Evaluating Instructional Effects of Flipped Classroom in University: A Case Study on Electronic Business Course

Wenlong Zhu, Qingdao University of Technology, Qingdao, China
Wenjing Xie, Qingdao University of Technology, Qingdao, China

ABSTRACT

Flipped classroom provides the new ideas and ways for the innovation of university pedagogical mode. Nowadays instructors may apply this new approach to liberal arts majors in university class in order to make up for the problems of low instructional effects in traditional teaching method. From the subjective and objective perspectives, this research analyzes experimentally the similarities and differences of instructional effects among traditional teaching method, semi-flipped classroom approach and full flipped classroom approach in electronic business course in university. The results show that two kinds of flipped classroom approaches can produce better instructional effects relative to traditional teaching method. Moreover, semi-flipped classroom approach is more suitable for liberal arts specialties in university compared to full flipped classroom approach. Lastly, flipped classroom approach only achieves its instructional effects after a period of time.

KEYWORDS

Electronic Business, Flipped Classroom, Pedagogical Mode, University Instructional Effects

INTRODUCTION

Nowadays, there are some problems in traditional pedagogical mode in university, such as indoctrination lectures, exam-oriented lectures, disconnection between theory and practice, and so forth. These problems not only lead to the mental and physical exhaustion of instructors, but also reduce the effectiveness of instruction. More importantly, this traditional pedagogical mode gets university students into the habit of passive acceptance, which is not beneficial to improving the self-learning abilities and individuation. Presently, a growing number of instructors, university students and communities are trying to seek a new pedagogical mode to improve the teaching quality and learning environment. In this circumstance, flipped classroom, a new teaching method arisen in recent years, provides the new ideas and ways for the innovation of university pedagogical mode.

The concept of the flipped classroom was proposed by Bergmann and Sams (2012). They recorded class lectures and provided the videos online to enable students to watch and review the teaching contents more conveniently. This teaching method attracted the attention of the public at that time. Then, Salman Khan explained the connotation of flipped classroom in making a speech on Re-creating Education with Video at the Technology Entertainment Design Conference in 2011 (Katie, 2012). Since then, flipped classroom was known by many instructors gradually, and became a global concern of pedagogical mode quickly (Zhang, Wang, & Zhang, 2012). So far, there are diverse definitions of the flipped classroom. One of the most common is “Recording in-class
activities to convey a course: Students watch the video before the class and use the class time to solve complex concepts, answer questions, and students are encouraged to learn actively as well as create bonds with daily lives” (Stone, 2012). However, other scholars believe that the way of self-learning before class is not only confined to videos or the Internet. As long as proper learning contents and suitable guidance are offered to the students, similar learning objectives could be achieved (Kim, Kim, Khera, & Getman, 2014). Essentially, flipped classroom refers to the pedagogical model that reverses the knowledge impartment process and knowledge internalization process in traditional teaching method (Bergman & Sams, 2013). It is in the knowledge impartment process that students learn and memorize knowledge imparted by instructors. In the knowledge internalization process, students need to understand knowledge actively and incorporate it into their own knowledge systems after a series of exercises. The potential advantages of flipped classroom are as follows. Firstly, this approach can enhance the interaction between instructors and students, and also provide a good self-learning environment. Secondly, instructors will be mentors who directly guide and participate in learning. Thirdly, teaching materials can be saved permanently. Absentees will have an opportunity to make up the courses. Besides, all students can learn the course contents at any time. In short, flipped classroom is expected to produce better instructional effects. However, in real university classroom, we wonder whether flipped classroom can lead to better instructional effects as expected. Practically, instructional effects are the key to talents training mode. From this point of view, this study will have a critical impact on the reform of university teaching approaches by exploring the instructional effects of flipped classroom.

From the subjective and objective perspectives, this research analyzes experimentally the similarities and differences of instructional effects between traditional classroom and flipped classroom by designing and controlling instructional procedures in electronic business course in university. For more comparative results, this article divides flipped classroom into two categories. One is semi-flipped classroom, and the other is full flipped classroom. In our research, the above two pedagogical modes are the same in the knowledge internalization process. Nevertheless, there is an obvious difference between them in the knowledge impartment process. Teaching way of traditional classroom will be adopted in semi-flipped classroom, and instructor is still the core in the process of teaching. But individualized teaching approach will be applied in full flipped classroom. Instructor is merely a mentor who plays a subordinate role during the instruction period. In addition to the instructional effects of three kinds of teaching approaches, this study will also explore which kind of approach is more applicable to liberal arts majors in university.

LITERATURE REVIEW

So far, flipped classroom has received much attention in academia. Many experts and scholars conducted various researches related to the instructional effects of flipped classroom. However, there were some differences in analytical conclusions. Some studies found that flipped classroom would lead to better instructional effects. For instance, Tune, Sturek, and Basile (2013) compared the effectiveness of a traditional lecture-based curriculum versus a modified flipped classroom curriculum. The findings suggested the flipped classroom is a highly effective way to disseminate key concepts. Amresh, Carberry, and Femiani (2013) discussed early results and observations of implementing a flipped classroom to teach an introductory programming course (CS1) to engineering, engineering technology, and software engineering undergraduates. The analytical results showed that flipped approach had promise in improving students’ abilities. Zhang, Ma, and Liu (2014) tested the effectiveness of flipped classroom in Chinese university, and found this approach changed students’ attitudes toward learning, improved their performances, and decreased instructors’ total workload. Danker and Brenda (2015) used flipped classroom approach to stimulate deep learning in large classrooms in Performing Arts course in Malaysian university, and finally concluded that flipped classroom had promising impact for student learning and achievement. Hung (2015) integrated flip teaching into language classrooms
Related Content

The Challenges and Opportunities of Online Postgraduate Coursework Programs in a Traditional University Context
Elizabeth Devonshire, Hannah Forsyth, Sharon Reid and Judy M. Simpson (2013). *Outlooks and Opportunities in Blended and Distance Learning* (pp. 353-368).
[www.igi-global.com/chapter/challenges-opportunities-online-postgraduate-coursework/78418?camid=4v1a](www.igi-global.com/chapter/challenges-opportunities-online-postgraduate-coursework/78418?camid=4v1a)

Use of Cognitive Apprenticeship Framework in Online Learning
[www.igi-global.com/chapter/use-cognitive-apprenticeship-framework-online/12053?camid=4v1a](www.igi-global.com/chapter/use-cognitive-apprenticeship-framework-online/12053?camid=4v1a)
Prospective English Teachers’ Digital Storytelling Experiences Through a Flipped Classroom Approach
www.igi-global.com/article/prospective-english-teachers-digital-storytelling-experiences-through-a-flipped-classroom-approach/217496?camid=4v1a

PowerPoint Presentations Increase Achievement and Student Attitudes Towards Technology
Michael Fedisson and Silvia Braidic (2007). *International Journal of Information and Communication Technology Education* (pp. 64-75).
www.igi-global.com/article/powerpoint-presentations-increase-achievement-student/2330?camid=4v1a