

Recommended Citation:

Jha, A.K. & Devi, R. (2014). Social epistemology and social constructivist pedagogy for school reforms. *Pedagogy of Learning*, Vol.2 (1), pp.12-18.

Social Epistemology and Social Constructivist Pedagogy for School Reforms

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Abstract : *In the world of Knowledge and Knowledge Constructs, Social Epistemology is the emerging and blooming field of intellectual inquiry or discipline in which the epistemic agents like traditional epistemology is still individual, but, the fundamental attempt stresses the multiple dimensions of knowledge with the fact that the acquisition and justification of our beliefs and knowledge is determined by various forms of social interaction or the transmission of knowledge or justification from one person to another. School is one of the major social institutes whose pedagogical processes help us in the pursuit of knowledge. The pivotal concern of the school education is knowledge, a place where acquisition of knowledge and learning takes place in a cohesive and interactive manner. Social constructivism is a sociological theory of knowledge that applies the general philosophical constructivism into social settings, wherein groups collaboratively construct knowledge for one another by creating a small culture of shared artifacts with shared meanings and its epistemological nature considers knowledge as social, experimental, relative, subjective, adaptive, organized and constrained in a manner with its focus on human awareness or consciousness and its place in world affairs. This paper attempts to bring consideration or interrogation of the theoretical and practical concerns how the social epistemology and social constructivist pedagogical concerns are interrelated to school reforms and more specifically how this perspective can help to bring a new thought in educational practices.*

Keywords: *Social Epistemology, Constructivist Pedagogy, Social Constructivism; Relative, Subjective, Adaptive*

Introduction

In the world of knowledge and knowledge constructs, social epistemology is the emerging and blooming field of intellectual inquiry or discipline in which the epistemic agents like traditional epistemology is still individual, but, the fundamental attempt stresses the multiple dimensions of knowledge with the

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fact that the acquisition and justification of our beliefs and knowledge is determined by various forms of social interaction or the transmission of knowledge or justification from one person to another. There are two paradigmatic academic enterprises prompted under the flag of "social epistemology" which spreads light on existing theories of knowledge in such ways that they have a direct bearing on the thinking about social practices like education—one is philosophical and the other is sociological. Put more concretely, the philosophical one has come to the fore in analytic philosophy, hence the title "analytic social epistemology"—its representatives being Alvin Goldman and Philip Kitcher; whereas the sociological one has been heralded chiefly by the versatile sociologist Steve Fuller, which might be seen as a present incarnation of the sociology of knowledge. Noteworthy here is that both of these social epistemologies recognize education as a main subject matter to be addressed within their respective frameworks for "social epistemology" (Misawa, 2012).

In Both these social epistemologies, Analytic Social epistemology talks about it concerns more than one person in relation to philosophical inquiry into how the subjects know something moreover believes that epistemic subjects obtain knowledge through testimony of others, By contrast in Fuller's social epistemology 'social' designates society; i.e., how knowledge is formed, distributed and consumed in wider community. Analytic social epistemology's concern is with investigating the verb "to know" and thus employs what Fuller calls the "inside-out strategy" (i.e. how individuals know something), Fuller's social epistemology is concerned with the noun "knowledge" and thereby handles the "outside-in" strategy (i.e. how knowledge is created, transmitted and utilized in a society (Fuller, 2007). Further he questions "How should the pursuit of knowledge be organized, given that under normal circumstances knowledge is pursued by many human beings, each working on a more or less well-defined body of knowledge and each equipped with roughly the same imperfect cognitive capacities, albeit with varying degrees of access to one another's activities?" (Fuller, 2002). There are also others who have applied these questions to other fields such as education and the social sciences. Social epistemology is gradually becoming accepted as a legitimate topic of inquiry in philosophical study of education (Ritola, 2011). School is the institute that imparts education formally in societal setup and a perfect place to begin cultivating student's social interaction and learning through Collaborative learning that encourages students to develop team-building skills and to understand how individual learning is related to the success of group learning. Social constructivism theory talks about groups construct knowledge for one another, collaboratively creating a small culture of shared artifacts with shared meanings. School can be a place where general perspective of social constructivism learning can be applied in social context. Social epistemology and social constructivism both focus on learning through social interaction the basic fundamental difference lies in terms of learner, social epistemology talks about individual learning through social interaction and social constructivism talks about social groups knowledge construction.

Social Epistemology and Education

Epistemology is the study of the processes by which beliefs and knowledge are acquired and justified. In traditional epistemology, the agents acquiring beliefs or knowledge are individuals, and the relevant processes usually involve only a single individual. Examples of such processes are perception, memory or reasoning (Goldman 2004). In Social epistemology epistemic agents are still individuals, but the focus is on processes of belief or knowledge acquisition involving social interactions. Examples of such processes are testimony, discourses and information transmission in social networks (Goldman 1999). Goldman's veritistic approach to social epistemology, gives pride of place as the fundamental aim, and highest epistemic value, of education, in particular the roles of testimony and trust in appropriate

teacher-student interaction. Following Goldman, Seigal too focus on epistemic aim of education by claiming it if not the truth but rather rational belief; and that of the fostering of the skills, abilities, and dispositions and habits of mind constitutive of the critical/rational person- in particular, those involved in reason agreement is educationally fundamental (Seigal 1988, 1977). Education should strive to foster, not knowledge or true belief, but rather the skills, abilities and dispositions constitutive of - and so belief generated and sustained by - critical thinking (Seigal 2004). The basic fundamental aim should be seen not as the production of true belief, per se, but rather as that of enabling students to judge wisely the truth, and this sort of judgments just is judgment based on the proper evaluation of reasons. There is demand of students to be reflective about their beliefs, questioning about their own beliefs.

Epistemological Bases that constitutes Social Constructivism

Social constructivism emphasizes the importance of culture and context in understanding what occurs in society and constructing knowledge based on this understanding (Derry, 1999; McMahan, 1997). The epistemological nature of social constructivism reflects that social constructivist's knowledge is social and experimental, meaning that they work in a social group and use a trial and error format to discover knowledge. The social group can be very large as in a race or gender group or very small as in a family group; also a person belongs to more than one group and can interact with more than one group at one time. Knowledge is considered as relative and subjective, relative because it depends upon the group to justify the knowledge and one group's knowledge can be different from another group's knowledge and subjective because it entirely depends upon the individual experiences to the situation and these experiences are brought to the group and shared within the group. Then the group reaches a decision, either conscious or unconscious, about the viability or usefulness of that knowledge. Knowledge is also a human product, and is socially and culturally constructed (Gredler, 1997). Individuals create meaning through their interactions with each other and with the environment they live in. A social constructivist's knowledge is also considered as adaptive, organized, and constrained. Their knowledge is adaptive only in a social way, meaning that the social group takes the knowledge and changes or adapts it in a way that pertains to the social group not necessarily to any other social group, It is also organized by the social group, again as it pertains to that group and not necessarily to any other social group and it is constrained by society and the social group.

The ontological nature depicts that Social Constructivism is that reality is unknowable and has external validity. If there is a flower in the Garden, social constructivists cannot know that it is a flower; they rely on their social group to verify that it is a flower and that becomes the truth. Even though social group reaches to a consensus about the nature of the flower, they still cannot know for a fact that it is a flower, that knowledge is truly unknowable. Social constructivists believe that reality is constructed through human activity. Members of a society together invent the properties of the world (Kukla, 2000). For the social constructivist, reality cannot be discovered: it does not exist prior to its social invention, it is constructed though human activities together to invent the properties of the world through their interactions with each other and with the underlying objects exist in the world. It occurs when people are engaged in social activities. Social constructivists view learning as a social process. It does not take place only within an individual, nor is it a passive development of behaviors that are shaped by external forces (McMahan, 1997). Meaningful learning occurs when individuals are engaged in social activities.

The underlying assumptions on which social constructivism is typically seen to be based on are reality, knowledge, and learning (Matthews 1998). The focus of social constructivism is on human awareness

or consciousness and its place in world affairs. In social theory, constructivists emphasize the social construction of reality. Their argument is that the social world is not a given but a world of human consciousness, of thoughts and beliefs, of ideas and concepts, of languages and discourses. Social constructivists assert that children construct their own knowledge through their interaction with their educators or more competent peers (Kozulin 1998). The approach answers the question of whether it is the shared and accepted scientific knowledge about the world, as it exists in established science and the answer often given is that scientific knowledge is socially constructed.

There are three different types of social constructivism, symbolic interaction, social constructionism, and sociocultural constructivism and they range from the most social in nature to the least social in nature. The least social in nature and the closest to radical constructivism is symbolic interaction. Symbolic interaction flows freely from social learning to individual learning and back, actions are based on meanings that they create when interacting with other, artifacts, or objects. This form of constructivism is typically found in institutions such as schools, where they reach a group consensus to make sense of each other's ideas. But they still focus on the individual's interpretation of the consensus. The next type of social constructivism is social constructionism, which is on the middle ground, not the least nor the most social of all three. It deals with discourse communities: a group with their own common knowledge and language, for example physicians, plumbers, mathematicians, a language club, etc. The discourse community is the center of social constructivism, an individual interacts with artifacts, or things, and objects, or events, within a discourse community. Thus a person attending a conference on technology interacts with events, such as seminars and lectures, and with artifacts, such as handouts and computers. All of this occurs within the technology discourse community. Thus this person speaks the same language as the other attendees. This supports social constructionist belief that knowledge is created through social interactions and that the discourse community has to speak the same language. The another type of social constructivism is sociocultural constructivism. Sociocultural constructivism explained by Vygotsky in which he believed "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. . This perspective is closely associated with many contemporary theories, most notably the developmental theories of Vygotsky and Bruner, and Bandura's social cognitive theory.

The work of Lev Vygotsky (1896-1934), the theory on social development falls under a social constructivist perspective. Vygotsky believed that learning could not be separated from social context. Social constructivism is essentially a theory about how people socially construct knowledge characterized by three of his themes: (a) the reliance on genetic analysis (meaning that every behavior has a past history), (b) that the higher mental functions in individuals have their origins in social life (meaning that higher cognitive abilities come from social interaction), and (c) that the key to understanding human social and psychological processes are the tools and signs used to mediate them (meaning that signs are our language and tools, such as a computer, are used to impact society). Socio-constructivism emphasizes the impact of collaboration, and negotiation on thinking and learning. A central notion in socio-constructivism is assisted learning, a concept that is influenced by socio-culturalism and its concept of proximal learning. Some also would include situatedness, i.e. interaction with the social and physical context. Some contemporary cognitive theorists and that belong to a situated cognition school of thought (Lave, 1988) have expanded social learning to give nonsocial aspects of the

environment an active role in the individual's learning as well. Rather than a solitary process, these newer perspectives assume that effective learning occurs via interaction with and support from people and physical artifacts (Suchman, 1987). Distributed cognition views cognition as fundamentally 'shared' or 'distributed' over individuals. The distributed cognition approach is closer to the Vygotskyian position than to the Piagetian view since it considers the group rather than individual as the primary unit of analysis (Resnick, 1991). By its focus on social structure, distributed cognition is deeply intertwined with the 'situated cognition' theory. Social constructivism is thus an epistemological position that focuses on the interdependence of social and individual processes in the co-construction of knowledge (Alfred 2002). Vygotsky's contributions reside in *Mind in Society* (1978) and *Thought and Language* (1987) and termed a process called socio-cultural mediation. The idea of "constructivist epistemology" was first used by Piaget (1967) with plural form in the famous article from the "Logic and Scientific Knowledge", an important text for epistemology.

Social Constructivist - Pedagogical Practices and Learning

Social constructivists see as crucial both the context in which learning occurs and the social contexts that learners bring to their learning environment. According to Gredler 1997, there are four general perspectives that inform how we could facilitate the learning within a framework of social constructivism.

Cognitive tools perspective

Cognitive tools perspective focuses on the learning of cognitive skills and strategies. Students engage in those social learning activities that involve hands-on project-based methods and utilization of discipline-based cognitive tools (Gredler, 1997; Prawat & Folden, 1994). Together they produce a product and, as a group, impose meaning on it through the social learning process.

Idea-based social constructivism

Idea-based social constructivism sets education's priority on important concepts in the various disciplines (e.g. part-whole relations in mathematics, photosynthesis in science, and point of view in literature, Gredler, 1997, Prawat, 1995; Prawat & Folden, 1994). These "big ideas" expand learner vision and become important foundations for learners' thinking and on construction of social meaning (Gredler, 1997).

Pragmatic or emergent approach

Social constructivists with this perspective assert that the implementation of social constructivism in class should be emergent as the need arises (Gredler, 1997). Its proponents hold that knowledge, meaning, and understanding of the world can be addressed in the classroom from both the view of individual learner and the collective view of the entire class (Gredler, 1997).

Transactional or situated cognitive perspectives

This perspective focuses on the relationship between the people and their environment. Humans are a part of the constructed environment (including social relationships); the environment is in turn one of the characteristics that constitutes the individual (Bredo, 1994; Gredler, 1997). When a mind operates, its owner is interacting with the environment. Therefore, if the environment and social relationships among group members change, the tasks of each individual also change (Bredo, 1994; Gredler, 1997). Learning thus should not take place in isolation from the environment.

Social Constructivist lays emphasis on the teacher's use of multiple epistemologies in a classroom, to maintain dialectic tension between teacher guidance and student-initiated exploration, as well as between

social learning and individual learning. Key functionalities of a socio-constructivist learning environment are: Reflection & Exchange, Scaffolding & Storyboarding, Facilitation & Content, Monitoring & Assessment, Production, Investigation, Psychological support & Community etc. Learning is considered as constructive and cumulative, sharing and community, sharing, conversational, interactive, contextual and situational, Transferable, Goal oriented and purposive, guided, reflective etc. Social constructivist approaches integrates peer collaboration learning, reciprocal teaching, cognitive apprenticeships, problem-based and anchored instructions, and other methods that involve learning with others.

Conclusion

We need to resituate the entire pedagogical practices in the light of above examined ideas in the domains of social epistemology and social constructivist epistemology so that it can bring transformation in terms of school reforms system in particular domain. Social epistemology as a growing discipline concerns how individual beliefs and knowledge are acquired not in isolation but with the interaction in social settings and whereas social constructivism as a theory talks about individual learning through social interaction particularly in educational context. Social epistemology is concerned with how knowledge is created, transmitted and utilized in a society or "How should the pursuit of knowledge be organized, given that under normal circumstances knowledge is pursued by many human beings, each working on a more or less well-defined body of knowledge and each equipped with roughly the same imperfect cognitive capacities, albeit with varying degrees of access to one another's activities whereas in social constructivism how individual constructs knowledge is more important concept. Social constructivist Epistemology and Pedagogy have been explained above as an alternative epistemology and pedagogy in context to bring school reforms in the field of education and with the help of this we might generate and execute new vistas in education.

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