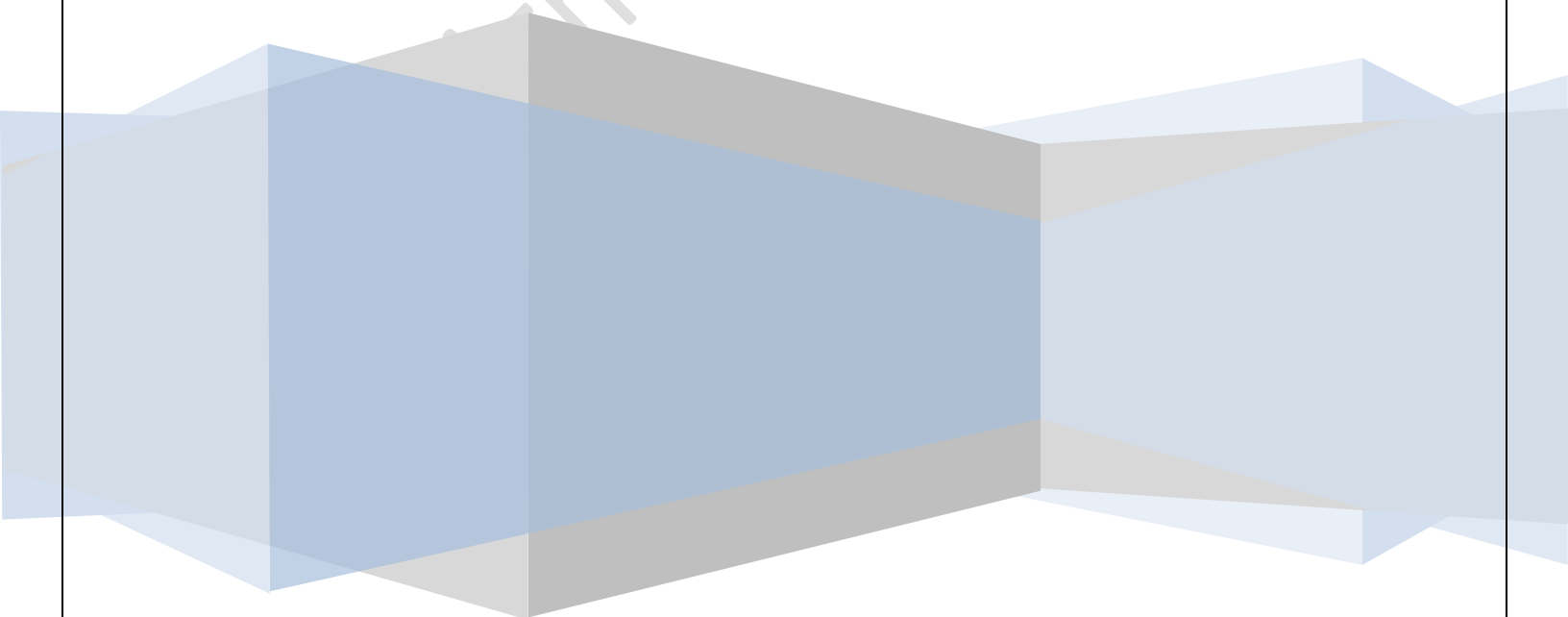


# **An examination of learning theories**



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## **Introduction:**

Learning is defined as a process in which individuals receive data, encode the data within the brains in the form of memories and retrieve these very memories for the purpose of constructive and in some cases destructive uses. It is rather difficult to define the process of learning and so far there is no one definition that can be agreed upon by the theorists, educational practitioners, and researchers. According to Shuell, Learning can be defined as the change in the behavior which is the outcome of a certain form of experience (Voinea & Purcaru, 2014). Most of the theorists would differ from the above definition as it might contradict the learning theories. The contradiction in the theories lies in the fact that each of them has different opinions about the process of learning. Schunk had presented five definite questions which would help the learning theorists to distinguish themselves from the others.

1. How is the learning process executed?
2. What factors affect the learning process?
3. What is the importance of memory in learning?
4. How does knowledge transfer occur?
5. What are best theories that explain the types of learning?

The essay focuses on the different theories of learning that will address each of these questions according to their perception. In this regard, three distinct opinions about learning have been identified: Behaviorism, cognitivism, and constructivism. The main idea that will be developed in this essay will be based on the role of constructivism in the learning and teaching process.

## **Constructivism and its theories:**

Constructivism is considered to be a concept that has not been clearly explained or perceived by the theorists. The shift in the learning theories from behavioral models to a much integrated and advanced model paved the path for cognitivism theories. Constructivism is the concatenation of both the type of theories. Constructivism emphasizes the role of real life experiences that forms

the basis of learning. It helps the learners to establish a relation between the happenings in the world and learners' own interpretation of the experiences. Of late, constructivism has gained importance in the schools and colleges. Teachers and educators have adapted to constructive teaching practices, tools, and strategies (Buldu & Shaban, 2010). Constructivism can be categorized into approaches: cognitive constructivism and social constructivism. Cognitive Constructivism aims to construct the ideas in the learners through the personal experiences, on the other hand, the social constructivism aims to construct the ideas in the learners through the process of teacher-student interaction. A peer-reviewed article presented by Powell and Kalina (2009), have made a comparison of the cognitive and social constructivism. The article had explained the areas of two different theories which include Piaget's Theory and Vygotsky's Theory (Powell & Kalina, 2009).

#### *Piaget's Theory:*

Piaget's theory explains the process in which the learners would construct knowledge. Piaget believed that the human is not able to understand or use the knowledge information that is immediately transferred rather they require a process in which they would construct the ideas and information. The process of assimilation and accommodation is the building block of this theory which states that children's schema pass through four different phase of development. The four stages are Sensorimotor stage, preoperational stage, concrete operational stage and the formal operational stage. It is at these different stages the learning starts. In the first stage, the learning is commenced by the discovery of environment through senses and physical activities. The second stage children engage in the symbolic function where they learn by distinguishing between pictures, objects, and symbols. The concrete operational stage is the pivot growth stage where the children engage in logical reasoning. The last stage is the one in which children transform into adults and engage in a high level of thinking (Ertmer & Newby, 2008).

Another peer-reviewed article by Frawley and Prendergast (2014), had examined the learning and teaching process for engineering students under the constructivist method (Frawley & Prendergast, 2014). The results revealed that the students have complained about the difficulty in the process of being taught. They had a problem in retrieving information. The students had no prior knowledge of long-term memory (LTM) in which the information collected in the short term memory can be used for a longer period of time. The LTM can be forced into students by

rote memorization and over learning. But this failed in the teaching process of the engineering students. The researcher also conducted a traditional teaching process where the students have stated to develop better and conceptual understanding. This approach of teaching motivated the students to enquire more into the student-teacher interaction (Ertmer & Newby, 2013).

#### *Humanistic Theory of learning:*

Though the basic concept of the above research deals in traditional teaching method an important method yet the logic behind the student-teacher interaction is an outcome of the constructivist theories. From the role of the teachers to motivate the students, the humanistic psychological theory can be developed. Humanism can be defined as the process in which the human capabilities like creativity, choice and personal growth can be re-organized (Hall, Griffiths & McKenna, 2013). The Humanistic theory of learning focuses on the role of the educator to motivate the students so that they are able to use their own learning strategy in order to achieve self-perception. The theory of hierarchical needs is derived from the motivation theory of human psychology in which the education development process must emphasize on the students and the potentials to exchange knowledge and perceive ideas.

#### *Vygotsky's Theory:*

The concept of social constructivism is considered to be one of the most effective ways of teaching where the students engage in collaboration and social interaction. The fundamental theories of Lev Vygotsky include language development, Zone of Proximal Development (ZPD), cognitive dialogue, social interaction and inner speech. Vygotsky's theory focused on ZPD which is described as the process in which the learning of the children occurs while they are helped in learning a concept in the classroom. It implies children are able to learn quick and retention information for a longer period if they are assisted while learning. The pedagogy allowed the student to act first by letting them grasp the concept on their own and then the teacher would assist him to acquire the new concept in which they were working individually. Another popular social cognitive theory was developed by Edwin B. Holt which states that for the student to learn in the best way, they must observe the performance, behavior and the consequences of a particular model which will help them to learn and retrieve the sequence of the event and use the subsequent behavior (Jantjies & Joy, 2013).

According to Adams Paul (2006), his peer reviewed research revealed that for the improvement in standards, collection and dissemination of information and data contemporary educational policy is important. The models of constructivism are considered to be an important contributor to the discussion of reorienting the learning process. However, constructivism does not have a single theory of pedagogy. Paul had identified social constructivism in this research which is common to the contemporary educational theories that state that practical solutions and ideas developed from theories can be presented as a good learning and teaching technique (Adams, 2006). Social constructivist pedagogy includes reciprocal teaching, cognitive approach, peer collaboration, web quest, problem-based instruction and anchored instruction as explained by Schunk (2000). In the opinion of the learners, social constructivism not only develops uniqueness and complexities but also encourages and rewards the learners during the learning process. This also motivates the learner and he abides by the social constructivism. The integral part of the social constructivism is considering the background and culture of the learner during the process of learning which helps to shape the career path of the learners. According to the instructors that follow the social constructivist approach to teaching, their teaching process is not to develop profound subject matter knowledge but to help the learner to realize and develop their own understanding of the concept. In short, here the instructor would support the learner from back, provide an appropriate guideline and environment for the learners and engage in interactive dialogue (Jia, 2010).

### **Comparison of different learning theories:**

A comparison can be made between the cognitive and social constructivism in which both the similarities as well as the dissimilarities play an important role. “*Evolution of Constructivism*” by Liu and Chen (2010) is a peer reviewed article which contrasted between the social and cognitive constructivism. They have also a researcher on the failure of the constructivism theory in the process of math learning in Taiwan but in the USA, there are numerous educators and instructors who are attempting to introduce the cognitive theory of learning in the classrooms of physical education. Liu and Chen are of the view that the introduction and implementation require narrowing the gap between the theoretical knowledge and practical application of the approach (Liu & Chen, 2010). It is important to understand for an effective constructive classroom, educators must ensure that both the notions of Piaget and Vygotsky are incorporated

within the learning process. Piaget or the cognitive constructivism deals in human intelligence and where the learners are allowed to develop knowledge through the interaction with the environment. Cognitive development focuses on the learning process as a growth process of the learners from infancy to adulthood and the corresponding thinking level. On the other hand, Social constructivism focuses on speech and symbol as one of the first forms of communication in child's thinking level. The theory or the approach of cognitive development emphasizes on the role of ZPD on interactive problem solving (Amineh & Asl, 2015).

The learning theory as identified by the humanistic psychologies is the extrinsic learning process where the learning occurs outside the arena. In this method of learning, the learner by himself does not engage in the learning process but is initiated by the instructions of the educator or the instructor. In this model, the educator plays a crucial dominant role who teaches and shapes the students and later provide him with the opportunity to accumulate the knowledge. There are chances of losing the information which depend on the initial process of indoctrination and the accumulation of fact process by the student himself. The drawback of this humanistic learning process is the ignorance of the values and ends of the learners and, therefore, this model of learning is called amoral (Maslow, 1968).

### **Personal Reflection:**

Based on the personal reflection of Constructivism approach, it can be concluded that for an effective learning process both the social and cognitive development is crucial. For a teacher to be prepared and engages herself in constructivism teaching must use the tools such as conversation, inquiry and discussion which will enable the learner to think and communicate with others. But these tools are common for any type of teaching processes; therefore, there is an urgent need for the educators to adapt alternative teaching process for the purpose of students' learning (Martin & Sugarman, 2013). The alternative teaching process includes conducting a debate within the classroom where each student will be given full attention. The learning process can be initiated when the students are challenged and ideas and knowledge can be acquired. It is suggested that the teachers must ensure that a friendly environment is created within the classroom so that the students are able to trust and open up to the teachers by engaging in discussions. Another approach to teaching includes the learning through examples. Students

learn quickly when to visualize the concept (Keengwe & Onchwari, 2011). This requires for the teachers to provide the students with real life examples on the subject matter. Just like the social cognitive theory, the observation of the sequential events will enable the students to learn quickly and retain information for a long period of time.

**Conclusion:**

Students must have the power to select their own choice of topics. While conducting an essay writing class, students must have the freedom to choose among the topics in which they can create an expression from their real experiences. In the case of an ineffective classroom, the students might be disruptive and refuse to engage in the learning process. Hence, it is important to develop a student-teacher interaction that encompasses the concept of honesty and trust. This enables the process of teaching and learning effortless (Mishra, 2014).

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