

# Improving Technological University Students' EFL Listening and Speaking Competencies Through Using an Online Learning Community Project

**Abdel Samad, Samah**

Samannoud Technological University, Samannoud, El- Gharbia, Egypt.

## To Cite This Article:

Abdel Samad, Samah. Improving Technological University Students' EFL Listening and Speaking Competencies Through Using an Online Learning Community Project. *ICCCM-JOURNAL OF SOCIAL SCIENCES AND HUMANITIES*. Vol. x, No. x, 2025, pp. x-x.

<https://doi.org/10.30880/icccm-jssh.00.00.0000.00.0000>

**Abstract:** *The study investigates the effectiveness of an online learning community project in enhancing EFL listening and speaking competencies among technological university students. The research involved 60 students in the first year of the specialized Technology of Operating and Maintaining Textile Equipment Diploma at Samannoud Technological University in Gharbia. The study used a quasi-experimental design and divided participants into a control and experimental group. The results showed significant differences in EFL listening and speaking competencies between the experimental and control groups. The effect size of the online learning community project was high, suggesting its use in EFL teaching to enhance students' language skills. EFL students should be provided with such courses.*

**Keywords:** *Online Learning Community Project, EFL Speaking Competencies, EFL Listening Competencies, Technological University Students.*

## 1. Introduction

English is a global language used in business, science, technology, and diplomacy, connecting people from different cultures. Proficiency in English enhances career prospects and access to academic resources, literature, and entertainment. Good listening and speaking skills enable EFL learners to adapt their language, share knowledge, and prepare for the outside world. Listening and speaking competencies are crucial for language development, with Tavit (2010) stating that learners gain 45% and 30% of their competency through listening and speaking respectively, making them essential in everyday communication.

### 1.1 Listening Competencies

Listening is crucial for daily communication and English proficiency. It involves receptive, constructive, collaborative, and transformative orientations, involving participation, imagination, and empathy. Listening involves sensing, selecting, interpreting, retaining, and retrieving information, involving active involvement and effort. It's studied in language arts and conversation analysis, and is a language phonoreception skill, transferring voices and symbols to the brain, (Rost, 2002; Pandey, 2005; Gilakjani and Ahmadi, 2011; Renukadevi, 2014; Nushi and Orouji, 2020; Alzamil, 2021).

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\*Abdel Samad, Samah: [samahmohamedr107@gmail.com](mailto:samahmohamedr107@gmail.com)

Improving listening skills is crucial for learners' success in various aspects of life, including acquiring a second language and real-time language processing. Good listening competencies enable effective classroom participation and promote personal and professional development. EFL instructors should implement engaging activities and different listening models to help learners improve their listening skills. Overcoming challenges like hasty speaking, unknown words, and weird pronunciation is essential for improving listening competency (Sharmaa, 2011; Vandergrift, 2011; Mohajjer and Pourgharib, 2014; Latif, 2015; Owolewa and Olu, 2017; Xu and Huang, 2018; Romadhon, 2019 and Ainin, 2020).

## 1.2 Speaking Competencies

Speaking has a key role in oral communication. Mastery of speaking competency enables learners to effectively communicate in English classes, utilizing body language, gestures, and style to express ideas, feelings, and thoughts (Hybels and Weaver, 2001). Louma (2004) and Kavaliauskienė (2006) define speaking as a way to distinguish personality and attitudes through language sounds. Andryani (2012) defines speaking skills as mastering sub-skills like accuracy, fluency, grammar, vocabulary, pronunciation, and comprehensibility, which should be acquired and mastered.

With regard to Coffin, 2006 and Amin and Marziyeh (2007) emphasize the importance of speaking for developing communicative competencies, enabling learners to express themselves and follow social and cultural rules, while grammatical accuracy is crucial for effective communication. More recently, Fernando (2020) considered speaking as the ability to express oneself in life situations, the ability to describe situational actions or word phrases, or the ability to express a sequence of ideas fluently. Regretfully, with this significant role in learners' improvement, most EFL learners encounter English-speaking difficulties; those common difficulties include inhibition and nothing to say.

A number of studies were conducted in higher education to show the reasons behind EFL speaking difficulties such as (Zuheer, 2008; Abdullah and Patil, 2012; Gubaily, 2012; Al-Tamimi and Attamimi, 2018; Ramadan and Hassan, 2021). Results of these studies indicated that EFL speaking difficulties include pronunciation, word choice and inability to express thoughts and ideas orally. They also found that the difficulties in improving EFL learners' speaking skills include negative linguistic transfer of Arabic, lack of appropriate methods, and lack of motivation.

Based on the previous literature review, EFL lecturers should focus on students' communicative abilities, leading to the proposal of an online community project to enhance technological university students' EFL listening and speaking competencies, based on social constructivism theory, emphasizing reciprocal teaching, peer collaboration, and anchored instruction.

## 1.3 Online Learning Community Project

A **community** is more than a group with common interests; it involves social interdependence, relationships, and shared experiences. Online learning communities can include students from dispersed locations or individuals from outside the school community, such as trainee teachers or experts, who support student learning (Barab et al., 2003).

**Online learning community** is an interactive, learner-centered approach that replaces the teacher-centered, instruction-based model in online learning communities. They are made up of agents who use electronic media to pursue

a similar learning objective while sharing a common language, worldview, and set of values. These groups share a desire to learn, which changes the conventional instructor-centered approach to one that facilitates learning (Seufert, Lechner, & Stanoevska, 2002).

**Online learning communities** are virtual environments where participants are expected to exhibit honesty, responsiveness, relevance, respect, openness, and empowerment. These communities can include students from different locations, such as through teleconferencing or online collaboration, or individuals or groups from outside the school community, such as trainee teachers or experts (Linn, Clark, & Slotta, 2003; Maples, Groenke, & Dunlap, 2005 and Palloff & Pratt, 2007). Online Learning Communities offer students and teachers the ability to focus on desired subjects and receive necessary assistance. Online collaborative learning, also known as computer-supported collaborative learning, provides an online environment for students to collaborate and enhance their learning, as mentioned by Kreijns et al. 2003 and Fjermestad, 2004.

Some researchers such as (McConnell, 2006; Luppicini, 2007; Ala and Mutka, 2010; Duncan-Howell, 2010 and Avalos, 2011) highlighted that online learning communities are increasingly being utilized in higher education to improve student-to-student and student-to-tutor communication in networked learning. The concept of "community" has gained attention due to social networking. Online learning communities offer opportunities for peer learning, informal sharing of best practices, and personalized learning, particularly for teachers' professional development. Consequently, they foster group projects, help, and share interests, ensuring student motivation and engagement. Without these structures, education would be lonely and negatively impact students' engagement. Implementing effective strategies for virtual classrooms can manage challenges and ensure a positive learning environment.

Numerous research has been carried out to examine how well online learning communities may enhance the speaking and listening skills of EFL students. The usefulness of online learning communities in enhancing university students' EFL speaking and listening skills has been supported by a number of research, including Wahab and El-Din (2021), Hassani, Nahvi, and Ahmadi (2016), Musa and Aliem (2019), and Liu (2014). According to these research, online learning communities motivate students to cooperate in order to accomplish shared learning objectives and, as a result, enhance their English proficiency. Additionally, they demonstrated how online learning communities help students' listening comprehension of English. Additionally, research by Abdullah (2013), Halimah (2018), and Alharbi and Alfadda (2020) showed how online learning communities may help EFL students become more proficient speakers.

## 1.4 Project based Learning

Project-based learning is a teaching approach that involves students identifying problems, developing a plan, conducting a reality test, and reflecting on the plan. It integrates knowledge and application, allowing students to solve authentic problems and produce meaningful results. It uses digital tools to create high-quality, collaborative products, requiring group work. Project-based learning encourages autonomy, constructive inquiries, goal setting, teamwork, communication, and reflection, while developing students' critical thinking and problem-solving abilities. It allows students to use knowledge and basic curriculum concepts to solve real-world situations and deliver meaningful outcomes (Wurdinger et al., 2007; Stivers, 2010; Markham, 2011; Chagas et al., 2012; Wiznia et al., 2012; and Kokatsaki et al., 2016).

A number of studies have examined the impact of project-based learning on improving English language skills among students. For example, Raslan (2016) revealed that project-based learning enhanced EFL learners' speaking skills. Yang and Puakpong (2016) indicated the positive effects of project-based learning on enhancing students' EFL speaking skills. Both studies highlight the importance of project-based learning in enhancing students' English language skills. More recently, Elsadek et al. (2020) investigated the effectiveness of using electronic project-based learning in improving EFL students' speaking fluency.

Over and above, the study by Febiyanti, Nitiasih, Budiarta, and Adnyayanti (2021) found that project-based learning videos significantly improved students' listening comprehension during COVID-19. In addition, Mohammed (2021) found a high effect of project-based learning. Aly, Abd Allah, Ali, Refaey, Abd El Maksoud, and Abd El Fattah (2021) investigated the impact of a project-based learning program integrated with information technology on first-year secondary school students' speaking skills. Krisnoviani, Ratih, Sulistyani, and AJI (2023) confirmed the effectiveness of project-based learning in improving EFL learners' listening and speaking skills.

In light of the previously mentioned literature review, it is critical for lecturers and instructors to pay attention to the expanding demands of EFL learners to communicate effectively. As a result, this research was developed with the goal of boosting technological university students' EFL listening and speaking skills through the use of modern technology. Online community learning can assist learners to listen effectively and speak clearly. This learning community will be more impacted if project-based learning is adopted. Thus, project-based learning was used to improve EFL listening and speaking competencies among technological university students.

## Pilot study

To provide evidence for the research problem, the researcher conducted a pilot study to determine the current level of first-year technological university students' EFL listening competencies (receiving information, understanding and interpreting information, analyzing information, and applying the information) and speaking competencies (selecting a topic, demonstrating a careful choice of words, locating and employing compelling supporting materials, using The findings of the pilot study are shown in the following tables.

Table 1: Results of the EFL Listening Pilot Study Test

Listening Competencies	Maximum Score	Mean Score	Percentage
Receiving information	5	2.2	40%
Understanding and interpreting information	5	1.8	38%
Analyzing information	5	1.6	32%
Applying the information	5	1.8	30%
<b>Total</b>	<b>20</b>	<b>7.4</b>	<b>35%</b>

Results in Table (1) show that the percentage of students' score on the listening pilot study test is (35%). This means that those students need more efforts to improve their EFL listening competencies.

Table 2: Results of the EFL Speaking Pilot Study Test

Speaking Competencies	Maximum Score	Mean Score	Percentage
Selecting a topic	5	2.9	35%
Demonstrating a careful choice of words	5	2.4	32%
Locating and employing compelling supporting materials.	5	1.6	32%
Using an effective organizational pattern	5	1.8	34%
Adapting the presentation to the audience	5	1.6	33%
<b>Total</b>	<b>25</b>	<b>10.2</b>	<b>33.2%</b>

Results in Table (2) show that the percentage of students' score on the speaking pilot study test is (33.2%). This means that those students need more improvement to be better and to enhance their EFL speaking competencies.

### Statement of the Problem

Based on the previous review, the researcher's experience as an English as a foreign language (EFL) lecturer, and the pilot study findings, first-year technical university students must improve their EFL listening and speaking skills. As a result, the current research sought to investigate the efficacy of employing an online learning community project to strengthen technological university students' EFL listening and speaking skills.

### Questions

This research attempted to answer the following main question:

**"How far can an online learning community project improve first year technological university students' EFL listening and speaking competencies?"**

For research purposes, the following sub-questions were derived from the main question.

- 1) What are the components of the proposed online learning community project required for improving first year technological university students EFL listening and speaking competencies?
- 2) What is the effectiveness of using online learning community project in improving first year technological university students EFL listening competencies?
- 3) What is the effectiveness of using online learning community project in improving first year technological university students EFL speaking competencies?

### Purpose

The present research aimed at improving technological university students' EFL listening and speaking competencies in addition to examining the effectiveness of using online learning community project in improving first year technological university students EFL listening and speaking competencies?

### Delimitations

The study was delimited to the following:

- 1) A sample of students enrolled in the first year of the specialized Technology of Operating and Maintaining Textile Equipment Diploma (TEX), Faculty of Technology of Industry and Energy, Samannoud Technological University in Gharbia.
- 2) Some EFL listening competences necessary for graduate technological universities students namely; receiving information, understanding and interpreting information, analyzing information, and applying the information.

- 3) Some EFL speaking competencies namely; selecting a topic, demonstrating a careful choice of words, locating, and employing compelling supporting materials, using an effective organizational pattern, and adapting the presentation to the audience).
- 4) Employing some online learning collaborative applications (Google Classroom, Google Drive, Google Meet, Google Slide, Google Form) while teaching the target EFL listening and speaking modules.

### Hypotheses

This research tested the following hypotheses:

1. There is a statistically significant difference at (0.01) level between the mean scores of the control group and that of the experimental one on the post administration of the EFL listening test in favor of the experimental group.
2. There is a statistically significant difference at (0.01) level between the mean scores of the experimental group on the pre-post administration of the EFL listening test in favor of the post one.
3. There is a statistically significant difference at (0.01) level between the mean scores of the control group and that of the experimental one on the post administration of the EFL speaking test in favor of the experimental group.
4. There is a statistically significant difference at (0.01) level between the mean scores of the experimental group on the pre-post administration of the EFL speaking test in favor of the post one.

### Operational Definition of Terms

#### Listening Competencies

Vandergrift & Baker (2015) defined listening as a complex and demanding process that requires linguistic and world knowledge to comprehend aural texts.

According to this research, **Listening Competencies** are a type of communication competency that includes behavioral, emotional, and cognitive functions such as receiving, comprehending, and interpreting information.

#### Speaking Competencies

According to, El-Bassuony (2010) speaking is the ability to successfully use both verbal and nonverbal clues to communicate a certain message in any circumstance.

In this research **Speaking Competencies** are defined as a type of oral communication that includes selecting a topic, demonstrating a careful choice of words, locating, and employing compelling supporting materials, using an effective organizational pattern, and adapting the presentation to the audience.

#### Online Learning Community (OLC)

An **online learning community**, according to Palloff and Pratt (2007), is a virtual setting where individuals may experience five qualities: openness, respect, responsiveness, relevance, honesty, and empowerment. Members of the group can express themselves freely without worrying about how others will see them, which promotes lively, insightful conversation.

In order to improve students' EFL speaking and listening skills, the researcher characterized **the online learning community** as a virtual learning environment that implements several online learning tools (Google Classroom, Google Drive, Google Meet, Google Slide, and Google Form).

#### Project based Learning

**Project-based learning** is defined for the research purpose as a teaching strategy allowing students to express their imagination, creativity, and motivation, enabling them to attain goals and assess their progress, making it a genuine and high-quality learning technique.

## Online Learning Community Project (OLCP)

**Online learning community projects** are defined as collaborative tasks and activities practiced by groups of students online via some google educational application (Google Classroom, Google Drive, Google Meet, Google Slide, and Google Form) for improving students' EFL listening and speaking competencies in addition to providing the opportunity to pose questions, have discussions, exchange ideas, guess solutions, and collaborate to create projects and finish tasks.

## 2. Methods

### Design

The research adopted quasi-experimental design using two groups: experimental and control. The experimental group received the target four modules by using the proposed online learning community project, while the control group received them by using regular instruction. Both groups received the pre- post listening and speaking tests to assess their targeted EFL listening and speaking skills.

### Participants

Participants were sixty first year students specialized in Technology of Operating and Maintaining Textile Equipment, Faculty of Technology of Industry and Energy, Samannoud Technological University in Gharbia. They were trained in using the proposed online learning community; thus, it was expected that they would be qualified to use some Google collaborative educational applications (such as; Gmail, Google Classrooms, Google forms and Google Drive). Participants were divided into two groups: control and experimental, and each group consisted of 30 students. The experimental group students were taught through the proposed online learning community and achieving their projects, while the control group students studied through regular lecture instructions.

### Instruments

The following instruments were designed and used:

1. A pre-post EFL listening test
2. A pre-post EFL speaking test followed by an EFL speaking scoring rubric.

### The Proposed Cloud Based Collaborative Blended Learning Program

The proposed online learning community was designed based on the main phases of ADDIE instructional design model which were illustrated in the following Figure (1).

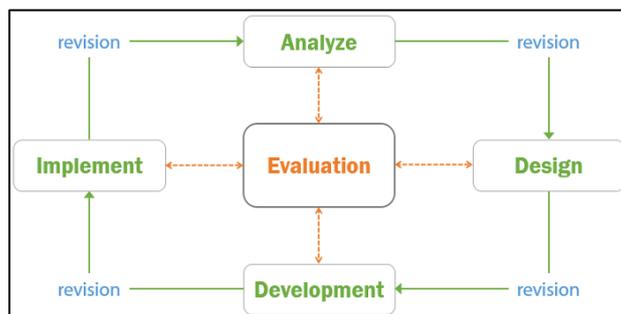


Figure 1: ADDIE Model Phases. (Grafinger,1988)

### Analysis

The Analysis phase was the foundation of all other phases of the instructional design. During this phase students' needs were analyzed. It was found that first year technological university students were in need to develop their EFL listening and speaking competencies.

## **Design**

Based on reviewing literature of online learning community project, EFL listening competencies and EFL speaking competencies, the proposed online learning community project was constructed. This program has been designed based on the principles of social constructivism theory. Those principles were reflected throughout the application of the program modules as pupils were able to collaborate, interact, share ideas and thoughts, and have feedback.

Google Classroom was a flexible and collaborative virtual learning environment for the development of learners' EFL listening and speaking competencies. The online learning community employed some other educational applications namely; Google Forms, Google Slide, Google Meet and Microsoft PowerPoint. These educational applications have been used as follows:

- “Gmail” has been used to enable the lecturer and the students to use all the required Google educational applications. Each student would receive an invitation to join the online learning community. S/he would be asked to login using her/his Gmail account and password.
- Google Classroom has been used to create the online learning community (virtual learning community).
- Google Drive has been used to store all the data and the files needed as it was free cloud storage for personal usage.
- Google Slides has been used to present each module. In addition to creating and presenting the speaking projects (presentations).
- Google forms have been used to create online quizzes for assessing the students' EFL listening and speaking performance during and after the program.

## **Development**

The online learning community was specially created to present the target eight modules namely; Meeting New People, Talking about Families, Daily Schedule, Abilities, Past Experiences, Location and Neighborhoods, Describing People and Health Problems. These modules were designed around the units from two books namely; “Let's Talk 1” and “New Interchange”. These modules were presented by Microsoft PowerPoint in addition to using Google Slides. Each module was presented through two lessons; a listening lesson and a speaking lesson. Each lesson was introduced in three stages employing some learning tasks and activities.

## **Implementation**

This phase included implementing the experimental treatment.

## **Evaluation**

Participants were told from the beginning that they will be assessed according to their answers to the target assignments and quizzes via Google Form..

- Formative and summative evaluation tasks were employed during and after teaching each module.
- In addition, a summative online quiz was used after each lesson. One for listening and one for speaking for assessing students' improvement after studying each module. Constructive feedback was presented to students through chatting, online comments and publishing the project.
- The final post-listening and speaking tests were administered at the end of the treatment to measure students' overall improvement in listening and speaking.

## **The Experimental Treatment**

A quasi-experimental design with one experimental group and one control group was used in the present study. The steps were as follows:

### Pre- administration

Pre- administration was at the beginning of the first semester of the (2022-2023) academic year. Homogeneity between the control group and the experimental group was established through administering the EFL listening test and the EFL speaking test to the participants before administering the online learning community project.

### The administration

The online learning community project was implemented with participants of the experimental group. The control group had the regular EFL listening and speaking instructional activities. Treatment was conducted during the first semester of the (2022/2023) academic year from the mid of October up to the mid of December. The treatment lasted for eight weeks, two sessions per week. Due dates for submitting the assignments were posted on Google Classroom.

### Post- administration

The post-administration of the instruments was conducted after the experimental treatment on Thursday 15th of December 2022. It was conducted to reveal the changes in first year technological university students' EFL listening and speaking competencies. The post-administration was administered on both the control and experimental groups. In addition, the experimental group projects were assessed and the best projects were published. So, the post- administration aimed at measuring the effectiveness of online learning community project in improving first year technological university students' EFL listening and speaking competencies.

## 3. Results and Discussion

The results of the study were statistically analyzed in terms of its hypotheses and they were discussed in the light of the theoretical background and related studies. Results of the study were reported as follows:

### Testing the First Hypothesis

The first hypothesis stated that "There is a statistically significant difference at (0.01) level between the mean scores of the control group and that of the experimental one on the post administration of the EFL listening test in favor of the experimental group."

Table 3: Results of the Control and Experimental Groups on the Post Administration of the EFL Listening Test

<i>Listening Competencies</i>	<i>G.</i>	<i>N.</i>	<i>Mean</i>	<i>S. D</i>	<i>DF</i>	<i>t. Val.</i>	<i>Sig.</i>
<b>Receiving information</b>	Con.	30	6.83	0.51	<b>58</b>	4.70	0.01
	Exp.	30	7.56	0.59			
<b>Understanding and interpreting information</b>	Con.	30	3.20	1.05		10.6	0.01
	Exp.	30	6.17	0.94			
<b>Analyzing information</b>	Con.	30	3.15	0.99		7.46	0.01
	Exp.	30	5.61	1.35			
<b>Applying information</b>	Con.	30	4.65	1.82		6.32	0.01
	Exp.	30	7.47	1.34			
<b>Total Score</b>	<b>Con.</b>	<b>30</b>	<b>19.3</b>	<b>3.71</b>	<b>9.03</b>	<b>0.01</b>	
	<b>Exp.</b>	<b>30</b>	<b>29.9</b>	<b>4.66</b>			

Table (3) illustrates that there was a statistically significant difference between the control and the experimental groups on the total mean score of the post-administration ( $m = 30.0$ ) and in all individual competency ( $m = 7.56; 6.17; 5.61; 7.47$ , respectively) in favour of the experimental group. All differences were statistically significant at the 0.01

level. This shows that the mean score of the experimental group is higher than that of the control one in each competency of the post-listening test. These results are consistent with or confirm the validity of the first hypothesis. These differences could be ascribed to the implementation of the online learning community project. Therefore, the first hypothesis of the research was verified and accepted.

The results of the first hypothesis are in line with those of Liu (2014), Hassani, Nahvi, and Ahmadi (2016), Musa and Aliem (2019), and Wahab and El-Din (2021). All these studies concluded that the use of online learning community project improved students' listening skills at different school levels and with varied participants.

### Testing the Second Hypothesis

The second hypothesis stated that *“There is a statistically significant difference at the 0.01 level in the mean score of the pre and post administration of the experimental group EFL Listening Test in favour of the post-administration”*. The table below shows the results of the t-test for paired samples, which was used to estimate the difference between the experimental group's pre-and post-test.

Table 4: Results of the Experimental Group on Pre- and Post- Administrations of the EFL Listening Test.

<i>Listening Competencies</i>	<i>Test</i>	<i>N.</i>	<i>Mean</i>	<i>S. D</i>	<i>DF</i>	<i>t. Value</i>	<i>Sig.</i>
<i>Receiving information</i>	<i>Pre.</i>	30	3.65	1.19	29	18.4	0.01
	<i>Post</i>	30	7.56	0.59			
<i>Understanding and interpreting information</i>	<i>Pre.</i>	30	1.97	1.48	29	17.5	0.01
	<i>Post</i>	30	6.17	1.29			
<i>Analyzing information</i>	<i>Pre.</i>	30	1.35	5.61	29	17.2	0.01
	<i>Post.</i>	30	5.61	1.35			
<i>Applying the information</i>	<i>Pre.</i>	30	0.75	0.51	29	16.2	0.01
	<i>Post.</i>	30	7.47	0.87			
<i>Total Score</i>	<i>Pre.</i>	30	9.61	5.32	29	24.3	0.01
	<i>Post</i>	30	29.9	4.66			

Table (4) illustrates that there was a statistically significant difference between the pre- and post-administrations of the experimental group on the total mean score ( $m = 30.0$ ) and in all individual skills ( $m = 7.56; 6.17; 5.61; 7.47$ , respectively) in favour of the post-administration. All the values of (t) are statistically significant at the (0.01) level. These results validate the second hypothesis, and as a result, they indicate the effectiveness of the online learning community project to improve listening competencies.

### Testing the third hypothesis

The third hypothesis stated that *“There is a statistically significant difference at (0.01) level between the mean score of the control group and that of the experimental one on the post administration of the EFL speaking test in favor of the experimental group.”*

Table 5: Results of the Control and Experimental Groups on the Post Administration of the EFL Speaking Test

<i>Speaking Competencies</i>	<i>G.</i>	<i>N.</i>	<i>Mean</i>	<i>S. D</i>	<i>DF</i>	<i>t. Valu</i>	<i>Sig.</i>
<i>Selecting a topic</i>	<i>Con</i>	30	5.23	0.48	49	7.65	0.01
	<i>Exp</i>	30	7.88	0.59		9.8	0.01
<i>Demonstrating a careful choice of words</i>	<i>Con</i>	30	3.28	1.09		8.23	0.01
	<i>Exp</i>	30	8.02	0.94		7.32	0.01
<i>Locating and employing compelling supporting materials</i>	<i>Con</i>	30	2.87	0.88		8.03	0.01
	<i>Exp</i>	30	7.61	1.04		6.48	0.01
<i>Using an effective organizational pattern</i>	<i>Con</i>	30	2.65	1.78		1.55	0.43
	<i>Exp</i>	30	8.14	1.34		10.43	0.01
<i>Adapting the presentation to the Audience</i>	<i>Con</i>	30	1.43	0.63		1.55	0.43
	<i>EXP</i>	30	6.48	0.53		10.43	0.01
<i>Total Score</i>	<i>Con.</i>	30	1.55	0.43		10.43	0.01
	<i>Exp.</i>	30	28.9	4.66		10.43	0.01

As shown in Table (5) there was a statistically significant difference between the control and the experimental groups on the total mean score of the post-administration ( $m = 7.88; 8.02; 7.16; 8.14, 6.48$ , respectively) in favour of the experimental group. All differences were statistically significant at the 0.01 level. This indicates that the mean score of the experimental group is higher than that of the control one in each competency of the post-speaking test. These differences could be ascribed to the implementation of the online learning community project. Therefore, the third hypothesis of the research was verified and accepted.

The results of the third hypothesis were in line with those of Abdullah (2013), Halimah (2018), and Alharbi and Alfadda (2020). All these studies concluded that the use of the online learning community project improved the students' EFL speaking skills which led to accepting and verifying the third hypothesis.

#### Testing the Fourth Hypothesis

The fourth hypothesis stated that **"There is a statistically significant difference at the 0 .01 level in the mean score of the pre and post administration of the experimental group EFL speaking Test in favour of the post-administration"**. The following table presents the comparison between experimental group students' mean score.

Table 6: Results of the Experimental Group on Pre- and Post- Administrations of the EFL speaking Test.

Speaking Competencies	Test	N.	Mean	S. D	DF	t. V.	Sig.
Select a topic	Pre	30	3.65	1.19	27	16.35	0.01
	Post	30	7.88	0.59			
Demonstrate	Pre	30	1.97	1.48	27	19.02	0.01
	Post	30	8.02	0.94			
Locate and employ	Pre	30	0.68	0.64	27	17.23	0.01
	Post	30	7.61	1.04			
Use pattern	Pre	30	0.45	0.36	27	17.32	0.01
	Post	30	8.14	1.34			
Adapt to Audience	Pre	30	0.55	0.50	27	16.2	0.01
	Post	30	6.48	0.53			
<b>Total Score</b>	Pre.	30	1.48	0.65	27	23.85	0.01
	Post	30	28.9	4.66			

Table (6) illustrates that there was a statistically significant difference between the pre- and post-administrations of the experimental group on the total mean score (m 7.88; 8.02; 7.16; 8.14, 6.48 respectively) in favour of the post-administration. All the values of (t) are statistically significant at the (0.01) level. These results validate the fourth hypothesis, and as a result, they indicate the effectiveness of the online learning community project to improve EFL students' speaking competencies.

#### The effectiveness of the online learning community project:

First, the effect size of the online learning community project on the participants' EFL listening competencies was measured. The following Table (7) illustrates the effect size of the online learning community project on the experimental group students' EFL listening competencies.

Table7: The effect size of the online learning community project on improving the EFL listening Competencies.

Listening Competencies	$\eta^2$	Effect Size
Receiving information	0.931	High
Understanding and interpreting information	0.925	High
Analyzing information	0.922	High
Applying the information	0.936	High
<b>Total</b>	<b>0.96</b>	<b>High</b>

Table (7) illustrates the size of the online learning community project on improving students' EFL listening test total score and its competencies. All ( $\eta^2$ ) values for individual competency ranged from (0.882) to (0.938), which is considered high. The total ( $\eta^2$ ) value was (0.96), which reflects a high effect size of the online learning community. The research results go in line with the results of (De Jesús, Salazar, Soledad, & González, 2019 and Musa & Aliem, 2019). Consequently, the effectiveness of using an online learning community project in improving students' EFL listening skills was approved.

**Second**, The effect size of using the online learning community project on improving students' the EFL speaking was measured. Results can be illustrated in table (8) as follows:

*Table 8: The effect size of the online learning community project on improving the EFL Speaking Competencies.*

<b>Speaking Competencies</b>	<b><math>\eta^2</math></b>	<b>Effect Size</b>
<b>Selecting a topic</b>	0.954	<b>High</b>
<b>Demonstrating a careful choice of words</b>	0.897	<b>High</b>
<b>Locating and employing compelling supporting materials.</b>	0.897	<b>High</b>
<b>Using an effective organizational pattern</b>	0.902	<b>High</b>
<b>Adapting the presentation to the audience</b>	0.871	<b>High</b>
<b>Total</b>	0.942	<b>High</b>

Table (8) illustrates the size of the online learning community project on improving students' EFL speaking test total score and its competencies. All ( $\eta^2$ ) values for individual competency ranged from (0.871) to (0.954), which is considered high. The total ( $\eta^2$ ) value was (0.942), Therefore, it is evident that the online learning community project made a significant difference in the use of the EFL speaking skills of the experimental group. Consequently, the fourth hypothesis was verified and accepted. Again, the results of the current research added up to the previous studies of Anggraeni (2014), Wu, Hsieh, and Yang (2017), and Hoque (2018), whose studies indicated that the online learning community project significantly promoted the students' speaking skills.

## **Conclusion**

The results of this research revealed the effectiveness of using an online learning project in improving technological university students' EFL listening and speaking competencies. These results give momentum to other studies that stressed the effect of online learning community project on improving learners' EFL listening skills such as Shoman (2023). In addition to giving further momentum to other studies that stressed the online learning community project on improving learners' EFL speaking skills such as Shoman (2023).

To sum up, it was concluded that using online learning community project is able to improve technological university students' EFL listening and speaking competencies. With reference to the results of this study, the following points were revealed:

- Using online learning community project was effective in improving technological university students' EFL listening competencies.

- Using online learning community project was effective in improving technological university students' EFL speaking competencies.
- A curriculum developed based on implementing project-based learning strategy can improve technological university students' achievement in general and their EFL listening and speaking competencies in particular.

### Recommendations

A number of recommendations based on the results and the conclusions could be made as follows:

1. EFL learners should be encouraged to use online learning community project was effective in improving technological university students' EFL listening and speaking competencies.
2. EFL instructors should be trained in using online learning community project was effective in improving technological university students' EFL listening and speaking competencies.
3. EFL Curriculum designers should take into consideration the importance of embedding project-based learning in the syllables of different stages.

### Suggestions for Further Research

The following areas are suggested for further research:

1. Using online learning community project to develop EFL learners' linguistic competence.
2. Using online learning community project to develop EFL learners' written communication skills.
3. Developing other language skills among EFL learners such as reading and writing through online learning community project.
4. Conducting new research to investigate the effect of online learning community project on EFL learners' achievement.

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