

THEORY AND PRACTICE: IMPLICATIONS OF SOCIAL CONSTRUCTIVISM IN EDUCATION

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ABSTRACT

Constructivism is a learning theory that emphasizes active engagement of learners in the learning process, which often happens through problem-solving and discovery. Education is also a field which is actively seeking changes and progress welcoming innovations in methods and techniques. Social constructivism is a theory that can be utilized for educational reform. The theory of Constructivism defines a prominent role for learners in the process and for the aim of building knowledge and achieving comprehension. A constructivist educational setting is mostly learner-centered trying to change learners into active participants rather than passive listeners. Thus, it can clearly work as an influential theory inspiring changes in both attitudes and practices in learning and teaching areas. In this paper, social constructivism will be defined, different dimensions of the theory will be clarified and it will be discussed as how it can function as a starting base for educators to draw practical implications to use during their teaching process.

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1. Introduction

Education is history-oriented. Teaching methods and techniques always undergo changes as new theories are born, challenged, revised, and employed. Social constructivism as a new idea can also be employed as a basis for reform in teaching practices. According to Richardson (1997), social constructivism refers to a situation that which “individuals create their own understandings, based upon the interaction of what they already know and believe, and the phenomena or ideas with which they come in contact” (p. 3).

Social constructivism refers to a type of learning in which learners are actively engaged in the process of meaning making (Jones and Brader-Araje, 2002), and they connect ideas to the real world to a great extent. In that case, they can be an active participant in constructing knowledge and learning the habits that make them permanent learners. Here, the role of teachers is of great importance. They can help to develop a form of custom in the classroom that gives credit to crucial and useful questions. The improvement of the teaching process can surely lead to better learning. Therefore, it is important to consider the implications of social constructivism for teaching and learning. This paper aims to provide useful information to shed light on the area of social constructivism in terms of its probable implications on teaching and learning.

1.1. A Review of Constructivism

Constructivism has received attention more recently, but the building blocks of its ideas date back to the time of Socrates. Socrates maintained that teachers and learners should talk together with the aim of discovering and interpreting the hidden deep knowledge and the different layers of a subject by a method that includes asking frequent questions (Hilav, 1990, cited in Erdem, 2001). Perkins (1992) also believes that constructivism has its origins in the psychology and philosophy of today being affected by Jean Piaget’s (1969) cognitive psychology.

Jean Piaget and John Dewey were two researchers who provided some theories regarding childhood development and education. Their theories resulted in the evolution of constructivism. Piaget mentioned that people learn by constructing a logical structure one after another and that we learn by expanding our knowledge through our experiences. He also believed that the logic and thinking of children are totally different from those of adults. His theory and its application led to the foundation of the constructivist theory. Dewey believed in the important role of real experience for learning. He mentioned that the learning process consists of engaging, studying, thinking and finally arriving at our belief. It is because knowledge is not something outside the learners. Asking questions for getting information is the main part of constructivist learning (Bhattacharjee, 2015; Jones and Brader-Araje, 2002). Dollard et al. (1996) also propose abandoning hierarchical power structures (the teacher guiding the student) leads to a more manageable class; in class When students are given more responsibility for their behavior and learning, teachers are released from the burden of playing the role of a policeman or a prison guard. It is an act of faith from the teacher and from the side the one who creates confidence in the students and will create a caring and safe relationship where learning is possible.

Constructivism is a new paradigm bringing an important shift in educational theory enclosing almost all educational reforms during the last two decades (Karagiorgi & Symeou, 2005); It has been the basis for theories like social constructivism which itself has helped with the foundation of some teaching methods in recent years; some examples include problem-based learning, authentic instruction, and computer-assisted collaborative learning (Ertmer and Newby, 2013).

During the recent decade, specific attention has been paid to the use of constructivist teaching and learning techniques. Constructivism is a noticeable theory, and its main ideas come from philosophy, psychology and cybernetics with its main aim and efforts to indicate how people come to know the world (Von Glasersfeld, 1989). According to the constructivist theory, people construct knowledge, and understanding is the process that gives meaning to people's experiential world (Mayer, 1992; Hendry, 1996). Therefore, learners can transcend the limitations of stimulus and response which were pointed out by the behaviourist approach (Jonassen, 1990; Perkins, 1992) and learners

can be considered as ‘already a scientist’ (Solomon, 1994) who are involved in constructing knowledge while understanding the world according to their experiences, goals, and beliefs (Cole, 1992).

1.2. Defining Social Constructivism

Constructivism is mostly considered to be a learning theory (Panasuk and Lewis, 2012). Being a branch of cognitivism, it is however different from the traditional cognitive theories. From the point of view of many cognitive psychologists, mind is considered a tool bearing reference to the real world (Ertmer and Newby, 2013). Lev Vygotsky (1978), the Russian psychologist and the main character influential in developing social constructivism, offered a new way of thinking of constructivism. To this aim, he used his theories regarding language and thought. “Vygotsky held the position that the child gradually internalizes external and social activities, including communication, with more competent others.” (Lankapalli, 2014, p.54) He mentioned that learning has a social aspect and introduced the concept of ‘zone of proximal development’. This concept implies that students can learn and solve their problems with the help of more capable peers. Vygotsky pointed out that children can construct knowledge through interaction with the environment. Cognitive development, he believes, occurs at a social level at first, and then within the individual himself. So, to understand others and construct knowledge on such a social level, we should give room to learners to relate themselves to situations and the real world to broaden their experiences. “From the very first days of the child's development, his activities acquire a meaning of their own in a system of social behavior and, being directed towards a definite purpose, are frequently refracted through the prism of the child's environment. The path from object to child and from child to object passes through another person. This complex human structure is the product of a developmental process deeply rooted in the links between individual and social history.” (Vygotsky, 1978, p. 30)

Social constructivism is both a theory of knowledge and a communication theory seen from a sociological view; it tries to examine the knowledge of the world and the following understanding established cooperatively by individuals working together.

So, understanding, significance, and meaning can be achieved through cooperation with others (Jafari-Amineh and Davatgari-Asl, 2015). As a matter of fact, it is believed that knowledge is not transferred from the external world into the learner's memories but learners construct personal interpretations of the world by exploiting their own experiences and communications. On the whole, constructivists believe that the mind filters the input that it receives from the world producing its own unique authenticity (Ertmer and Newby, 2013).

The basic assumption underlying social constructivism is that man finds meaning in his experience by converting the social world they face into a model to understand how this social world functions better (Leeds-Hurwitz, 2009). According to social constructivism, knowledge is constructed by humans. The type of this knowledge can be divided into a number of categories including religions, ideologies, interests, values, politics, exertion of power, and the preservation of status (Philips, 2000). Accordingly, these categories can have impacts on the type of people's understanding about the world. In other words, the knowledge that we construct can affect our views.

Ernest (2001) pointed out that "Social constructivism regards individual learners and the reality of the social as indissolubly interconnected." (43) In other words, human beings learn or know a piece of information by considering the social context. According to Vygotsky (1978), social constructivism is also related to the interactions of people with each other. Therefore, social constructivism is the paradigm in which mind is considered like a connected network of self and others. Thus, communicating with each other can play an important role. Mind is considered not only as a human being's part but also as a social one. Therefore, constructing knowledge and meaning can be considered as a social issue.

2.Social Constructivism and Education

Social constructivism is likely to switch the focus from teachers to students. Therefore, the students are no longer empty passive learners who need to be filled by teachers. "In the constructivist model, the students are urged to be actively involved in

their own process of learning.” (Lankapalli, 2014, p.54) Thus, teachers are considered to be facilitators who simply help students in the process of learning. Whereas teachers give lectures to explain the issues, facilitators help learners get and rely on their own understanding of issues (Jafari-Amineh and Davatgari-Asl, 2015); Besides, teachers have to know about the way students make sense of the concepts and create relationships between new concepts and their background knowledge and experiences; a necessary act to motivate students in coordination with their experiences and engage them in meaningful active learning processes which can be finally defined in measurable terms (Panasuk and Lewis, 2012). “Children learning science through the constructivist approach are noticeably different from children learning by a more passive method. They are generally confident speakers, prepared to listen to the ideas of others and to argue their own point of view. They can work collaboratively and set about finding ways of checking whether their ideas are valid” (Wadsworth, 1997, p. 24).

Constructivism is a learning theory that emphasizes students' active engagement in the learning process, which often happens through problem-solving and discovery. However, this approach can present difficulties for teachers. One of the challenges is how to strike a balance between guiding students and allowing them to explore independently. Another dilemma is about creating a structured environment while promoting student autonomy (Windschitl, 2002).

In a constructivist model of teaching making students eager and interested is of great importance since the emphasis is on the students rather than the teachers. Teaching should be based on what students already know and the role of teachers is to help students to construct their own knowledge through experiencing realities. Students need to work in groups; it makes them able to help each other in the process of building knowledge. Also, in this model, the process of learning is as important as the product or the final achievement, so assessment of the students should not be simply be based on tests.

Bhattacharjee (2015) offers a table of comparison between traditional and constructivist classrooms which best pictures the principles of constructivism.

Traditional classroom	Constructivist classroom
Begins with parts of the whole – emphasizes basic skills	Begins with the whole – expanding to parts
Strict adherence to fixed curriculum	Pursuits of student questions/ interests.
Textbooks and workbooks are used	Primary sources/ manipulative materials are used
Instructor gives/ students receive	Learning is interaction-building on what students already know
Instructor assumes directive/ authoritative role	Instructor interacts/ negotiates with students
Assessment via testing/ correct answers	Assessment via student works, observations, points of view, and tests. Process is as important as product
Knowledge is inert	Knowledge is dynamic, and changes with experiences
Students work individually	Students work in groups

Table 1. *Bhattacharjee's (2015) comparison between traditional and constructivist classrooms*

3. Some suggested practical implications for teaching

Classrooms based on social constructivism are different regarding the fundamental ideas of knowledge, learners, and learning. In such a classroom, the emphasis is on how learners construct knowledge. The following are a list of suggestions for teaching and learning effectively based on the principles underlying social constructivism:

* Learners should mainly work in groups, so cooperative learning and group learning should replace individual learning as much as possible. Individual learning activities necessary for reflecting on what has already been learned are, of course, recommended. Learning occurs best in social settings with conflicting ideas involved.

* Learners should construct knowledge by experiencing, so teachers should engage learners actively in doing authentic as well as academic tasks and help them learn through

what they do; students can even learn through their mistakes. Errors can work as feedback on students' learning.

* Learning is considered a process of constructing knowledge and not merely reproducing knowledge. This construction happens through social interaction and collaboration. Activities like information gap or opinion gap activities which are as authentic as real-world activities best help with this construction of knowledge.

* Learning is a quest for meaning, so when students are engaged in meaningful experiences, they learn better. Meaning is constructed by inserting parts into the wholes, so learning should be context-based. Games, puzzles, discovery learning, and problem-solving tasks provide adequate contexts for learning.

* Learners need to have opportunities for negotiation; in a constructivist view, goals as well as objectives are derived from the negotiation of students, teachers, and policymakers. When students can have effects on what they learn and how they learn, they will be more willing to learn.

* Learning should be based on what learners already know; it is a well-known fact that new knowledge should be built on old knowledge and that teachers should teach from known to unknown. Knowledge building is a gradual process in which new input adds some more parts to the student's knowledge structure as the complexity of tasks and skills increases.

* Learners need to be encouraged to ask questions; learners should avoid being passive listeners. They should actively participate in the process of learning and should take the responsibility for repairing the gaps in their knowledge structure. Students should mediate their own learning. One duty of teachers is to teach students how to ask effective questions.

* Learners' interests are of great importance; teaching and testing methods should be based on students' interests. The material used in classes should also be tailored to students' needs and interests. A teacher should make himself/herself familiar with his/her

students' mental world to be able to match class materials and activities with his/her students' needs and interests.

* Learners' assessment should be done based on the learners' work and their learning process; assessment should be progressive and based on what happens during and after the class. Learners also have different learning styles and multiple modes of representation of knowledge and accordingly, a variety of different assessment activities should be used by teachers.

* Learners do the act of learning. In a constructivist model of teaching, teachers play the roles of guides, monitors, and facilitators providing the students with opportunities, activities, and tools that enhance the students' self-analysis, self-regulation, and self-awareness.

* Learners should be provided with different perspectives of reality; this is because the real world is complex as well as multi-faceted. Students should be provided with opportunities to reflect and later report on different sides of what they learn. Higher thinking abilities and skills are appreciated in constructivist contexts of learning and teaching.

* Learners work and progress on their own pace; a constructivist classroom is multidimensional allowing for different activities with different complexity levels so that all students can benefit from what happens in the classroom.

4. Conclusion

Almost 100 years ago, John Dewey mentioned that education needs to move away from authoritarian classrooms with abstract notions to environments where learners can gain knowledge by practice, experience and exposure to the real world (Karagiorgi and Symeou, 2005). Teachers and syllabus designers should bear in mind that learning is a dynamic process, and there are a variety of methods and techniques that can improve the process of learning and teaching. Nowadays, learning is considered as a process which is mostly constructive and cooperative. "In a world of instant information, constructivism

can become a guiding theoretical foundation and provide a theory of cognitive growth and learning that can be applied to several learning goals.” (Karagiorgi and Symeou, 2005, p. 24)

Learners can enjoy the process of learning even more when they are actively involved. In a constructivist atmosphere, learners are encouraged to do interactive activities in a democratic environment. Teachers mostly play the role of a facilitator who eases the process of learning in a student-centered classroom (Kalpana, 2014). Adopting the principles of social constructivism and adapting them to the needs of one’s class and students can lead to a more promising learning-teaching situation.

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