The Impact of Computer Assisted Language Learning on Egyptian EFL Learners’ Listening Skill in the Flipped Classroom.

Dr. kholood M. Alakawi
Al-Imam Mohammad Ibn Saud Islamic University, Riyadh, K.S.A

Abstract: The application of technology in language classrooms tends to become a must recently. Computer and the internet have made foreign language materials easy to access and to use. The researcher relied on this growing interest of research by presenting the findings of a research project that explored the effect of Computer Assisted Language Learning (CALL) on improving Egyptian EFL learners’ listening skill in the Flipped Classroom. It is based on the use of technology inside and outside the class to improve the learners’ listening skill. The participants in this quantitative study included 40 EFL learners who study English as a foreign language (EFL) at Alexandria University, English Department. They were enrolled in the listening course of the second year. They formed two intact classes which were randomly assigned as the experimental and the control groups. During the CALL based treatment each participant in the experimental group had an access to a computer in the language lab. They also received an audio or video recording of the listening lecture taught to prepare for the next lecture activities which include listening comprehension questions. The data analysis of the post-test listening comprehension scores indicated a significant difference between the experimental and control groups; that is to say, the experimental group outperformed the control group and obtained a higher average in the listening exam. Thus, the implementation of CALL in the flipped classroom proved to be effective in enhancing the Egyptian EFL learners’ listening skill.

Introduction: The study aims at determining the effectiveness of implementing CALL in the flipped classroom on improving Egyptian students’ listening skill. The impact of the flipped classroom on the students’ listening skill will be studied through the observation of two classes of the second year students while studying listening, English Department, Alexandria University. The material is a combination of textbooks with CDs, recordings and video of the lectures; Students listen to recorded lectures and watch video lectures outside the classroom. Then, they practice listening exercises in class for intensive practice. The remaining time of the class is devoted to presentations, lab activities, discussions, tests, quizzes, and other assignments that are assigned as homework. The instruments of the study include a pre-test and a post-tests for both classes; one class is the experimental group and the other is the controlled one.

Background of the Flipped Classroom: The flipped classroom approach has recently gained significant attention in teaching and also in research. The flipped classroom is an instructional strategy that allows the instructor to make a video lecture, screencast explaining the key concept of the topic to students and leaving the class time for more activity engagement under the teacher's guidance (Milman, 2012). According to Bergmann and Sams (2012), the flipped classroom is “that which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class…there is more to a flipped classroom ” (p.13). Brame (2013) emphasizes Bloom's taxonomy in the flipped classroom in which "students are doing a lower level of cognitive work (gaining knowledge and comprehension) outside of class, and focusing on higher forms of cognitive work (application, analysis, synthesis and/or evaluation) in class, where they have the support of their peers and instructor” (p.1). This shows that the flipped classroom is different from the traditional model where students are exposed to language only in the lecture in their class. The flipped classroom can be any kind of technology used to deliver the lesson. Bruff (2015) points out that the required material of lectures sent to students can be textbooks, screencasts, PowerPoint slides, recorded audio, or a video. In addition, the material given to students plays the...
role of a lecture. Miller (2012) explains the purpose of the flipped classroom in the following words: "Just because I record something, or use a recorded material, does not mean that my students will want to watch, nor see the relevance in watching it. I mean, it is still a lecture." (p.1)

The flipped classroom has several goals. According to Honeycutt and Garrett, "one of the essential goals of the flipped classroom is to move beyond the lecture as the primary way to deliver information and structure" (cited in Bart, 2004, p. 12).

The flipped classroom approach has many advantages. As Hill (2013) points out, one of the advantages of the flipped classroom is that students can play, pause, and replay the lecture more than once. Depending on their memories, students can choose to play any part of the lecture (Abeysekera and Dawson, 2014). Brame (2013) explains the many advantages of the flipped classroom:

1. "Provides an opportunity for students to gain first exposure prior to class.
2. Provides an incentive for students to prepare for class.
3. Provides a mechanism to assess student understanding.
4. Provides in-class activities that focus on higher level cognitive activities" (p.3,4)

Several educators believe that the flipped classroom is the future educational technique (Bergmann et al.,2013). Replacing direct instruction with recorded lectures or videos that can be observed outside the classroom allows for more class time to be used in active learning. Active learning includes performing activities like reading, writing, analysis, evaluation, discussion and problem solving. This shows that the teacher's role in the flipped classroom has been radically transformed. The teacher in the flipped classroom is not the "sage on stage" (as it is in the traditional classroom where the teacher presents the information for students to absorb), but rather "the guide on the slide" who monitors the students during active learning (Bergmann et al., 2013).

**Context of the problem:**
The main goal of this study is to investigate the impacts of CALL implemented in the flipped classroom on enhancing EFL learners' listening skill. Listening is known as a difficult skill to acquire for second-language (L2) learners. Listening is not only challenging for the native speaker, but is even more challenging for the second/ foreign language learners. Egyptian EFL learners face a difficulty in improving their listening skill within the traditional way of learning. They need more practice for developing this skill.

**Significance of the Study:**
The study aims at investigating the effectiveness of implementing CALL in the flipped classroom on the intensive practice to improve the listening skill.

**Methodology:**
The present study seeks to answer the following research question:

1- Does computer-assisted language learning have any impact on improving Egyptian EFL learners’ listening comprehension in the flipped classroom?

**Participants of the Study:**
The participants consisted of two classes enrolled in level two of the listening course. Their age ranged from 19 to 21. The first class is the experimental group and the other class is the control one. The experimental group practiced the listening skill by implementing CALL activities in the flipped classroom and the control group practices the listening skill according the traditional method; by listening to a text then answering questions based on that text in the lecture.

**Instruments of the Study:**
The study aims at getting the required data through the following instruments:
1. Pre-test and Post-test: The study involved a pre-test and a post-test relating to the listening skill. The tests were designed according to: (a) the textbook and (b) the related literature, particularly procedures of similar studies.

The listening test examined the following sub-skills: (1) guessing meaning from context by choosing or writing the correct word/number from listening to a short dialogue, (2) understanding functions: listening for specific information through multiple choice items to test the students’ understanding of a short talk and (3) sound discrimination by asking the students to circle the words they hear.

2- Audio and video recordings.

**Procedures:**
- A pre-test is given to students of both the experimental group and the control one before conducting the experiment.
- Implementing the flipped classroom; the lectures were recorded as audio or video recordings. The researcher sent an audio or video recording of the lecture to the students of the experimental group before the next listening class.

The experimental group students were asked to listen to or watch the lecture at home more than once according to their abilities.
Next lecture- in class- the experimental group students had the chance to practice more listening through answering exercises while listening to recordings, and watching videos and later discussing the main theme and answering questions based on these video or audio recordings.

The remaining time of the lecture was devoted to lab activities, discussions, and presentations.

The students’ performance was practically analysed at the end of the study after conducting a post-test.

The same pre-test and the post-test were given to the control group.

The results of these tests were analysed and discussed.

To determine whether the difference- between the two groups of the study regarding the listening skill- was statistically significant or not, the researcher conducted an ANCOVA analysis.

Data analysis:

To answer the research main question, the researcher used the following statistical tests:

First an independent- samples t-test was used to assess the homogeneity of the two groups in terms of their general proficiency as measured by the Preliminary English Test (PET). The results of this test are shown in table 1 below.

**TABLE 1.**
Descriptive Statistics and Independent t-test for the Proficiency Mean Scores:

<table>
<thead>
<tr>
<th>Levene's Test for</th>
<th>% 95 Confidence</th>
<th>Sig.(2-Tailed)</th>
<th>Mean</th>
<th>lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equality of Variances</td>
<td>Interval of the Difference</td>
<td>t</td>
<td>Df</td>
<td>difference</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>2.60</td>
<td>.115</td>
<td>1.02</td>
<td>38</td>
<td>.314</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>1.02</td>
<td>34.98</td>
<td>.315</td>
<td>4.30</td>
<td>-4.26</td>
</tr>
</tbody>
</table>

As the results of the independent t-test in Table 1 Indicate, there was no significant difference between the two groups’ general proficiency as measured by the PET test. Thus, the two groups were approximately at the same level of proficiency before inaugurating the experiment of the study.

The Research question:

The research question investigated the effect of implementing CALL in the flipped classroom on improving Egyptian EFL learners’ listening skill.

To answer this question, the researcher conducted an ANCOVA analysis of the groups scores from the pre-test and the post-test. One of the requirements of this test is the normality of the score distribution. Thus, it was necessary to conduct a One-Sample Kolmogorov- Smirnov test. Based on the results of this test, the normal distribution assumption seemed to hold.

After the normality of the distribution was confirmed, the researcher estimated the statistical descriptive of the scores as shown in the following table.

As the descriptive statistics show in Table 2, the mean score of the experimental group was 8.95, but the mean score of the control group was 6. The results reveal that the experimental group outperformed the control group in the post test. This reflects the effectiveness of the suggested method for improving the EFL participants’ listening skill.

Discussion:

The main purpose of this research was to investigate the impact of implementing CALL on improving EFL learners’ listening comprehension skill in the flipped classroom. The findings of the study indicated that the use of CALL in the flipped classroom had a significant role on the improvement of EFL learners’ listening comprehension skill. The findings emerging from the present study are in line with the suggestion of Pederson (1988 cited in Levy 1997) who has claimed that CALL can encourage the development of language learning skills and result in more learning. The findings of this research also support those of Holliday (1998, and 1999 as cited in Carter and Nunan 2002) who has suggested that the repetitive nature of input through internet assists learners in understandings linguistics cues. The results are also consistent with the findings of John and Torrez (2001) who have emphasized the possibilities for second language learning offered by new technological devices. The findings are also
in line with the findings of Sivin-Kachala and Bialo (2000) whose research findings revealed positive and consistent patterns of the effectiveness of technology when students are engaged in the teaching environments.

Computers and language learning – as revealed in the present study- are closely inter-related and integration of both in the flipped classroom enabled students to process and to improve their listening skill.

References:


Bergmann, J., and Sams, A. (2012). Flip Your Classroom: Reach Every Student in Every Class Every Day (First ed.). N.p.: ISTE, ASCD.


