A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

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Abstract:

This study aimed to develop secondary stage students' EFL oral communication skills via a proposed program based on integrating flipped classroom and inquiry learning. No previous studies dealt with this program, which is based on integrating flipped classroom and inquiry learning, so this is the novelty point of the current study. The quasi-experimental design of two groups was adopted. There are forty participants for the experimental group and the same for the control group. Questionnaire on oral communication was designed and juried. Then, the oral communication test was juried and administered to the participants of the two groups. The program was designed and administered in the second term of the academic year 2022/2023 and lasted for the entire term with two sessions per week for the experimental group. The study results revealed that the experimental group's post-results exceeded its pre-results in the post-administration of the instructions. Furthermore, it could be determined that the proposed program substantially enhanced the stated variable.

Keywords: Oral communication, flipped classroom, inquiry learning.

1. Introduction

Oral communication is the process of expressing ideas, thoughts and information and this plays a decisive role in the life of students. Oral or verbal communication can take many forms, ranging from informal conversation that occurs spontaneously during which the content is not planned, to participation in meetings that occurs in a structured environment.

Nasr (2015) clarified that the most necessary aspect of language learning is how to express ideas in the target language fluently in order to be understood by native speakers. Therefore, foreign language learners should learn how to use different words and phrases in meaningful sentences and should be familiarized with the grammatical patterns in the target language.

Flipped classroom is one of the new pedagogical approaches that aim to improve the level of the students in language skills. Flipped classroom means

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

that activities that have traditionally taken place inside the classroom take place outside the classroom and vice versa. The flipped classroom environment ensures that students become more active participants compared with in the traditional classroom. (Uzunboylu & Karagozlu, 2015).

Arnold-Garza (2014) noted that flipped classroom is a teaching method that delivers the lecture content to the learners at home via electronic means and uses the class time for practical application activities. The flipped classroom is based on assigning the students to learn a new material outside the classroom (usually online). The strategy moves activities that traditionally considered homework to be carried out in the classroom and encourages the students to work cooperatively via tech tools to study the material and hold online discussions.

On the other hand, inquiry learning focuses on developing learners' reasoning skills and raising their inspiration and motivation (Ermawati & Lestari, (2020). In addition, Arauz (2013) defined it as a cognitive educational theory and a teaching practice .Sunshine (2012) went further to describe it as a process which involves students in different activities such as exploring, investigating, searching for information, discovering and seeking solutions under the guidance of the teacher.

1.1. Delimitations of the Study

The present research will be delimited to:

1. Eighty students enrolled in the first year of Kafr Saqr secondary school for girls, Sharkia Governorate, Egypt.

2. Some EFL oral communication skills the jury members approved.

3. The program based on integrating flipped classroom and inquiry learning.

4. The duration of the second term of the academic year 2022/2023.

1.2. Context of the Problem

The problem of the present research has been emphasized through the following ways:

a) Working as an EFL teacher at Kafr Saqr Educational Directorate, Sharkia Governorate in Egypt, the researcher observed a gross lack of EFL oral communication skills among secondary stage students.

b) Reviewing the previous studies that tackled oral communication skills (Hassan and Ahmed, 2015; Qamar, 2016; Raba, 2017; Jarbou, 2018; and Helwa, 2019). These studies revealed that there is a profound weakness in oral communication skills among EFL students.

1.3. Conducting interviews with EFL teachers in some secondary schools. They confirmed that most students have a low level of oral communication skills in English among secondary stage students.

1.4. Statement of the Problem (Criteria for Selecting the Researcher Object)

The problem of the current research is that students enrolled in the first year of Kafr Saqr secondary school for girls, Sharkia Governorate have poor low levels of EFL oral communication skills. Addressing such a problem, the current research investigates the effect of a

Eur. Chem. Bull. 2023, 12(Regular Issue 10), 16461-16470

16462

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

program based on integrating flipped classroom and inquiry learning on developing secondary stage students' EFL oral communication skills.

1.5. Questions of the Study

The present research attempts to answer the following main question:

What is the effect of a program based on integrating flipped classroom and inquiry learning on developing secondary stage students' EFL oral communication skills?

This main question branches out into the following sub-questions:

1. What are the oral communication skills are targeted for (1st year) secondary stage students?

2. What is the actual level of students in oral communication of (1st year) secondary stage students?

3. What are the features of the program based on integrating flipped classroom and inquiry learning for developing secondary stage students' EFL oral communication skills?

4. To what extent is the program based on integrating flipped classroom and inquiry learning effective in developing secondary stage students' EFL oral communication skills?

2. Literature Review

2.1. Oral Communication

Oral communication means using the language appropriately in social interactions. Diversity in interaction involves not only verbal communication but also paralinguistic elements of speech such as pitch, stress, and intonation **(Shumin, 2002).**

Ranson (2000) confirmed that oral communication skills are of paramount importance in EFL classes as mastering these skills leads speakers to be well rounded communicators who are proficient in the four language skills. Such skillfulness grants the speakers with various distinct merits which provide them the opportunity to enjoy sharing idea with others, managing to understand, and respect their own selves. **Biemiller and Boote (2006)** asserted that the oral language skills can supply a basis for the development of other language skills, such as reading and writing. It is the basis to determine or pronounce written words. Speaking skills support future reading and writing achievement.

Zhang (2005) explained that the study of oral communication found its manifestations in the forms of speech, conversation, and dialogue. Each concept has different connotations and denotations but together they form the basis for a comprehensive understanding of oral communication. Oral communication is not only a process of learning to speak a second/foreign language, but also it combines the development of communicative competence.

2.2. Flipped Classroom

Ekmekci (2017) indicated that flipped classroom is a relatively new instructional method which emphasizes effective use of class time by changing the traditional tasks of teachers and students inside and outside the classroom.

Bergmann & Sams (2012) argued that flipped classroom could be viewed as one of the active learning activities since

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

the classroom is considered to be as a workshop to discuss ideas, do some activities and implement what the students have learnt outside the class via tech tools. The flipped learning allows the replacement of direct instruction with videos that can be accessed anytime and anywhere by learners and also by creating a problem-based learning environment during face-to-face teaching time.

Flipped classroom implies a reversal of the normal class set up and the switch between class instruction and homework. What happens through a FC approach is that students acquire the basic information outside of class, constructing their learning, enjoying the freedom of researching online for further learning. They "pause to reflect on what is being said, rewind to hear it again, listen to as much or as little of the lecture as their schedules permit, and view the lecture on a mobile device rather than in a fixed location" **(Talbert, 2012).**

Alzain (2015) asserted that flipped classroom is a modern technological solution for treating academic weaknesses of students and developing levels of their skills of thinking, adding that the flipped learning provides teacher with enough time to converse and discuss with students in classroom instead of memorization.

2.3. Inquiry Learning

Inquiry based learning enables students to learn through engagement in a real situation. It is in a way that altogether develops both problem-solving methods and disciplinary knowledge skills as it sets students in the active role of problem-solvers facing with a weak-structured condition that introduces the kind of issues they are likely to have as future agents in their workplace. Inquiry-based learning starts with the introduction of a weak-structured problem on which all learning is centered. The problem is one that students may face as future professionals. Individually, students are responsible for their own learning and instruction. Most of learning process happens in small groups. The teacher's role is more like that of a facilitator of student learning, being at different times as a resource, instead of being a provider of information **(Exline, 2004).**

According to **Amri and Ahmadi (2010),** inquiry based learning is a student-centered and teacher-guided instructional approach that engages students in investigating real world questions. Inquiry-based learning supplements traditional instruction by providing a vehicle for extending and applying the learning of students in a way that connects with their interests within a broader objective framework. Students acquire and analyze information, develop and support propositions, give solutions, and design technology and arts products that explain their thinking and make their learning apparent.

Sanjaya (2011) added that inquiry based learning is an approach that consists of some activities of learning that focus on the process of how to think analytically to search and find the answers of the problems while reading. The thinking process is usually done through questions and answers between the teacher and the students. It means that this approach

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

emphasizes the students to find the answers by themselves therefore; the students are required to be active in finding the answers of reading text, especially, descriptive text.

3. Methodology

3.1. Study Design

The present study adopted the quasi-experimental design. Two classes were selected to represent the experimental group and the control group. The experimental group was instructed on the integrative program. The control one received regular instruction. A pre-post oral communication test was administered to the two groups before and after the experiment.

3.2. Participants

The participants in the present study were first-year secondary students in

"There is a statistically significant difference between the mean scores of the experimental and control groups in their performance of the post-EFL oral communication test results, in favor of experimental group students."

To investigate the change fostered by the implementation of the program based on integrating flipped classroom and inquiry learning on the experimental participants' performance in oral communication and to compare their post-level of skill performance developed by the proposed program, a t-test for the independent sample was used to determine any statistical differences between the experimental participants' mean scores on the post-test results. These results are presented in Table (1).

Kafr Saqr secondary school for girls, Sharkia Governorate, Egypt in the second semester of the academic year 2022-2023. They were selected to develop their oral communication skills. They were divided into two groups: the experimental group (N=40) "taught through integrative program," and the control group (N=40) "taught regularly" (40 students in each group). Some variables were controlled to ensure that the improvement of the participants' oral communication skills in the experimental group was attributed to the use of the integrated program based on flipped classroom and inquiry learning. These variables included the participants' ages, which ranged from 16 to 18 years old, economic level both belonged to the same economic level.

3.3. Instruments

After reviewing the related literature and the previous studies related to oral communication skills. The researcher designed the following instruments in light of the study's independent variable (oral communication skills):

a) An EFL oral communication questionnaire as a prerequisite procedure for designing the test.

b) An EFL oral communication test**.**

c) An EFL oral communication rubric as a post-requisite procedure for scoring the test.

3.4. Verifying the Hypotheses of the Study

The first hypothesis was stated as follows:

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop
Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Table (1): T-test results of the experimental and control groups on the post- oral communication test

Oral communication skills	group	N	mean	St.D	D.F	t.value	Sig.
Accuracy	control	40	4.22	3.45	78	3.24	0.01
	experimental	40	6.34	5.65			
Fluency	control	40	4.12	3.34	78	4.35	0.01
	experimental	40	6.45	5.45			
Listening comprehension	control	40	3.34	4.56	78	4.44	0.01
	experimental	40	5.13	5.56			
Language functions	control	40	4.23	2.23	78	5.11	0.01
	experimental	40	7.12	6.78			
overall	control	40	12.4	5.34	78	9.57	0.01
	experimental	40	23.5	8.67			

It's clear from Table (1) that there is a statistically significant difference between the mean scores of the experimental and control group at (0.01) level in favor of the experimental group. This means that the program based on integrating flipped classroom and inquiry learning was effective in enhancing students' oral communication skills. Thus, the first hypothesis can be confirmed. The researcher attributes these differences to the proposed program.

The second hypothesis was stated as follows:

"There is a statistically significant difference between the mean scores of the experimental group in their performance of the pre-post administrations of the EFL oral communication test results, in favor of the post-administration."

Table (2): T-test results of the experimental group in oral communication skills on the pre/post oral communication test

Oral communication skills	group	N	M	St.D	D.F	t.value	Sig.
Accuracy	Pre	40	3.34	2.45	78	o.245	0.01
	post	40	6.65	5.65			
Fluency	pre	40	2.45	2.34	78	0.354	0.01
	post	40	7.45	4.45			
Listening comprehension	pre	40	3.13	3.89	78	0.442	0.01
	post	40	5.56	4.56			
Language functions	pre	40	4.12	2.23	78	0.113	0.01
	post	40	7.23	3.78			
overall	pre	40	11.5	4.34	78	0.578	0.01
	post	40	22.6	5.67			

Table (2) indicates that there is a statistically significant difference at the 0.01 level between the mean scores of the experimental group in the pre- and the post-administration of the oral communication test of post-administration. Therefore, the second hypothesis can be confirmed.

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

The third hypothesis was stated as follows:

"The program based on integrating flipped classroom and inquiry learning affects developing the EFL oral communication skills of the experimental group students."

To verify the third hypothesis, the effect size ((η- value) of the program based on integrating flipped classroom and inquiry learning was estimated after estimating the T- value.

The table below indicates the effect size of the program based on integrating flipped classroom and inquiry learning on developing the students' oral communication skills after the experimental treatment.

Table (3): the Effect size of the program based on integrating flipped classroom and inquiry learning in developing oral communication skills

Oral communication skills	group	N	M	St.D	D.F	Eta-square	Effect Size
Accuracy	Pre	40	3.34	2.45	78	0.657	Large
	post	40	6.65	5.65			1.44
Fluency	pre	40	2.45	2.34	78	0.546	Huge
	post	40	7.45	4.45			2.5
Listening comprehension	pre	40	3.13	3.89	78	0.987	Huge
	post	40	5.56	4.56			2.7
Language functions	pre	40	4.12	2.23	78	0.765	Large
	post	40	7.23	3.78			1.45
overall	pre	40	11.5	4.34	78	0.546	Huge
	post	40	22.6	5.67			3.34

Table (3) shows the effect size of the proposed program on the overall score for testing oral communication skills, where the values of (η 2) in each skill and the total score of the test ranged between (0.546 and 0.987). Results also show that the effect sizes of the proposed program on the experimental group performance on the oral communication test as a whole is huge.

4. Results

1- The experimental group outperformed the control group in the means of scores in the post administration of the EFL oral communication skills test.

2- The post administration of the oral communication test results outperformed the pre ones in the means of scores of the EFL oral communication skills test results.

3- The program based on integrating flipped classroom and inquiry learning had a high effect size on the experimental participants' overall dimensions of EFL oral communication skills test results.

5. Recommendations

Based on the results of the present study, the following can be recommended:

- In classroom setting, students should be grouped in different ways based on individuals, pairs, small groups or whole class mode.

- It is recommended that students should be given a lot of activities to do while listening.

Eur. Chem. Bull. **2023**, *12(Regular Issue 10), 16461-16470*

16468

A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

- EFL students should be given a chance after listening comprehension passage to prepare a set of questions to be answered by other students.
- Activities should be designed so that students can be taken the chance to notice how language is used in communication.
- EFL teachers should concentrate on students" ability to use facilitation skills such as fillers, lexical phrases, and ellipsis as they are related directly to fluency which is in turn related to all communication skills.
- EFL students should be allowed to use Google translator or offline dictionary to listen to the actual accent.
- Language functions should be based on real-life situations and daily issues as sources of classroom tasks.
- It is suggested for EFL learners tape themselves a record while communicating in pairs.
- EFL students need to be given plentiful opportunities to interact orally in the target language.
- There is a need for training EFL teachers to use the program based on integrating flipped classroom and inquiry learning.
- EFL students should become the center of the learning process and should share more responsibilities in their learning of oral skills.
- EFL students should be offered opportunities to self-evaluate their oral performance. In this way, they can become more independent and more involved in learning oral communication.
- Supportive feedback should be offered throughout the task cycle, not only to help students identify their weaknesses in oral communication and ways of

overcoming them but also to consolidate their strengths and consequently increase their motivation and involvement in oral communication.

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A Program Based on Integrating Flipped Classroom and Inquiry Learning to Develop Secondary Stage Students' EFL Oral Communication Skills

Section A -Research paper

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Eur. Chem. Bull. **2023**, *12(Regular Issue 10), 16461-16470*

16470