

# **The Effect of Mobile Assisted Language Learning (MALL) on Developing Secondary Stage Students' Oral Fluency Skills and Autonomy**

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## ABSTRACT

This study aimed at investigating the effect of Mobile Assisted Language Learning (MALL) in developing oral fluency among secondary school students. The researcher adopted the quasi-experimental design. Participants of the study were 40 first year secondary school students selected from Salah Salem secondary school for boys in Cairo. The researcher used some mobile learning apps which were used in teaching the experimental group, while the control group received regular instruction on in the school year (2019-2020). The researcher prepared an oral fluency checklist, an oral fluency test, and an autonomy scale. An oral fluency test was designed by the researcher and used as a pre-posttest for the two groups. Both groups were pre-posttested using the test and the scale. Data were treated statistically by SPSS. The results revealed that a large effect of using MALL on developing degree of improvement in the experimental group's oral fluency skills as a whole autonomy.

**Key words:** Oral Fluency, Mobile Assisted Language Learning (MALL), Autonomy.

## Introduction:

Nowadays, using technology in learning English as a foreign language (EFL) is very necessary to all language learners. It can facilitate learning and add some enjoyment as well as fun. In addition, it can increase learners' autonomy. Indeed, technology plays an important role in freeing learning from the constraints of time and place. In the beginning, clay tablets and scrolls were used for this purpose. Later printed books were employed. At the end of the 20th century desktop computers, laptops, netbooks, and web-based applications facilitated a flexible access to language learning materials greatly. After that, the advent of hand-held computer-based devices gave rise to Mobile-Assisted Language Learning (MALL).

The rapid development of information technology, particularly mobile application, has merited language education in a significant and innovative manner (Luo, 2013). In recent years, Web-Based Language Learning (WBLL) has been emerging as a popular term in language education. There has been an increasing number of studies that address the employment of web-based tools in language classrooms. Web-based technology has currently enabled language instructors to extend their teaching practice beyond the physical constraint of their language classroom (Lai & Gu, 2011).

Blended learning provided face-to-face as well as online activities out of school. Using WBLL technology enabled EFL learners to practice English skills without time and space constraints. They have more opportunities to learn and practice the target language through collaborative learning with their peers in addition to, creating their own projects (Ghoneim & Elghotmy, 2016). WBLL can assist language learners process to interact with each other as well

as gradually construct their own knowledge (Lin, Shie & Holmes, 2017).

Mobile learning is a broad field which includes large numbers of devices and applications such as mobile phones, PDAs, Smartphones, GPS tools, laptop computers, MP3 or MP4 players, video tapes, multimedia players, e-game tools, e-books e-organizers, CDs and DVDs. These devices are considered among the list of mobile tools (Trinder, 2005). Beside the artificial learning settings for experimental purposes that can benefit from

these devices, mobile tools can be effective to a great extent in educational purposes.

They are the most possessed and used devices among pupils and students due to its services such as short message services (SMS), multimedia message devices (MMS) (Collins, 2005) and its high technological features like cameras, Bluetooth connections, wireless connection tools, and even navigation tools (GPS). In spite of all these applications of mobile phones that can serve educational purposes. Pettit & Kukulka-Hulme (2007) noted that only few people use these devices for educational purposes. Consequently, most of the researchers and educators started to study the effectiveness of mobile phones in EFL. For example, Kiernan and Aizawa (2004) investigated the use of mobile phones in learning. They concluded that using MALL in language teaching was very effective. Lu(2008) also investigated the use of MALL in vocabulary learning. As a result, mobile phones are now used excessively for educational purposes.

The increasing development and spread of MALL urged several researchers to use MALL in EFL teaching and learning. They sometimes call it M-learning. They also suggested that the merge

between MALL and the regular classroom is the best solution to improve the teaching and learning process.

Speaking is one of the basic skills that requires communicative competence, pronunciation (intonation, stress, and pitch), grammar, vocabulary, fluency, accuracy, and comprehension. Brown (2007, p.103) pointed out that, "speaking is a productive skills. It is not only an utterance, but also a tool of communication. It occurs when two or more people interact with each other aiming at maintaining social relationship between them". According to Newton, (2016, p.220), "speaking is the active production skill and use of oral production. It is the capability of someone to communicate orally with others".

Lopez, Becerra, Ramírez-Ávila (2020) investigated the development of speaking fluency through authentic oral production in a six-week action research study of a public high school in Guayaquil, Ecuador. Results showed that students' perspectives on the innovation were positive since it raised awareness of their mistakes, helped them feel more confident, and let them practice the target language with autonomy outside the school boundaries. However, some considered that time and the lack of equipment and technological skills were issues that made the activity look less pleasant. This study concluded that authentic oral production, facilitated by vlogging, helps students develop speaking fluency.

Many researchers emphasized the use of MALL in EFL classrooms due to its advantages. For example, Hulme (2009); Power & Shrestha (2009); and Wishart (2008) emphasized the mobility of MALL devices as a unique feature and a great benefit that helps students to be more motivated in their learning. Also, Kennedy & Levy (2008) showed that MALL portability is very effective as it helps students to go over vocabulary items studied in classes at any time.

Additionally, according to Thornton & Houser (2005), accessibility is another fruitful advantage of MALL. Currently, mobile devices like mobile phones, wireless laptops, and media players are owned by a large number of users, therefore, using these devices in education is an effective issue.

Riswandi (2016) conducted an action research about the use of YouTube-based videos to improve pupils' speaking skill at the seventh-grade pupils of one of Junior High Schools in Surakarta. The result showed that there was an improvement in the pupils' speaking skill in aspects of fluency, vocabulary, pronunciation, grammar, and content.

Given technology rapidly infiltrating into ESL-EFL classrooms, the current study reviewed some empirical studies employing mobile assisted language learning to assist L2 learners' speaking skills. Findings in most of them reviewed that mobile assisted language learning is effective in foreign language education and research and in speaking skills in particular. Teachers should play an active role in providing feedback and monitoring EFL learners' oral development in web-based language learning environment.

Many scholars stressed the importance of learners' autonomy in the field of language education Lukion (2003). According to Gremmo and Riley (1995), social changes concerning politics, education and psychology had a great effect on learners' autonomy since 1960s. Due to these changing factors, education had to change itself into a more dynamic way where learners were able to take control over their own learning autonomously. Based on that shift towards learners' autonomy, a great attention was given to that concept in education especially in language learning. The term autonomy was first defined by Henri Holic in a project report to the Council of

Europe in 1980 as “the ability to take charge of one’s own learning”.

Learner autonomy has great implications both for the individual and education as well as for the whole society. To start at the individual level according to Pennycook(1997) 1-Learner should know how to learn efficiently (Benson, 2011). 2- Learners’ autonomy supports life-long learning (Kohonen 1992). 3) Learner autonomy is highly empowering because it allows learners to be the masters of their own learning process.

Many researchers investigated the effect of web:02 applications on developing learners’ autonomy. For example, **Hoven& Palalas (2011)** investigated the effect of the mobile-assisted component of English for specific purposes course that focused on speaking skills. The program which was practiced by 12 EFL English university students for 15 weeks exploited web-enabled MP4 players to deliver 2-8-minute workplace audio/video podcasts and to access an online class blog. The results showed that students appreciated the mobile resources and particularly the non-reciprocal audio podcasts.

**Esther, Hyo& Xujuan (2011)** investigated students’ autonomy in inquiry-based mobile learning trail in relation to the agent of the teacher. That study was conducted to explore the teachers’ role in facilitating more students’ autonomy in an inquiry-driven mobile learning. Twenty-five first year secondary students participated in the study. The results revealed the teacher positive role in enhancing students’ skills.

Furthermore, **Al-Jarf, R. (2012)** described the effects of using self-study MP3 EFL English lessons (Talk English) on oral skill development. Compared to the control group of 44 university students who received only regular instruction, the experimental group of 46 used Talk English for 12 weeks as a course supplement. The program was

accessible via mobile phone, MP3 player, or computer. Students in the experimental group outperformed the control in speaking and speaking, which was attributed to the extra practice they received through Talk English.

**Martin (2013)** investigated the relationship between students' autonomy and technology. Students were asked to go through some tasks such as visiting different online sites to carry out some tasks in different fields. These tasks mainly aimed at fostering learner autonomy. The results of that study were in favor of increasing learners' autonomy due to using different technological devices by themselves.

Also, in an action research project conducted in South China University of Technology, **Xiao (2013)** investigated how students used tablet computers to learn English in informal settings outside of class in addition to ways to foster more effective usage of the tablet for independent language learning. Ten English majors between 17 to 20 years old participated in the study.

In order to get the utmost benefit of learner autonomy in language learning, understanding that concept should be taken into consideration. To accomplish such understanding of learner autonomy, measures, programs and materials that deal with the practicality of learner autonomy were developed (Benson, 2010). There were many tools to measure learner autonomy such as the questionnaires that assessed the level of individual autonomy. In spite of the difficulty to measure learner autonomy, it was a process that deserve investigation (Benson, 2011).

In addition, while measuring changes among learners, it would be easy to know how the teaching materials affected those students. Consequently, educators could develop the programs that deal with fostering learner autonomy (Benson, 2011). For example,



technology based language learning programs as well as programs in online communities had spread greatly among learners and had a good effect on learner autonomy. Measuring learner autonomy is highly important as it began to move from idealism towards reality and practice.

Implementing learner autonomy inside classrooms is an essential issue which has some remarks to be considered around the role of both teachers and students. To begin with, the role of the teacher should be changed from a controller of the learning to a facilitator and a guide in the learning process (Voler, 1997). In a similar way, learners need to become active in the learning process (Holec, 1980). Thus, combining the effort of both teachers and learners and respecting each other's role can lead to a successful and effective process of learner autonomy.

Promoting learner autonomy in foreign language teaching is a well-developed issue that was supported by different theories. Despite the different opinions of these theories, all of them had things in common to stress. For example, each theory had certain strategies and processes that fostered learner autonomy. Additionally, they all view learner autonomy as the learners' innate capacity that should be promoted as seen by Esch (2010). All theories view learners' autonomy as context-bound, grounded and changeable capacity Benson(2011).

Learners' autonomy is not an easy task to study. It has many parts starting from theories of learner autonomy, problems that may face learners to achieve learner autonomy, the role of teachers as well as the role of learners in learning autonomy, instruments that are used in measuring learner autonomy and ending with obstacles that may hinder the process of measuring learner autonomy. Therefore, in order to study learner autonomy, it is extremely necessary to take the learners' views into account.

To conclude, it is clear that there is no consensus about the use of MALL to enhance both speaking and autonomy. The present study is an attempt to fill this gap and add some building blocks that can help determine the degree of certainty whether MALL could enhance both oral fluency and autonomy.

#### **Statement of the problem:**

The problem of the study can be stated as follows: secondary stage students lack the Oral Fluency skills required for them at that stage. Thus, there was a need for improving their Oral Fluency skills by using the mobile assisted language learning (MALL) to develop those skills and their autonomy.

#### **Research Questions:**

The present study attempted to answer the following main question :What is the effect of using the mobile assisted language learning (MALL) on developing oral fluency skills of the secondary stage students?

Four questions were derived from the main question:

1. What are the required oral fluency skills for the secondary stage students?
2. What is the effect of mobile assisted language learning (MALL) on developing oral fluency skills for the secondary stage students?
- 3-What is the effect size of mobile assisted language learning (MALL) on developing the autonomy for the secondary stage students?

#### **Research Hypotheses:**

This study verified the following hypotheses:

- 1-There is a statistically significant difference between the mean scores of the experimental and control groups on the

post administration of the Oral Fluency skills test in favor of the experimental group.

2- There is a statistically significant difference between the pre and post-tests mean scores of the experimental group on oral fluency skills test in favor of the post-test.

3- There is a statistically significant difference between the pre and post-tests mean scores of the experimental group on learners' autonomy scale in favor of the scale post administration.

### **Research Aim**

The research aimed at:

1- Investigating the effect of mobile assisted language learning (MALL) on developing oral fluency skills and autonomy for secondary stage students.

### **Research Delimitations**

**This research was delimited to:**

- Forty first year secondary school students.
- A group of students at Salah Salem secondary school in Helwan district.
- The research was conducted in the first semester in the school year (2019/2020) from (13/10/2019) to (13/12/2019)

### **Research Terms:**

#### **Definition of terms**

#### **Mobile assisted language learning (MALL):**

MALL is the formal or informal learning of a foreign language with the assistance of mobile devices (Vavoula & Sharples, 2008)

**Operational Definition:** MALL in this research refers to "the ability to use mobile devices such as mobile phones, Personal Digital Appliances (PDAs) , tablet-PCs, etc at anytime and anywhere to

develop secondary school students' oral fluency skills.

**Oral Fluency:** Richards (2009, p.14) defined fluency as “natural language use occurring when a speaker engages in meaningful interaction and maintains comprehensible and ongoing communication despite limitations in his or her communicative competence”.

(De Jong and Perfetti, 2011) defined it as referring to the measurable characteristics of speaking, like the number and duration of pauses, hesitations, repetitions, observable speech, fluidity, and accuracy of the original performance.

**Operational Definition:** fluency in this research is defined as the ability of the student to speak effortlessly with minimal fillers or hesitations in English language and flawlessly enough for the listener to comprehend.

#### **Learner autonomy:**

Learner autonomy is defined as learners' ability to take charge or control of their own learning (Holec, 1981; Little, 1990; Benson, 2001& 2006).

**Operational Definition:** The term autonomy as used in this study is defined as” how learners are able to take responsibility over their own learning using technological aids such as tablets in order to facilitate their learning of EFL speaking skills and continue their learning outside the classrooms.

### **Research Method**

#### **Design of the study**

The study adopted the quasi-experimental design. Two intact classes were assigned to an experimental group (N=20) and a control one (N=20). The two groups were pretested to determine the actual performance of oral fluency skills and autonomy. Then,

the experimental group was taught through MALL whereas the control group received regular instruction Both the experimental and control groups were post-tested both in oral fluency skills and autonomy to determine any possible improvement.

### **Oral Fluency skills test**

Oral Fluency skills test aimed mainly at measuring students' Oral Fluency skills before and after applying the proposed administrations, as it was used as a pre-posttest. It was designed to measure the oral fluency skills agreed upon by jurors of the oral fluency checklist.

### **Description of the oral fluency skills test**

The pre-post oral fluency skills test was designed by the researcher in the form of open-ended questions to measure the oral fluency skills of first year secondary stage students before and after treatment. The test consisted of six questions which measured the students' oral fluency skills through three levels. The students had to read the questions and then answer them.

### **Validity the test:**

The test was administered to jury members to validate the test in terms of content and internal consistency.

### **A. Validity by the Jury:**

Based on the viewpoints agreed upon by the jury members, the researcher made the modifications. Cooper's equation was used to calculate the percentage of agreement among the jury members. The rate of agreement among the jurors on validation dimensions of test ranged between (80.00% - 100.00%), as the percentage of agreement on the test as a whole reached (91.25%), which is a high percentage indicating the validity of the test, after making the modifications approved by the jurors.

**Table (1)**

**Correlation coefficients between items of oral fluency skills test**

Pronunciation		Grammar		Length	
Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension
1-1	0.900**	2-1	0.898**	3-1	0.743**
1-2	0.894**	2-2	0.870**	3-2	0.810**
1-3	0.690**	2-3	0.901**	3-3	0.900**
1-4	0.706**	2-4	0.888**	3-4	0.690**
1-5	0.795**	2-5	0.713**	3-5	0.744**
Number and Duration of pauses		Repetition		Coherence	
Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension
4-1	0.825**	5-1	0.860**	6-1	0.788**
4-2	0.798**	5-2	0.710**	6-2	0.693**
4-3	0.771**	5-3	0.811**	6-3	0.817**
4-4	0.695**	0.688**		6-4	0.698**
	4-5			6-5	0.713**

The previous table (1) shows the correlation coefficients between the test items and the total score have ranged between (0.688) and (0.901), all of which are a statistical significant at the level of (0.01).

## B-The reliability of the test

To calculate the reliability of the test reliability of the test, the Split-Half and the Guttman equation were used. The following table shows the reliability coefficients:

**Table (2)**

### Results of the reliability coefficient values of overall fluency skills test

Test	Correlation between forms (Pearson)	(Spearman-Brown) Coefficient	Guttman Split-Half Coefficient
Oral Fluency Skills	0.722	0.881	0.878

These values indicate that the test has an appropriate degree of reliability. This means that the values are appropriate to be reliable and indicate the validity of the test.

### Piloting the Test:

The pre/post oral fluency skills test was piloted on 10, first year secondary school students other than the participants of the study. The test was administered to them twice and the time between the two administrations was two weeks to ensure that they would not be able to remember their answers in the first administration. So, piloting the test aimed at the following:

- Estimating timing of the test.
- Testing the clarity of the test directions and identifying the questions that might be misunderstood to be modified.
- Establishing the reliability of the test.

### Results of piloting the test:

- Estimating the time of the test:

It was decided that a period of 60 minutes would provide ample

time for the students to answer the test questions. Each student was required to write down on his / her exam paper the time taken for answering the test exactly. Then, the test time was estimated in the following way:

Summation of the time taken by all students

Number of students

So, test time = 60 minutes

### **Framework of the Suggested training program:**

#### **Objectives of Mobile Assisted Language Learning Program**

The program aimed at developing EFL oral fluency skills among first year secondary school students enrolled in English section at Salah Salem Secondary school , Helwan.

#### **Content of Mobile Assisted Language Learning Program**

The application ELSA speak was used in the treatment because of it's simplicity. It tackled topics that motivate students. The application contained variety of topics, situations and discussions designed for developing oral fluency skills. It was suitable for the first year secondary school students.

#### **Mobile Assisted Language Learning "MALL" Program Framework**

The treatment began on 13th October 2019 till 13th December 2019. The researcher met the students for two hours per week for ten weeks and also communicated with them via what's App and e-mails through the mobile phones. Week (1) was used for pre-testing and week (10) was used for post testing. Each session was devoted to the following: introduction, objectives, procedures, the role of the researcher and student and finally the performance. During the instructional procedures, different sessions had different learning goals and different methods were applied.



The program was taught to the participants by the researcher himself. It lasted ten weeks with ten instructional sessions and each session lasted for two hours. At the beginning of the program, the researcher introduced to the students what they are going to do. First, the researcher told them about the objectives of the treatment and what they are supposed to gain as a result of their participation in the treatment.

After that the researcher told them about the importance of oral fluency skills. Then, he began to introduce the concept of Mobile Assisted Language Learning "MALL" program and its importance for language learning and EFL oral fluency skills.

Following the introduction of the program, the rest of the program was instructional sessions through which the EFL oral fluency skills and were introduced .At the beginning of each session the researcher told students the objectives of the session, the researcher's role, the student's role, the instructional materials that will be used, the activities they will perform and ways of evaluating their progress .At the end of the each session, the researcher gave students some activities related to what they had learned in order to be sure that they mastered the skills in each session (formative evaluation). At the end of the program, the researcher assessed the students' achievement after implementing the program using the EFL oral fluency skills test (summative evaluation).

### **The procedures of the Program**

In order to implement the program, there are certain steps:-

- The researcher gave the students the name of the application and how they should use it.
- The students used smart phones with Internet service to access the application on a mobile.

- Presenting some online materials that could help the students in searching for the meaning of new words from website such as <http://www.Almaany.com>. Giving the students websites' URL.
- Providing students with instructions on how to use this application at home.
- Every session students were asked to write the new words and the new phrases that they learned.
- Students used mobile phones for a number of learning activities including podcasting, digital storytelling, and YouTube.

Based on, Bergum (2011) there are some possible strategies to use the mobile phone in EFL classroom for teachers and students as follows:-

- Downloading required e-books, software and dictionaries from mobile Internet for reading practice
- Using the online dictionaries for looking through word meaning.
- Using translation dictionaries for definition of a word.
- Practicing pronunciation by recording audio materials.
- Receiving text messages from teachers with class content.
- Sending SMS in short and crispy sentence for grammar practice and teacher can later do correction by SMS reply.
- Students can get feedback from teachers via SMS. Homework and some tests can also be delivered in this way.
- Recording students' speeches in cell phone voice recorder options and later use it for speaking and pronunciation tests.

### **Autonomy scale**

#### **A. Description of the scale**

The total number of the autonomy scale statements was 3 major skills each one is of 10 statements. The autonomy scale was

written in a table format. Three - responses scale; (1), (2), (3), was used for evaluating the participants.

### B. Validity of the scale:

The researcher presented the scale in its initial form to some jurors in field of TEFL and psychology to validate the scale in terms of appropriateness and it's suitability for measuring students' autonomy. Based on the viewpoints agreed upon by the jury members, the researcher made the modifications agreed upon by the jury. Cooper's equation was used to calculate the percentage of agreement among the jury members. The rate of agreement among the jurors on validation dimensions of test ranged between (80.00% - 100.00%), as the percentage of agreement on the test as a whole reached (92.00%), which is a high percentage indicating the validity of the test.

**Table (3)**

### Correlation coefficients between items of Autonomy scale

Usability		Effectiveness		Satisfaction	
Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension	Item	Correlation Coefficient of the Item with the whole Score of the Dimension
1	**0.823	1	**0.806	1	**0.808
2	**0.790	2	**0.819	2	**0.736
3	**0.656	3	**0.875	3	**0.875
4	**0.710	4	**0.711	4	**0.800
5	**0.800	5	**0.650	5	**0.598
6	**0.796	6	**0.777	6	**0.713
7	**0.685	7	**0.704	7	**0.710

8	**0.666	8	**0.596	8	**0.820
9	**0.590	9	**0.590	9	**0.593
10	**0.711	10	**0.810	10	**0.802

**\*\* Correlation is significant at the at level (0.01)**

The previous table (3) shows the correlation coefficients between the scale items and the total score. They ranged between (0.590) and (0.875), all of which are a statistically significant at the level of (0.01).

**C-The reliability of the scale**

The reliability of the scale was calculated using the Cronbach's Alpha , and the Split-Half, method. The following table shows the reliability coefficients:

**Table ( 4)**

**Coefficient Reliability of Autonomy scale**

Test	Correlation between (forms (Pearson	Spearman- Brown)) Coefficient	Guttman Split-Half Coefficient
Autonomy scale	0.703	0.868	0.866

As shown in table (4) values indicate that the scale has an appropriate degree of reliability.

**Pre-Administration of the oral fluency skills test:**

(t) was calculated for two independent groups and their significance for the difference between the mean scores of the experimental group and the control group . This is shown in table (5):

**Table (5)**  
**“t” value of oral fluency skills**

Variable		Groups	N	Mean	Std. Deviation	df	T	Sig
Oral Fluency Skills	Pronunciation	Experimental Group	30	0.97	0.765	58	0.190	0.850
		Control Group	30	0.93	0.583			
	Grammar	Experimental Group	30	0.90	0.481	58	0.532	0.597
		Control Group	30	0.97	0.490			
	Length	Experimental Group	30	0.93	0.521	58	0.258	0.798
		Control Group	30	0.90	0.481			
	Number and Duration of Pauses	Experimental Group	30	0.87	0.507	58	0.521	0.605
		Control Group	30	0.80	0.484			
	Repetition	Experimental Group	30	0.80	0.484	58	0.273	0.786
		Control Group	30	0.83	0.461			
	Coherence	Experimental Group	30	0.67	0.479	58	0.850	0.399
		Control Group	30	0.77	0.430			
	Overall skills	Experimental Group	30	5.13	1.502	58	0.187	0.852
		Control Group	30	5.20	1.243			

It is shown in the table (5) that (experimental & control) are homogenous level, and this indicates that there is no difference as well as each skill of the test and there is no difference in scores of oral fluency skills test as between experimental group and control group in pre-administration to the oral fluency skills test.

### Pre-Administration of the Autonomy scale

The autonomy scale was pre administrated to both groups to measure students' entry level before and after treatment. Table (6) shows the pre administration of the autonomy scale.

**Table (6)**

#### **"t" value of pre-administration of the Autonomy scale**

Variable	Groups	N	Mean	Std. Deviation	df	t	Sig	
Autonomy scale	Usability	Experimental Group	30	11.00	1.083	58	0.303	0.763
		Control Group	30	10.90	1.447			
	Effectiveness	Experimental Group	30	10.67	1.184	58	0.100	0.921
		Control Group	30	10.70	1.393			
	Satisfaction	Experimental Group	30	10.67	1.124	58	0.246	0.807
		Control Group	30	10.60	0.968			
	Overall skills	Experimental Group	30	32.33	1.807	58	0.234	0.815
		Control Group	30	32.20	2.538			

It is shown in table (6) that the experimental and control are homogenous in overall skills as well as each of the items of the autonomy scale.

### Results and Discussion

The first hypothesis stated that **"There is a statistically significant difference between the mean scores of the experimental and control groups on the post administration of the oral fluency skills test in favor of the experimental group"**.

To verify the validity of this hypothesis, (t) test was employed to measure the significance of the overall as well as each of oral

fluency skills. The results are shown in the following table (7).

**Table (7 )**

**“t” value of the overall and each of oral fluency skills post test**

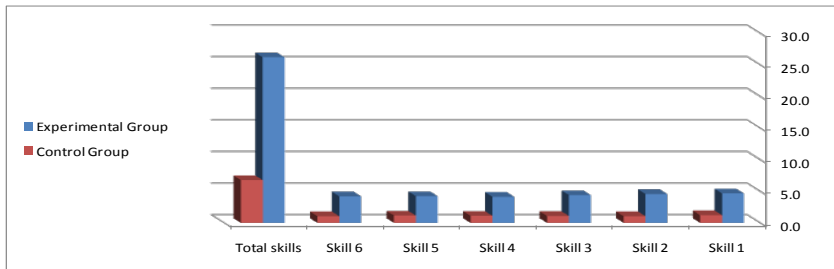
Skills	Groups	N	Mean	Std. De- viation	df	t	Sig	
Oral Fluency Skills	Pronunciation	Experimental Group	30	4.67	0.547	58	25.291	0.000
		Control Group	30	1.23	0.504			
	Grammar	Experimental Group	30	4.57	0.626	58	23.540	0.000
		Control Group	30	1.07	0.521			
	Length	Experimental Group	30	4.40	0.770	58	18.428	0.000
		Control Group	30	1.10	0.607			
	Number and Duration of Pauses	Experimental Group	30	4.13	0.681	58	17.050	0.000
		Control Group	30	1.13	0.681			
	Repetition	Experimental Group	30	4.23	0.728	58	18.646	0.001
		Control Group	30	1.17	0.531			
	Coherence	Experimental Group	30	4.20	0.847	58	18.608	0.000
		Control Group	30	1.07	0.365			
	Overall skills	Experimental Group	30	26.20	2.024	58	43.186	0.000
		Control Group	30	6.77	1.406			

It is shown in the previous table (7 ) that there is a statistically significant differences between the mean scores of experimental group students and those of control group students in overall skills of oral fluency skills test. The experimental group students had an average (26.20) with a standard deviation (2.024), while control group students got an average (6.77) with a standard deviation

(1.406). this means that experimental group's mean score was higher than that of the control group students in the post-test of total skills. and the calculated value of (t) for the significance of the difference between the average scores of experimental group and control group students in total skills of the oral fluency skills test, which reached (43.186) and the significance level is (0.000) which is lower than the level of significance (0.01); Thus, there is a statistically significant difference at the level of (0.01) between the experimental group and control group in the post- administration of overall oral fluency skills test in favor of experimental group. This result can be shown in the following figure (1):

**Figure (1)**

**A graph showing the mean scores of the experimental and the control group in overall as well as each of oral skills test**



The second hypothesis stated that “There is a statistically significant difference between the pre and post-tests mean scores of the experimental on the oral fluency skills test “. To verify the validity of this hypothesis, (t) test was employed to. The results are shown in the following table (8):



**Table ( 8 )**

**“t” value of the experimental groups’ overall and each of oral fluency skills post test**

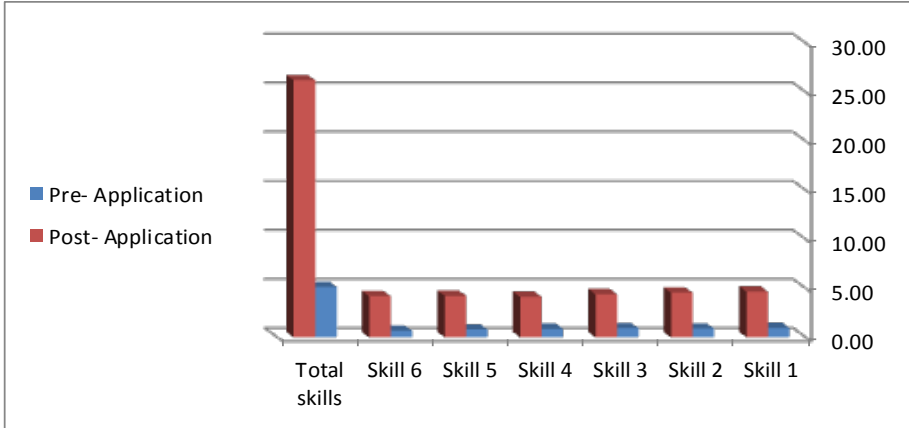
Skills	Test	N	Mean	Mean paired differences	Std. Deviation paired differences	Std. Deviation paired differences	df	T	Sig
Oral Fluency Skills	Pronunciation	Pre- Administration	30	0.97	3.70	0.765	29	23.110	0.000
		Post- Administration	30	4.67		0.547			
	Grammar	Pre- Administration	30	0.90	3.67	0.481	29	25.032	0.000
		Post- Administration	30	4.57		0.626			
	Length	Pre- Administration	30	0.93	3.47	0.521	29	22.069	0.000
		Post- Administration	30	4.40		0.770			
	Number and Duration of Pauses	Pre- Administration	30	0.87	3.27	0.507	29	20.605	0.000
		Post- Administration	30	4.13		0.681			
	Repetition	Pre- Administration	30	0.80	3.43	0.484	29	20.107	0.000
		Post- Administration	30	4.23		0.728			
	Coherence	Pre- Administration	30	0.67	3.53	0.479	29	18.015	0.000
		Post- Administration	30	4.20		0.847			
	Overall skills	Pre- Administration	30	5.13	21.07	1.502	29	40.807	0.000
		Post- Administration	30	26.20		2.024			

It is shown from the previous table (8) that the difference between the mean scores of experimental group’s post administration in overall skills of the pretest, while it had 26:20 in the post administration .This means scores was higher in the post administration in the overall skills of oral fluency skills test in favor

of the post administration. This result can be shown graphically in the following figure:

**Figure (2)**

**The experimental group's mean scores on the pre-posttest of overall fluency posttest**



The third hypothesis stated that “There is a statistically significant difference between the autonomy post-test mean scores of the experimental and control learners “. To verify hypothesis (t) test was employed .The results are shown in the following table (9):

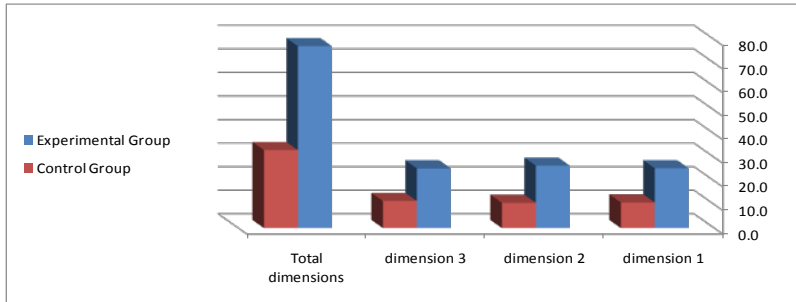
**Table ( 9 )**  
**“t” test value of the experimental and control groups on**  
**autonomy scale**

Skills	Groups	N	Mean	Std. Devia- tion	df	t	Sig	
Autonomy scale	Usability	Experimental Group	30	25.37	2.456	58	27.698	0.000
		Control Group	30	10.87	1.479			
	Effective- ness	Experimental Group	30	26.50	2.675	58	29.450	0.000
		Control Group	30	10.73	1.202			
	Satisfaction	Experimental Group	30	25.33	2.171	58	26.779	0.000
		Control Group	30	11.50	1.815			
	Overall dimensions	Experimental Group	30	77.20	4.781	58	44.214	0.000
		Control Group	30	33.10	2.644			

It is shown from the previous table (9) that there is a statistically difference between the experimental group students' mean scores and control group students in overall dimensions of the Autonomy scale. The experimental group students had an average (77.20) with a standard deviation of (4.781), while control group students had an average (33.10) with a standard deviation of (2.644). This means that the mean score of the experimental group was higher than the control group students in overall dimensions. There is a statistically significant difference at the level of (0.01) between both groups. This is shown graphically in the following figure

Figure (3)

**A graph showing the experimental post administration of autonomy scale**



### Discussion of Results

In the light of the statistical analysis, it can be said that mobile assisted language learning (Mall) had a large effect on developing the experimental group oral fluency skills.

The analysis of the obtained data of the experimental group's mean scores on the post test revealed a higher degree of development than their counterparts of the control group. The participants of the experimental group were better than the control group in the posttest. This development was attributed to the flexibility of using mobile application at any time without constrains of the regular teaching. Using Mobile applications encouraged students to listen to the correct pronunciation of the words and to maintain word stress accurately. Students interacted in a positive way with each other's and they shared the correct pronunciation of words and sentences due to the flexibility of mobile application.

The results of the study also showed that mobile assisted language learning (MALL) helps students to engage in exploration of knowledge and creation of meaning. Students were enthusiastic to explore the mobile application since it exceeds their needs .In

addition to that it meets the needs of those students who have different learning styles.

Moreover, it also extended the process of search and exploration. It stimulated participants to exercise their minds, search for relevant and irrelevant information that are of importance to the effect on the topic. It constructed a shift in teacher's role from being lecturer to a coach, an organizer, a designer, a facilitator, a planner, and an editor.

Students were able to discuss many social issues since they increased their vocabulary knowledge with the correct pronunciation. Using this (MALL) highlighted learners' self-esteem and creating higher sense of self-confidence. Learners' hidden potentialities developed. Through the varied roles played by the learners and expressing their own viewpoints, were met by positive feedback from the teacher, made them aware of their ability to achieve.

An intimate relationship between the teacher and the learners and among the learners themselves was created. A balanced assessment was administered. It permitted to use two types of assessment including (formative and summative). This helped achieve a balanced evaluation of knowledge and skills students have developed.

Furthermore, the participants' anxiety/negative attitude was reduced through engaging them in flexible learning conditions. Participants were provided with the opportunity to be autonomous learners since they were able to use the application outside the classroom and at any time.

This researches findings are consistent with the results of Lopez, Becerra, Ramírez-Ávila (2020) that revealed oral fluency could be achieved through authentic oral production .It also showed

that students' perspectives on MALL were positive since it raised awareness of their mistakes, helped them feel more confident, and let them practice the target language with autonomy outside the school boundaries.

### **Recommendations:**

**Based on the findings of the study, the following recommendation could be offered:**

- EFL curriculum designers and developers should plan to incorporate Mobile Assisted Language Learning (MALL) in TEFL curriculum. This provides learners with authentic learning environment through which learning outcomes can be achieved; knowledge can be constructed, life skills can be acquired.

- Acquiring both pre-service and in service teachers with the rationale method and the value of using the web administrations in TEFL context through systematic training courses.

- More consideration should be taken to enhance students' awareness of the oral fluency skills through explicit instruction from the early classes.

-- The scope of the English course syllabus should be modified to be more flexible to help teachers to manage the curricula units in innovative ways.

### **Suggestions for Further Research**

**The following suggestions can be considered for further research:**

1- Investigating the effectiveness of the web application's strategy in EFL classes to develop other language skills such as (listening skills)

2- Investigating the effectiveness of the web application's strategy in EFL classes to develop other oral fluency skills.

3- Investigating the effectiveness of the web application s in EFL classes to develop writing skills and reading skills.

4- The Effectiveness of the web application s on the self-confidence and Writing among Prep stage students

5-Further research is needed to investigate the effect of the web application s strategy on improving pupils of multiple intelligences in different language areas.

6-Further research is needed to replicate the present experimental treatment with other samples at different stages for varied subjects.

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