

THE ROLE OF CONSTRUCTIVISM IN THE ENHANCEMENT OF SOCIAL STUDIES EDUCATION

¹Saif Husam Mohammed, ²Laszlo Kinyo

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PhD Student, Doctoral School of Education, University of Szeged, mohammed.saif.husam@edu.u-szeged.hu

³PhD. Asst. Prof, Institute of Education, University of Szeged, kinyo@edpsy.u-szeged.hu

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Abstract

Constructivism can be defined as a style of teaching that prioritizes the student as an agent of knowledge acquisition and understanding. As Bada and Olusegun (2015) have noted, the approach is deliberately learner-centric, encouraging students to contribute in active ways to their education, rather than simply listening to and absorbing information passively.

Constructivists can be roughly divided into two camps: those who focus on the psychological angle, and those who are more sociologically minded. The psychological constructivist (such as Jean Piaget) regard the process of learning as being one that involves the transformation and (re)organization of knowledge that the student already possesses. For the social constructivist, on the other hand, an emphasis is placed on the beneficial nature of social interaction in the formation and absorption of knowledge (see particularly the work of Lev Vygotsky).

In teaching the social studies, however, a greater emphasis needs to be placed on creating interactive teaching-learning environments in which student learning is enhanced. A progressive approach to teaching social science should embrace and promote a range of pedagogical elements, including aesthetic understanding, critical reasoning and creative thinking. In the discussion which follows, the constructivist approach to teaching and learning will be analyzed, providing an overview of both social and cognitive constructivist theory, before considering the connection between social studies education and constructivism. From there, the nature of the constructivist learning environment itself will be discussed, with attention paid to the instructional techniques that can be employed.

Keywords: Constructivism, Social Constructivism, Cognitive Constructivism, Instructional Models, Social Studies.

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INTRODUCTION

As it is generally known, Learning is described as an experience. Students must be taught how to learn. Teachers ought to make the subject matter directly relevant and meaningful for the learner. Education considers the lifelong learning process. Learning builds on the previous knowledge of students. Learning means making meaning from real-life practices and experiences (McCray, 2007).

Such phrases have been used by educators as common expressions to illustrate the concept of constructivism simply. However, what actually mean these phrases are? How can social studies teachers turn them into practical pedagogical practice? The familiar argument, There is a nice sounding in theory. Still, it is difficult to translate into real-world teaching practice, can also be inserted into the above list when the term of constructivism is being used to describe virtually all kind of learning experience that calls upon previous knowledge of students. In reality, the manner in which we teachers interpret and translate these statements into curricula and effective teaching practices has to be based on a proper understanding of the constructivist idea itself (Jadallah, 2000).

The teaching of social science in schools as a core subject permits students to broaden their intellectual and cultural horizons through dealing with multi-faceted social reality. The social reality, which is far from being a singular stable entity, is revised and rewritten under the control of hegemonic power. Due to being 'social,' the social studies classroom is the best place to motivate the student to question the prevalent social norms and their understanding of what "reality" really is (Wineburg & Martin, 2004).

The aim of social studies education is to cultivate qualities, attitudes, skills, behaviours in students, and to develop patterns

of relationships that will help us overcome our social problems. To this the educational end, as Essien and Unden (2018) have emphasized on constructivist pedagogical practices in which students involved in critical thought and reflectional learning, which produce ideas, and innovative solutions to real-world societal issues.

Due to varying views on the sense of constructivism and how it is put into practice in the classroom, first, the essence of knowledge and how students develop meaningful knowledge is a crucial topic. Traditionally, this question was related to the discrepancies between the social constructivism of Vygotsky and Piagetian cognitive constructivism (Applefield, Huber, & Moallem, 2000).

For Jean Piaget (1932), knowledge is a product of an individual mind; the knowledge is created and made meaningful by the personal interaction and contextual interpretation of the environment (McCray, 2007). In this sense, knowledge is deriving its meaning from the identity and environmental experience of that individual alone. This is interpreted to create a realistic learning atmosphere in which students can associate any new concept with their previous knowledge (Jadallah, 2000). Viewed in this way, the constructivist pedagogical environment can be understood as a space in which a learner has the freedom to explore, experience and examine new material and establish useful connections between what they already know and what they come to discover.

Such a learning environment is reliant on the learner adopting a critical interpretive approach to new experiences and using this as the basis for the formation of knowledge. This form of constructivism is entirely student-centered and reliant on a high level of individual freedom. But, any direct teaching and instruction are often seen as stifling the learning exploration

process. As Akar (2003) points out, social dialogue is simply intended to validate or disprove one's understandings.

By way of contrast, the social constructivist approach prioritizes social interaction over independent discovery as the primary element in the construction of knowledge. It is through sharing and socially interacting that ideas are tested, developed, and modified, rather than through a solipsistic, internalized process of judgment. Vygotsky's (1978) assertion was that, in order to develop an understanding of normative social values and to facilitate learning, it is necessary to engage in discourse, share knowledge, and compare beliefs with others.

According to Jadallah (2000), the emphasis should remain on the student-centered approach and experiential, while the instructor engages in the design and guidance of interactions to catalyze the social formation of knowledge. What follows is a discussion of the nature of and differences between the cognitive and social constructivist approaches to learning.

COGNITIVE CONSTRUCTIVISM

Cognitive constructivism is defined as an approach that emphasizes the external character of knowledge (Abraham, 2003). Watson and Plymale (2011) maintain that, unlike social constructivism, cognitive constructivism accepts the view that one can arrive at the knowledge of reality, or truth, which exists outside of individuals and their experience. Knowledge is therefore objective, and the acquisition of knowledge involves (re)formation of external reality and transforming it into internal mental constructions (Peter E Doolittle, 2014).

The cognitive approach to constructivism was pioneered by Jean Piaget, who proposed that Cognitive constructivism is integrating the constructivist behavior's personal approach with the application of logical reasoning of cognitive behavior. During this process, the person uses logical interpretation and reasoning to understand things and connects them to a different style of learning, which comes from a humanistic and behavioral dimension. Piaget had a particular interest in psychological development, and the influence of age, background, and educational level have on the process of learning. As Johnson (2017) has noted, an understanding of the developmental stages can be integrated into the constructivist theory of knowledge acquisition.

Prawat and Floden (1994) point out that the cognitive constructivist approach sees the search for knowledge as a search that focuses on discovering the mechanisms of how the world actually functions, and correspondence of the knowledge with the real world is setting the true value of knowledge.

Piaget's emphasis on developmental factors appears in two main parts. Firstly, it implements what is known as the "ages and stages" approach to cognitive development in children, through which the extent of the child's ability to acquire cognitive skills is determined by their age. To complement this, he proposed a model for understanding the process of cognitive development in learners. As Donald Clark (2010) has outlined, this latter model was based on the hypothesis that human learning is reliant on the construction of knowledge at an individual level. The knowledge cannot be transformed to understand and made usable in real life without a process of knowledge construction taking place.

According to Fox (2008), Piaget underlined the multiple direct channels of building understanding used by children, such as viewing, listening, reading and experiencing the environment, lead them to holistic learning. Using experience as the basis for knowledge construction, Children build their knowledge and forming mental schemas of the world around them which are developed, expanded and augmented over time. Through the simultaneous and complementary processes of accommodation

and assimilation are changing, expanding and refining these schemes (Malim and Birch 1998).

Piaget dismissed the notion that the assimilation of knowledge is a passive process. His theory instead contends that the process of acquiring knowledge is active and dynamic, that includes a succession of phases of adaptation to reality through which individuals systematically assess their understanding of the real world by proposing and testing hypotheses relating to their experiences.

As Jennings, Surgenor, and McMahon (2013) have observed, this approach has been especially influential in establishing a number of significant pedagogical techniques, such as learning through discovery, observation of the readiness of children to learn, a demonstrating willingness to allow learners to create their own knowledge, rather than knowledge transferring, and a belief that all individuals are unique.

Cognitive constructivism is sometimes referred to as individual constructivism, based on its focus on individual self-conception, and identity, the internal formation of knowledge. For Piaget, cognitive constructivism works on the assumption that knowledge construction depends on an interplay between two cognitive processes, assimilation, and accommodation, which are responsible for occurring learn.

Piaget's (2005) concept of assimilation involves the integration into what is understood of new knowledge regarding pre-existing information or concepts meaning to incorporate newly-absorbed information with knowledge the learner already has. Any flying object, whether it's butterflies or an airplane, is considered to be a bird for a two-year-old child, for example. Assimilation works in conjunction with the accommodation that is the alteration of existing concepts concerning new experience and information. This can lead to a contextually reductive understanding of the world; as in the last example, the child may conflate all flying objects into the umbrella category of "birds" regardless of whether they are organic or human-made.

A child's logic thought process is reinforced by working "assimilation and accommodation" together to achieve "cognitive equilibrium" which is cognitive harmony and compromise between the dependency on previous information and the openness to new information. In summary, Accommodation is the process whereby such preformed umbrella categories are re-evaluated and reformulated in light of new experiences or information having been processed. A child may make revision the bird's definition by inserting robins or pigeons into the bird's list and omitting the airplane or butterflies from the list. "Cognitive equilibrium" is a collection of mental representations for experience or objects known as the "scheme". The combined action of these two processes is, in cognitive constructivist terms, a basis for the development of a state of cognitive equilibrium in a child or other learner, whereby the acceptance of new information and the maintenance of existing knowledge is balanced. A child will amend the pre-existing conceptual categories based on new experiences; the child who categorized man-made objects as birds will no longer do so, but may add more subcategories of birds (such as different species) to the list (J Piaget, Gruber, & Voneche, 1995).

Cognitive equilibrium is made up of schema, which are cognitive units of understanding of experiences and real-world objects. Schema is formed through the interpretation of experience, action and linguistic knowledge which, when applied holistically, help to generate a rounded and dynamic understanding of a concept. As an example, the schema for a child's understanding of the concept of "bird" incorporates that child's social discourse on the topic, their direct experience of birds, and their engagement with other media such as photographs and drawings (J Piaget, Gruber, & Voneche, 1995). Piaget's (1995) model of cognitive constructivism is based on the understanding that information is

absorbed, categorized, reorganized and interpreted in accordance with the influence of new experiences and existing knowledge, which can help to shape meaning in a dynamic fashion.

Social Constructivism

For Lev Vygotsky, constructivism was more concerned with understanding the influence of social environments on the learning process, leading to his version of the concept being labeled "social constructivism". In Vygotsky's view, learning takes place as children being dependent on collaborative, discourse, and social interaction activities, along with an understanding of the historical context of information, instead of occurring in isolation. Vygotsky's (1978) approach was based on the assumption that the process of cognitive development is systematic, occurring at specific stages in a person's growth. He also believed that the input of an educator is vital in providing an understanding of complex subject matter that the learner would be unable to process by themselves.

Social constructivism relies instead of only individual logical reasoning as the dominant basis of knowledge, on knowledge deriving from social interactions and communication (Garrison, 1998; Gergen, 1995; Prawat & Floden, 1994). Therefore, according to the social constructivists, social communication and interaction can help to formulate more extensive and more reliable knowledge based on a system of consensual sharing, testing and evaluation.

Social constructivists have also further claimed that individual meaning-making is less socially valued than publicly accepted methods of dissection and shape reality because the world's objects and events are primarily influenced by a communal meaning-making (Prawat, 1996; as cited by Ruzic, 2011). Garrison (1998) and Von Glaserfeld (1998) propose four primary principles that determine the way in which knowledge is produced. The first principle contends that the accumulation of knowledge, which is governed by the cognition of the individual, is an active, rather than passive process.

The second principle, which is based on the assumption that cognition is adaptable, suggests that an individual's cognition will adjust itself in accordance with the conditions in which it is operating. The third principle regards cognition is not as a fixed entity with an immutable, singular vision of the real world, but is a mechanism which modifies itself as the individual develops cognitive awareness through experiences. The final principle contends that information processing has its origins in both the biological and neurological elements and that Knowledge itself is reliant on social and cultural interaction for its formation as well.

For social constructivists, an understanding of the external world, its meaning and its value, is necessarily achieved through social interaction. According to Leeds-Hurwitz (2009), there are two elements to the theory. Firstly, it assumes that humans develop social frameworks and environments in which they can scrutinize and assess their personal experiences concerning the external world. Secondly, it asserts that language is the key component in the system, allowing for the development of a model of the real itself.

Constructivism & Social Studies Education

Social studies aim to promote students' civic competence through the combination of social sciences and humanities (NCSS 1994). Social studies draw from a wide range of disciplines within the educational context, including anthropology, archaeology, economics, geography, and history, as well as law, political science, religious studies, philosophy, and sociology. Besides, it may cover certain content from natural sciences, humanities, and even mathematics. Social studies aim to equip students with the knowledge to make informed decisions for the public good that are based on strong foundations of knowledge, according to the National Council for the Social Studies (1994),

Berson (1996) and Lee (2007). Tsekoura (2016) also indicates that it is fundamental that citizens in a democratic society should have the skills and knowledge needed to criticize and participate in decision making about important issues of public and private interest.

Several scholars have suggested that the teaching of social studies generally relies on passive learning and listening to teachers, as well as textbook-based learning. Studies by Shaver et al. (1979), Davis & Helburn (1979) and Wilson & Marsh (1995) have highlighted the passive nature of education in social studies, which is often characterised by learning facts from textbooks and instruction from teaching staff. The passive nature of this learning has led professional organizations including the American Association for the Advancement of Science (AAAS), the National Council for Social Studies (NCSS), and the National Council for Teachers of Mathematics (NCTM) to call for a new approach whereby teachers engage their students in more active ways, introducing activities that are designed to develop their problem-solving, decision-making and critical thinking skills. This change to the way that social studies is taught and learned has been a subject of particular interest in research by the National Council for the Social Studies (1994) and Cuenca et al. (2018).

Constructivist theory is centered on knowledge and learning. It seeks to understand how students come to gain knowledge and investigate the process through which they learn, as well as the phenomenon of knowing more generally. Constructivism does not view knowledge as universal truths that can be transformed from one person to another but instead sees it as phenomena that must be unearthed in a gradual and emerging through many explanations and descriptions from the attempt of human beings to understand the world. Fosnot (2013) and Colgan & Maxwell (2019) summarize constructivism as an approach that holds that knowledge involves meaning-making within the cultural and societal discussions that are inherent within the human environment.

According to White (1999, cited in Schoeman, 2013), social studies education has generally been regarded from a positivist rather than a constructivist perspective, the former of which holds that truth and knowledge are associated with a single reality. Scholars including Girard (2010) and Ruzic (2011) indicate that the constructivist approach takes a less rigid perspective than its positivist counterpart and has a more philosophical and culturally relative approach which holds that personal and social experiences are the foundation of knowledge creation. Constructivism is based on relativism, which explains why it considers that knowledge-claims of truth, viability, and falsity are related to the social, cultural, personal, and historical perspectives of individuals. According to Snyder (2017), when knowledge is taken to be the truth, this can be simply attributed to social agreements or prevailing cultural opinions.

Constructivism depends on active or social knowledge sources that emphasize and prioritize culture, language, and context, according to scholars, including Dewey (1896), Gergen (1995), and Vygotsky (1986). Social constructivists regard the truth as for belief or fact that is created by the community and socially adapted to different circumstances. Thus, it is not contained in the mind of a person but emerges as a result of ongoing interaction and dialogues within human societies as they search for truth (Bakhtin, 1984; as cited by Coombs, 2015).

Doolittle & Hicks (2003) indicate that several core issues require clarification before understanding can be created; the first of which is ontology, or what is considered reality and the second, epistemology, which concerns what may be termed valid knowledge. Lee and Smagorinsky (2000) and Hancock et al. (2015) indicate that from a constructivist perspective, learning may be viewed as a process of self-regulation in which the individual goes through a process of managing the conflict

between their existing view of the world and discrepant new views and insights. The same scholars (ibid.) advise that the person thus creates new meanings by re-evaluating their views and discussing these new insights with others.

According to both Fleury (1998) and Girard (2010), constructivism bases on a number of fundamental the assumptions that the role of the individual is critical to the construction of knowledge, individual learners' personal and social experiences influence their learning, and the knowledge that is gained may not accurately represent the external reality. Ruzic (2011) affirms that accepting such assumptions changes the nature of social studies to a search for perspective instead of a simple search for truth.

In order to use educational frameworks underpinned by social constructivist principles, one must first understand the premises which underlie them. Firstly, social constructivists assume reality to be built via human activity. Society members collaboratively develop the dynamics of the world in which they live (Kukla, 2000). Under the social constructivist perspective, the reality is not something that can be discovered or that can exist outside of social invention. Secondly, knowledge is believed by social constructivists to be developed by humans in a social and cultural manner (Ernest, 1999). Meaning is generated through people's interactions with each other and with the world around them. Thirdly, social constructivists consider learning to be a social process, a process that is determined by external forces and that there is thus no place for passive development of behaviours. Engagement in social interactions allows for meaningful learning to take place.

The constructivist perspective holds that learning is a self-regulating process that reconciles diverse individual perceptions of reality and particular positions, taking new information that seems to contradict these views of reality and making new models of knowledge that have a more three-dimensional viewpoint and semantic structures for describing the whole of reality. According to Whalen (2019), humans are the agents within this meaning-making process, and as such, they participate in debate and discussion within society and to do so communities as well. Although constructivism is not a pedagogical method, it can be said to profoundly influence the learning process, with the potential to create very different pedagogical practices to those generally used by traditional educators (Fosnot, 2013, p. ix).

Doolittle (2001, p.502) concurs with this notion, stating that It's time, social science education takes a meditative look at its underlying assumptions and beliefs and reevaluates these in order to look forward and create a new pedagogical method that is "clear, informed, and valid". The same scholar (ibid.) suggests that constructivist theory's six principles are designed to be converging and interconnected, rather than to be separate; the first principle suggests that the individually, socially meaning-making and knowledge creation are an active process in its nature; the second stresses the importance of social mediation within cultural context when constructing knowledge; the third holds that knowledge construction is influenced by authentic environments and real-world contexts; principle four suggests that the framework of the previous knowledge and experience of the learner contributes to the knowledge construction; the fifth principle argues that knowledge construction becomes more integrated through adopting multiple perspectives and social realms' representations; principle six recognizes that self-awareness, self-regulation, and self-meditation are vital in the process of constructing knowledge.

Social constructivists believe that knowledge is supported by pivotal elements, including social interaction, negotiation, and investigation. At the same time, Teague (2000) argues that social constructivist teachers use teaching methods that favor exploratory and cooperative aspects. Darling-Hammond, Flook,

Cook-Harvey, Barron, & Osher (2019) explain that social constructivists hold the view that teachers should seek to ensure that students interact socially with one another, reaching agreement about perceptions, facts, and reality; instead of checking that their students have simply memorized knowledge imparted from textbooks.

In contrast, the cognitive constructivist approach supports lessons where students create mental structures that reflect reality. Students' ideas and opinions are judged to be correct or incorrect in line with what the textbook states or what the teacher decides - since both are arbiters of the truth (Bada & Olusegun, 2015). Bada and Olusegun (2015) add that it is irrelevant whether acquiring this reality-based knowledge is undertaken by individuals or groups.

In terms of ontology and epistemology, there is a wide philosophical difference between cognitive constructivism and social constructivism. Thus, cognitive constructivism is founded on objectivism and metaphysical realism, which asserts that there is an objective reality which is not influenced by the thoughts and views of the observer. This point of view is mirrored in social studies classes that focus on knowledge of particular facts, dates, people, and places. In contrast, social constructivism is based on subjectivism and relativism, and therefore knowledge does not reflect reality but depends on the characteristics, ideas, and experiences of the observer (Doolittle and Hicks, 2003).

Instructional Methods Based On Inquiry

As a reductionist and empirical teaching and learning approach, these two perspectives share an interpretivist theoretical basis, according to Jennings and Surgenor (2011), which holds that knowledge is acquired by students becoming involved with content rather than simply repeating what they are taught.

Knowledge is not absolute, and instead, there are personal interpretations of it; Omoroghomwan (2017) considers that in knowledge acquisition, individuals bring their cultural backgrounds, personal experiences and perspectives to bear on the information that they are presented with. By bringing their past experiences and existing knowledge to learning, students construct their own meaning to interpret information. Jennings and Surgenor (2011) argue that from this pedagogical perspective, teachers are not in charge of students' learning as students have varying individual perspectives that bring a different dimension from those of their counterparts. Engward (2014) advises that student-centred teaching approaches that are influenced by the inquiry-based approach are consciously different from traditional didactic teaching that concentrates on transmitting knowledge through memory-based approaches.

At the elementary level, constructivist theories are useful teaching methods as they use cognitive psychology-based techniques to enable students to apply, understand and recall certain concepts and skills, which are used to make lessons relevant. Besides, this approach helps students to organize information and elaborate on their knowledge, and encourage questioning, as well as activating previous knowledge and skills. Slavin (2019) suggests that this perspective raises several critical concepts, including (1) advanced organizers, when students are given general statements before the instruction that enables them to connect their existing knowledge to the new information, which allows them to activate their own background knowledge, proposing the relevance and encouraging them to accommodate the new notions; (2) analogies, which is when the similarities between materials are pointed out, helping students to learn new information establishing connections with previous knowledge; (3) Elaboration is a way of considering new material by again establishing links to existing knowledge.

There are certain instructional approaches to education that are based on constructivism, including:

1. **Inquiry-Based Learning:** this method sees Learning that is driven by the inquiry process, which not only means students encourage familiarity with the subject matter but also learn about the knowledge acquisition process. Savery (2015) advises that the inquiry process means that students are introduced to open-ended questions, to which there are several possible solutions, which enhances their knowledge of a subject. Used frequently in many aspects of life, an inquiry is an information-seeking behavior and is critical to building knowledge. Lutheran Education Queensland (2014) indicates that learning domains, including the scientific method and particular professions, use specific inquiry processes to seek truth and build knowledge. Nobel laureate Herbert Simon (1996, cited in Dezure, 1998) suggested that the meaning of 'knowing' has been transformed from merely being able to recall or repeat information into the ability to find and use it. The Internet age has led to information being far more readily available to a broad audience, meaning that any individual can access information whenever they choose to. Information is thus a more priceless commodity and memorizing facts is increasingly irrelevant in educational terms as a result of the dominance of technology in the age of the Internet. Rather than simply accepting information that they discover or are taught as fact, students are now better able to question the information that they are given, while their questioning skills are fundamental to this new approach. Nagra (2015) suggests that scientific inquiry is rooted in the ability to ask questions, gather data, analyze information and draw conclusions.
2. **Problem Based Learning:** according to Barrows (1986), this approach sees groups of about ten students learning by considering problems that focus on observable events or other phenomena. PBL has a similar approach to inquiry-based learning, but the problems that students study are not theoretical but practical, with personal meaning. Students must work in teams and collaborate to find solutions, which encourages them to take into account the diverse perspectives among the team member and develops flexible thinking. Kaplan's (2014) indicates that PBL also facilitates the development of reasoning skills as the collaborative approach enables them to compare different approaches to draw a logical conclusion. Barrows (1996) points out that the problem topic will be discussed in PBL drives learning, while the collaborative element is also fundamental to developing knowledge as this enables students to become involved in setting their own learning objectives, while they gather new information from their investigations and finding a solution to the problem. Vasiliou, Ioannou, & Zaphiris (2013) advise that the PBL setting comprises simple physical elements such as markers, whiteboards, and post-it notes to enable student teams to work together, enhancing their cooperative learning skills in the process. This collaborative working develops students' communication skills both as individuals and as a group, consequently, considers as a social constructivist paradigm (Abdelkarim, Schween, & Ford, 2018).
3. **Case-based Learning:** Similar to PBL, case-based learning provides learners with a case, while it is also a collaborative learning method. Barrow (1986) explains that the information gathered in CBL is different from PBL in that students must prepare in advance for the group session, but In PBL, the problem is the beginning point. CBL is also guided by a facilitator, while students can ask questions during the session. Loyens and Rikers (2011) suggest that CBL is a particular form of PBL.
4. **Discovery Learning:** this approach within school learning environments developed from constructivist learning, according to NebeR (2012); its inquiry-based approach is

seen as an open learning format and is advocated by Bruner (1961). This learning format sees teachers giving students examples to work on, according to Loyens & Rikers (2011), who add that this approach facilitates students learning about the relationships between the examples, enabling them to formulate certain principles that are personally relevant. Discovery learning not only positively impacts knowledge memorization but also engenders motivation and creates positive self-regulation (Bruner, 1963).

Domin (1999) advises that under the premise of constructivism and discovery learning, educators believe that knowledge cannot simply be transferred from one person to another, which follows since constructivist theory and forms the foundation of discovery learning. If knowledge transfer is rejected, then under the constructivist classroom environment, students need to experience an event to make it meaningful, while teachers have a less defined and formal role than in traditional classrooms. Castillo & Paper (2008) advise that instead of being the focus of students' attention in the classroom, instructors in the constructivist classroom environment may instead be a coach, mentor, facilitator, or consultant. Moreover, the same scholars (ibid.) suggest that teachers have similarly transformed expectations of students, as the emphasis is on how they construct knowledge and learning rather than the amount of subject-knowledge that they retain.

A Review of the Research of Instruction Based on Constructivist Learning Approach

This section will present findings gathered from earlier empirical studies, with the aim to show the ways the constructivist learning environment affects students' performances in tests, and their attitude towards learning. In addition, the extent to which constructivist learning assists students in developing critical and creative thinking skills and allow them to construct knowledge.

Abdelraheem and Asan (2006) undertook the study "The Effectiveness of Inquiry-Based Technology Enhanced Collaborative Learning Environment." Quantitative and qualitative methodologies were used to complete their research, and they employed Inspirations software as a tool for knowledge construction and MS PowerPoint software for information presentation. Collaborative groups were established in order to facilitate student collaboration. The inquiry cycle of "ask, investigate, create, discuss and reflect" was involved, and learners were requested to complete reflective reports regarding their learning experiences. The study offered empirical results regarding the level of support for inquiry-based learning and how it offers more thorough cognitive strategies to students, including monitoring, creating representations, reflecting, and sharing information collaboratively.

Numerous other papers have noted that inquiry-based activities establish conditions for students where they can achieve self-regulation and become independent learners (Haury, 1993; Paris & Paris, 2001; Patrick & Middleton, 2002; Perry, VandeKamp, Mercer, & Nordby, 2002).

Mishra (2014) examined the links amongst Social Constructivism and Teaching of Social Science, through the interpretative approach. The study was planned as descriptive research and involved the class sixth of a Government Senior Secondary school in Sarojani Nagar, New Delhi. A total of 35 students were included (26 boys and 9 girls). This study presented the fact that students were aware of social issues related to class, race, discrimination, poverty etc. Besides, students have the ability to share their opinions regarding some social issues. The learner then becomes the negotiator between themselves, the learning process, and what they are trying to learn. This means the

learner becomes a contributor as well as the gainer of this learning process, establishing independence.

On the other hand, Koeppen (2001) examined the opinions of pre-service teachers towards issue-oriented social studies using active teaching methods at the primary level. These teachers were not willing to discuss controversial matters with their students at the elementary school level, as they believed it was challenging to establish an effective issue-centred social studies curriculum. However, only three of the teachers had an actual negative experience with issue-based social studies.

The work of Kim (2005) investigating the impacts of the constructivist methodology concerning academic achievement, self-concept and learning strategies, and student preference. A total of 76 students participated, split into two groups, experimental and control. The experimental group was instructed through the constructivist approach, whereas traditional methodology was used for the control group. The experiment was run over 40 hours across nine weeks. The results showed that the experimental group had a preference for the constructivist teaching paradigm compared to the control group, particularly with regards to the relevance of learning tasks, gathering and respecting student opinions, curriculum based on student supposition, and evaluation in the teacher context compared to afterward. It was seen that constructivist teaching offered no benefit with regards to the improvement of a student's self-concept and student learning strategy changes in general. However, there was a positive impact seen on motivation to learn academic tasks, lowering anxiety in the academic learning process, and self-monitoring in the context of learning for tests.

Along the same lines, Kim (2005) undertook a study that looked into the impacts of the Constructivist Learning Model in relation to academic achievement and self-concept in sixth-grade students in Korea. The study involved a sample of 76 students, split into an experimental group and a conventional study group. The experimental group used the Constructivist Learning Model, while the conventional group was instructed with traditional teaching methods. The experiment was conducted over nine weeks, after which the benefits of the Constructivist Learning Model on academic achievement were confirmed. However, there was no effect seen on the self-concept of students.

In a study more closely related to social science, Akinola (2011) examined students' academic performances and how web-based teaching affected them. It was found that this approach boosted their results, and there was a positive influence seen when it came to developing democratic consciousness. Problem-solving skills, reflective inquiry, and decision-making skills were crucial areas for social studies, and these skills could assist in promoting active citizenship in a democratic world (Berson, 1996b).

In a study by Semerci and Batdi (2015), titled A Meta-Analysis of Constructivist Learning Approach on Learners' Academic Achievements, and retention, the meta-analysis method was employed to investigate the impacts of constructivist learning on student success rate. The findings showed that academic achievement and retention were significantly affected, and it was concluded that a constructivist learning approach offered benefits to the academic success and retention rate of students.

Hijazi (2009) researched the impact of Constructivist Learning in the context of teaching science and subsequent academic achievement and creative thinking in students, at the preparatory stage in Egyptian schools. Their study showed that there were statistically significant differences in achievement and innovative thinking between the study groups examined, with the group that studied science under the Constructivist Learning approach showing superior results.

Furthermore, there was another study looking at the impacts of Inquiry-Based Learning through the randomized controlled

approach. The study sample was made up of 14-16-year-old students, randomly inserted into the IBL group or the traditional teaching method group. The two groups were taught the same curriculum, had common learning goals, and the same teacher presented the lessons. The scores students achieved in knowledge, reasoning through the application of models, as well as construction and critique of scientific explanations, were evaluated, before and after instruction was completed. The IBL group had superior performances than the traditional approach group after results were controlled for variances in students' pre-test scores. It is noteworthy that the Cohen's *d* effect size was .47. Furthermore, interviews were conducted a month later, where the students' explanations were evaluated and graded based on the quality of their claim, evidence, and reasoning. Once more, the IBL group had superior scores for all three aspects, with effect sizes of *d* = .58, .74, and .59 respectively. Lastly, there was evidence of an achievement gap by race in the traditional teaching group, which was not found in the Inquiry-Based Learning group (Wilson, Taylor, Kowalski, & Carlson, 2010).

CONCLUSION

The literature review above presents that the entire pedagogic practice starts with how learners comprehend society and develop with critical reflection through problem posing and offering space for the reconstruction of earlier views, thoughts and feelings. The learner's engagement and ownership of the classroom pedagogic processes, the teachers' modelling of inquiry in the classroom context and the value of communication inside a group is evidently the cornerstone of these activities. Instead of the teacher's authority being the crucial component, these learning environments allow students to put forward their opinions and uphold their own views while respecting the views of others as well. Thus, this establishes them as a member of the 'community of inquiry' (Goos, 2004).

In conclusion, the constructivist approach presents an alternative view on education, where there are a number of other measurement and evaluation activities made possible. Under the constructivist methodology, learners actively take part in their learning, rendering exams of the multiple-choice or short answer type inadequate, as they do not allow for much thought or commentary to assess high order cognitive skills (TOZET). This is a key reason why the constructivist approach concentrates on learning through using interactive teaching and alternative assessment methods such as; an exhibition, portfolio, group activities, checklists, performance assessments by the self or through others, and peer reviews, in contrast to product-oriented learning. The product of learning is not under evaluation, but instead, the learning process is assessed for reinforcing this process, and how the students continue to learn during their studies are the examined aspects. Once the above information is taken into account fairly, the constructivist learning approach and its alternative angle on learning activities can be a crucial contributor towards academic achievement in students, and for the longevity of the knowledge they have learned (Kumar & Teotia, 2017; Shah, 2019).

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