

Barriers of the Practical Application of Constructivism Theory in the Classroom: A Case Study on Teacher's Perspective

Mingxi Wang

Kunming City College Kunming, Yunnan 650000

Abstract: At present, a significant restriction in education in that educators or lecturers cannot transmit knowledge to students with simple ways but the learners need to become more active and construct knowledge in their own minds. This purposes of this case study are to investigate the teachers' perspective on the barriers of practical application of constructivist theory in the classroom.

Keywords: Student centered; ICT; Constructivism

Introduction

At present, a significant restriction in education in that educators or lecturers cannot transmit knowledge to students with simple ways but the learners need to become more active and construct knowledge in their own minds. This purposes of this case study are to investigate the teachers' perspective on the barriers of practical application of constructivist theory in the classroom. In the field of practical research, the practical research of constructivism pays more attention to theoretical study rather than the practical application of constructivism learning theory. However, for the combination of the constructivism learning theory and the practical application of constructivism learning theory in the classroom, there are few researchers to study. Thus, this case study is to identify the teachers' viewpoints about the reasons bring out the weakness of practical application of constructivism theory in the classroom.

Background

Nowadays, the theory of constructivism in teaching and learning has developed in popularity in the 21st century education. The concept of learning and teaching theory have been accepted and supported in education. Apart from that, typically, constructivism proposes that learners establish their own understanding and the understanding of the world by reflecting these experiences and experiencing things (Bereiter,1994). Constructivism makes students become the center, includes the problem-solving, considers students' previous knowledge, enhances the social interactions and environmental, and takes into account students' errors as opportunities for teaching and learning in the classroom (Baştürk. S 2016). Moreover, the constructivism learning theory has had a profound impact in education around the international education community.

Literature review

Over this years, the theory of constructivism has grown a compelling method in teaching and learning. As a teacher, they used to plan their lectures in the traditional way, focusing on how the lecturers should guide their students but what should students not do. Therefore, The theory of constructivism is one of the methods for solving this situation (George, 2001). “ Teachers develop the situation for students to explain, select a process for groupings of materials and students, build a bridge between what students already know and what they want them to learn.” (George, 2001). It highlights the importance of active participation of learners in the learning process. Moreover, many of concepts of constructivism learning and teaching theory are derived from the work of cognitive psychologists like Piaget, Bruner, and Vygotsky. The theory of constructivist is concerned that learners establish their own knowledge based on interactive environments. Specifically, the constructivist theory in learning and teaching is from the

purpose, the subject, the principles, the methods, the content and the evaluation of learning and teaching. In purposes of teaching, the important goal is to improve the initiative and initiative of students' independent inquiry. Teachers are the dominant players in teaching activities, guiding students to construct knowledge, guiding and promoting the entire teaching activities. Students are cognizant of conflicting situations, and students can constantly to think and explore in such teaching situations. In the evaluation of teaching, constructivists put forward several innovations. The new evaluation criteria include the evaluation criteria of target freedom, that is, overcoming the specific and single target to evaluate the value of evaluation standard that real problem solves. Under the guidance of constructivist theory, the students have gained all-round development, the professional development of teachers continues to improve.

Methodology

This case study aims to determine teachers' perspective about the barriers of practical application of constructivism learning theory in the classroom. This case study was used as a qualitative methodology to examine the factors that cause the weaknesses of practical application of constructivism learning theory in the classroom. The researcher of this case study conducted through document analysis approach and semi-structured interview of the three teachers or lecturers, as well as they, are studying as the student in University Kebangsaan Malaysia (UKM). It aims to interpret the perspective of teachers about the factors that appear the weaknesses of practical application of constructivism theory in the classroom.

Result

This case study is conducted by interviews and analyses. Therefore, results come from the contribution of 3 teachers who are studying in University Kebangsaan Malaysia (UKM). According to the interview, all of them agree with that the materials in teaching and learning limit the practical application of constructivism theory. Quoted from the first respondents saying " Instructional materials should help teachers to teach creatively as well as the students can gain the benefits from instructional materials. For example, instructional materials should help students carry out constructive learning. Educators rely too much on instructional materials without more activities for the course so that hinder the practical application of constructivism theory in the classroom ". Besides, they all agree with that the application of information and communications technology (ICT) hinders the practical application of constructivism theory in the classroom. Quoted from one of respondents saying " In the application of ICT, most teachers consider that the ICT is much helpful than the teachers. Thus, application of ICT makes the course become easier than before and some of the students just use the ICT for their instruction without thinking behind the theory especially the constructivist theory. " Another respondents was saying " Although there is ICT in the classroom, some of the teachers cannot perform better when they are using the ICT in the classroom, they are more like to use the traditional way for their class, which means that they like to make the teacher-centered environment rather than the constructivism learning environment. " Moreover, the respondents all consider that the traditional ideas such as teacher-centered, direct instruction limit the practical application of constructivism theory in the classroom. One of the teachers was saying " the students should be managed and educated when they are teaching in the classroom, because the teacher should complete the goals of the course. Besides, the students can learn after the instruction. Thus, although sometimes the teachers know should realize the difference of students, they still like to use the teacher-centered rather than the constructivist approach. Some of the teachers lack the in-depth study of constructivist theory so that they are not like to construct the constructivist learning environment ".

Discussion

The main barriers of practical application of constructivist learning theory in the classroom is the application of information and communications technology (ICT) limit the practical application of constructivism theory in the classroom. Some of the teachers like to use the conventional method to deliver the knowledge in the classroom but some of the teachers in advanced rely much more on the ICT during the process of instruction in the classroom. The constructivist theory believes that instruction is a process in which teachers and students jointly understand book knowledge, exchange ideas, and seek new discoveries, so that students can actively think, be willing to express, constantly improve and deepen their knowledge system in the teaching process. However, the conventional teaching way is teacher-centered so that the students just listen to the teacher and learn from the instructional materials. So the process of instruction become the "the teachers ask, the students answer, the teachers talk, the students listen ". In the process of teaching, some teachers regard the curriculum as the basic way to faithfully impart book knowledge, and some teachers regard the curriculum as the normative content of subject knowledge. Furthermore, With the continuous development of ICT even the technology in education and the higher requirements of society for education, a large number of computers, multimedia, and other hardware facilities have been invested in instructional activities. The rational application of those modern

educational techniques can improve teaching efficiency and increase the interest of teaching. However, there are some problems in practice, some teachers rarely use the traditional tools and they blindly believe that the application of modern ICT and technology is far superior to traditional tools so that they use the technology in the classroom as one of the criteria for their course and evaluating activities. Another barrier is the respondents indicated that most teachers just focus the lecturers and the materials but not concentrate on the students. Therefore, the materials in teaching and learning limit the practical application of constructivism theory. Nevertheless, teachers emphasis on the mastering and imparting specific knowledge while ignoring students personality development because of focusing on the instructional materials especially in the official textbook. They need to constantly organize exams to evaluate their learning achievement so that always creating a stressful teaching environment. Basically, there are limitations of constructivism theory in the practical application in the classroom. This is the reason why some teachers would not like to use or are not familiar with the constructivism theory. The limitations are the application of constructivism theory requires high manpower, material resources, and time. Also, it is not suitable completely for most schools. Finally, the educator should concern with the barriers of practical application of constructivism theory in the classroom rather than ignoring it and should apply the constructivism theory more scientifically into the instruction.

Conclusion

The constructivism theory has had a great influence on education in recent years. It has been widely practiced in the classroom of Western countries. According to the semi-structured interview and the results, this case study identifies the barriers of practical application of constructivism theory in the classroom. First, the application of information and communications technology (ICT) limit the practical application of the constructivism theory in the classroom. Second, the materials in teaching and learning limit the practical application of constructivism theory. Third, the traditional ideas such as teacher-centered, direct instruction limit the practical application of constructivism theory in the classroom. Finally, the weakness of constructivism theory limits the practical application in the classroom. Indeed, there were the limitations with the results because the 3 respondents might not represent and present all of possible results and viewpoints for this case study even they are all experienced teachers. However, the findings in this case study still reflect the perspective about the barriers of practical application of constructivism theory in the classroom.

References:

- [1] Bereiter, C. (1994). Constructivism, socioculturalism, and Popper's World 3. *Educational Researcher*, 23 (7), 21-23.
- [2] Baştürk, S (2016). Primary Pre-service Teachers' Perspectives on Constructivism and its Implementation in the Schools. *Universal Journal of Educational Research* 4(4): 904-912.
- [3] George W. Gagnon, Jr., & Michelle Collay. (2001). *Constructivist Learning Design*. Retrieved from <http://www.prainbow.com/cld/cldp.html>

About the author:

Mingxi Wang (1992.10--), male, Han, Zhengzhou city, Henan province. None, Master.instructional technology.