FL Flipped Classrooms in a Vocational High-school in China: 
Students’ Achievements

Amin Bahramnejad Jouyabi
1226D, Number 886, Yuhamhtang Road, Hangzhou, China

Keywords: Flipped learning, EFL, Vocational High-school, Student achievement.

Abstract. Despite the rapid growth of flipped classroom in various contexts, research has been silent about implementing and evaluating this method of instruction in vocational high-schools. To fill this gap, this study aims to evaluate the effectiveness of flipped classroom model on two groups of students in a vocational high-school. The school is located in east of China and it aims to train the future flight attendants. 66 EFL learners in two levels of proficiency (grade 11, grade 12) were assigned into two flipped and two traditional groups. Participants’ pretest and post test scores were compared to measure the efficacy of this model of instruction. Although results indicate a progress in both groups of learners however, the higher level students outperformed compared to their lower level counterparts. Based on this, scholars and interested teachers are expected to consider students’ level of proficiency as an influencing factor in a successful implementing of EFL flipped classroom.

Introduction

Studies claimed that, flipped classrooms are applicable to teach any subject and at any level. They also stated, flipped classrooms current practice mainly lies in K-12 education (Horn, 2013). However, Butrymowicz (2012) mentioned that since the flipped classroom is still a new concept, more research should be conducted on it. Some scholars also reported that the studies that have been conducted is not rigorous (Goodwin & Miller, 2013; Hamdan et al., 2013). Additionally, former studies have reported the student’s low achievement as one of the main reasons that TVET students drop out. Yi et al.,(2012) believe that in competitive school systems like China, if students feel they are not capable of learning or what they achieve is lower than other students, they may decide to drop out.

Scholars have also claimed that TVET students are not good English learners. Their low motivation, low learning interest and negative attitudes towards English due to their early unsuccessful learning experiences at school are among the reasons that was exposed to support this claim (Li, 2005; Jiang, 2008). They have low or no awareness regarding the language competences the market expect them to have achieved and also if studying at a TVET school can really help them establish the links between school-to-work (Deng & Zhao, 2006). Despite of above nothing has been done to find out if flipped classroom model can influence the TVET students’ English learning.

Flipped Learning, the Key Concepts and Implications in Language Teaching in China

Flipped learning was introduced by two high school chemistry teachers, Jonathan Bergmann and Aaron Sams in 2007. Their proposed model has recommended a shift in what has been traditionally done during class time to home activities and what has been traditionally done at home to class activities (Bergmann & Sams, 2012). Bishop and Verleger (2013) concluded that, flipped learning consists of two components: (1) a direct computer-based individual instruction which occurs outside the classroom and through instructional videos, (2) interactive group learning activities between students and inside the classroom. These features make flipped model compatible with some contemporary language learning models such as Sociocultural theory (Lantolf, 2011) and Interaction Hypothesis (Long, 1996). Sociocultural theory insists on classroom activity and its impact on learning. Interaction Hypothesis expands the idea that the development of language proficiency is enhanced by face-to-face interaction and communication. Studies revealed the
presentation–practice–production (PPP) model as an influencing approach in the majority of Foreign Language Teaching coursebooks. However, one of the negative critics about this model is that the most of the in-class time are being taken up by presentations and practice, less time is devoted to production (Tedick & Walker, 2009, Criado, 2013).

In China, students use of English is limited to the classroom environment and there’s almost no communication in English outside the classroom. The strict relationship between students and teachers also contribute in the students’ lack of in-class participation in China (Liu, 2002). Since the most part of knowledge in the flipped model is delivered through instructional videos that students watch prior attending the class, class time can be spent in more engaging way (Graney, 2013; Kellogg, 2009). Mehring (2015) stated that EFL students’ engagement is obtained by giving them more opportunities to practice the target language and also to obtain new language patterns. Implementing flipped classroom can positively influence students engagement in language lessons (Hung, 2014; Jamaludin and Osman, 2014).

Research Questions

Current study aims to answer the following questions
1. What is the impact of EFL flipped classroom on vocational high-school students’ achievement?
2. Is students’ fluency effect their success in flipped classroom?

Method

Participants

A total of 66 female students in a vocational high-school in China ranging from 17 to 18 years of age, took part in the study. 33 of the participants were in grade 11 and 33 in grade 12. An independent t-test was conducted to compare their last year’s final exam score. These two classes indicated no statistically significant difference. (table 1). Additionally, students were satisfied to participate in this study. Both classes were taught by a 29 year old female teacher for the duration of an academic semester.

Data Collection

The data used for the purpose of this study was two classes last years’ final exam which was considered as a pretest and also the students’ final exam score after experiencing flipped classroom for a semester.

Findings

The data collected through the above-mentioned procedure, were analyzed using the statistical software SPSS, version 23. The Independent sample t-test which was employed to compare the pretests of both classes indicated that, there is no statistically significant difference exists between two groups of participants in this study (p<.005). (See Table 1)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Flipped Pre-Test</td>
<td>33</td>
<td>78.0909</td>
<td>5.18027</td>
<td>.90177</td>
</tr>
<tr>
<td>Low Flipped Pre-Test</td>
<td>33</td>
<td>77.8182</td>
<td>5.48552</td>
<td>.95491</td>
</tr>
</tbody>
</table>

As a result to see the effect of flipped classroom model on each group, the second Independent t-test which was conducted at the end of the semester to compare the two groups’ post-test showed that in both groups of learners the mean score of the post-test was higher than that of the pretest (see Table...
2). However, the higher level participants outperformed statistically significant on the post-test (p<.005) compared to the pre-test.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Flipped Pre-Test</td>
<td>33</td>
<td>82.8485</td>
<td>4.39546</td>
<td>.76515</td>
</tr>
<tr>
<td>Low Flipped Pre-Test</td>
<td>33</td>
<td>78.3636</td>
<td>4.85295</td>
<td>.84479</td>
</tr>
</tbody>
</table>

**Discussion**

The study aimed to explore the effect of a flipped classroom on EFL students’ achievement in a vocational high-school in east of China. The most significant results of this study was that the flipped classroom model positively influenced both high and low level students. This finding supports Bhagat et al. 2016; Chao et al. 2015; Schultz et al. 2014; Tsai et al. 2015) who similarly realized the effect of flipped classroom model on K-12 students’ achievement.

However, the higher level EFL learners performed notably better on the post-test than they did on the pre-test. This finding might be explained with regard to the pedagogical features of flipped learning classrooms which insists on the students’ pre-class preparation and also in class participation. It could be concluded that higher level students’ proficiency would enable them to learn more independently out of class and consequently have a better performance. More studies should be conducted to see if English learners’ fluency should be considered as a determining factor in their success when they are in flipped classroom or not.

**References**


