



CONSTRUCTIVIST APPROACHES: AN EMERGING PARADIGM FOR THE TEACHING AND LEARNING OF BUSINESS EDUCATION

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Abstract

Constructivism is a theory of learning that explains how knowledge is created, and how people learn. As such, constructivism has been studied by researchers in science, mathematics, as well as philosophy to the extent that radical constructivism which is an offshoot of cognitive constructivism represents the state-of-the-art in mathematics and science education around the world. However, there is less work on constructivist teaching and learning in business education. This paper therefore aims at discussing the role of constructivist approaches in the teaching and learning of business education. The first discussion is centred on constructivist learning theory, followed by the major tenets of constructivist theory. Next, the attributes of constructivism are discussed. The application of constructivist approaches to business education is also discussed. Finally, how business educators or business studies teachers can encourage meaningful learning as an aspect of constructivism is further looked at. Consequently, the authors has drawn a useful conclusion for the subject matter, and it was recommended, among others; that administrators, managers, teachers, and instructors should endeavor to implement the constructivist approaches in business education in order to promote effective teaching and learning delivery.

Key Words: *Constructivism, Constructivist Approaches, Business Education, Teaching and Learning.*

Introduction

The field of education has undergone a significant shift in thinking about the nature of human learning and the conditions that best promote the various dimensions of human learning. In particular, there has been a paradigm shift in the instructional approaches, from behaviorism to cognitivism and now to constructivism. Constructivism is a learning theory that emerged as a powerful model for explaining how knowledge is created, as well as how learners learn (Gordon, 2009). The basic nature of constructivism is that learners actively construct their own knowledge of the information or idea of subject presented to them rather than passively receive information from a source. What this means is that information cannot merely be deposited into learners' heads. Constructivism tells us that information must be discovered through some activity on the learner's part in order to have meaning for him or her (Tuckman & Monetti, 2011). This process of intellectual transformation occurs when students reconcile formal instructional



experiences with their existing knowledge, within the cultural and social contexts in which ideas occur, and with a host of other influences that serve to mediate understanding. Within this perspective, teaching should promote experiences that would require students to become active learners, and participators in the learning process. Such experiences may include problem-based learning, inquiry activities, dialogue with peers and teachers that encourage making sense of the subject matter, or when exposed to other sources of information, and opportunities that would enable them demonstrate their understanding and the different sources they are exposed to for learning.

Constructivism is a broad term used by educators, psychologists, curriculum designers, philosophers, and others. Ernst Von Glasersfeld calls it 'a vast and woolly area in contemporary psychology, epistemology, and education' (Von Glasersfeld, 1997). Constructivist perspectives are grounded in the research of Jean Piaget, Lev Semionovich Vygotsky, Jerome Bruner, and the philosophy of John Dewey, as well as the work of Jean Lave, to mention a few intellectual roots.

There is no one constructivist theory of learning, but most constructivist theories agree on two central ideas: (1) learners are active in constructing their own knowledge, and (2) social interactions are important in this knowledge construction process (Bruning, Schraw, Norby, & Ronning, 2004). Constructivist approaches in education generally embrace these two ideas. Even though many educators and psychologists use the term constructivism, they often mean different things. Fundamentally, one way to understand constructivist views is to categorize them in to two different groups: cognitive constructivism and social constructivism. Both categories assume that knowledge is created, identified, or constructed, individually and/or collectively. Cognitive constructivism derives from Piagetian cognitive development theory of learning, is concerned with how individuals make sense of their world, based on their knowledge, beliefs, self-concept, or identity. In contrast, social constructivism derives from Vygotskian socio cultural theory of learning, assumes that social intersection of people, interactions that involve sharing, comparing and debating among learners and mentors(teachers) shape individuals learning and development. However, these two major approaches bring to the fore, the practical emphases of constructivist learning theory and are linked to the variations in the goals of teaching. Piagetian perspective is aligned with an emphasis on education for individual cognitive or internal development, while Vygotskian perspective is aligned with the emphasis on education for social transformation. Thesetwo practical emphases, one on the psychological processes, and the other on the social construction of knowledge, result in different conceptualizations of constructivist teaching.

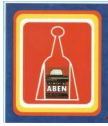
Based on the increasing role of constructivism in teaching and learning, constructivism has been thoroughly studied by researchers and applied by educators in science and mathematics education, to the extent that radicalconstructivism represents



state-of-the-art in epistemological theories for mathematics and science education (Ben-Ari, 2001). But, surprisingly, there is less work on constructivism in relation to the teaching and learning of business education. This is an uninteresting trend, even when inquiring learning, problem-solving, experiential learning, and other similar constructivist methods are long considered as key component of business education course or curriculum with an explicit recognition that business education “needs to reflect a real-world environment” (Bygrave, 1994; Feldman, 2001). However, taking Nigeria, for instance, business studies teachers usually place more premiums on impacting abstract knowledge using expository methods, while practical skill learning is relegated to the background (Ekpenyong, 1999). If this is so students need to be encouraged to take chances, given the opportunities to experiment on their own, and accept responsibility for their own learning. Moreover, great emphasis need to be placed on creating a classroom environment that encourages students to interact with one another. Because, when students collaborate to learn, they share the process of constructing their ideas with others. This collective effort provides the opportunity for students to reflect on and elaborate not only their own ideas but also those of their peers. In this cooperative learning setting, students view their peers as resources rather than as competitors. This paper, therefore, aims at discussing constructivist approaches in the teaching and learning of business education. In the following section, the authors looked at the constructivist learning theory. They discussed the major tenets of constructivist theory. They also looked at the major attributes of constructivism. They further discussed the application of constructivism to business education. Finally, the authors looked at how business educators can help encourage meaningful learning.

Constructivist Learning Theory

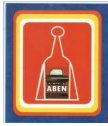
As earlier indicated, Jean Piaget and Lev Semionovich Vygotsky are widely recognized as the most influential developmental psychologists in the 20th Century. Their study of cognitive development has provided the foundation for constructivist learning theory. Constructivists’ theory believes that people develop their knowledge through active participation during learning. However, Piaget (1970, 1977) tells us that cognitive development is a product of the mind achieved through observation and experimentation, whereas Vygotsky (1978) views cognitive development as a social process, achieved through interactions with other knowledgeable members of the culture. Therefore, constructivism, drawing from cognitive and behavioural psychology, assumes that the individual learner processes stimuli from the environment and the resultant cognitive structures that the learner builds produce adaptive behaviour. Piaget refers to his work as ‘cognitive’ constructivism. Piaget’s theory comprises two major elements: ‘ages’ and ‘stages’. According to him, these elements help predict what learners can and cannot understand at different ages and stages. It is the theory of development that is the major



foundation for cognitive constructivist approaches to teaching and learning. Piaget's theory of cognitive development suggests that human beings are unable to automatically understand and utilize information that they have been given, because they need to 'construct' their own knowledge through prior personal experiences so as to enable them create mental images. The primary role of the teacher in a constructivist environment, therefore, should be to provide the setting, pose the challenges, and offer the support that will motivate or encourage learners to create their own knowledge through their personal experiences (Lunenburg & Ornsteing, 2008; Rummel, 2008).

Vygotsky refers to his work as 'social' constructivism. Vygotsky's theory is very similar to Piaget's assumptions about how knowledge is created as well as how people learn, but Vygotsky places more importance on the social context of learning. In Piaget's theory, the teacher plays a limited role, whereas in Vygotsky's theory, the teacher plays an important role in learning. Learning activities in constructivist settings are characterized by active engagement, experiential learning, inquiry-based, problem-based learning, and collaboration with others. As a dispenser of knowledge, the teacher's role is to guide, facilitate, coach, provoke, and co-explore in ways that allow the learner to engage in critical and creative thinking, analysis and synthesis of ideas during the learning process as the teacher assumes the role of co-learner who encourage learners to question, challenge, and formulate their own ideas, opinions, and conclusions. The constructivist teacher provides learning tools and activities that encourage experience-based learning, problem-based learning, and inquiry-based learning activities with which students formulate and test their ideas, draw conclusions and inferences, and convey and pool their knowledge in a collaborative learning environment (Sunderman, 2006). It is in this sense that constructivist theory is friendly to technology assisted learning through the Internet using virtual learning environments or web-based course management systems. To this end, Open and Distance and Electronic Learning (ODEL) which seems to be the future of business education and learning has continued to take root as the teacher is able to manage the learning environment effectively through synchronous or asynchronous collaboration with learners (Odundo, 2013).

Constructivism is more challenging to define historically as there are many instructional strategies that can be described as constructivist in nature. Some examples are projects where students learn by discovering on their own, to students collaborating with others and learning through this interaction. Constructivist approaches help build the theoretical foundation for effective teaching. Experiential and cooperative learning are examples of business education instructional approaches that are rather constructivists in nature and have resulted in an emphasis on problem-solving for students. This is a primary characteristic of the constructivist theory, and though positive aspects of behaviorism in learning have emerged, there has been an ongoing shift toward constructivist learning situations which involve-problem solving (Sutton in Rummel,



2008). The main argument is that learners actively construct their own knowledge based on their past personal experiences. This has resulted in an increase in popularity for the constructivist approach when utilizing instructional strategies. The use of interactive problem-based learning is an example of constructivist approaches. Problem-based learning is one method which allows students to apply their knowledge to real-world situations and applications in business subjects.

Major Tenets of Constructivist Theory

A fundamental belief of constructivism is that learning occurs in a context or situation, not in a vacuum. Windschitl (1999) opined that learning occur when students reconcile formal instructional experiences with their existing knowledge, with the cultural and social contexts in which learning occur. By reflecting on their own experiences, students may change what they believe, discard old information and accept new information, and question, explore, and access what they know. The basic assumption of constructivism according to Yilmaz (2008) is that meaningful learning occurs within real-world tasks, that is, constructivism as a learning theory can guide the process of learning and teaching in real classroom settings. This contextualization of learning according to Tuckman and Monetti (2011) is referred to as situated cognition. They added that situated cognition is a concept that plays a vital role in teaching. Van Merriënboer, Kirschner and Kester (2003) also acknowledged that many concepts can be better taught by situating them in natural occurring, so called authentic settings or simply put, real-world settings.

Alesandrini and Larson (2002) offer the following tenets of constructivism:

- Learning results from exploration and discovery, that is, actively exploring new information and constructing meaning from it by linking it to previous knowledge and experience.
- Learning is a community activity facilitated by shared inquiry. It requires learners to reflect on and share their insights with the group.
- Learners play an ongoing, active, and critical role in assessment. It is through the self-assessment activities of reflection and verbalization that learners legalize the meaning of what they have experienced.
- Learning results from participation in authentic activities, that is, it should be based on activities and problems that students might encounter in the real world.
- Learners create knowledge from new information in light of their previous experiences.
- Teachers should function as facilitators who coach learners as they create their own paths towards personal meaningful goals.



Major Attributes of Constructivism

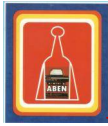
Attributes of constructivist-based instruction according to Tuckman and Monetti (2011) include the use of manipulative, choice of activities, opportunities to make observations and collect data, guide discussions, problem-solving, and apprenticeships. Savery and Duffy (1995) also identify three essential attributes of constructivism:

1. Cognitive conflict or confusion is the stimulus for learning and influences the reorganization and nature of what is learnt. According to Dewey (1938), it is the problem that leads to and is the organizer for learning, and according to Piaget (1977), it is the need for accommodation when the current experience cannot be assimilated into the learner's existing schema.
2. Knowledge evolves through negotiation and evaluation viability of individual understandings, primarily because shared language and knowledge contribute a great deal to how reality is actively constructed for each individual. Other individuals are a primary mechanism for testing the understanding. Collaborative groups are important because learners can test their own understanding and examine the understanding of others as a mechanism for enriching, interweaving and expanding the understanding of particular issues or phenomena. Other people are the greatest source of alternative views.
3. Understanding comes from one's interactions with the environment. Cognition is not only within the individual but also comes from perceptions and experiences that are distributed across the entire context in which the learner is situated.

By examining the perspectives of constructivism, one would recognize that learning is an on-going and active process and inquiry is an appropriate vehicle for facilitating the cognitively-based constructivist approach to learning. In an inquiry-based learning environment, students are engaged in a hands-on, subject related to questioning, problem-solving, or investigation, during which they observe, question, and gather information to test their understanding in an on-going and active process (Llewellyn, 2002). Generally, retention of material learned has been shown to be greater from inquiry teaching than from formal lecturing methods (Llewellyn, 2002).

Application of Constructivism in Business Education

Constructivist approaches to business education have the goal of helping learners acquire a rich network of understandings around a reasonable number of topics. In Nigeria, for example, business education curriculum focuses on three viable options which include: office education, accounting education, and marketing education, including a good blend of computer technology which incorporates Information and Communication Technology (ICT). Major topics include shorthand and typewriting, entrepreneurship and small and medium scale enterprises, computer application and desktop publishing, record keeping and management, business communication, and lots



more. The blending of these core courses within the business education curriculum requires a constructivist view of instructional delivery that allows students to construct their own understanding of skills and knowledge rather than have it told or given to them by the teacher. Therefore, constructivist approaches to lesson plan in business education shall do the following:

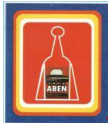
- Present instructional activities in the form of problems for students to solve.
- Develop and refined students' answers to problems from the point of view and experience of the student.
- Acknowledge the social nature of learning by encouraging the interaction of the teacher with students, and students with one another.

Another way of applying constructivist instructional approaches in business education is to present integrated bodies of knowledge. Integrated lessons stress the connections between ideas and logical coherence of interrelated topics, usually in form of interdisciplinary options (Roberts & Kellogg, 2006; Rose, 2006). Following the constructivist approaches, business educators or business studies teachers can presents authentic problems using the interaction and naturally occurring dialogue of the classroom to foster and encourage integrated bodies of knowledge.

How Business Educators Can Encourage Meaningful Learning

As one may recall, the role of the teacher in constructivist situation/context is to facilitate learning. Constructivist lessons are designed and sequenced to encourage learners to use their own experiences to actively construct meaning that make sense to them, rather than to acquire understanding through exposure to a format exclusively organized by the teacher (Fosnot, 2005). In other words, basic constructivist theory is the notion that the individual students, not the teacher, is the focus in every learning situation and that classroom social interaction is critical in the learning process. Specifically, learning occurs when students interact directly with whatever materials or events encompass the learning experience and when they create their own ideas and understanding from this interaction. This means that constructivism focuses on learning, not telling.

For example, groups of students in business education class may discuss problems related to the launching and growing of business ventures and what need to be done about them. In this context, business educators can encourage students to take chances, given opportunities to experiment on their own, and accept responsibility for their own learning. This means that the teacher focuses on helping students to refocus their questions in ways that could lead to practical solutions. Business educators could encourage each student to reflect on current experiences with launching and growing of business ventures. Moreover, greater emphasis is placed on creating a classroom environment that encourages students to interact with one another. When one student comes up with a concept that could link to various forms of addressing the problems of



business venturing and growth and points to a single source, the teacher seizes the opportunity to alert the class about this important contribution, which may be a promising direction to explore. The teacher further encourages the students to consult the Web and other sources to substantiate their hypotheses and the credibility of their proposed solutions. Afterward, the class talks about what they have learned and how their observations and documentation helped them to understand the concept of creating and growing a business venture. The teacher uses this strategy to encourage cooperative learning and emphasize the need for students to engage in meaningful dialogue. This invariably implies that dialogue, or classroom discussion is one of the most important learning contexts/situations business educators can use to help students create knowledge for themselves.

From the above examples, constructivist believes that knowledge results from individual constructing reality from his or her own experiences. Learning occurs when learners create new roles and formulate hypotheses on their own to explain what is being observed. The need to create new roles and formulate hypotheses is stimulated by classroom dialogue, problem-solving exercises, individual projects and assignments that create discrepancies between old knowledge and new observations.

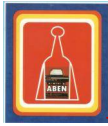
Conclusion

This paper has indeed discussed the important role of constructivism in the teaching and learning of business education. The theory of constructivism, the major tenets of constructivist approaches, the major attributes of constructivism, the application of constructivist approaches to business education, and how business educators can help encourage meaningful learning was discussed in this paper. Based on the literatures that have been reviewed in this paper, it is obvious that constructivist approaches can help in promoting the effective teaching and learning of business education as well as help in achieving overall goals and objectives of the programme.

Recommendations

The paper therefore recommends that:

1. Administrators and teachers should endeavour to implement constructivist approaches into business education programmes in order to promote effective instructional delivery process.
2. Educators and teachers should encourage students by giving them the opportunity to experiment and inquire into issues and problems on their own in order to understand concepts relating to business education.
3. Educators and teachers should endeavour to create an enabling environment that would encourage students' interactions with one another so as to help them create knowledge for themselves.



4. Government should provide financial resources for business education programmes in order to provide a real-world or practical-oriented environment where students can practice what they already know.

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