Comparison of Satisfaction in EFL Flipped and Traditional Classrooms

Zhonggen Yu [1a], Qin Zhu [2b]

[1]School of Foreign Languages, Hohai University, 8 Fo Cheng Xi Road, Nanjing, China

[2]MA Student of School of Foreign Languages, Hohai University, 8 Fo Cheng Xi Road, Nanjing, China

[a]401373742@qq.com, [b]871548029@qq.com

Abstract. EFL flipped classroom has been receiving increasing popularity compared with the traditional EFL classroom. However, few studies have focused on the comparison of satisfaction levels between the flipped and the non-flipped pedagogies. This study, using a quasi-experimental research design, and randomly selecting participants from undergraduates with different majors, identified the differences in satisfaction between EFL flipped and traditional classrooms. Teachers in this study all received rigid training regarding flipped pedagogy in order to ensure their teaching styles and levels were the same, where reliable data could be elicited. It was concluded that satisfaction in EFL flipped classroom was significantly higher than that in EFL traditional classroom. The results echoed previous research possibly due to its reasonable design and research process. Future research into the changeable variable –satisfaction may be in need of cross-disciplinary cooperation between education, psychology, linguistics and statistics.

Introduction

Low engagement in learning activities and reluctance to voice opinions are major problems that frequently occur in traditional classrooms in China because there is a long-held tradition that people tend to be humble and modest. The information technology such as Classroom Response System, referred to as clickers or clicker, is supposed to solve such problems. Clicker can realize anonymous polling merely through students' slightly clicking corresponding buttons, encouraging their participation in learning activities and improving learning effectiveness (Yu and Liu, 2014). This study aims to explore both advantages and disadvantage of the EFL flipped classroom aided with information technologies.

Literature review

A number of researches have been devoted to satisfaction in EFL flipped classrooms aided with educational technologies. EFL flipped classrooms improve self-efficacy, form positive attitude and emotions, and thus make students satisfied. The flipped classroom was satisfactory to students in that it successfully caught attention of students, and their self-efficacy was enhanced through self-directed learning (Enfield, 2013). As a result, EFL flipped model led to satisfactory academic achievements and satisfied learners. Through EFL flipped classroom, students paid more efforts to learning and attended the class more frequently than under the traditional model (Chen et al., 2014). The majority of students spoke highly of the flipped model because the lecturing videos provided could be paused, rewound, reviewed, and fastened at students' convenience. This undoubtedly facilitated the learning and teaching process and encouraged students to engage in learning without harsh requirements on travelling (Schultz et al., 2014).

In addition, through semi-structured interviews, it was concluded that both learners and teachers positively assessed the flipped model because it brought great convenience to their learning and teaching (Kong, 2014). Learner empowerment, development, and engagement were also improved under the flipped model (McLaughlin et al., 2013). Students held that pre-class self-directed learning also activated in-class learning situation since they were well-prepared and had everything in their

minds. Nutrition-majored undergraduates preferred the flipped model to the traditional one as well (Gilboy, Heinerichs, and Pazzaglia, 2015).

The flipped pedagogy was motivating to students and it could thus make lazy learners dynamic (Tune et al., 2013), which might lead to learner satisfaction (Pierce and Fox, 2013). In statistics class, students were also satisfied with the flipped pedagogy (Wilson, 2013). Both students and teachers were satisfied with the flipped teaching and learning methods (Gilboy, Heinerichs, and Pazzaglia, 2015). The flipped pedagogy integrated with online NextGenU courses also reached a high degree of satisfaction, leading to higher academic achievements than the traditional pedagogy (Galway et al., 2014).

While the satisfaction of use of educational technologies has caught much attention, whether students are satisfied with EFL flipped classroom has been hardly explored, hence largely a mystery. This study, aiming to identify the satisfaction of EFL flipped classroom, is therefore meaningful and worthwhile.

Based on previous literature, the study put forward the research question, i.e. "Is satisfaction in EFL flipped classroom significantly higher than that in EFL traditional classroom?" The corresponding research hypothesis is "satisfaction in EFL flipped classroom is significantly higher than that in EFL traditional classroom".

Research methods

This study uses a quasi-experimental design, containing a questionnaire intending to identify participant satisfaction of EFL flipped classroom, plus an analysis and discussion regarding the results.

Participants. Participants, non-English majored undergraduates randomly selected from a well-known university, were willing to participate into this study. They, 18~21 in age (M = 19.67; SD = 1.26), were normal in literacy and psychological state. The number of female participants was 269, while 289 for males. Totally, 558 students were randomly selected to join the study. Their personal information, only used in this study, was declared confidential. Teachers all went through strict training and were all experienced in the EFL flipped teaching.

Research instrument. The research instrument includes mainly a questionnaire (Yu and Wang, 2016; Stokes, 2001). The questionnaire acts as a satisfaction scale including fourteen questions (see Appendix A). This satisfaction scale has been proved internally consistent and externally valid to determine satisfaction (Stokes, 2001). Each of the 14 questions was ended with a five-point Likert scale, ranging from 5=very often, 4=often, 3=sometimes, 2=seldom, to 1=never. Examples are "Communication with other students through the Internet is a positive experience; I find the online tutorials to be useful in helping me understand the material; my flipped class is providing me with skills that I can use in other courses; I believe that the flipped environment is preparing me for future profession development."

Research procedure. The research procedure in this study can be divided into three phases. In the first phase, student satisfaction with EFL flipped classroom was identified through the above-mentioned scale. In the second phase, students received EFL flipped pedagogy for one semester. In the final phase, participants received the second questionnaire aiming to identify their satisfaction after semester's flipped pedagogy. The pre- and post-test will be compared and analyzed using related programs in a computer.

Research results. All the data collected from the questionnaire were entered into computer for further computation and analysis. The mean of satisfaction in EFL flipped classroom (M=51.49) is significantly higher than that in EFL traditional classroom (M=50.23) at the significance level .05 (M.D. = -1.26; t = -8.51; p = .00). Therefore, the hypothesis "satisfaction in EFL flipped classroom is significantly higher than that in EFL traditional classroom" is accepted. The result seems convincing, which will be explained in the following section.

Discussion

The EFL flipped classroom is significantly different from the traditional one. The prominent feature of the EFL flipped classroom is that it focuses on self-directed learning rather than teacher-directed learning required by the traditional pedagogy. The flipped requires students to learn on their own before they physically enter the classroom. They can use the information technologies to communicate with peers and teachers before class so that the self-directed learning and independent study can be realized. The learning activities online should be strictly supervised and carefully recorded in order to make sure students concentrate on learning by themselves even they are not directly faced with teachers and students.

Through this highly required self-controlled learning, students may be able to construct systematic and intricate schemas in their brain. When they meet problems that can well fit the schema, the internal mechanism can be activated easily. In this way, student can be able to understand the contents fitting the schemas in brain by merely activating the existent mapping.

Admittedly, to form an intricate schema in brain is never easy. This needs painstaking learning and practicing. It may be wise for students to practice and learn at regular times and stable venues. Interactions between students and teachers may be helpful to students who wish for schemas formation in brain. Students therefore need to interact with peers and teachers either online and offline when possible. Lazy learners can never pick up the schemas haphazardly.

The EFL flipped classroom inverts outside class the learning activities used to be completed in the traditional classroom. Without supervision, students should arrange learning activities on their own in order to participate into the learning activities in class. This sheds light on highly self-controlled activities outside classes. If students fail to learn contents with high self-direction, they may be ridiculous in class and be smocked at by peers and teachers. As a result, they may make every effort to internalize the knowledge before class, which helps them to construct the mental schemas.

In case of the schemas formed in brain, students can learn knowledge much more efficiently than those who have not formed them. More complicated knowledge acquired, students may be able to construct more intricate schemas. More schemas help them learn more complicated knowledge. This thus forms a benign cycle, beneficial to knowledge learning process. By contrast, if students fail to construct intricate schemas, they may be more difficult to acquire more advanced knowledge. Less complicated knowledge may hinder the formation of intricate schemas. This therefore becomes a vicious cycle, harming the learning and teaching effects. The benign cycle is most likely formed by the EFL flipped classroom, while the vicious cycle may be constructed by the traditional pedagogy.

Benign cycles constructed, students undoubtedly have free access to the knowledge. This enhances confidence and improves positive emotions. With learner confidence and pleasant emotions, it is unsurprising that academic achievements and satisfaction will be improved.

When learning activities are held in class, students are required to participate, which makes the class dynamic and interesting. The dynamic class promotes students to discuss questions and share opinions with peers and even with teachers. Students' potential may be fully developed. Driven by positive emotions, students may be more energetic toward and more interested in learning activities, which will certainly improve learning effectiveness.

The EFL flipped classroom also brings about convenience in the learning process. Under the flipped model, students can internalize the knowledge on their own before class. They may choose any venue or time available and decide wherever and whenever they desire. They needn't travel any more to attend the physical classroom to listen to the teacher. Rather, they can learn online and interact with peers and teachers using the educational technologies. Although they are also required to attend the physical class, their online gathering may replace the physical one if the natural environment is too harsh to travel. Students may share their own understandings with peers online for further discussion instead of traveling long for meeting. This is definitely time-saving and energy-efficient.

Under the flipped model, the teacher, though appearing unable to supervise, can supervise students by tracing students' activities and performance using information technologies such as clickers,

multimedia projectors, and communicative platforms. Consequently, the teacher may enable more precise and exact supervision rather than apparent ignorance of students' performance. Students, having been acquainted with the situation, tend to work harder and pay more attention to learning activities compared with the traditional pedagogy where no advanced educational technologies are available.

However, there may be some regrets regarding educational technologies. Costs of them are unavoidable. Some educational institutions may feel burdened and may thus be reluctant to purchase them. Teachers, accustomed to traditional pedagogy for long which is realized by using chalks and lecturing, may be unwilling to change the tradition. Because changing needs efforts and adaptation, this innovative flipped model may meet up with resistance and reluctance. Financial support and persuasion may be needed to pave a solid way for innovation of the flipped model. If the finance runs out, it may be the responsibility for related department to work it out. Education cannot be completely benefit-oriented. Moral-and welfare-oriented operation may be more beneficial to educational development.

On the contrary, EFL traditional class may be hard to construct intricate schemas in learner brain. Students only need to preview what will be delivered by the teacher in class. It is unnecessary for them to internalize and learn the knowledge to a deeper degree since the teacher will explain everything in class. What the learners expect is to await the teacher's detailed explanation in class rather than self-directed learning and online peer discussion. In class, the teacher delivers the contents, followed by listeners' occasional question raising. Group discussion will not be the focus since the class is teacher-oriented. After class, students merely mechanically complete the assignment allotted by the teacher and seldom share opinions online with their peers and the teacher. The pre-class, while-class and post-class sessions are rarely constructive to form the complicated and intricate mental schemas. Compared with EFL flipped classroom which realizes intricate and complicated schemas, the flipped pedagogy is doubtlessly helpful for students to attain to better academic achievements and hence higher degree of satisfaction. It is therefore reasonable to arrive at the conclusion that the EFL flipped class reaches significantly higher satisfaction degree than the traditional one.

Conclusion

The results of this study are in conformity with previous research. Having received hot popularity, EFL flipped classrooms hold advantages which cannot be realized through EFL traditional classrooms. The satisfaction scale used in this study has been proved internally consistent and externally valid to identify learner satisfaction. The experimental span, one academic semester, is long enough to produce significant differences in satisfaction. The sample is also large enough to represent the population in that it is randomly selected and contains participants with various backgrounds. The context where the study was conducted is also appropriate for comparison of EFL teaching and learning since it is located in a monolingual country in which English is considered a foreign language. The teachers also experienced strict related training in terms of flipped pedagogy and thus are on similar levels of teaching skills, which guarantees the reliable results.

Although this study is well conducted and rigidly designed, there are admittedly some defects in this study. Merely a questionnaire may not be so plentiful to determine the psychologically changeable variable—satisfaction. Future research into satisfaction in EFL flipped classroom may never be successfully and exhaustively explored without other aids. Cross-disciplinary cooperation between education, psychology, linguistics and statistics may be necessary to conduct valid and in-depth research into the flipped pedagogy.

Acknowledgements

References

[1]. L. P. Galway, K. K. Corbett, T. K. Takaro, K. Tairyan and E. Frank: A novel integration of online and flipped classroom instructional models in public health higher education. BMC Medical Education, (2014), 14(3), p.1–9.

[2]. M. B. Gilboy, S. Heinerichs and , G. Pazzaglia: Enhancing student engagement using the flipped classroom. Journal of Nutrition Education and Behavior, (2015), 47(1), p. 109–114. DOI:10.1016/j.jneb.2014.08.008

[3]. S. C. Kong: Developing information literacy and critical thinking skills through domain knowledge learning in digital classrooms: An experience of practicing flipped classroom strategy. Computers & education, (2014), 78 (259), 160–173.

[4]. J. E. McLaughlin, L. M. Griffin and D. A. Esserman: Pharmacy Student Engagement, Performance, and Perception in a Flipped Satellite Classroom. American journal of pharmaceutical education, (2013), 77 (9), 196.

[5]. R. Pierce and J. Fox: Vodcasts and Active-Learning Exercises in a "Flipped Classroom" Model of a Renal Pharmacotherapy Module. American journal of pharmaceutical education, (2013), 76 (10), 196.

[6]. D. Schultz, S. Duffield and S. C. Rasmuseen: Effects of the Flipped Classroom Model on Student Performance for Advanced Placement High School Chemistry Students. Journal of chemical education, (2014), 91(9), SI: 1334–1339.

[7]. S.P. Stokes: Satisfaction of college students with the digital learning environment—do learners' temperaments make a difference? Internet and Higher Education, (2001), 4, 31–44.

[8]. J. D. Tune, M. Sturek and D.P. Basile: Flipped classroom model improves graduate student performance in cardiovascular, respiratory, and renal physiology. Advances in physiology education, (2013), 37 (4), 316–320.

[9]. S.G. Wilson: The Flipped Class: A Method to Address the Challenges of an Undergraduate Statistics Course. Teaching of psychology, (2013), 40 (3), 193–199.

[10]. Z. Yu and G. Wang: Academic achievements and satisfaction of the clicker-aided flipped business English writing class, Journal of educational technology & society, (2016), 19(2), 298–312.

[11]. Z. Yu and C. Liu: The Influence of Clickers Use on Metacognition and Learning Outcomes in College English Classroom. International Journal of Information and Communication Technology Education, (2014), 10(2), 50-61.