A proposed flipped classroom method: Using online collaboration to enhance students' outof-class oral academic English learning

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Abstract: Recently, the flipped classroom approach (FCA) is slowly reshaping the academic English language learning (ELL) classroom in Asia. Much emphasis and research has been focussed on the "in-class" synchronous/collaborative learning aspect of the FCA, thus yielding positive results. However, the "out-of-class" asynchronous learning aspect of the FCA has received less attention and some problems occur, such as minimal to no peer collaboration or student accountability while watching the prescribed out-of-class video lessons. Therefore, to address these issues, this study examines the impact of creating a more synchronous/collaborative online component to the out-of-class aspect the FCA. Using the latest online technology innovations, a newly proposed flipped class (PFC) was created and then compared to a regular flipped class (RFC), and a traditional class (TC) over twelve weeks. Fifty-four undergraduate business students from a private university in Northern Taiwan participated in the study. Mock IELTS oral pre/post-tests were given to all participants in each ELL class to measure which teaching approach is more effective. The results show the PFC significantly improved overall on average, out-preforming both RFC and TC, and surprisingly, the TC significantly preformed better than the RFC; thus supports creating a more collaborative ELL environment during the out-of-class course content instruction component of a FCA, which enhances overall oral ELL.

Key Words: Academic English Learning, Flipped Classroom, Online Collaboration

1. Introduction

The flipped classroom approach (FCA) has received much attention and increased satisfaction over the past decade (Bishop & Verleger, 2013; Butt, 2014; Schultz et al., 2014; Loucky & Ware, 2016). However, less focus has been placed on the "out-of-class" asynchronous learning component of the FCA and some of the disadvantages that occur. For example, Lai and Hwang (2016) found that students involved in the FCA needed more guidance and assistance with the out-of-class aspect due to poor management skills while watching the video lessons, and students have low self-regulated behaviors (Sletten, 2017; Rahman et al., 2015), some students have difficulties watching all the videos (Taylor, 2015), and come to class unprepared (Bristol, 2015). In addition, Wu et al. (2016), Yang et al. (2016), and Loucky and Ware (2016) identified that students lacked a strong teacher and social (collaborative) presence while watching the videos alone at home, and therefore proposed more collaborative learning methods to enhance more social presence during the "out-of-class" sessions.

To gain a better understanding if this newly proposed flipped class (PFC) can yield positive results thus leading to better overall oral ELL skills, a comparison of 3 different types of classes/teaching methods was conducted to investigate the following research question: Which Teaching method — 1) the RFC, 2) the PFC, or 3) a traditional class (TC) — yields the best results in terms of the students' overall oral academic ELL performance?

2. Method

2.1 Participants

The participants for this study involved 54 undergraduate university students in the Business Management College form a private university in northern Taiwan comprising of 2 classes/3 groups - 1 traditional class (TC - control group) of 18 students and 1 experimental class of approximately 36 students; the experimental class was divide into 2 smaller groups (RFC & PFC) with approximately 18 students in each. Most participants were local Taiwanese students, who were mostly female, and a few mainland Chinese nationals were in each class. One professionally trained university instructor that taught both classes.

2.2 Instruments

A MOCK IELTS oral test (pre and post) was given to all students (individually) during the first and last week of each course; the test — pre and post — was consistent in structure, and questions asked measured (1) fluency and coherence, (2) lexical resource, (3) grammatical range and accuracy, and (4) pronunciation. The test was approximately 5 - 6 minutes in length, consisted of 3 parts (interview questions, a long talk, and follow-up questions on abstract ideas & issues), administered by a trained examiner, and recorded. Google Hangouts on Air was used for the PFC small-group collaboration video-watching sessions, which is an online realtime social networking platform that allows individuals (or groups) to broadcast publicly, create live streaming video podcasts, or live video chat session through a YouTube channel.

2.3 Procedure

Both classes focussed on IELTS Academic English oral/aural content, and approximately 12 weeks with 2hrs per week. The TC class was a regular lecture class providing instruction and course assignments; where as, students in the experimental flipped class previewed weekly course content videos, and participated in synchronous group activities during the class time. The instructor provided short instructions and answered questions at the beginning of class, and then was a facilitator for in-class activities. Both RFC and PFC sub-groups in the experimental class received different out-of-class treatment: (1) the RFC group watched the course video lessons individually at home and completed a small weekly quiz. Students in the PRC group where divided into smaller groups (max. 3 students), watched the prescribed course video lessons and completed the quizzes together online using Google Hangouts on Air, which was recorded and handed into the instructor weekly. Students in the TC received weekly text-book readings and homework assignments covering IELTS related content presented in the RFC/PFC weekly video lessons.

The MOCK IELTS oral test (pre/post-test) was administered to all participants during the first and last weeks. All students met the language proficiency requirements; all participant's oral proficiency levels were close and in the acceptable average score range (between 5 - 6). Three professionally trained exam raters were used to validate and assess the MOCK IELTS oral test (pre/post) results. Consequently, the inter-rater reliability of both pre and post MOCK IELTS-test results were very significant measuring Cronbach's alpha at 0.93.

3. Results

After a 12 week period, a comparison between the pre and post-test results using a Paired-Sample *t*-Test showed a significant improvement (t = 4.95, p = .000) for all 3 groups overall. Comparing the average means of pre/post-test for each group, the PFC showed the highest increase from 5.08 to 5.53, the TC second from 5.08 to 5.44, and the RFC showed a very slight increase from 4.91 to 5.00. ANOVA post-test comparison between groups showed an overall significant difference between groups (F = 3.49, p = .038). A Post-Hoc LSD analysis showed the most significant difference p = .017 occurred between the PFC and the RFC, followed by a slight significant deference p = .044 between the PFC and the TC.

4. Discussion and Conclusion

The results not only indicate that the PFC on average significantly out-performed the RFC, but surprisingly the TC has also statistically exceeded the RFC in oral performance despite the overwhelming favourability that the FCA has been receiving. In concordance to evidence from pervious studies highlighting students' lower accountability watching the video lessons individually at home due to poor self-managements and self-regulating skills (Sletten, 2017; Rahman et al., 2015), being ill-prepared prior to class-time (Taylor, 2015), the following are key speculative reasons why the students in the PFC, and the TC significantly preform better than those in the RFC.

Teacher presence (physical & online) has a significant impact (Wu et al., 2016; Yang et al., 2016) on students' performance and learning. Both TC and PFC had a higher percentage of teacher presence than the RFC during course content instruction: (1) In the 2hr TC, the teacher engaged in instruction, discussions, and etc., with the students; and (2) because the PFC small group weekly video sessions were recorded, this instilled a strong awareness of teacher presence. In short, for both PFC and TC, a higher student accountability occurred to watch/pay attention and learn the course content presented; whereas, for the RFC out-of-class sessions, very little teacher presence occurred. Therefore, it is unknown if the RFC students actually completely watched and learned the content presented in the videos. In addition, a higher percentage of student interaction/social presence also occurred in both TC and PFC during the instruction of the course materials, which has a positive effects on students' learning (Yang et al., 2016). Very little social interaction/occurred in the RFC.

Overall, current innovations to online social-networking and computer technology allows for further enhancement to the out-of-class portion of the FCA to become more synchronous, thus providing more opportunities for increased teacher-student interaction outside of the language classroom. This calls for further research in this area. Factors in this current study not examined, such as student's individual motivation, gender and ethnic backgrounds that may have affected RFC students' out-of-class video-watching sessions can be considered for future analysis. Additional data/results attained in a larger version of this research study, such as weekly quiz results, quantitative & qualitative questionnaires/interviews, behavioural analysis aspects of both RFC and PFC groups will be presented and discussed at a later date.

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