## Constructivist theory as the framework for student strategies

**Science** 



This chapter provides a reappraisal of the literature used to inform the little research undertaking described in this study. To roll up literature for my thesis, I accessed the web sites for Zunia, ERIC, UNICEF, MoEYS, UNESCO, and the e-journal aggregation at James Cook University. There were troubles in deriving entree to some beginnings because many were password protected. Besides a challenge was turn uping articles written for the Kampuchean context, which has limited the range of the literature reappraisal for the local Cambodian context. Furthermore, many of the articles I searched were secondary informations beginnings, so it was sometimes hard to mention or cite because some secondary beginnings did non supply elaborate information. At times it was a description of a survey written by person other than the individual who conducted it. I besides had problem in finding which articles were related straight to my subject to be included (Gay, Mills, & A; Airasian, 2009). Besides utilizing assorted databases, I besides read books about the student-centered theory and old surveies conducted by UNICEF (United Nation Children's Fund) every bit good the Cambodian-based undertaking rating written by VVOB.

The cardinal words used to turn up literature were: student-centered, learner-centered, constructivism, societal constructivism, the zone of proximal development, scaffolding, student-centered instruction, and student-centered schoolroom. The mention subdivisions of relevant articles were besides used for placing other surveies that would be relevant to this reappraisal.

The chapter has been structured following several subjects that emerged as literature was reviewed. It will depict the relevant literature focused on the https://assignbuster.com/constructivist-theory-as-the-framework-for-student-strategies/

issues environing the research aim. This chapter has been classified into several sub subdivisions based on the subjects that emerged during reading.

## 2. 1 Constructivist Theory as the Framework for Student-Centered Schemes

Within the past two decennaries, the construct of `` constructivism '' A has been pulling attending from pedagogues ( Airasian & A ; Walsh, 1997 ) . Since constructivist theory is an epistemology and doctrine and non a theory of acquisition, constructivist teaching method has been developed by pedagogues influenced by the thoughts of cognition building found within constructivist theory ( Yilmaz, 2008 ) . `` Constructivist teaching method is informed by the thoughts of John Dewey and William James ; the latter work of Jean Piaget ; and the sociohistorical work of Lew Vygotsky, Jerome Bruner, and Ernst von Glasersfeld '' ( p. 165 ) .

Harmonizing to Dewey, the relationship of the person to his or herenvironmentand the edifice of experience through action are really of import. This importance has besides been recognized by constructivism, particularly societal constructivism (Brush & A; Saye, 2000). Piaget 's work dealt with the phases of development which people go through and the importance of find in acquisition (Alexander, 2006). Vygotsky 's work focused on societal interaction as an agent of acquisition every bit good as the importance of a pupil 's bing experience and cognition (Alexander, 2006; Yilmaz, 2008). Among constructivism 's three foundational bookmans, Dewey, Piaget, and Vygotsky, Vygotsky 's work has had a clear influence on the construct of societal constructivism and played an of import function in modern constructivist idea because two of his four key rules are; https://assignbuster.com/constructivist-theory-as-the-framework-for-student-strategies/

collaborative acquisition and student-centeredness (Yilmaz, 2008). His first cardinal construct focuses on the societal nature of larning hence the term 'social constructivism' and the 2nd is that kids learn best the constructs that are within their zone of proximal development (ZPD).

The ZPD is a construct used to depict how a kid 's acquisition and kid 's cognitive development degrees develop together in societal state of affairss (Vygotsky, 1978). The ZPD is considered among the most utile both theoretically and practically; of all the constructs that are created by Vygotsky (Chenyne & A; Tarulli, 1999). The construct of ZPD, which focuses on the relation between human larning and development, is the 2nd foundation for scaffolding schoolroom direction (Stuyf, 2002). The ZPD is defined as `` the distance between the existent developmental degree as determined by independent job resolution and the degree of possible development as determined through job work outing under grownup counsel or in coaction with more capable equals " (Vygotsky, 1978, p. 86). Alexander (2006), Shear (2007), and Stuyf (2002) depict the ZPD as the country between what a scholar can carry through mentally and make independently by themselves, and what the scholar can carry through with the aid or the support of a more knowing other grownup or equal. The peer portions knowledge with the scholar to construct the spread between what is known and what is non known (Shear, 2007).

The construct of ZPD is now widely applied in instruction and larning in many subject-matter countries (Willis, 1996). The thought of the ZPD informsteacherstaging of larning to make effectual learning environments. It

means effectual larning takes topographic point within the kid 's ZPD.

Vygotsky stated that: A

Learning awakens a assortment of internal developmental procedures that are able to run merely when the kid is interacting with people in his environment and in cooperation with his equals. When these procedures are internalized, they become portion of the kid 's independent developmental accomplishment. (Vygotsky, 1978, p. 90).

Similarly, Wilhelm, Baker & A; Dube (2001) argued that the ZPD is the cognitive country in which effectual direction and acquisition can go on. Teacher, equals, and instructional environment are the aid and support which pupils can larn with and this lies within the ZPD. `` A kid 's new capacities can merely be developed in the ZPD through coaction in existent, concrete, located activities with an grownup or more capable equal " (Wilhelm, Baker & A; Dube, 2001, p. 3)

For constructivist oriented instructors, the importance of planing an instructional activity is to place a job and supply pupils with resources to assist to work out the jobs thereby supplying chances for pupils to see jobs from a assortment of positions, leting pupils to join forces and negociate solutions to jobs and prove those solutions in a existent universe context (Bednar et al, Duffy & A; Jonassen, Brown, Collins & A; Duguid as cited in Brush & A; Saye, 2000). Similarly harmonizing to UNESCO ( as cited in Mtika & A; Gates, 2010), student-centered instruction helps to fix pupils to run into society 's outlooks, to plan educational experiences to progress

pupils 'acquisition, and supply chances for pupils to show their success in accomplishing social outlooks.

## 2. 2 What is Constructivism?

Constructivism is non a theory about instruction, but it is a theory about cognition and acquisition (Haney & A; McArthur, 2001). Harmonizing to Airasian & A; Walsh (1997), constructivism is non an instructional attack; it is a theory about how scholars come to cognize or how people learn. Brady (2006) & A; Staver (1997) stated that constructivism comes from traditional epistemology, which offers a philosophical account about the nature of cognition. Constructivists believe that cognition is created from the interaction between bing experiences or cognition of people and new thoughts or state of affairss they encounter.

In the constructivist schoolroom, scholars are encouraged to do connexions between their bing cognition and new experience; this is the procedure of building cognition ( Airasian & A; Walsh, 1997 ). Furthermore, over the last decennary, constructivism has significantly influenced scientific discipline pedagogues because it links pupils ' bing thoughts to new experience and new information ( Haney & A; McArthur, 2001; Staver, 1997; Yilmaz, 2008 ). Similarly, Driver, Asoko, Leach, Mortimer, and Scott ( as cited in Hand et al., 1997) stated that societal constructivist attacks in scientific discipline instruction are non new. The execution of constructivist larning theory has helped to develop the interaction between pupils and instructor and supply chances to build scientific discipline cognition in the schoolroom. Similarly, Mtika and Gates ( 2010 ) argued that this pedagogical theory helps to

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promote pupils ' interaction with the topic 's contents and with one another while the instructor facilitates the acquisition procedure.

Constructivism has been divided by some theoreticians into three classs (Alexander, 2006; Yilmaz, 2008). They are Cognitive constructivism, Extremist constructivism, and Social constructivism. These three classs emphasize that cognition and significance are constructed by the human head (Yilmaz, 2008), nevertheless there are differentiations between them (Hirumi, 2002). Cognitive constructivism focuses on person 's interactions with the environment. Extremist constructivism emphasizes the person 's cognition building which is based on old cognition and experiences, and societal constructivism dressed ores on persons within groups and their sociocultural contexts (Alexander, 2006; Yilmaz, 2008).

Though constructivism has been categorized into three, harmonizing to Staver (1997), the two most comprehensive and celebrated classs of constructivism are extremist and societal constructivism. The two trade names have much in common. First, cognition is created by the thought of a individual and a community. Second, societal interactions between and among scholars are cardinal to constructing cognition. Knowledge is built by persons within their communities, societies, and civilizations. Furthermore, the agencies of societal interaction is chiefly

linguisticcommunicationbecause linguistic communication is a manner that worlds communicate and understand each other. Third, the character of knowledge is functional and adaptative, that it is in an active procedure (Staver, 1997; Yilmaz, 2008). Finally, the intent of knowledge is to function

the persons 'organisation of his or her experiential universe. However, the two trade names are chiefly different. Extremist constructivism focuses on knowledge and the person, whereas societal constructivism focuses on linguistic communication and the group.

## 2. 3 Constructivism in the Classroom

Airasian & A; Walsh (1997) argued that constructivism is accepted in many instruction systems because it helps to advance higher order believing accomplishments of pupils. Similarly, harmonizing to the survey of Hand et al., (1997), engagement of pupils 'thoughts or thought is the most of import factor that influences pupils 'acquisition. In the survey of a group of junior secondary college pupils in Australia, pupils reported that they enjoyed larning through little group work, category treatment, developing their ain thoughts, less note pickings, and they developed a greater apprehension of constructs. These are all larning schemes that reflect the usage of societal constructivism in the formal acquisition context. Among the classs of constructivism, societal constructivism attacks are utile for pupils because pupils can be required to work in a group or separately and make non necessitate to wait for a instructor to direct their acquisition. `` The vision of the constructivist pupil is one of activity, engagement, creativeness, and the edifice of personal cognition and apprehension " ( Airasian & A; Walsh, 1997, p. 446).

Whether societal constructivists emphasize cognitive development or societal interactions, there are several specific things that instructors can make to assist scholars to build their apprehension, structural staging is one

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of these things ( Killen, 2003 ) . Literally, scaffolding is a structural support that is set up around a edifice under building. In instruction in a metaphorical sense, stagings are the support structures that are provided by others such as parents, equals, and instructors to pupils to enable them to finish a undertaking and experience accomplishment in their acquisition ( Yang & A; Wilson, 2006 ) . Harmonizing to Hammond & A; Gibbons ( as cited in Yang & A; Wilson, 2006 ) , effectual staging is both high challenge and high support. `` Vygotsky stressed that pupils need to prosecute in disputing undertakings that they can successfully finish with appropriate aid " ( Wilhelm, Baker, & A; Dube, 2001, p. 4 ) .

Scaffolding is a procedure whereby a instructor or peer gives assistance or support to the pupils in their ZPD as it is necessary and removes this assistance when unneeded (Killen, 2003). `` Scaffolding must get down from what is close to the pupils 'experience and construct to what is farther from their experience '' (Wilhelm, Baker, & A; Dube, 2001, p. 4). Similarly, at the beginning of a new acquisition undertaking, the staging should be fix to be concrete, seeable, and external, so learning can get down from the concrete to the abstract.

The construct of staging is closely related to the ZPD because staging was developed by other socio-cultural theoreticians using Vygotsky 's construct of ZPD to educational contexts ( Yang & A; Wilson, 2006 ) . In other words, the thought of scaffolding originally came from Vygotsky 's socio-cultural theory ( Stuyf, 2002 ) .

Mitchell and Myles ( as cited in Yang & A; Wilson, 2006 ) stated that societal constructivism focuses on larning that occurs in socio-cultural environments and scholars become active builders of their ain acquisition environment. Vygotsky 's socio-cultural theory proposes that societal interaction plays a cardinal function in the development of knowledge. Learners are non hence stray persons; they are active scholars because of societal interactions ( Stuyf, 2002; Yang & A; Wilson, 2006 ).