



Investigating Iraqi EFL Learners' Achievement Scores in English of Real-life and Online classrooms: A comparative study

Rafat Dhiyaa Al-Obaidi

Asst.Lect./ General Directorate of Education in Nineveh
/ Al-Mutafawqeen High School for Boys

Article Information

Article History:

Received April 27, 2024
Reviewer May 13, 2024
Accepted May 19, 2024
Available Online March 1, 2024

Keywords:

Online classroom,
Face-to-face classroom,
Communicative approach,
Teaching
Learning environments

Correspondence:

rafat.dhiyaa@gmail.com

Abstract

The aim of this research is to investigate the difference between the achievement scores of Iraqi EFL learners in English in online and real-life classrooms. This research is conducted to show some facts about the two teaching and learning environments: online and face-to-face classrooms. The research also shows the cons and pros of each teaching and learning environment. It investigates the impact of each teaching and learning environment on developing students' English language: reading, writing, speaking and listening skills.

The researcher conducted the current research on 40 Iraqi EFL sixth preparatory students. The students were chosen randomly from different Iraqi schools. They were divided equally into two classrooms: online and face-to-face. The students were distributed to the two groups equally according to their English achievement scores in the final exam of the previous year: fifth preparatory (See appendix A). Both groups were taught the curriculum books: Student's Book and Activity Book by the researcher. It is worth mentioning that the method adopted in teaching the curriculum is the communicative approach. The students were pre and post tested to measure their development in English.

The overall results revealed that students in both classrooms have improved their scores in English significantly, and there is no significant difference in the gained mean scores between the two groups.

DOI: [10.33899/radab.2024.149184.2129](https://doi.org/10.33899/radab.2024.149184.2129), ©Authors, 2023, College of Arts, University of Mosul.

This is an open access article under the CC BY 4.0 license (<http://creativecommons.org/licenses/by/4.0/>).

استقصاء الدرجات التحصيلية لمتعلمي اللغة الانكليزية العراقيين في اللغة الانكليزية في الصفوف الحقيقية
والالكترونية: دراسة مقارنة
رافت ضياء العبيدي*

المستخلص

الهدف من هذا البحث هو التحقيق في الفرق بين درجات التحصيل لمتعلمي اللغة الانكليزية كلغة أجنبية العراقيين في اللغة الانكليزية في الصفوف الدراسية عبر الإنترنت والواقعية. تم إجراء هذا البحث لإظهار بعض الحقائق حول بيئتي التدريس والتعلم: الفصول الدراسية عبر الإنترنت، ووجها لوجه. كما يوضح البحث سلبيات وإيجابيات كل بيئة تعليمية. يبحث في تأثير كل بيئة تعليمية وتعليمية على تطوير اللغة الإنجليزية للطلاب: من حيث مهارات القراءة والكتابة والتحدث والاستماع.

* مدرس مساعد/المديرية العامة لتربية نينوى/مدرسة المتفوقين للبنين

أجرى الباحثان البحث الحالي على 40 طالبا عراقيا في الصف السادس الإعدادي من اللغة الإنجليزية كلغة أجنبية. تم اختيار الطلاب من مدارس عراقية مختلفة. تم تقسيمهم بالتساوي إلى فصلين دراسيين: عبر الإنترنت ووجها لوجه. تم توزيع الطلاب على المجموعتين بالتساوي وفقا لدرجاتهم التحصيلية في اللغة الإنجليزية في الامتحان النهائي للعام السابق: الخامس الإعدادي (انظر الملحق أ). تم تدريس كلتا المجموعتين كتب المناهج: كتاب الطالب وكتاب النشاط من قبل الباحث الأول. ومن الجدير بالذكر أن الطريقة المتبعة في تدريس المناهج الدراسية هي المنهج التواصلي. تم اختبار الطلاب قبل وبعد قياس تطوهم في اللغة الإنجليزية. كشفت النتائج الإجمالية أن الطلاب في كلا الفصلين قد تحسنت درجاتهم في اللغة الإنجليزية بشكل ملحوظ ، ولا يوجد فرق كبير في متوسط الدرجات المكتسبة بين المجموعتين.

الكلمات المفتاحية : الصف الإلكتروني, الصف الحقيقي, الطريقة التواصلية

1. Introduction

It is a known fact that in order to succeed and achieve the learning objectives learners need to go to real-life classrooms at school where they can sit on their desks, and where the teacher explains the lesson for them using a marker, a book and a whiteboard. However, due to its flexibility, distant learning is spreading wildly all over the world. Many people think that learning and teaching shouldn't be confined to the classroom or the school day. In recent years, the world has witnessed a great leap in the field of technology and this technology provided a great deal of flexibility in when, where, and how education is distributed. Being vastly spread and easy to access, the internet has encouraged learners to demand for a web-based learning and teaching. (Chaney, 2001). "Distance learning is a rapidly expanding environment which allows users the flexibility of operating outside of the constraints of time and place" (Chaney, 2001). According to the (U.S. Department of Education, 2010), Online learning is defined as "learning that takes place partially or entirely over the Internet". In fact, the appealing nature of online education has made it easier to be an essential part of the process of teaching and learning.

On the other hand, a lesson in a real-life classroom is a lesson where some students, with their teacher meet together at a pre-determined place and time. It is a live meeting between the students and their teacher. In such an environment, students can hear and see their teacher discussing and explaining the material in front of them. They can also participate verbally or physically in the lesson activities: solving some questions on the board or on the notebook, reciting a dialogue in front of the students or reading a sentence or a paragraph from a book. Real-life classrooms give the learner the opportunity to have a live discussion and personal contact with the teacher and with other classmates about the topic of the lesson.

1.1. Aim of the research

The aim of this research is to investigate the difference between the achievement scores in English of Iraqi EFL learners in online and real-life classrooms to show which learning and teaching environment benefit the students the best.

1.2 Hypotheses of the Research

- 1- **H01:** There will be a statistically significant difference in the mean scores of students in the online group in achievement scores between the pretest to the posttest.
- 2- **H02:** There will be a statistically significant difference in the mean scores of students in the face-to-face group in achievement scores between the pretest to the posttest
- 3- **H03:** There will be a statistically significant difference in the mean scores of students in the online group and the face-to-face group in the achievement scores between the pretest to the posttest.

1.3 Limits of the Research

The present research is limited by the following:

- 1- The sixth preparatory students from Iraq.
- 2- The school year 2022-2023.
- 3- It is concerned with making a comparison between students in different educational situations concerning their achievement scores in English.

1.4 Significance of the Research

It is widely believed that students who study in real-life classrooms, where they attend a class with other students and the presence of a teacher who teaches and explains to them the lesson to them face to face. However, recent years tell a different story where technology took a major part in our learning and teaching behavior. During the late COVID-19 pandemic, governments of most countries had to issue strict lockdowns to prevent the virus from being spread, so schools and universities were no longer in session. Later, teachers as well as students felt the need to continue their teaching and learning so the online teaching was the solution. Teachers give their lessons (over computers connected to the internet) to their students who also have computers and smart phones which are connected to the internet.

Despite the fact that online classrooms did a huge role in continuing students' education, but still there was an overwhelming feeling that real-life classrooms are much better than online ones. Therefore, it is hoped that this research will present some facts about both classrooms and see if the 'overwhelming feeling about the superiority of real-life classrooms over online ones is true or not.

2. Defining Online and F2F Learning

Before 2019, when someone mentions the terms „learning or teaching“, we usually think of a school that has classrooms and these classrooms contain desks and whiteboard, and of course the presence of a teacher in front of some students who listen and interact with him about the topic being discussed. However, in recent years, especially after the outbreak of COVID-19, the situation was different.

'Online education' this term is defined differently by many researchers, but generally, it means "a learning environment in which learner and instructor are separate during the majority of instruction" eliminating the confine of a specific location for either party (Johnson, 2003, p.1). In fact, technology is somehow used to facilitate interaction and the process of learning in online education. (Potashnik and Capper, 1998; Skylar, 2004). Moreover, "Online education connects instructors and students with resources, virtual communication and remote activities using a course management system as the primary means of instruction." (Muneeza Esani, 2023)

Online education means to learn or teach something from a distance using the internet as a primary means of communication between the teacher and the learner. Some of the online courses can be delivered synchronously (i.e. live communication between the learner and the teacher) or asynchronously (i.e. learners can read or watch the lesson in any time they want).

On the other side, the F2F education is delivered synchronously only. It is a real-time learning where there is a teacher who interacts with the learners in real-time. Further, in a physical classroom, there are a number of students who sit at desks and gather at a specific time and place and are listening or/and interacting with their teacher about a given topic. In addition to this, "Purely online courses are offered entirely over the internet, while blended learning combines traditional F2F classes with learning over the internet, and learning supported by other technologies" (Nguyen, 2015). Furthermore, in order to design an online lesson, many considerations should be kept in mind.

Moreover, designing online courses requires several considerations. For example, the quality of the learning environment, the ease of using the learning platform, the learning outcomes to be achieved, instructor support to assist and motivate students to engage with the course material, peer interaction, class participation, type of assessments (Paechter & Maier, 2010), not to mention training of the instructor in adopting and introducing new teaching methods online (Lundberg et al., 2008). The role of the teacher in the online classroom is a facilitator of learning.

In traditional F2F classrooms, however, the role of the teacher is to deliver knowledge and he can assess directly if the students understand the lesson or not. He can also provide immediate feedback on clarifying questions during the lesson. Additionally, "the designing of traditional F2F courses can be less time-consuming for instructors compared to online courses" (Navarro, 2000).

Online education is very suitable to the nontraditional students who have commitments with their daily jobs and their family needs. Such commitments are not usually found with undergraduate students (Arias et al., 2018). However, traditional F2F classes are still more beneficial for learners that are not so self-sufficient and lack discipline in working through the class material in the required time frame (Arias et al., 2018).

2.1 Communication Strategies

Tarone (2005), states that communication is a process in which an encoded message by the speaker is decoded by the listener. The concept or the notion of CSs was first presented in a paper entitled "Interlanguage" submitted by Selinker (1972). In his paper, Selinker claimed that when learners try to deliver the message and communicate with others, and because they have limited knowledge about the

target language, they are forced to use certain CSs to fill in the gap and to have successful conversation and communication. CSs help learners achieve their communication in L2 and consequently could develop their oral fluency. Furthermore, Bialystok (1990: 35) puts it plainly and clearly that the reason behind employing CSs while communicating with others is to "overcome obstacles in communication by providing the speaker with alternative form of expression for the intended meaning". For example, instead of saying five plus four equals nine, one might say eight plus one equals nine or three multiply three or ten minus one and so on. Thus, the result is the same, but the ways in reaching that result can be different depending on the speaker himself and his immediate information resources.

2.1 Literature Review

Up to this day, the argument in literature concerning online versus F2F education still a quarrelsome one. In fact, a quick review to the literature shows some contradictory results concerning the comparison between the effectiveness of online versus F2F education on the students' performance. (Lundberg et al., 2008; Nguyen, 2015).

Many scholars have conducted many researches to compare between the online and F2F classrooms in relation to their effectiveness on the learners' development. For example, (Russell & International Distance Education Certificate Center (IDECC), 1999). Russell and IDECC (1999) made a lot of studies on online learning versus F2F learning. The results of those studies showed that there was no significant difference in students' outcomes in both types of classrooms. Additional studies that were conducted by (Fallah & Ubell, 2000; Freeman & Capper, 1999) also showed similar result (i.e. no significant difference).

Moreover, a study conducted by Bernard et al. (2004) shows that there is no significant difference between the F2F education and the online one in general, however, the study shows that there is a significant difference in the performance of students in different activities. Their study shows that F2F students performed better than those in synchronous online classes (i.e. classes where students have to participate in live sessions at specific times). Nevertheless, students from asynchronous online classes (i.e. students access class materials at their own time online) performed better than those in F2F classes.

Furthermore, studies conducted in recent years show that online education provides better outcomes than those of the F2F education. For example, a meta-analysis study conducted by Shachar and Neumann (2010) showed that three quarter of the cases where students studiedn online classrooms outperformed those in F2F ones. Similar results were achieved by Navarro and Shoemaker (2000) where students from online classes showed better outcomes than those in the F2F classes. Another study conducted by Dutton et al (2002) also shows that online students outperform the students who attend their studies on campus. Further, another meta- analysis study carried out by the US Department of Education shows no different results. The study indicates that students who study in online classes outperformed students who study in traditional F2F instructions. The study also shows that effectiveness can be magnified if the online learning was collaborative or instructor-driven (Means et al., 2010).

In contrast to the previous studies, Brown and Liedholm (2002) revealed some evidence taken from his study. In their study, students from F2F classes showed better test scores than those in online ones. Such results were confirmed by a study conducted by Coates et al. (2004). In addition to this, Xu and Jaggars (2014) stated that online education has some negative effects on students. Moreover, F2F

students showed better overall course grades than online students in Almatra et al. (2015). Also, Figlio et al. (2013) conducted an empirical study on randomly selected and assigned students. These students were asked to attend some F2F lectures versus watching the same lectures online. Through this study, Figlio et al. proved that traditional F2F lectures have a positive effect on students in comparison to online lectures. Furthermore, Callister and Love (2016) carried out a study to compare the learning outcomes of online students and those of the F2F students. In their study, they found that students from F2F classrooms outperformed the students from the online classrooms.

To sum up, it can be noticed clearly that the previous studies that discussed the effects of F2F versus online learning on student performance have been mainly carried out in some of the advanced countries, and this indicates the lack of similar studies being conducted in developing countries. Thus, this research is considered as a contribution to bridge the gap in the existing literature.

3. Methodology

In order to investigate the difference between the two groups in their achievement scores, different methods have been used. The major methods used are communicative activities (Yule & Tarone, 1990; Tavakoli et al., 2011; Rabab“ah, 2016), and a self-reported questionnaire (Dörnyei, 1995; Nakatani, 2005), This research adopts the “Experimental-Control Group Design: the Pre-test- Post-test Design” (Cohen et al, 2008: 276).

Two groups, each consists of **20** sixth preparatory students who are selected randomly from different Iraqi schools. The reason of choosing the students from the sixth preparatory grade is that they are focusing on the process of learning since its their last year before joining the university. The first group is the online group (*henceforth OG*) and the second group is the face-to-face group (*henceforth F2FG*). The *OG* are asked to join an online classroom by giving them a password to join in Google Meet Classroom. Both groups were taught the Iraqi English curriculum: (Student's Book and Activity Book). Both groups are submitted to pre- and post-tests, and the plans for teaching are set according to communicative language teaching. In other words, the lesson plans are the same for both groups.

After teaching the groups for 10 to 12 weeks, a post-test is submitted to check whether the learners have developed their English scores or not. Their scores of the post-test are compared to see whether there is any significant difference between both groups or not.

Moreover, the researcher conducted the questions of a similar level of difficulty. It is worth mentioning that both groups did the same tests (i.e. the same questions). The full mark of the test is 100 and the distribution of the marks will be shown in (Table 1) below:

Table 1: The Experimental Design

<i>Group</i>	<i>Pre-test</i>	<i>Intervention</i>	<i>Post-test</i>
<i>OG</i>	English	Taught the English curriculum: (Student's Book and Activity Book)	English
<i>F2FG</i>			

4.Pre- and Post-Tests

In order to investigate the difference between the two groups in their achievement scores, two types of tests are conducted. The tests are achievement tests and a self-reported questionnaire.

4.1 Achievement Tests

Two versions of tests were prepared to measure the students' development in English. The tests were conducted in a way similar to the ministerial exams. In fact, all the questions used in the tests had already been used in previous ministerial exams. The reason behind doing so is prevent any possible bias or subjective judgment on the part of the researcher. The score of the test was (100) and this score was distributed as follows:

Table 2: Marks distribution of the English Test

<i>Section</i>	<i>Marks Allocated</i>
Reading Comprehension	20 Marks
Grammar and Function	30 Marks
Vocabulary and Spelling	20 Marks
Literature Focus	10 Marks
Writing Comprehension	20 Marks
Total	100 Marks

4.2 A Self-Reported Questionnaire

The researchers in the current study conducted a questionnaire of (15) items to check how students respond to them. The items tackle some opinions about the online and F2F education. Moreover, the questionnaire is constructed on a five-level Likert scale, through which the students are required to state how much do they agree or disagree to the statements. The scale ranging from 'strongly disagree' to 'strongly agree', and the area between the two poles contains: disagree = 2, neutral = 3, agree = 4. It is worth mentioning that when a student choose one of the upper degrees (i.e. agree and strongly agree), it means a positive thing for the online education; whereas the lower degrees mean a positive thing for the F2F education (See appendix A.)

.5Data Analysis and Discussion of the Findings

This section will provide analysis of the results obtained from the testing materials:

H01: There will be a statistically significant difference in the mean scores of students in the online group in achievement scores between the pretest to the posttest.

The mean scores gained by the learners of the online group on the pre- and post-tests indicate a significant difference between the pre- and post- test favouring the post-test. The T-test formula for paired samples is

used to show if there is any significant difference between the scores of the OG in the pre-test and the post-test. The T-test value indicates that there is a statistical significant difference between the two test scores. This means that the learners in OG have developed their English language in the post-test". See Table 3 below:

Table 3: T- Test for the Pre- and Post-Test of the online group in English examination

		Mean	SD.	Difference		T _ value	
				Mean	SD.		t.tab.
		15.4025	6.86096	3.7475	2.65919		2.65919 (0.05)(19)
		19.1500	7.89587				

H02: There will be a statistically significant difference in the mean scores of students in the F2F group in achievement scores between the pretest to the posttest.

The mean scores gained by the learners of the F2F group on the pre- and post-tests indicate a significant difference between the pre- and post- test favouring the post-test. The T-test formula for paired samples is used to show if there is any significant difference between the scores of the F2FG in the pre-test and the post-test. The T-test value indicates that there is a statistical significant difference between the two test scores. This means that the learners in OG have developed their English language in the post-test. Check Table 4 below:

Table 4: T- Test for the Pre- and Post-Test of the F2F group in English examination

		Mean	SD.	Difference		T _ value	
				Mean	.	t. cal.	t. tab.
		15.0500	6.25093	3.8000	.65919		2.65919 (0.05)(19)

	18.8500	7.43550			
--	----------------	----------------	--	--	--

H03: There will be a statistically significant difference in the mean scores of students in the online group and the face-to-face group in the achievement scores between the pretest to the posttest.

The mean scores gained by the learners of both groups on the pre- and post-tests indicate a significant difference between the pre- and post- test favouring the post-test. The T-test formula for paired samples is used to show if there is any significant difference between the scores of both groups. The T-test value indicates that there is no significant difference between the gained mean scores of both groups. This means that the learners in OG and F2FG have developed their English language in the post-test. Check table 5 below:

Table 5: The T-Test Value of Both Groups in English examination

Group		Mean	Std. Dev.	t _ test	
					t. tab
F2F		18.8500	8.89278		2.65919 (0.05)(38)
Online		19.1500	7.89587		

After reviewing the results of both groups, it is clear that both groups showed a noticeable development in their test scores, and this means that both classrooms are effective in developing students achievement scores and in turn, developing their level in English. It is also clear, when comparing the results of both groups, that there were no significance difference in the achievement scores of both groups. Such results seem to correspond to, (Russell & International Distance Education Certificate Center (IDECC) 1999; Freeman & Capper, 1999; Fallah & Ubell, 2000; Bernard et al. 2004) studies. Thus, according to the results obtained from students, it's quite obvious that students would perform well and improve their achievement scores and their level of English, no matter if they were in an online classroom or in a real-life physical one.

6. Conclusion

Depending on the results obtained from this study, the following points can be concluded:

- 1-Students can improve their achievement scores in English in both classrooms.
- 2-Online education is as successful and efficient as F2F education in relation to students' outcomes.

3-Online education provides a great opportunity to nontraditional students (i.e. students of older ages) who have many job and family commitments in their lives and cannot join regular real-life classrooms. It is also quite affordable to most (if not all) people because it is cheaper.

4-The positive point from Online teaching is that anyone can join in from his/her room without any kind of outside effect like (students' noise) in real-life classrooms, whereas the negative point is that any online classroom needs good internet connection which is difficult nowadays.

5-The positive point of teaching students in real-life classroom is that all students can express their own ideas because of using communicative strategies, whereas the negative point is that this communicative approach can't be applied in all classes and schools because of the huge number of students .

References

- Almatra, O., Johri, A., Nagappan, K., & Modanlu, A. (2015). An empirical study of face- to-face and distance learning sections of a core telecommunication course (Conference Proceedings Paper No. 12944). 122nd ASEE Annual Conference and Exposition, Seattle, Washington State.
- Arias, J. J., Swinton, J., & Anderson, K. (2018). On-line vs. face-to-face: A comparison of student outcomes with random assignment. *e-Journal of Business Education and Scholarship of Teaching*, 12(2), 1–23.
- Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, L., Walseth, P. A., Fiset, M., & Huang, B. (2004). How does distance education compare with classroom instruction? A meta-analysis of the empirical literature. *Review of Educational Research*, 74(3), 379–439.
- Brown, B., & Liedholm, C. (2002). Can web courses replace the classroom in principles of microeconomics? *American Economic Review*, 92(2), 444–448.
- Callister, R. R., & Love, M. S. (2016). A comparison of learning outcomes in skills-based courses: Online versus face-to-face formats. *Decision Sciences Journal of Innovative Education*, 14(2), 243–256.
- Chaney E. G. (2001). Web-based instruction in a Rural High School: A Collaborative Inquiry into Its Effectiveness and Desirability. *NASSP Bulletin*, 85(628), 20-35.
- Coates, D., Humphreys, B. R., Kane, J., & Vachris, M. A. (2004). “No significant distance” between face-to-face and online instruction: Evidence from principles of economics. *Economics of Education Review*, 23(5), 533–546.
- Cohen, L. Manion, L., & Morrison, K. (2008). *Research methods in education* (6th Ed.). New York: Routledge.
- Dörnyei, Z. (1995). On the teachability of communication strategies. *TESOL Quarterly*, 29(1), 55-58. Doi: 10. 2307/3587805.
- Fallah, M. H., & Ubell, R. (2000). Blind scores in a graduate test. Conventional compared with web-based outcomes. *ALN Magazine*, 4(2).

- Figlio, D., Rush, M., & Yin, L. (2013). Is it live or is it internet? Experimental estimates of the effects of online instruction on student learning. *Journal of Labor Economics*, 31(4), 763–784.
- Freeman, M. A., & Capper, J. M. (1999). Exploiting the web for education: An anonymous asynchronous role simulation. *Australasian Journal of Educational Technology*, 15(1), 95–116.
- Johnson, Judith L. (2003). *Distance Education: The Complete Guide to Design, Delivery, and Improvement*. New York and London: Teachers College Press.
- Lundberg, J., Merino, D., & Dahmani, M. (2008). Do online students perform better than face-to-face students? Reflections and a short review of some empirical findings. *Revista de Universidad y Sociedad del Conocimiento*, 5(1), 35–44.
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies (Report No. ed-04-co-0040 task 0006)*. U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Washington DC.
- Muneeza Esani, (2023). *Clinical Laboratory Sciences Program, 4.426 Health Professions and Nursing Bldg, 301 University Blvd, Galveston, TX 77555, muesani@utmb.edu, 409- 772-9456*
- Nakatani, Y. (2005). The effects of awareness-raising training on oral communication strategy use. *Modern Language Journal*, 89 (16), 76–91. doi:10.1111/j.0026- 7902.2005.00266.x.
- Navarro, P. (2000). Economics in the cyber-classroom. *Journal of Economic Perspectives*, 14(2), 119–132.
- Navarro, P., & Shoemaker, J. (2000). Performance and perceptions of distance learners in cyberspace. *American Journal of Distance Education*, 14(2), 15–35.
- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Teaching and Learning*, 11(2), 309– 319.
- Paechter, M., & Maier, B. (2010). Online or face-to-face? Students' experiences and preferences in e-learning. *Internet and Higher Education*, 13(4), 292–297.
- Potashnik, M. & Capper, J. (1998). *Distance Education: Growth and Diversity*. *Finance & Development*, 35(1), 42-45.
- Rabab^{ah}, G. (2016). The effect of communication strategy training on the development of EFL learners' strategic competence and oral communicative ability. *Journal of Psycholinguistic Research*, 45(3), 625-651. doi:10.1007/s10936-015-9365-3.
- Russell, T. L., & International Distance Education Certificate Center (IDECC) (1999). *The no significant difference phenomenon: A comparative research annotated bibliography on technology for distance education: As reported in 355 research reports, summaries and papers*. North Carolina State University.
- Selinker, L. (1972). Interlanguage. *IRAL*.10:209-232

- Shachar, M., & Neumann, Y. (2010). Twenty years of research on the academic performance differences between traditional and distance learning: Summative meta- analysis and trend examination. *MERLOT Journal of Online Learning and Teaching*, 6(2), 318–334.
- Skylar, Ashley A. (2004). *Distance Education: An Exploration of Alternative Methods and Types of Instructional Media in Teacher Education*. (Doctoral dissertation, University of Nevada Las Vegas, June 25, 2004
- Tarone, E. (2005). Speaking in a second language. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 285-502). Mahwah, New Jersey: Lawrence Erlbaum Associate.
- Tavakoli, M., Dastjerdi, H., & Esteki, M. (2011). The Effect of Explicit Strategy Instruction on L2 Oral Production of Iranian Intermediate EFL Learners: Focusing on Accuracy, Fluency and Complexity. *Journal of Language Teaching and Research*, 2(5), 989-997.
- U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*, Washington, D.C., 2010. <https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>.
- Xu, D., & Jaggars, S. S. (2014). Performance gaps between online and face-to-face courses: Differences across types of students and academic subject areas. *The Journal of Higher Education*, 85(5), 633–659.
- Yule, G. & Tarone, E. (1990). Eliciting the performance of strategic competence. In R. C. Scarcella, Anderson, Elaine S. & Krashen Stephen D. (Ed.), *Developing communicative competence in a second language*. (pp. 179-194). Newbury House.

Appendices

Appendix A

Students' Achievement Scores in Their Final Examination of the Fifth Preparatory Class

Students' Names	Score	Students' Names	Score
Student 1	50	Student 21	74
Student 2	50	Student 22	75
Student 3	53	Student 23	77
Student 4	55	Student 24	77
Student 5	57	Student 25	79
Student 6	58	Student 26	79
Student 7	58	Student 27	80
Student 8	59	Student 28	80
Student 9	60	Student 29	80
Student 10	60	Student 30	84
Student 11	60	Student 31	85

Student 12	62	Student 32	85
Student 13	64	Student 33	87
Student 14	65	Student 34	88
Student 15	65	Student 35	90
Student 16	66	Student 36	91
Student 17	68	Student 37	93
Student 18	69	Student 38	95
Student 19	71	Student 39	100
Student 20	72	Student 40	100

Appendix B

Items	Trongly disagree	Disagree	Neutral	Agree	Strongl
1. Online education provides bettereducational opportunities.					
2. Online education can improve my English.					
3. Online education is more effective than the F2F education.					
4. I enjoy more the lessons that are delivered on an online platform.					
5. I don't have a problem to have a mobile/computer and an internet connection.					
6. Online education can improve my grades in English.					
7. Online education has a more flexible timetable than F2F education.					
8. Online education provides a safer healthier environment.					
9. Online education encourages me to participate more in the lesson activity.					
10. I have a bigger role in the online classroom.					
11. I can focus better in the online classroom.					

12. In the online classroom it is easier to receive and hand out the homework					
13. In the Online classroom it easier to contact with the teacher at different times of the day.					
14. Online education enables the eacher to have a better communication and supervision over his / her students					
15. Online education provides more hours of study than F2F education.					

Appendix C

Students' Achievement Scores in Pre- and post-tests of the Online Group

N	Student's Name	Pre-test score	Post test score
.1	O1	54	83
.2	O2	47	66
.3	O3	62	77
.4	O4	90	98
.5	O5	55	80
.6	O6	71	76
.7	O7	35	50
.8	O8	28	64
.9	O9	66	81
.10	O10	80	94
.11	O11	77	88
.12	O12	48	77
.13	O13	56	69
.14	O14	78	95
.15	O15	51	77
.16	O16	67	82
.17	O17	44	69
.18	O18	38	57
.19	O19	40	60
	O20	63	90

Appendix D

Students' Achievement Scores in Pre- and post-tests of the F2F Group

N	Student's Name	Pre-test score	Post test score
1	F1	89	100
2	F2	29	60
3	F3	63	97
4	F4	68	80
5	F5	81	88
6	F6	46	69
7	F7	50	70
8	F8	34	50
9	F9	72	76
10	F10	74	85
11	F11	77	92
12	F12	46	68
13	F13	57	87
14	F14	39	62
15	F15	55	70
16	F16	49	55
17	F17	38	64
18	F18	60	90
19	F19	54	70
20	F20	44	69