

An Explanation of ‘Why Constructivism has Brought Epistemological Issues to the Fore in the Discussion of Learning’

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Abstract: There are numbers of studies from well-known and representative constructivist authors such as Piaget, Vygotsky, Ernst von Glasersfeld, and many other constructivists from different versions. They point out countless disciplines and principles about constructivism including cognitive, social, individual, public discipline, and many other aspects, investigating the origin of construction and the implication of constructivism in many areas such as education, philosophy, and psychology. Among them, many significant constructivist principles and problems with high attention related to epistemology and philosophy of science are discussed in Phillips article. According to Phillips (1995), there is an extremely complicated paradigm called constructivism with various forms based on different theories such as sociology, psychology, philosophy, and pedagogy, springing up many epistemological issues related to human's mind and activity. In his article, *The good, the Bad, and the Ugly: The many faces of constructivism*, Phillips noted the inappropriate indications in the variety of constructivism that exists so far. Phillips complicates matters further by critically discussing constructivism from the perspective of epistemological and philosophy science critically. Considering the matters from three axes related to many educational issues including learning, he identified the ugly part is from ideological aspects of constructivism, while in terms of the opposite side, good, he emphasized that the active participation from learners should be placed necessarily in constructivist theories especially in the educational area. Regarding this, I would like to investigate the discussion critically put forward by Phillips in details related to the constructivism with epistemological issues in learning based on the literature.

Keywords: Constructionism; Study; Discussion; Epistemology

1. Epistemological issues in constructivism (construction of knowledge)

According to Boudourides (2003: 5), constructivism encompassed an enormous and highly essential perspective though controversial but completely effective to the research in today's education area. The constructivism is not only an epistemological theory but also a learning and knowledge approach'. Phillips (1995) also admits that constructivism is the way to acquire knowledge for making a connection with the world. He claims that people are unlikely to reach an achievement of most knowledge through some direct absorption or perception that has ready-formed in our mind (Phillips, 1995). According to Phillips (1995: 5), 'humans are born with some cognitive or epistemological equipment or potentialities (the nature and degree of which the experts in developmental psychology still dispute-witness', but in the light of most human beings' knowledge, principles and diverse means we use for the inquiries are all from construction.

A mere recording of observation with unstructured activity in terms of the part of the subject cannot prompt the construction of knowledge. No matter there is the previous or innate cognitive structures existing in a person's brain; it is the functioning of intelligence alone that creates structures according to the organization of following actions between the subject and objects. As a result, only constructivism can match the activities to the development of psychogenesis. (Phillips, cited in Piaget, 1995)

As what Piaget and Phillips maintained above, constructivism plays a crucial role for people to approach to know the world according to successive constructions of learning. However, when it comes to the constructivism, there is an inevitable and extremely

controversial point about constructivism, which is the factors influencing knowledge construction. In terms of this point, Phillips (1995:7) raises a question that ‘when knowledge is constructed (whether it is in the mind or cognitive apparatus of the individual learner, or whether it is a public discipline), is the process one that is influenced chiefly by the minds or creative intelligence of the knower or knowers, together perhaps with the “sociopolitical” factors that are present when knowers interact in a community’? It considers the factors that can affect construction from two aspects, including individual intelligence or cognition and social issues. Here I will uncover the views regarding the question above and the brought epistemology followed by for better understanding of constructivism and its value in education. Different angles standing for constructivism will be discussed briefly, and I will then express the views from my perspective.

2. Discussion of knowledge construction

According to Piaget, the construction of individual and the adaptive nature of cognition to know the world are from the accommodation and assimilation, which is a cognitive construction to generate knowledge. In the educational theory, Piaget insists that from early childhood, human beings as individual learners have the ability to construct knowledge and make meaning to them actively. In terms of constructivist learning, it is emphasised as an active process that learners are able to acquire knowledge underlying previous experience, such process with all activities is cognitive construction from Piaget’s perspectives. Although Piaget admits the importance of social factors impacting the process of construction somehow; he is partial to the role of individual cognition that can make sense to help construct knowledge.

Oppositely, social constructivism advocated by Vygotsky, shifting the emphasis from the individual cognition construction to social construction that individuals would make meaning to the world when interacting with others and the environment and constructs meaning collectively. Social constructivism is described as a process of that acquiring knowledge, dispositions, and skills, helping learners to engage with peers or teachers around them. Vygotsky postulates that it is the social interaction that determines to learn development, which also accompanies with a personal critical thinking process in a classroom. He highlights that social activities have an enormous effect on learning and teaching. The interaction between students and others takes place in the outcome of learning, triggering students move into the positions where they can assess the exit for solving complex problems and determining students’ internal development. From Vygotsky’s point of view, the importance of social factors from the external world can be seen as the major element that affects learners’ construction of knowledge.

From my perspective, external nature can be viewed as the social component as interacting with the environment that functions a person’s mind to understand the world. Without the interaction and recognition from external objects, the knower would know nothing. I partially agree with this statement from social perspectives. However, individual cognition to one’s construction of learning plays a significant role as well. For instance, it is hard to admit the construction of emotion is still from external nature rather than individual itself. Regarding the emotion, humans have the innate and sensitive sense to feel the particular ‘good’ and ‘bad’, although he or she has had not to figure out the conception of ‘good’ and ‘bad’ in advance. For example, when a 2-year-old baby hit the head on the wall, he or she would innately feel painful even with tears. This process would make him or her uncomfortable and become a mental memory to naturally store such ‘bad’ experience that the baby would endeavor to avoid this (to approaching the wall). The process just described is an individual cognitive construction without others’ reminder that this is the so-called ‘bad’. But it is also necessary to discuss such a situation separately. As, undoubtedly, there is an intervention from the outside world (social factors) indeed, which in this case is the process that hit the head on the wall. However, let’s think in another way that the comparison between ‘bad’ experience and the rest experience is also the key to recognize the power of cognition. Let’s assume a consensus beforehand that there are only two sorts of experience in a 2-year-old baby’s world, which is ‘good’ and ‘bad’. Back to the example above, the baby would feel pain and stay away from the hitting door. At this time, no one tells that this is a particular activity that would make him or her feel sad; also he or she does not have the consciousness to realize what is not ‘bad’ or ‘good’ experience either. Nevertheless, when comparing with such ‘bad’ activity the baby just experienced, he or she would at least know the ‘normal state’ that sitting far away from the door is ‘safe’ (good experience). So, in terms of the ‘good’ experience, this part of knowledge construction is not only from external factor, which is early happened in the ‘bad’ experience in this case, but also from the cognitive programming construction, or a sort of transformation (the ‘good’ experience is everything except ‘bad’). To sum up, in this case, the knowledge construction of ‘good’ experience is from the existence of ‘bad’ experience (social interaction) and comparison between normal condition and ‘bad’ experience (cognitive transformation) together. As a result, in my point of view, the construction of knowledge is based on prior experience and then generating own organization or system of knowing the world, which is also a grounding principle of constructivist learning theories that constructivists stand for such as Ernst Von Glasersfeld.

3. Concluding remarks: suggestions for learning and teaching

With close attention to the impact of prior experience of knowledge construction, there are some instructions based on Ernst Von Glaserfeld's constructivist theory to be utilized for educational and learning process. 1. When teachers or educators help build up students' knowledge, we need to consider and acknowledge that they already have their understanding of the world, and they are not blank slates or tabula rasa. Whatever knowledge they have is the only foundation to let them build more to enrich themselves. 2. Regardless of how 'inappropriate' or weird it may seem to the teacher, as an educator, it is necessary to discard the bias when students give the response of casted questions. Each response represents the views and perceptions that learners hold and prefer to show through the window (answering the question) at the moment, teachers should take seriously to students' answers and encourage them to build their knowledge with interaction. 3. When there is a situation that a teacher views that it is essential to modify a student's responses, concepts or conceptual structures, helping construct a particular model aiming at the student's thinking would be advisable. 4. It is always a good way to ask students how to get the answers they've shown for exploring deeply about their thinking and why their thinking models make sense or not to students' knowledge construction under different circumstances. 5. Fostering students' motivation is more or less challenging especially when a teacher wants to use this way to delve further into points or questions that are not attractive at all at first to students from their point of view. However, creating particular situations where students may have access to know the pleasure inherent in solving a problem is desirable. 6. Encouraging students to think bravely, creatively, and critically is always essential much more than expecting them to think appropriately. 7. As a teacher, thinking highly of inclusiveness to understand and appreciate learners' thinking is of great necessity. 8. In terms of constructivist learning and teaching, claiming what a teacher taught is true should never be allowed to happen. To activate and inspire students' minds for constructing knowledge through struggling with problems that they encountered and had to deal with, helping students only when they need. Orienting a students' constructing in a fruitful direction rather than forcing students to adjust into the direction that a book pointed out would be best to foster students' knowledge construction. According to those scientific instructions, on the one hand, we can see a clear picture that when constructivist theory embedded in learning and the curriculum, building a connection between the new information and prior existing knowledge is the emphasis to help students learn and construct knowledge optimally.

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