قد تكون التكنلوجيا هي الحل:

تعزيز صفوف اللغة الإنجليزية بالوسائل التقنية

دكتورة ميس فليح حسن الجباوي

قسم اللغة الإنجليزية، كلية التربية الأساسية، جامعة بابل

Technology Might Be the Answer:
Implementing some Technological Aids in EFL Classes

Dr. Mais Al-Jabbawi
Department of English, College of Basic Education,
University of Babylon, Iraq
Mais.Aljabbawi@uobabylon.edu.iq

Abstract

There are many approaches for teaching English as a Second Language (ESL)/ English as a Foreign Language (EFL) classes whether these classes are humanities or science classes. Technology is a big asset that contributes to establishing and developing effective learning in ESL/EFL classes. It encourages learners to engage and involve in class activities through motivating their perception to achieve better results (Papi & Abdollahzadeh, 2012). Some of the technological devices in teaching ESL/EFL classes are mobile phones, computer software and websites, and videos (McClanahan, 2014). McClanahan (2014), in his article about technology and ESL classes, emphasized that using smart phones, computers, and internet can facilitate teaching-learning process that leads to an authentic input and interaction because these techniques make communication easier for learners. Technology can integrate the real world with ESL classes because it connects the English language with the learners' needs and experiences (McClanahan, 2014).

Keywords:Technology, EFL, ESL, mobile phones, computer software, Websites

الملخص

هناك العديد من الطرق لتدريس اللغة الإنجليزية كلغة ثانية او كلغة اجنبية في صفوف التخصصات الإنسانية والعلمية. تقنية التكنلوجيا هي عامل مساعد كبير في تصميم ونشر التعليم الفعال في صفوف اللغة الإنجليزية. حيث تساعد التكنلوجيا المتعلمين على الاندماج والاشتراك في فعاليات الصف من خلال تحفيز ادراكهم لتحقيق نتائج أفضل (بابي وعبد الله زادة, 2012). بعض من هذه الأجهزة هي الهواتف النقالة، برمجيات الحاسوب وصفحات الانترنيت، والفيديوهات (ماكلينان, 2014). ماكلينان (2014), في مقالته عن التقنيات وصفوف اللغة الإنجليزية يركز على ان استخدام الهواتف الذكية، والحواسيب, والأنترنيت يمكن ان تسهل عملية التعليم والتعلم والتي تقود الى مدخلات وتفاعل قيم لان هذه التداخلات والتفاعل يجعل التواصل اسهل للمتعلمين. تستطيع التكنلوجيا توحيد العالم الحقيقي مع صفوف اللغة الإنجليزية لغة ثانية لأنها تربط اللغة الإنكليزية مع حاجات المتعلم وخبراته (ماكلنان, 2014).

الكلمات المفتاحية: التقنيات، اللغة الإنجليزية لغة اجنبية، الهواتف النقالة، برامج الحاسوب، المواقع الالكترونية

Literature Review
Mobile Phones

The power of mobile devices is available to everyone that makes this time a proper time to start using mobile phones in education (Goundar, 2011). Smart phones can help students interact with teachers without interrupting the class (Kinsella, 2009; McClanahan, 2014). Kinsella noticed that students were hesitant about using their phones to communicate with the teacher at the beginning. However, as soon as they realized that the teacher was welcoming their questions, they started to use their smart phones to highlight questions.

Another study was conducted by Nalliveettil and Alenazi (2016) that was applied on undergraduate EFL students at a Saudi Arabian university. The findings showed that EFL teachers were aware of the efficiency of mobile phones in improving the four English language skills of EFL undergraduates. The EFL teachers, who participated in that study, agreed that mobile phones can undoubtedly improve students' communication skills and developed their language independency inside the classroom. Thus, students were able to develop independent learning patterns and access resources regularly from different websites available on the internet. Therefore, EFL teachers, in that study, recorded that the use of mobile devices was useful for recording EFL students' pronunciation and, thus, enhancing their pronunciation skills.

Hashemi and Abbasi (2013) conducted a study to investigate the effectiveness of using mobile phone on learners' vocabulary recalling. Their study piloted 180 high school students with a focus on English language vocabulary retention. The results of the study evidenced that using mobile phones helped EFL learners improving their vocabulary memorization and retention with time.

While using mobile phones has positive effects on the teaching-learning process, Vota (2011) pointed out that this advantageous feature may fail if EFL teachers are not trained on the effective uses of mobile phones in education to advance their teaching activities. Besides training EFL teachers on mobile phones' educational uses, they need to examine and implement innovative structures through which technology can create new projections for classroom instruction. EFL-teacher training institutions and centers across the world need to highlight the relevance of mobile phones in creating effective EFL lessons. Weinberger (2011) stated that the use of technology can lift the additional burden placed on teachers in their work in it was implemented in an operative and effective method.

Computer Software and Websites

Computer software help students develop critical thinking skills, since these software lead to better interaction, communication, and learning. An effective use of software is in teaching and learning phonology in ESL/EFL classes. Using technology motivates ESL/EFL learners, since it is not like the traditional techniques, white board, and hard copies textbooks. Phonology is a problem for ESL/EFL adult learners since it is difficult to acquire the target language accent at older ages, "critical period hypothesis" (Moyer, 2004, p. 17), therefore, software can make it easier for those learners to comprehend and acquire the accent. Seferoglu (2005) exposed the experimental group (20 students) to the accent reduction software and the control group (20 students) to the traditional instruction in learning English. The results showed that the development of the experimental group was better than the control group after the use of the software especially in learning English as a foreign language.

The use of certain software can be a big help students and time reducing for

teachers in EFL classes. Mat Daud and Husin (2004) examined 40 ESL Malaysian students studying *Othello* as one of the required literary textbooks. The experimental group have analyzed *Othello* using Concordance, which is a software that gives the readers the frequency and occurrence of words in a context, while the control group analyzed it manually. After analyzing the results, the researchers found that the experimental group did better than the control group in all the subscales measured with an effective size (0.86). Although some students have a good analytical skill, language and culture can still represent an obstacle for them that makes using computer software an excellent technique for breaking down these problems.

Communicating with a native speaker of a language is different from hearing the language from a non-native teacher. Accordingly, Seferoglu's findings represent an example for the high effect of the use of accent reduction software, although he forgot to mention the effect size to show that effect. Websites can also be used in blended learning, which is "the combination of the real world plus in-world as the teacher delivers a lesson face-to-face and then gives the follow-up activities through virtual environments" (Bagheri, Yamini & Behjat, 2013) whether it is ESL/EFL or common classes. The researchers believe that the use of Wikis, Weblogs, Facebook, YouTube, and Podcast enhance students' writing performance in ESL/EFL classes, so they conducted a study on 202 EFL Iranian students. The results, which did not mention the effect size, identified that the use of blended learning enhanced the EFL students' writing ability better than the traditional instructional environment. Fang (2010) used My Access software in teaching writing for EFL classes. At the end of the semester, the students answered a survey on using this software to enhance their writing skills. The results, which did not mention the effect size, showed that most of the students liked this software and their writing skills developed obviously.

Other software and websites were used to develop the writing skill of EFL students, as WebCT's (Web-Based Courseware) electronic bulletin. Carey and Spiliotopoulos (2005) believed that the use of WebCT can motivate students to participate in the class and will improve their writing skill. There are many factors controlling writing skill that can affect writing ability enhancement some of these factors relate to individual differences. Some of the students may be slow in using the keyboard while others may be faster, it depends on how long the students have been using computer for doing their assignments (Grabowski, 2008). Thus, using software may not always improve students' writing ability when there are individual differences among the group. According to Wang and Liao (2011), "there is a great deal of diversity within and between classes. ..., it is important to know how to provide learning content using students' preferences, learning characteristics and knowledge background as a basis" (p. 66). There are some skills that may not be developed by using technology, such as the writing skill, this depends on the differences between students in a class.

Videos

Another attractive technological technique is the use of videos in EFL/ESL classes "Videos have been used as one of the English listening learning resources" (Hsu, Hwang & Chang, 2013, p. 270). The researchers investigated 76 freshmen from two classes of different departments. The experimental results showed that the use of an automatic caption filtering approach improved the listening comprehension of the experimental group more than the traditional approach used with the control group. This study did not show the effective size statement that can make the results more valid. Videos attract visual and auditory senses that lead to a better interaction between the

learner and the syllabus.

Problem Statement

There are many techniques for enhancing students' perception and comprehension of a topic in ESL/EFL classes. If teachers know how to utilize methods and technologies in their classes, they can motivate their students to learn EFL effectively. Chen and Lee (2011) indicated that "in the language education field, many studies have investigated anxiety associated with learning a second language, noting that anxiety has an adverse effect on the performance of those speaking English as a second language" (p. 417). Technology encourages learners to show an effective participation in class through motivating their perception to achieve better results in the writing, reading, and speaking skills (Papi & Abdollahzadeh, 2012). In addition, it facilitates authentic input and interaction because these techniques make communication with teachers and colleagues easier for learners (Wang & Liao, 2011).

Research Methodology

Research Questions
1. Do mobile phones, computer software and websites, and videos help EFL students learn English language more effectively?
2. After using phones, computer software and websites, and videos in ESL/EFL classes, do students' EFL skills enhance? /

Research Hypotheses
1. There is no difference between technology-oriented classes and traditional classes in learning English.
2. There is no positive interaction between teaching methods used in this experiment, the use of phones, computer software and websites, and videos, and the EFL skills.

Research Design

This quantitative study was borrowed from the research traditions of the quasi-experimental approach (Gall, Gall, & Borg, 2007). It used a non-randomized experimental design of the experimental and the control groups since the students were already assigned to two classes, based on their choice, of the same course, according to their TOEFL scores as a placement test.

At the beginning of the study, the two groups, the experimental and the control groups, were given placement test to establish equal entry performance. Then the experimental group started learning English as a foreign language using technology (mobile phones, computer software and websites, and videos) for 2 months. While the control group followed the traditional chalk and-talk method in learning English language with the same content with the experimental group (reading, writing, and speaking). This means that the instructor used the blackboard while the students used their notes and textbooks without any other teaching aid. The same textbooks and syllabus for the three courses, reading, writing, and speaking courses, were used with the two groups. The third group was the group leaders who were trained to be teachers of English as a foreign language. They completed the four-year teaching English undergraduate program during which they received a comprehensive teacher training. Some of them had a master's degree in ESL with experience of at least three years in teaching ESL/EFL classes of international students. The six instructors in the leader group, who were teaching reading, writing, and speaking courses, had a master's degree

in ESL.

Population and Sampling

The population for this study was the students who were attending classes of English as a second/ foreign language at the Center of Multilingual and Multicultural Studies (CMMS) at University of Central Florida (UCF). CMMS was the only language center at UCF with a population of international students attending EFL/ ESL classes. The students were admitted to four academic levels in English language according to their TOEFL score as defined by a TOEFL placement test. All the population of this study were international students at CMMS whose English was considered a foreign language in their home countries.

The participants of the present study were 40 male and female multi-international nationalities students in the beginning level 2B divided in two classes at CMMS. They all took the TOEFL test in CMMS as a placement test that admitted them in level 2B and were therefore assumed to be at the same level and homogenous as far as their English reading, writing, and speaking ability were related. They were all at the age range of 18 to 22 years old with an average of 20.

Data Collection Procedures

The current study followed the IRB procedures and had been approved to be preceded and applied on the sample. All the students in the two groups, experimental and control groups had the same curriculum in the reading, writing, and speaking courses. The class-time was the same for the three courses in the two classes, which was a 50-minutes class. The instructors in the leader group were all informed by the procedures being followed for this experiment. They were told that the test at the end of the semester would be used to measure their progress in the three skills being measured. The students in the two other groups, the experimental and the control groups, were also informed that there was an experiment going on to measure their progress in these three classes and their scores will be used to assess this progress. Their names had been kept secret for the purpose of confidentiality and their irrelevance to the study. Success in the level 2B and starting a higher level (2A) was the incentive for their actively pursued performance. Thus, the participants in the three groups were fully aware of what was going on during the class and at the end of the semester.

At the end of the semester, reading, writing, and speaking tests were used to assess the students' progress in English language as a foreign language. These tests were identical and had been applied at the same time for the two groups of students, while the assessment was done separately. The scoring process was done for each answer sheet separately so no subjective decision could interfere with the score. Then a record of each section for the 40 answer sheets was done to measure the development in the three skills in a separate form.

Instrumentation

To test the students' progress in the reading, writing, and speaking skills, different test forms were used for different skills. Although the use of TOEFL test to measure the three skills was more convincing but it was not used to eliminate the threat of pretest sensitization since students might be familiar with the test procedures or content (Gay, Mills, & Airasian, 2006). If the same test was used as a placement test and final measurement test, overlap in students' perception of the test contents might take place.

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test was used to test the students' development in reading at the end of the semester, after 2 months. The DIBELS test is "a set of procedures and measures for assessing the acquisition of early

literacy skills from kindergarten through sixth grade. They are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills" (Good & Kaminski, 2014, p. 1). Although this test is designed for testing students' skills from kindergarten through sixth grade, it had been used for testing students at level 2B because they were beginners in learning English as a foreign language.

To test the development in the writing skills of the ESL students after the 2 months course, International English Language Testing System (IELTS) test/ the writing section was used. The IELTS is an international Standard English test for non-native English speakers, which is managed by Cambridge English Language Assessment, the British Council and IDP Education, and was established in 1989 (International English Language, 2014). The writing section took 60 minutes that had two tasks. In Task 1, students wrote a letter or explained a situation in 150 words, and in Task 2, they wrote an essay of 250 words.

TOEFL Internet Based Test (iBT)/ speaking section was the test that used to measure the development the ESL international students had in the speaking skill after the 2 months course. The score is measured in (0-30) scale for this section (Educational Testing Service ETS, 2014). Both tests, the IELTS and the TOEFL tests were scored on a 9-band scale ranging from band 1 (non-user) to band 9 (expert user).

Data Analysis Procedures

Two-way ANOVA was used to analyze data (Gall, Gall, & Borg, 2007), because the study aimed at comparing means of two separate groups (experimental and control groups) according to performance on three continuous variables (scores on reading, writing, and speaking tests). SPSS was used to calculate the results.

Null 1: There is no difference in scores between the experimental group and the control group.

Null 2: There is no interaction effect.

Table 1: *Levene's Test of Equality of Error Variances/ Language Skills*

f	df1	df2	Sig.
2.341	9	90	.020

Levene's test of homogeneity of variance in Table 1 indicated that both groups had equal variances. Moreover, group sizes were also equal.

Table 2: *Two-way ANOVA/ Tests of Between-Subjects Effects*

Source	Type III sum of squares	df	Mean square	f	Sig.	Partial eta squared	Noncent. parameter	Observed power[a]
Corrected model	1945.490[b]	9	216.166	26.935	.000	.729	242.412	1.000
Intercept	13479.210	1	13479.210	1679.536	.000	.949	1679.536	1.000
group	240.250	1	240.250	29.936	.000	.250	29.936	1.000
Language skills	1514.940	2	378.735	47.191	.000	.677	188.765	1.000
Group* language skills	190.300	2	47.575	5.928	.000	.209	23.712	.980

Error	722.300	90	8.026
Total	16147.000	100	
Corrected total	2667.790	99	

a. Computed using alpha = .05
b. R Squared = .729 (Adjusted R Squared = .702)

Table 2 showed that there was a statistically significant effect of technology ($F_{1,90}=29.94$, $p<.01$). Language skills accounted for 25% of the variance in score. The experimental group ($M=13$, $s=5.8$) scored significantly higher than the control group ($M=10$, $s=4$) in all language skills which answered the first question in this study that technology did help ESL/EFL students in learning the English language. Power to detect this difference was 1.

There was a statistically significant effect of experimental group ($F_{2,90}=47.19$, $p<.01$). Language skills group explained 68% of the variance in score. The speaking ($M=6.75$, $s=1.6$) and reading ($M=7.25$, $s=2$) skills group scores were lower than the writing ($M=12.9$, $s=3.5$) group. However, speaking did not differ statistically from reading which answer the second question in this study that students' scores in reading, writing, and speaking skills really differed after using technology in ESL/EFL classes and there was enhancement in or positive development in their scores. Power to detect this difference was 1.

There was a statistically significant interaction effect ($F_{2,90}=5.93$, $p<.01$). Interaction between language skills and test groups accounted for 21% of the variance in score. Power to detect this effect was (0.98). The model (language skills, test group, and interaction of language skills and test group) explained 73% of the variance in score. Because the interaction effect was statistically significant, post hoc tests were not used for the main effects. Rather, the interaction effect was interpreted using a plot of the data.
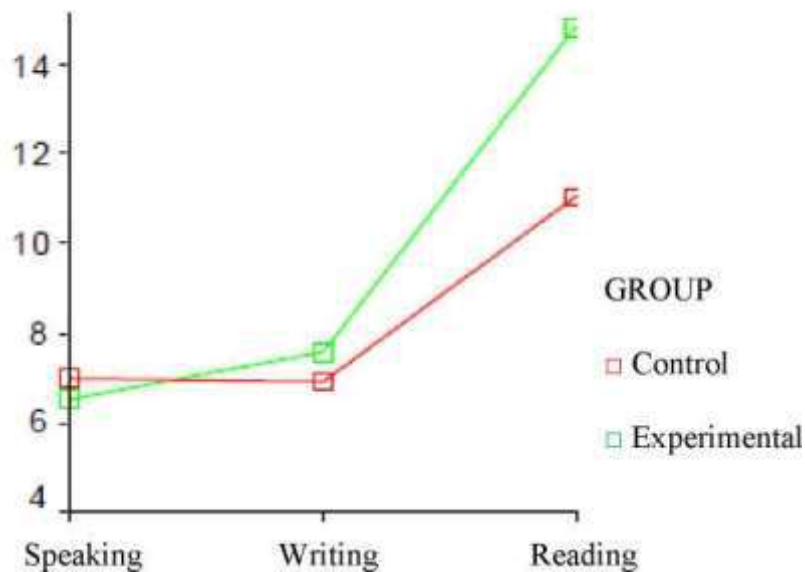
Figure 1. Plot of the Data

Figure 1 illustrated that the experimental group scores were higher than the control group. Although, the difference in speaking score between control and experimental groups was very small it verified the third hypothesis that the experimental group (technology-oriented classes) was going to develop in this skill more than the control group (traditional classes). In addition, the experimental group had higher scores than the control group in writing and reading. The interaction was caused by very little mean difference in score when in the speaking and reading treatments versus a large difference in score when in writing treatment.

Null 1 was false; technology-oriented classes scored better than traditional classes in English skills. Null 2 was also false; there was an interaction between teaching methods used in this experiment and the three English language skills addressed by it.

Potential Limitations of the Study
Internal validity

Implementation threat of curriculum. The curriculum was already approved for each level and each course in CMMS that teachers had to use. Although, there was some space for adjustment, but this adjustment represented a small percentage of the total curriculum.

External validity

Purposive sample. Purposive sample was not statistically representative of the population because there were two classes in each level in CMMS. Although the population was 125 students in CMMS, but the purposive sample was 40 students only since there were only two classes of level 2B with 20 students in each class. In addition, the students were already assigned to classes according to their choice and placement test so there was no possibility to assign students randomly.

Potential Contribution of the Study

This study contributes to the ESL/EFL educational programs development in the use of technology in classrooms. These technologies help ESL/EFL teachers and specialists to design and fulfill an authentic material with a high motivation from the two sides, teachers, and students. Teachers can easily manage the class and give more attention to students when they use technology in their classes. Meanwhile, teachers will be able to teach more material in a short time with more attention from students since these technologies equip students with tools to have more engagement and involvement in class.

In addition, this study can help graduate students to develop more techniques to use in ESL/EFL classes especially those who want to explore the new techniques that can help in ESL/EFL classes. They can investigate the benefits of technology in reduced-size classes, large classes or even classes of especial needs. Researchers may investigate the effect of technology use on students' motivation and engagement in the class. In addition, they can study the contribution of technology in providing more authentic input and interaction in ESL classes.

Conclusion

The present study aimed at finding whether the use of technology in ESL/EFL classes could help ESL/EFL develop their reading, writing, and speaking skills. This study also was an attempt to compare the improvement of ESL/EFL students in the three skills in technology-oriented classes (experimental group) and the traditional classes (the control group). The results of the study revealed that using technology in ESL/EFL classes could help ESL/EFL students to improve their reading, writing, and speaking skills better than the traditional chalk-and-talk method. As for the comparison between the technology classes and the traditional classes, this study indicated that technology class's students did better in the test after 2 months learning than the traditional class's students. Although there was performance progress in the two classes but the progress of the students' results in the three skills was more obvious in the technology class than the students' progress in the traditional class.

References

Bagheri, S. M., Yamini, M., & Behjat, F. (2013). Blending technology in EFL writing instruction. *International J. Soc. Sci. & Education, 3*(2), 422-34.

Chen, C., & Lee, T. (2011). Emotion recognition and communication for reducing second-
language speaking anxiety in a web-based one-to-one synchronous learning environment. *British Journal of Educational Technology, 42*(3), 417-40.

Educational Testing Service ETS. (2014, November 23). *TOEFL iBT: Test scores.* Retrieved
from http://www.ets.org/toefl/ibt/scores?WT.ac=toeflhome scores 121127.

Fang, Y. (2010). Perception of the computer-Assisted writing program among EFL college
    learners. *Educational Technology & Society, 13*(3), 246-56.

Gall, M., Gall, J., & Borg, R. (2007). *Educational research: An introduction* (8th ed.).
    New York, NY: Pearson Education.

Gay, L., Mills, G., & Airasian, P. (2006). *Educational research: Competencies for analysis and application.* New Jersey, USA: Person Prentice Hall.*

Good, R., & Kaminski, R. (2014). *What are DIBELS: Dynamic indicators of basic early literacy skill.* Retrieved from http://dibels.org/dibels.html.

Goundar, S. (2011). What is the potential impact of using mobile devices in education?
    Proceedings of SIG GlobDev Fourth Annual Workshop, 3, 1-30.

Grabowski, J., (2008). The internal structure of university students' keyboard skills.
    Journal of Writing Research, 1(1), 27-52.

Hashemi M and Moghtada Abbasi. (2013). The impact/s of using mobile phone on English language vocabulary retention. *International Research Journal of Applied and Basic Sciences, 4* (3), 541-547.

Hsu, C., Hwang, G., & Chang, C. (2014). An automatic caption filtering and partial hiding
    approach to improving the English listening comprehension of EFL students. *Educational Technology and Society, 17*(2), 270-83.

International English Language Testing System IELTS. (2014, November 23). *IELTS institutions: IELTS band scores.* Retrieved from http://www.ielts.org.

Kinsella, S. (2009). Many to one: using the mobile phone to interact with large classes. *British*
    Journal of Educational Technology, 40(5), 956-58.

Mat Daud, N., & Husin, Z. (2004). Developing critical thinking skills in computer-aided
    extended reading classes. *British Journal of Educational Technology, 35*(1), 277-87.

McClanahan, L. (2014). Training using technology in the adult ESL classes. *Journal of Adult*
    Education, 43(1), 22-27.

Moyer, A. (2004). *Age, accent and experience in second language acquisition: An integrated*
    approach to critical period inquiry. Clevedon, England: Cromwell Press Ltd.

Nalliveettil, G. M., & Alenazi, T. H. (2016). The impact of mobile phones on English language learning: perceptions of EFL undergraduates. *Journal of Language Teaching and Research, 7*(2), 264-272.

Papi, M., & Abdollahzadeh, E. (2012). Teacher motivational practice, student motivation, and possible L2 selves: an examination in the Iranian EFL context. *Language Learning, 62*(2), 571-594.

Seferoglu, G. (2005). Improving students' pronunciation through accent reduction software.
    British Journal of Educational Technology, 36(2), 303-16.

Spiliotopoulos, V., & Carey, S. (2005). Investigating the role of identity in writing using
    electronic bulletin boards. *The Canadian Modern Language, 62*(1), 87-109.

Vota, W. (2011). *Tablets are good, content is better, and teachers are the best educational ICT investment.* Tablet Computers in Education. Retrieved 2015

from https://edutechdebate.org/tablet-computers-in-education/tablets-are-good-content-is-better-and-teachers-are-the-best-educational-ict-investment.

Wang, Y., & Liao, H. (2011). Adaptive learning for ESL based on computation. *British Journal of Educational Technology, 42*(1), 66-87.

Weinberger, S. (2011). *Teacher mate: Individualized, teacher-assisted instruction. low-cost ICT devices.* Exploring ICT and Learning in Developing Countries. Retrieved 2015 from https://edutechdebate.org/low-cost-ict-devices/teachermate- individualized-teacher-assisted-instruction.