Exploring the Application of Flipped Classrooms on EFL Saudi Students' Speaking Skill

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Abstract

This qunatitatively based research utilising quasi experimental design, sought to explore the effect of implementing the flipped classroom (FC) pedagogical approach on female, preparatory year program (PYP) English as a Foreign Language (EFL) students at the English Language Institute (ELI), King Abdulaziz University (KAU) in Saudi Arabia. An experimental group as well as a control group were assigned in this study. The data collection was carried out using multiple sources, including pre- and post-speaking achievement tests in addition to two custom designed questionnaires. The results revealed that the FC did not sufficiently enhance the experimental group's speaking skill to cause a statistical significance in comparison to the controlled group. On the other hand, students held a positive attitude toward the FC experiment and the used instructional videos. The study also aims to enlighten and familiarise EFL colleagues within the context of Saudi Arabia, as well EFL colleagues from around the world, with this pedagogical approach in the area of EFL education. Conclusions and recommendations for future research studies are presented at the end of this paper.

Keywords: Flipped classrooms, speaking skill, EFL, Saudi context, learner-centred model

1. Introduction

As the old Chinese proverb goes: "Do not confine your students to your own learning, for they were born in another time". There is a continued debate concerning the most effective pedagogical techniques to be utilised in the English as a second language (L2) classrooms. As is widely accepted, one of the greatest changes in foreign language pedagogy has been the shift from a teacher-centered learning model to a learner-centered model (Al-Tamimi & Attamimi, 2014). This shift is a stepping-stone to a new era in which English-speaking instructions provide opportunities for the EFL students to express themselves more confidently in the speaking skill part of the language. In the context of Saudi Arabia, foreign language (FL) study is particularly important due to the increasing demand for the Saudi school and university students to learn English (Mahboob & Elyas, 2014; Rajab & Al-Sadi, 2015). Globalization has brought demands for English language skills to the Saudi marketplace and, in order to meet these demands, changes to the Saudi educational system were inevitable so as to produce students who are well skilled to compete in the global market (Al-Zahrani & Rajab, 2017; Elyas & Picard, 2010; Elyas & Picard, 2012; Elyas & Picard, 2013Alrashidi & Phan, 2015; Nourdeen & Elyas 2014; Elyas, & Badawood, (2015).

In light of the aforementioned conditions, introducing the flipped learning approach to Saudi teachers and students is a promising method to promote speaking and social interaction in the target language. This paper aims to define flipped classrooms, identify the positive impact and common challenges of applying this method in an EFL context, evaluate the methods used in flipped classrooms to teach speaking skill particularly in Saudi classrooms, and finally describing my experience in flipping classrooms to teach speaking skills.

1.1 Statement of the Problem

Learner and learning-centeredness are regarded as two desirable traits in EFL education. However, the Saudi school system primarily utilizes rote methods of instruction and does not expect independent learning from students. Al-Saraj (2014) describes the traditional teaching philosophy in Saudi Arabia as one in which students are required to memorize information without utilizing their cognitive abilities to reflect, synthesize and evaluate information. Consequently, students are typically not used to being asked to think deeply, or search for and elicit the right answers on their own, expecting their instructors to simply spoon-feed them information. Based on my own experience as a learner and then an employee, students are inadequately prepared for the workforce due to poor education or instruction in the classroom. Applying the flipped classroom model demands a shift in the manner in which English language instruction is practiced. This technological adaptation to learning is a promising alternative to present practices and methods used in teaching English in Saudi Arabia. Furthermore, the sense of urgency is heightened to adapt the flipped classroom method with millennial students, as educators increasingly struggle to capture the attention of today's tech-driven students. Students who have grown up on rapidly evolving technologies show a low tolerance toward lecture-style classrooms (Roehl, Reddy, & Shannon, 2013). Therefore, there is a need to investigate, especially in the Saudi context, the application of flipped classrooms in English language classrooms.

1.2 Significance of the Study

There seems to be a limited number of scholarly research studies investigating the application of the flipped classroom approach in EFL contexts. Despite the growing popularity of flipped classrooms in the Saudi educational ecology, its assumed effectiveness is currently lacking substantial empirical evidence, particularly in relation to the EFL teaching context. This study is important for several reasons:

First, this study is designed for teachers interested in implementing the flipped classroom in their EFL classes. The thought of implementing a flipped classroom in an English language course with an integrated skills curriculum may seem daunting. This study is innovative because it offers a framework on how to construct a flipped classroom in a Saudi EFL environment.

Second, due to the dearth of research on flipped classrooms, it is hoped that this study will shed light on the influence of the flipped classroom approach on the language proficiency of students in EFL environments, particularly in Saudi Arabia. By appreciating at the advantages that flipped learning has brought to other fields, researchers, language instructors and policy makers in the education field can begin to understand what the flipped classroom approach can bring to the EFL context as a whole.

1.3 Research Questions

This study is informed by the following two research quesitons:

RQ1: Do students in a flipped classroom environment demonstrate the targeted English speaking learning outcomes to a greater degree than similar students in a regular classroom?

RQ2: What are the students' views about implementing the flipped classroom in terms of general perception and impact on English speaking skill?

2. Literature Review

The flipped classroom (FC) model is an innovative classroom structure that utilizes technology to shift lecture content outside of the classroom, thus freeing up class time to engage in valuable learning activities (Roehl et al., 2013). Bishop and Verleger's seminal work, entitled, "The Flipped Classroom: A Survey of the Research" (2013) describes the conditions that led to the creation of flipped classrooms. As Bishop and Verleger (2013) state, two movements, which occurred simultaneously, changed the face of education in the modern age. The technological movement, followed by the ideological movement paved the way too many new directions taken in the education field. Yet, despite advancements in technology and the increase of digital educational content, access was limited to subscribers who paid university tuition or were members of certain institutions, meaning that the educational content was not accessible to users worldwide. However, these ideological roadblocks to digital knowledge sharing soon diminished with the increase in open and free online education platforms. Websites like Khan Academy, Udacity and Coursera offer free online classes in a variety of different disciplines to all people, regardless of where they live in the world. Thus, it is clear that while "… the technological movement sought to overcome real physical barriers to the free and open flow of information, the ideological movement seeks to remove the artificial, man-made barriers"

(Bishop & Verleger, 2013, p. 1). The emergence of the flipped classroom has been made possible in large part due to the appearance of free, accessible and ubiquitous technologies. According to Strayer (2007) and Wasserman, Quint, Norris, and Carr (2017), however, it is important to note that the essence of the flipped classroom, which is having students interact with course materials prior to class to allow for a deeper level of engagement during class, has long been used in the humanities in a model often referred to as the "Socratic method" or the "Gutenberg method" (Wasserman et al., 2017). Since the early years of the twenty-first century, educational circles have been rebelling against the traditional form of classrooms where the instructor is the central focus of the class. The need for personalized instruction that meets students' different learning styles – and one that serves the ultimate goal of education (i.e., for students to learn) – is, and should be, the priority (Baker, 2000; Davies, Dean, & Ball, 2013; Keefe, 2007). In the realm of language learning and teaching, praised the use of language laboratories (Morton, 1960), which enabled students to extend their learning beyond the limits of class time (as cited in Leis, Cooke, & Tohei, 2015).

2.1 Defining the Flipped Classroom

There is a lack of consensus in the literature on educational research concerning what exactly a flipped classroom is (Lo & Hew, 2017). The term classroom flip was coined by (Baker, 2000) and the term inverted classroom has been used by other researchers such as Lage, Platt, and Treglia (2000), (Moranski & Henery, 2017) and (Pena, Shih, & Rosson, 2016). Scholars in the educaitonal field agree in the general terms that the flipped classroom can be defined as moving the lecture content, which is typically presented in the classroom, through an online environment in the form of podcasts, narrated presentations, or other types of digital formats (Ng, 2015). Therefore, the majority of in-class (face to face) instructional time is devoted to communicative activities that simulate real-life tasks in the target language (Lage et al., 2000; Mehring, 2015; Warter-Perez & Dong, 2012). Bishop and Verleger (2013) however, claim that this definition is restrictive and implies that a flipped classroom is a mere rearrangement of classroom and at-home activities while it actually represents an expansion of the curriculum. As a result, (Bishop & Verleger, 2013) defined flipped learning as: "an educational technique that consists of two parts: interactive group learning activities inside the classroom, and direct computer-based individual instruction outside the classroom" (p. 5). A simplified depiction of this definition is provided in Table 1.

Table 1. Broader definition of flipped classroom (adopted from (Bishop & Verleger, 2013))

Inside Class	Outside Class
Questions & Answers	Video Lectures
Group-Based/Open-Ended Problem Solving	Closed-Ended Quizzes & Practice Exercises

2.2 Theoretical Framework of Flipped Classrooms Model

The theoretical foundation used for justifying the flipped classroom is established on embracing a learner-centered paradigm and shifting away from a teacher-centered paradigm.

Student-centered learning theories stem primarily from the theories of Piaget 1967 and Vygotsky 1978 (Bishop & Verleger, 2013). First, (Tétreault, 2013) states that "flipped classroom approach is rooted in socio-constructivist theories of education and active learning, but also includes and values educational media for content delivery"(p.6). In view of that, English as a Foreign Language (EFL) and English as a Second Language (ESL) teachers transfer the regular face to face lesson contents into a media-rich, digital content in the form of videos or narrated presentations. Meanwhile, students in flipped learning approach are considered as an essential instrument for constructing knowledge, especially in the pre-class phase where students are completely responsible for learning and digesting the content of the lecture prior to the class time. Second, the theory of Zone of Proximal Development (ZPD) asserts the consistent interaction between learning and developing. The theory informs the flipped class because students can reach on their own an understanding of the instructional media presenting the new knowledge. Moreover, collaborative learning and peer instruction during class time deepen students' perception in a topic area with the assistant of a capable educator. Therefore, students' initial knowledge of a topic in the pre-class phase will be broadened and enriched through the contribution of others (Bishop & Verleger, 2013; Tétreault, 2013). Furthermore, the parallel distributed processing (PDP) theory derived from the connectionist approach (Rumelhart & McClelland, 1985) can justify the theoretical framework of flipped learning approach in relation to EFL environment (i.e., speaking skill, which is the scope of this paper). According to the PDP theory, language learning involves the activation of nodes and the creation of pathways within the brain. When nodes and pathways are continually activated, it increases the likelihood of learning (as cited in (Gass, 2013; Saville-Troike, 2006). Accordingly, flipped learning increases students' opportunities to activate these nodes and pathways by freeing up the class's time to practice more authentic and interpretive activities in the target language. Gass (2013) extend the effects of this theory to Swain's output theory (1985). They claim that consistent mapping and activation of output (i.e., speaking skill) results in an automatic processing.

2.3 Flipped Classrooms: Overcoming Common Hurdles

To date, the majority of studies examining the effects of flipped classrooms have focused on scientific fields (e.g., mathematics, biology and chemistry). First, Tétreault (2013) examined three case studies which now serve as exemplars of the flipped classroom model. She found that educators' perceptions of the flipped classroom approach centers around the fact that it provides flexibility and affordances, such as a high levels of student engagement and cultivates critical and independent thinking. On the other hand, students' perception of the flipped learning approach does not necessarily correlate with their academic performance. Moraros, Islam, Yu, Banow, and Schindelka (2015) reported that the majority of the participants in their study (67 Public Health students) found this approach to be effective, even though it did not enhance their grades in the course (as cited in Leis et al. (2015)). Moreover, Bishop and Verleger (2013) provide a comprehensive survey of twenty-four, prior and ongoing studies related to flipped classrooms in 2012. Results of this survey revealed that most studies shed light on students' perception of the method and used single-group study designs. Also, general reports of the studies investigating students' perceptions tended to be

positive. Lastly, of all the studies on flipped classrooms, only one study by Day and Foley (2006) investigated the students' performance throughout a semester. Even though the results of this single study were encouraging, it was not sufficient as an evidence and thus, the generalizability of the study's findings are limited (as cited in Bishop and Verleger (2013). In the Saudi educational context, Al-Zahrani (2015) investigated the impact of the flipped classroom on optimizing students' creative thinking. Participants of the study were selected from the Faculty of Education at King Abdulaziz University in the city of Jeddah, Saudi Arabia. The researcher utilized a multiple methods research design. First, a two-group quasi-experimental design was implemented. The first group followed a traditional lecture-based strategy, while the second group applied the flipped classroom method. Second, a questionnaire was distributed to students in order to assess their views about the flipped classroom in terms of promoting creativity and the difficulties they experienced. The researcher found that the flipped classroom did promote students' creativity with regard to fluency in generating many solutions to a specific task, flexibility in going beyond the known and novelty of ideas. Furthermore, students believed that the flipped classroom played a significant role in facilitating their creativity.

2.4 Applying Flipped Classrooms in EFL/ESL Learning Contexts

There appears to be a limited amount of scholarly research conducted on the influence of flipped classrooms on students in an EFL environment. Despite this, the potential for benefit in EFL contexts is clear. Leis et al. (2015) conducted an empirical study comparing two English composition courses, one that was taught in a traditional manner and the other using the flipped method. The researchers employed a pretest-treatment-posttest design to collect the data. The results of the posttest illustrated that those studying under the flipped method managed to produce a significantly greater number of words in written compositions. The flipped method also appeared to make significant improvements in the writing proficiency of participants. Moreover, Mehring (2015) examined the lived experiences of Japanese EFL university students who had been taught using flipped classroom technique. In order to mirror the lived experiences of the participants, the researcher used a qualitative approach with a case study design. In the Saudi EFL context, Falemban (2015) experimented with flipped classrooms at two elementary schools. The first one was located in the city of Yanbu, and the other was located in a remote desert village, Saudi Arabia. The researcher enrolled the teachers applying this approach in a course that included the essential programs and applications for flipping the classroom. The results of the experiment were very encouraging since flipping the classroom motivated students to communicate and learn at their own pace. For the village school however, use of technology, which is an essential part for the success of this approach, created a barrier for teachers who applied the approach.

2.5 Teaching English speaking skill in EFL Saudi contexts

Learner and learning-centeredness are regarded as desirable traits in English as a Foreign Language (EFL) education. However, the Saudi high school system primarily utilizes rote methods of instruction and does not expect independent learning from students. Al-Saraj (2014) describes the traditional teaching philosophy in Saudi Arabia as one in which students

are required to memorize information without utilizing their cognitive abilities to reflect, synthesize and evaluate. Consequently, students are typically not used to being asked to think deeply, search and elicit answers on their own. Rather, they expect their instructors to simply spoon-feed them information.

In order for the EFL Saudi students to become fluent speakers, it entails not only the linguistic knowledge but also automatic processing of information (Harmer, 1991). Even though English language is a compulsory subject throughout different educational stages in Saudi Arabia (i.e., elementary, intermediate, secondary, and university), the speaking skills of Saudi students are weak and do not meet the expected level of oral mastery (Al-ma'shy, 2011; Alhmadi, 2014). There are several factors that lead to the general weak speaking skills of Saudi students. First, Saudi students suffer from lack of authentic situations outside the classroom. Accordingly, there are few opportunities for students to practice speaking. This heightens the need for communicative and authentic practices inside the classroom to create sufficient opportunities for speaking (Alharbi, 2015). Second, Al-ma'shy (2011) found that pronunciation, grammar, vocabulary and fluency are problematic issues for Saudi students that lead to speaking difficulties. Therefore, teachers need to devote more time in providing personal feedback to students' performance to optimize their mastery of the target language. Applying the flipped classroom methods demands a shift in the manner in which English language instruction is practiced. The flipped method provides a promising alternative to the present practices and methods for teaching English in Saudi Arabia. Furthermore, the sense of urgency is heightened to adapt the flipped classroom as a suitable mechanism for teaching millennial students as teachers increasingly struggle to capture the attention of today's students. Students growing on rapidly evolving technology show low tolerance toward lecture-style classrooms (Roehl et al., 2013). Moreover, each curriculum should have meaning focused output, which entails providing opportunities to students to learn through speaking and writing activities. According to Nation (2007), "[l]earning by input alone is not sufficient because the knowledge needed to comprehend input does not include all the knowledge which is needed to produce output" (p. 91). It includes activities such as: short talks and communicative activities. As a result, teachers need to be aware of this technique, especially in the Saudi context, and particularly the application of flipped classrooms to teach English. Teachers need to prepare students to be able to use the target language, which is as an essential element for mastering a foreign language (Louma, 2004). Flipped learning helps lead to oral mastery, since it provides more opportunities for students to practice speaking in different settings thus eventually leading students to automatically produce the usual patterns of language (Halliday, McIntosh, & Strevens, 1984).

2.6 How I Flipped my Classroom

The authors of this review paper have been teaching foundation year students with the English Language Institute at King Abdulaziz University. The language program follows a quarter-based system that consists of four English language proficiency levels in one academic year. Each level ideally lasts seven weeks. Unfortunately, they did not have an adequate amount of time to practice and provide sufficient feedback to my students towards their pronunciation and grammatical mistakes. Therefore, the authors created videos by using

Jing® and chose Edmodo® as my academic platform to post materials for speaking lessons and to interact with my students (see figure 1). In addition, they designed quizzes for students to take after watching and revising the materials presented in the videos several times at their own pace (see figure 2). In order to properly flip a classroom, it is of great importance to design a detailed lesson plan that explains the pre-while-post class activities. A key foundation of the "flipped" principle is that students do at home what would normally be done in the classroom. This means that students actually have to do homework, and often a substantial amount of homework, in order for the methodology to work. For this reason, the author developed a checklist to identify students who actually did the full amount of assigned homework and came to class prepared each day.
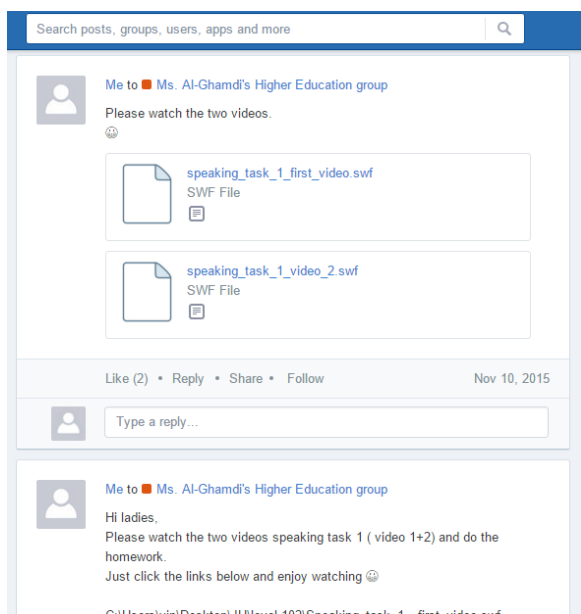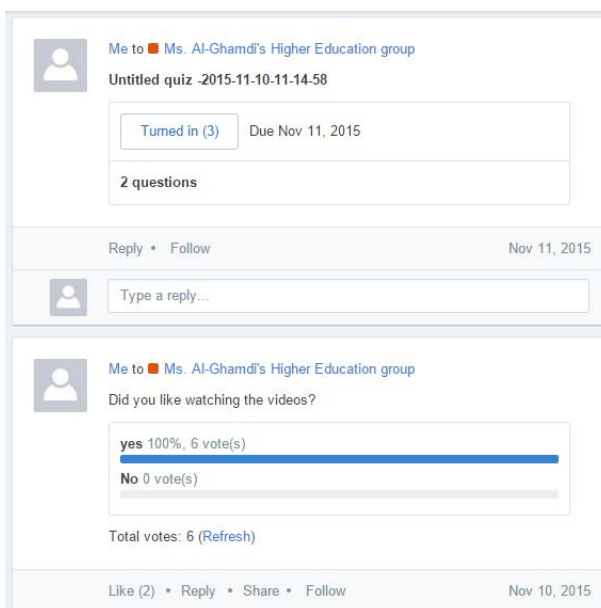

Figure 1. Videos posted on Edmodo   Figure 2. Students taking a short quiz after watching the videos

2.7 Challenges of Applying Flipped Classrooms Model

Tétreault (2013) reported some drawbacks of using this new teaching model. For example, access to technology is a problematic issue that negatively affects the success of flipped classrooms. She also stated that it is the educator's responsibility to ensure that all students have access to the internet before flipping the classroom. In addition, since this learning approach is techno-driven, some educators may not welcome its application as it requires technological knowledge, such as of educational media programs and video recordings (Sams, 2011). In his PhD thesis, Strayer (2007) suggested that teachers should decrease the array of tasks for learning to increase students' satisfaction (as cited in Leis et al. (2015)). Accordingly, teachers need to keep in mind that the ultimate goal is not to drown students with a lot of assignments, and as a result, increase their anxiety levels, but to facilitate and improve the quality of their learning.

3. Methodology

This research was conducted following a quantitative research methodology with a quasi-experimental design. An "experimental" group and a "control" group were assigned in the study as part of the quasi-experimental structure.

3.1 Data Collection Instruments

The researcher used multiple sources of data collection to answer the research questions. A pretest-posttest and two closed-ended questionnaires were utilized to collect data. First, a pre-post speaking achievement test was developed by the researcher and administered to all subjects of the sample, including both the experimental and controlled groups before and after the treatment (i.e., flipping the classroom). Additionally, two self-completed questionnaires were given to members of the experimental group at the end of the experiment in order to understand the perceptions of the participants about their flipped learning experience.

3.1.1 Likert Scale Questionnaires

Research question two concerning students' views about implementing the flipped classroom in terms of general Perception and impact on English speaking skill was answered by Questionnaire 1 entitled "Students' views about the flipped classroom". The questionnaire is a self-completed closed-ended questionnaire, which was adapted with modifications from two published studies on flipped classrooms: Al-Zahrani (2015) and Chen Hsieh, Wu, and Marek (2017). The questionnaire included thirteen items that were positively worded and distributed across two major sections on a five-point Likert scale (Strongly Disagree, Disagree, Not Sure, Agree and Strongly Agree). The first seven statements cover students views about the pre-class and in-class phases of the flipped classroom and the remaining six statements focus on students' views about the role of the flipped classroom in the enhancement of their English-speaking skills. Questionnaire 2, entitled "Perceptions toward using videos as a pre-class learning material for the flipped classroom" investigates research question three, which is students' attitudes toward using videos as pre-class learning material for the flipped classroom. The researcher adapted the Technology Acceptance Model (TAM) devised by Davis, Bagozzi, and Warshaw (1989) to understand participants' behavior in the flipped classroom pre-class session, which is vital as it affects their performance in the in-class phase. The questionnaire utilized only three of the four original constructs of TAM, which are perceived usefulness, perceived ease of use and attitude, and excluded behavioral intention as it doesn't fit the purpose of the research question that focuses on participants' attitude. Both questionnaires, "Students' views about the flipped classroom" and "Perceptions toward using videos as a pre-class learning material for the flipped classroom", were translated into the Arabic language and the Arabic version of the questionnaires was distributed to the participants to ensure a high level of comprehension. The Arabic version of both questionnaires was submitted in person by the researcher after the FC experiment to the participants in the experimental group.

3.2 Questionnaires Validity and Reliability

Prior to the actual distribution of the questionnaires, eight experts in the field of education - assistant professors of Teaching English to Speakers of Other Languages (TESOL) or education technology - reviewed the English and Arabic versions of both questionnaires. According to their recommendations concerning the suitability, clarity and relevance of the statements in both closed-ended questionnaires, modifications were made to enhance face validity and content validity. In order to check the internal consistency of the two questionnaires, the researcher piloted both questionnaires by implementing the FC on a section of students in the ELI at KAU for one week. The Arabic version of both questionnaires were given to ten students for the purpose of testing reliability. After the data was collected, Cronbach's Alpha was computed for both questionnaires. The result (0.727) indicates reliability in Questionnaire 1: "Students' views about the flipped classroom". Another Cronbach's Alpha test was performed on Questionnaire 2: "Perceptions toward using videos as a pre-class learning material for the flipped classroom". The result (0.895) indicated that Questionnaire 2 also has good internal consistency.

Table 2. Reliability Statistics of the research questionnaires.

Questionnaire	Cronbach's Alpha	Number of Items
Students' views about the flipped classroom	0.727	13
Perceptions toward using videos as a pre-class learning material for the flipped classroom	0.924	17

3.1.2 Participants

The participants were forty-two female students enrolled in an intermediate level course (Level 104) at the English Language Institute (ELI) at King Abdulaziz University (KAU), in Jeddah, Saudi Arabia. Twenty-one of the participants were considered part of the experimental group, while the remaining students were assigned to be part of the controlled group. Shah and Al-Bargi (2013) stated that proper sampling is crucial in a positivist study since "quantitative sampling aims at approaches that draw a representative sample from the target population, hence, the results of studying the sample can then be generalized back to the population" (p. 256). A quasi-experimental design was deemed suitable for the present research because the researcher could not use artificial samples as controlled and experimental groups, which would make the intended experiment (flipped classroom) less intrusive and disruptive for the participants' learning process. The two sections (controlled and experimental groups) were randomly selected, not randomly assigned to this study, which is a distinctive feature of the quasi-experimental design (Creswell, 2014; Seliger & Shohamy, 1989).

3.2 Pre and Post Speaking Achievement Test Validity and Reliability

The test was examined by six experienced EFL teachers and members of the testing unit in the ELI at KAU to ensure face validity and content validity. Modifications were made to both the teacher's copy and student's copy of the test in accordance with the feedback given. Based on Abeywickrama and Brown (2010) premise, a language test is considered reliable

when it is dependable and consistent. To measure test reliability, two sets of scores are required in order to compare. The more similar the scores are, the more reliable the test is. However, the reliability coefficient of a language test differs from one skill to another. Also, based on Hughes (2007) guidelines, numerous steps were taken to increase the test's reliability such as writing unambiguous items, providing clear and explicit instructions, and limiting the freedom of test takers to answer in their own words. As for score reliability, a detailed scoring rubric was given to the raters and the scoring process was done independently without interaction between raters. Several methods can be used for computing reliability, for example: test-retest, parallel forms, inter-rater, and split half reliability (Hodges, 2012; Trochim, Donnelly, & Arora, 2015). In this oral test, inter-rater reliability was used, which is usually used when a test measures speaking ability and is done by two or more raters (Henning, 1987). The researcher used Cronbach's Alpha to determine inter-rater reliability (see Table 3).

Table 3. Reliability Statistics of Pre-Posttests.

Cronbach's Alpha	N of Items
.865	2

The reliability coefficient usually occurs between 0 and 1. The closer to 1, the more reliable the test is. Thus, as shown above, Cronbach's Alpha value is .865, a value which is considered very reliable.

4. Data Analysis

Data analyses were conducted using the quantitative analysis software, IBS SPSS Statistics 23® (Statistical Package for the Social Sciences). In order to answer the first research question, statistical tests were carried out to test the difference between the grades of the controlled and experimental groups in their speaking achievement test. Non-parametric statistical tests were used in order to achieve a high degree of accuracy when comparing the grades of the two groups due to the low number of participants (<30). Examining the differences in speaking achievement between the experimental group (exposed to the flipped classroom treatment) and controlled group encompassed two procedures. Levene statistical test for homogeneity of variables was performed to ensure comparable samples. Furthermore, the test results of the participants in the experimental group to the test results of the participants in the controlled group in the posttest. Mann-Whitney U statistical test was used to compare the two groups. Wilcoxon signed-rank test was employed to compare the results of two related samples. In order to answer the second research question, the gathered data from the two Likert scale quesitonnaires were vlaue-coded in IBM SPSS and a statistical correlation test was performed using Spearman's rho to discover if there is a significant relationship between Perceived usefulness (U) of the videos as pre-class learning material and attitudes toward usage (A), Perceived ease of use (E) of the videos as pre-class learning material and attitude towards usage (A), Perceived ease of use (E) of the videos as pre-class learning material and perceived usefulness (U).

4.1 Data Analysis – Research Question 1

The descriptive statistics carried out on the pre and post tests indicated that the mean of the participant' grades in the controlled group was slightly higher than the mean of the participants' grades in the experimental group and the mean of the participants' grades in the experimental group is slightly higher than the results of the participants in the controlled group in the post-test (See table 4).

Table 4. Descriptive Statistics of Students' pre-post speaking Achievement tests.

Groups		N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Pre	EXP	21	3.5881	1.52249	2.8951	4.2811
	CONT	21	3.9810	1.70048	3.2069	4.7550
	Total	42	3.7845	1.60648	3.2839	4.2851
Post	EXP	21	7.4476	2.06534	6.5075	8.3877
	CONT	21	7.4333	1.56503	6.7209	8.1457
	Total	42	7.4405	1.80987	6.8765	8.0045

A Levene's test of homogeneity was implemented to control any initial differences between the controlled group and the experimental group. As can be seen from Table 4.2, the test of homogeneity shows that there is no significant difference in variance between the two groups in the pre-test since the calculated p-value (0.541) was larger than (0.050). Accordingly, the homogeneity of experimental students and controlled students was achieved since their test results were relatively congruent in the pretest.

Table 5. Test of Homogeneity of Variances.

	Levene Statistic	df1	df2	Sig.
Pre	.380	1	40	.541

The alternative test for non-parametric test (Mann-Whitney U) was used to find significant difference between the posttest results of students in the flipped classroom and students in the regular classroom. The result shows the p-value as not significant at a level of 0.05 for the total test score. It can be inferred that there is no significant statistical difference between the two groups on the post-measurements. Additionally, The Mann-Whitney U test was used to measure if there was a significant difference between the score differences of the pre-post of the experimental group and control group. The test results (p-value= 0.678) displayed a low level of significance in comparison to the alpha value= 0.05, which implies that there is no significant difference between students in the flipped classroom and students in the regular classroom in demonstrating the targeted English speaking learning outcomes at the level of confidence of 95%.

4.2 Data Analysis – Research Question 2

Results in Table 6 concern the second research question, which assesses students' views about implementing the flipped classroom in terms of general Perception. Over half of the respondents agreed that flipped classrooms helped them to participate and engage more in the

learning process (76% of the participants) and considered themselves more effective students after the FC (52% of the participants). Sixty two percent of the respondents also reported their agreement that FC helped them to cooperate effectively, and facilitated more communication between the students as well as between the teacher and students. Similarly, thirteen out of the twenty-one participants thought that the time and effort spent in the flipped classroom was worthwhile. The majority of the participants (62%) strongly agree that FC facilitates personalized learning. In the final six statements of the questionnaire, respondents were asked to report their opinion on FC in relation to their English-speaking skill. Most of the participants agreed with the mentioned statements, and 43% strongly agree that the flipped classroom model should be used more often in teaching the English language. The weighted mean and standard deviation is 4.07 (0.406), which shows a clear pattern in students' opinions about implementing the flipped classroom in terms of general perception. This pattern reveals the participants' positive views toward the FC experiment.

Table 6. Students' views about the flipped classroom

Statement	Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree	**Mean SD**
1-I participated and engaged myself more in learning in the flipped classroom.	0 (0%)	0 (0%)	2 (10%)	16 (76%)	3 (14%)	4.05 (0.498)
2-The flipped classroom helps me to effectively cooperate with my classmates.	0 (0%)	1 (5%)	3 (14%)	13 (62%)	4 (19%)	3.95 (0.740)
3- The flipped classroom enables me to manage my own learning activities.	0 (0%)	0 (0%)	5 (24%)	9 (43%)	7 (33%)	4.09 (0.768)
4-The flipped classroom facilitates more communication between me and my teacher and classmates.	0 (0%)	0 (0%)	1 (5%)	13 (62%)	7 (33%)	4.29 (0.560)
5- I became an active learner in the flipped classroom.	0 (0%)	2 (10%)	4 (19%)	11 (52%)	4 (19%)	3.81 (0.872)
6-I thought the time and effort I spent in the flipped classroom were worthwhile.	0 (0%)	0 (0%)	2 (10%)	13 (62%)	6 (28%)	4.19 (0.602)
7-The flipped classroom facilitates my personalized learning.	0 (0%)	0 (0%)	2 (10%)	6 (28%)	13 (62%)	4.52 (0.679)
8-The flipped classroom provides me with more opportunities to communicate in English.	0 (0%)	2 (10%)	3 (14%)	12 (57%)	4 (19%)	3.86 (0.853)

Statement	Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree	**Mean SD**
9- The flipped classroom provides me with more opportunities to practice and improve my speaking skill.	0 (0%)	2 (10%)	1 (5%)	12 (57%)	6 (28%)	4.05 (0.864)
10- The flipped classroom provides me with more opportunities to sharpen my speaking proficiency based on the comments and suggestions made by the instructor	0 (0%)	1 (5%)	3 (14%)	13 (62%)	4 (19%)	3.95 (0.740)

and my peers.						
11- I feel more motivated to speak in a flipped classroom.	0 (0%)	4 (19%)	5 (24%)	9 (43%)	3 (14%)	3.52 (0.981)
12- Generally, I am happy and satisfied with this flipped learning experience.	0 (0%)	0 (0%)	0 (0%)	12 (57%)	9 (43%)	4.43 (0.507)
13- The flipped classroom should be used more often in teaching the English language.	0 (0%)	0 (0%)	4 (19%)	8 (38%)	9 (43%)	4.24 (0.768)
Weighted Mean	Agree		→			4.07 (0.406)

4.3 Ethical Considerations

Ethical approval was sought (and granted) from the ELI administration and all aspects of the research were conducted in accordance with university ethical guidelines. Additionally, consent forms were signed by the participants to obtain their permission ethically and officially. Moreover, participants were given clear information on the purpose and aims of the study and how the results would be used before signing the consent forms. Furthermore, the researcher explained verbally to participants before engaging in the study that they have the right to refuse to participate or withdraw at any time.

5. Discussion and Conclusion

Even though the level of improvement was higher in the participants of the experimental group than the control group, data analysis indicated that there was no statistically significant difference between the experimental group (taught through the flipped classroom) and the controlled group (taught through traditional methods). Possible justifications for this might be the fact that the participants were very small in number. Additionally, the FC model is an extreme form of a student-centred approach, which is still a novel concept to most Saudi students. As Grami (2012): "One problematic area capable of jeopardizing the success of many modern teaching methods (in Saudi Arabia) is the prevalence of teacher centered approaches which subsequently minimize the impact of proven practices such as pair/group work and collaborative learning" (p. 2). Another viable explanation is is the short duration of the treatment (three weeks) which did not allow students to fully embrace the drastic changes to their learning environment. With regards to the students' views of using FC in the classrooms, It is apparent that the participants expressed preference for the FC learning experience and its impact on their English-speaking skill. This result further supports previous studies that have investigated students' perception regarding implementing FC in an EFL context (i.e., (Chen Hsieh et al., 2017; Farah, 2014; Mehring, 2015; Wu, Hsieh, & Yang, 2017).

5.1 Pedagogical Implications of the Study

First, the application of FC needs to be authorized and supported by stakeholders in administrative positions, since it is likely that teachers might face some reluctance from the students, which may open the door for complaints to be made to the administration. Delivering the FC also increases the burden on teachers to develop with regard to their technological proficiency. FC is a tech-driven approach of teaching, thus, technological competence, and knowledge of how to create and edit videos, in particular, is a prerequisite for successful FC

implementation. Furthermore, most of the English teaching books used in Saudi Arabia follow an integrated skills curriculum, which requires teachers to be cautious on how to plan the flipping of the course. Preferably, the videos used as pre-class learning material should be recorded by the class teacher and should be short in length. Finally, to witness any significant improvements in student performance, the FC needs to be implemented over a sufficient period of time.

5.2 Recommendations for Further Research

At the current time, there seems to be a clear absence of research concerning the effects of FC in the Saudi EFL context. Therefore, it would be remiss to encourage language institutions to implement the FC model without ample proof of its effectiveness. The researcher accordingly recommends the following:

1. In further research studies, the FC model should be tested on a diverse and larger sample over a longer period of time.
2. To avoid any bias in further research, the same teacher should be responsible for teaching both the experimental and controlled group, as well as for creating the pre-class instructional videos to ensure homogeneity.
3. Further research should utilize other research methodologies, such as mixed methods, to test the effectiveness of the FC approach, as the results may contradict or confirm the findings of this study.
4. If possible, include male participants since the cultural restrictions in the Kingdom of Saudi Arabia prevents female researchers to include male participants and vice versa. Thus, a collaboration of research efforts between male and female researchers will be recommended.

Further research in this topic should target the impact of FC on other language skills in an EFL context such as reading, writing, grammar and vocabulary.

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