

The Reality and Effects of Using Duolingo to Develop English Language Skills for EFL Learners in Jordan

Kholod Naser Olimat¹

¹ Faculty of arts, Zarqa University, Zarqa, Jordan

Correspondence: Kholod Naser Olimat, Faculty of arts, Zarqa University, Zarqa, Jordan. E-mail: kolimat@zu.edu.jo

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Abstract

This research attempted to know the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan. The descriptive analytical approach was used to describe and analyze the phenomenon being investigated. Moreover, the sample included 500 first year EFL learners who were randomly selected from the Jordanian universities. They were asked to respond to the questionnaire items, by selecting the option that better describes the degree of their agreement or disagreement regarding each item of the questionnaire. The results reflected that the Jordanian EFL learners are aware of the effectiveness of Duolingo in developing their English language skills. The arithmetic means related to the effects of using Duolingo to develop English listening, reading, writing and speaking skills ranged between 3.09 and 4.01.

Keywords: Duolingo, EFL learners, English, language skills, listening, reading, writing, speaking, effects, technology, Jordan

1. Introduction

Since the advent of Internet and the emergence of mobile and computer applications, the relationship between learning applications and English language learning has been the concern of research in fields like EFL learning, SLA, and CALL. The assumption behind this great interest in investigating the link between language acquisition and learning applications is that mobile and computer applications facilitate language learning.

In this respect, e-learning was introduced as an emerging field of education. It has been widely adopted in the field of EFL learning. This term denotes the technology used in English classrooms to assist teachers in teaching and students in learning. It is a type of distant learning that introduces mobile devices like computers, laptops, tablets, and other gadgets as effective means of learning. Many scholars have highlighted the role of e-learning in making teachers and students experience a sense flexibility, allowing space and time management to be adapted to each student's needs. Therefore, it is an ideal learning form for students of the twenty first century, who might have found it simple to learn using technology tools (Novitasari & Purnamaningsih, 2022).

Online learning has become one of the most effective ways to control physical distance (Baloran 2020; Bayham & Fenichel, 2020; Blankenberger & Williams, 2020; Murphy, 2020) . In this respect, online learning overcomes that physical distance between teachers and learners. Furthermore, learners of language can greatly benefit from this type of learning as they can get access to unlimited number of sources. In this way, e-learning can be an effective means that provides language learners with the sources necessary for developing different language skills.

English has four basic skills; namely, listening, speaking, reading, and writing (Bailey, 2003; Banditvilai, 2016; Bozorgian, 2012; Khamkhien, 2010). These skills are not easy to develop, and there should be effective means that help EFL learners in this mission. One of those means, as it has been proposed by many scholars, is the use of teaching learning media. By learning media, we refer to the use of technology in the form of android applications. Such applications provide the learners with an easier understanding of sentences. Moreover, they make the learning process fun and enjoyable.

Therefore, this research investigates the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan. Duolingo is an application that targets all the four skills of English; listening, reading, writing and speaking. It is mainly designed to facilitate mastery of a second language. Moreover, it provides learners with activities that aim at developing different language skills. This has motivated the researcher to examine the reality and effectiveness of using Duolingo as a means to help EFL learners in Jordan develop their English language skills. Previous research related to the use of the Duolingo application in improving English language skills has been widely carried out. However, none of those studies has been conducted in Jordan. The Amalia research (2019) was conducted for the purpose of knowing the students' achievement in vocabulary using Duolingo. Its findings reflected that using Duolingo had a significant effect in enhancing EFL learners' vocabulary. In this context, Suwandi (2020) proved that Duolingo plays a great role in enhancing the student's vocabulary in the seventh grade of MTs Darul Ilimi Batang Kuis. Siregar (2019) argued that Duolingo improves students' vocabulary mastery in 9th Grade of Mts Al Ittihadiyah Laut Dendeng.

Duolingo provides a lot of language that learners can choose to learn. English, Arabic, Spanish, French, Dutch, and other languages are available to select (García Botero, et al., 2019). This application also has educator's forum. It can be used by learners to interchange subject and topics with each other (Gafni, 2017). Besides, it can effectively measure learners' achievement and dedication. Apart from this, Duolingo provides learners with information like point earned, the time spent...etc. (Krashen, 2014). It also provides learners with practices that are numerous and easy, particularly for novice learners.

Duolingo is very simple to use. Its steps and procedures are easy to understand. Much importantly, it targets all age groups (Bustillo et al., 2017). Munday (2015) commented that Duolingo is much preferred by learners than regular assignment and media. This is because of its convenience. The point is that Duolingo is easy to use by different types of learners and more interesting. This point was also examined by Grego and Vesselinov (2012) whose research highlighted the effectiveness of Duolingo in learning language. Their research reflected that the students feel satisfied when using Duolingo in learning language and they enjoyed to learn with it.

The subjective significance of the present research is represented in the significance of its topic. That is, the relationship between mobile applications and language learning is a modern subject that has not been fully investigated. Moreover, the effect of using Duolingo to develop English language skills for EFL learners in Jordan has not been studied. This is the first study to investigate the phenomenon in the context of Jordan.

Furthermore, the objective significance of this research is represented in the importance of its findings. That is, its findings provide a clear image of the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan. Moreover, the findings increase the awareness of the importance of mobile applications, particularly Duolingo, to develop English language skills. Much importantly, other researchers interested in this field will also be enlightened by the findings of this research.

1.1. Problem Statement

The acquisition of English language by EFL learners is characterized by difficulty. It is a process that requires effective means and methods. In this respect, mobile applications, including Duolingo, has proved their effectiveness to help EFL learners acquire English language skills. This phenomenon has not been investigated in the Jordanian context.

English is learnt as a foreign language in Jordan. This indicates that the Jordanian EFL learners may face difficulties that require the use of effective means of learning. Therefore, this study attempts to investigate the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan.

1.2 Research Objectives

This study is an endeavour to achieve the following main objective:

To know the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan.

The following sub-objectives emerge:

1. To know the reality and effects of using Duolingo to develop listening skills for EFL learners in Jordan.
2. To know the reality and effects of using Duolingo to develop reading skills for EFL learners in Jordan.
3. To know the reality and effects of using Duolingo to develop writing skills for EFL learners in Jordan.
4. To know the reality and effects of using Duolingo to develop speaking skills for EFL learners in Jordan.

1.3 Research Questions

This study is an endeavor to answer the following main question:

- What is the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan?

The following sub-questions emerge:

1. What is the reality and effects of using Duolingo to develop listening skills for EFL learners in Jordan?
2. What is the reality and effects of using Duolingo to develop reading skills for EFL learners in Jordan?
3. What is the reality and effects of using Duolingo to develop writing skills for EFL learners in Jordan?
4. What is the reality and effects of using Duolingo to develop speaking skills for EFL learners in Jordan?

1.4 Research Hypotheses

This study is based on the following main hypothesis:

- The use of Duolingo is effective to develop English language skills from the viewpoint of Jordanian EFL learners.

The following sub-hypotheses emerge:

1. The use of Duolingo is effective to develop English speaking skills from the viewpoint of Jordanian EFL learners.
2. The use of Duolingo is effective to develop English reading skills from the viewpoint of Jordanian EFL learners.
3. The use of Duolingo is effective to develop English writing skills from the viewpoint of Jordanian EFL learners.

4. The use of Duolingo is effective to develop English speaking skills from the viewpoint of Jordanian EFL learners.

2. Methodology:

This study follows the descriptive and analytical method to describe and analyze the reality and effects of using Duolingo to develop English language skills for EFL learners in Jordan. It is an empirical study as it involves analyzing the results of a questionnaire which includes four parts. The first part is designed to investigate the reality and effect of using Duolingo to develop English listening skills for EFL learners in Jordan. The other three parts investigate reading, writing and speaking respectively. Moreover, this study includes a theoretical part that presents a number of previous studies on the phenomenon.

2.1 Research Limits

People: EFL learners in Jordan.

Place: Jordanian universities.

Time: February, 2023.

3. Previous Studies:

Liya (2019):

The study investigated the effect of Duolingo on EFL university students' vocabulary mastery. It followed the experimental approach as it included experimental group and control group. Moreover, it was conducted through a pre-test and a post-test. Its participants included 60 students from Islamic State University of Sultan Syarif Kasim Riau. The findings reflected that there was a significant improvement of the students' score after using Duolingo in learning vocabulary.

Novitasari & Purnamaningsih(2022):

The study aimed to know the students' feeling about using Duolingo to study English subjects. It used qualitative descriptive methods to describe the data collected from a group of five participants from junior high school students in Karawang. Google forms were used to distribute questionnaires. The results highlighted the effectiveness of Duolingo in online learning .

Ambara (2020):

This research determined the effect of using Duolingo in teaching English. It mainly examined the role of Duolingo in enhancing students' ability to master vocabulary. Its sample included a group of learners from SMAN 2 Karangasem. Moreover, it used the experimental method, and its results proved that the use of Duolingo in teaching English has many positive effects for students. Those benefits include motivation, reduction of boredom, facilitation of remembrance, language practice, and positive attitude towards learning English.

Ajisoko (2020):

The research focused on the use of Duolingo apps in improving student's vocabulary in Borneo University of Tarakan. It is a pre-experimental research with pre-test and post-test. Its sample included 10 students who were asked to use Duolingo app for 30 days regularly. The Research instruments included tests and a questionnaire. The results, based on the quantitative data, revealed that the students' score is increased after using Duolingo.

Permatasari, et al. (2022):

The research attempted to get empirical evidence of the effect of using Duolingo in enhancing vocabulary mastery by a group of students from SMPN 2 Banjarsari Lebak-Banten. The quantitative method was used. Furthermore, its design was quasi-experimental, and the participants included 76 students of eighth grade who were randomly selected. Duolingo application was used as an instrument in the experimental class, while the control class uses the Hello English Application. The result indicated the effectiveness of using Duolingo in enhancing students' vocabulary mastery.

Having highlighted the purpose and findings of important previous studies, it is therefore obvious that the present study shares one point with the previous studies. All of them investigate the use of Duolingo to enhance the process of EFL learning. However, this research differs from the previous studies in terms of its scope, sample, and place. That is, it is applied on a group of Jordanian EFL learners, and it covers all the four major skills of English language.

4. Analysis and Discussions

For analyzing and comparing the results of the study, the Statistical Package for Social Sciences (SPSS) is used. In this respect, arithmetic means, frequencies and standard deviations of the results are ultimately calculated. Furthermore, the Likert Five-Point Scale is used for determining the degree of agreement of the study sample on the questionnaire items for each part. The values of the arithmetic means are used to measure the extent to which the sample members agree on the items of the questionnaire, as shown in Table No. (1).

Table 1. The values of the arithmetic means of the Likert Five-Point Scale

Weighted Mean	Level
From 1 to 1.80	Strongly disagree
From 1.81 to 2.60	Disagree
From 2.61 to 3.40	Neutral
From 3.41 to 4.30	Agree
From 4.31 to 5	Strongly agree

* Prepared by the researcher

The first part of the questionnaire “The reality and effects of using Duolingo to develop English listening skills for EFL learners in Jordan” included 6 items, and the participants were asked to select the response that better describes their opinion on each item. In this respect, the arithmetic means and standard deviations related to the first part of the questionnaire are represented in Table (2) below.

Table 2. Arithmetic means and standard deviations of the participants' responses to the items of the first part of the questionnaire “The reality and effects of using Duolingo to develop English listening skills for EFL learners in Jordan”

Items of the third part (The reality and effects of using Duolingo to develop English listening skills for EFL learners in Jordan)	Scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation	Result
The application makes me focus of the body language.	Frequency	0	20	20	380	60	4	0.577	Agree
	Percentage (%)	%0	%4.16	%4.16	%79.16	%12.5			
It gives time to paraphrase what has been said.	Frequency	0	20	40	360	60	3.95	0.610	Agree
	Percentage (%)	%0	%4.16	%8.33	%75	%12.5			
The application helps me keep an open mind.	Frequency	0	40	20	340	80	3.95	0.734	Agree
	Percentage (%)	%0	%8.33	%4.16	%70.83	%16.66			
It includes audios on different topics.	Frequency	0	0	40	380	60	4.04	0.454	Agree
	Percentage (%)	%0	%0	%8.33	%79.16	%12.05			
The audios includes in Duolingo vary in terms of difficulty.	Frequency	10	10	20	400	40	3.93	0.626	Agree
	Percentage (%)	%2.08	%2.08	%4.16	%83.33	%8.33			
Duolingo includes audios from daily life situations.	Frequency	0	10	20	380	70	4.06	0.516	Agree
	Percentage (%)	%0	%2.08	%4.16	%79.16	%14.58			
The reality and effects of using Duolingo to develop English listening skills for EFL learners in Jordan							Agree		

Table (2) above embodies the frequencies, arithmetic means, and standard deviations of the participants' responses to the items of the first part of the questionnaire (The reality and effects of using Duolingo to develop English listening skills for EFL learners in Jordan). The arithmetic means related to the mentioned items ranged between (3.79 and 4.08). This indicates the agreement of the participants on the items of the first part, as the arithmetic means from 3.41 to 4.30 indicate the agreement of the respondents according to the weights mentioned in Table No. (1). The first item (The application makes me focus of the body language) got an arithmetic mean (3.79) and a standard deviation (0.956), the second item (The application makes me focus of the body language) got an arithmetic mean (3.95) and a standard deviation (0.610).

Moreover, the third item (The application helps me keep an open mind) obtained an arithmetic mean (3.95) and a standard deviation (0.734), the fourth item (It includes audios on different topics) obtained an arithmetic mean (4.04) and a standard deviation (0.454), the fifth item (The audios includes in Duolingo vary in terms of difficulty) got an arithmetic mean (3.93) and a standard deviation (0.626), while the sixth

item (Duolingo includes audios from daily life situations) got an arithmetic mean (4.06) and a standard deviation (0.516).

This result evidently shows that using Duolingo to develop English listening skills for EFL learners in Jordan is effective from the viewpoint of learners. The result related to each item of the first part is discussed as follows:

The results related to the first item of the first part of the questionnaire (The application makes me focus on the body language) reflects a high degree of agreement. It obtained an arithmetic mean (4) and a standard deviation (0.577). This result obviously indicates that the application, according to the participants, is effective in making them focus on the body language while listening. The results also showed that the second item of the same part (It gives time to paraphrase what has been said) obtained an arithmetic mean (3.95) and a standard deviation (0.610). This result indicates that the use of Duolingo allows learners to paraphrase the text being spoken. Furthermore, the results showed that the third item of the same part (The application helps me keep an open mind) obtained a high degree of agreement with an arithmetic mean (3.95) and a standard deviation (0.734). This clearly indicates that the Jordanian EFL learners believe in the effectiveness of Duolingo in making them focus on what is being said. The results also reflected that the fourth item (It includes audios on different topics) got an arithmetic mean (4.04) and a standard deviation (0.454). This result can be attributed to the awareness of the Jordanian EFL learners of the fact that Duolingo provides audios on different topics. In this context, the results indicated that the fifth item (The audios includes in Duolingo vary in terms of difficulty) obtained a high degree of agreement with a mean (3.93) and a standard deviation (0.626). This result evidently shows that the Jordanian EFL learners are aware of the audios provided by Duolingo in terms of difficulty. Furthermore, the results revealed that the sixth item (Duolingo includes audios from daily life situations) obtained a high degree of agreement with an arithmetic mean (4.06) and a standard deviation (0.454). This result evidently reflects that the Jordanian EFL learners view Duolingo as an effective means of learning as it provides them with audios from daily life situations.

These results, in general, reflect that the use of Duolingo is effective to develop English listening skills from the viewpoint of EFL learners in Jordan.

Second: The results related to the third part (The reality and effects of using Duolingo to develop English reading skills for EFL learners in Jordan):

The second part of the questionnaire “The reality and effects of using Duolingo to develop English reading skills for EFL learners in Jordan” included 8 items, and the participants were asked to select the response that better describes their opinion on each item. In this respect, the arithmetic means and standard deviations related to the second part of the questionnaire are represented in Table (3) below.

Table 3. Arithmetic means and standard deviations of the participants' responses to the items of the second part of the questionnaire (The reality and effects of using Duolingo to develop English reading skills for EFL learners in Jordan)

Items of the fourth part (The reality and effects of using Duolingo to develop English reading skills for EFL learners in Jordan)	Scale	Strongly Disagree	Neutral	Agree	Strongly agree	Mean	Standard	Result	
Duolingo is effective in enhancing word power.	Frequency	0	10	20	390	60	4.04	0.498	Agree
	Percentage (%)	%0	%2.083	%4.16	%81.25	%12.5			
The application repeats words so that they can be categorized.	Frequency	0	0	30	410	40	4.02	0.381	Agree
	Percentage (%)	%0	%0	%6.25	%85.41	%8.33			
Duolingo provides different meanings of words in different sentences.	Frequency	0	0	40	420	20	3.95	0.351	Agree
	Percentage (%)	%0	%0	%8.33	%87.5	%4.16			
The application helps me understand the meaning of new words in context	Frequency	0	0	20	400	60	4.08	0.399	Agree
	Percentage (%)	%0	%0	%4.16	%83.33	%12.5			
Duolingo enables me to find information.	Frequency	0	0	30	390	60	4.06	0.428	Agree
	Percentage (%)	%0	%0	%6.25	%81.25	%12.5			
Duolingo develops my ability to understand the purpose of texts.	Frequency	0	10	10	420	40	4.02	0.432	Agree
	Percentage (%)	%0	%2.08	%2.08	%87.5	%8.33			

	(%)								
The application helps me distinguish between facts and opinions.	Frequency	0	10	20	400	50	4.02	0.478	Agree
	Percentage (%)	%0	%2.08	%4.16	%83.33	%10.41			
The application is effective in developing the skill of finding the main idea.	Frequency	0	20	20	410	30	3.93	0.516	Agree
	Percentage (%)	%0	%4.16	%4.16	%85.41	%6.25			
Result of the fourth part (The reality and effects of using Duolingo to develop English reading skills for EFL learners in Jordan)							4.01	0.058	Agree

Table (3) above embodies the frequencies, arithmetic means, and standard deviations of the participants' responses to the items of the second part of the questionnaire. The arithmetic means of the mentioned items ranged between (3.93 and 4.08). This point evidently indicates the agreement of the participants on the items of the second part, as the arithmetic means from 3.41 to 4.30 represent the agreement of the respondents according to the weights mentioned in Table No. (1). The first item (Duolingo is effective in enhancing word power) obtained an arithmetic mean (4.04) and a standard deviation (0.498), the second item (The application repeats words so that they can be categorized) obtained an arithmetic mean (4.02) and a standard deviation(0.381), the third item (Duolingo provides different meanings of words in different sentences) obtained an arithmetic mean (3.95) and a standard deviation (0.351). Furthermore, the fourth item (The application helps me understand the meaning of new words in context) got an arithmetic mean (4.08) and a standard deviation (0.399). In the same context, the fifth item (Duolingo enables me to find information) obtained an arithmetic mean (4.06) and a standard deviation (0.428), the sixth item (Duolingo develops my ability to understand the purpose of texts) obtained an arithmetic mean (4.02) and a standard deviation (0.432), the seventh item (The application helps me distinguish between facts and opinions) got an arithmetic mean (4.02) and a standard deviation (0.478), while the last item (The application is effective in developing the skill of finding the main idea) got an arithmetic mean (3.93) and a standard deviation (0.516).

These results evidently reveal that the Jordanian EFL learners are aware of the effectiveness of using Duolingo to develop English reading skills.

Third: The results related to the third part (The reality and effects of using Duolingo to develop English writing skills for EFL learners in Jordan):

The third part of the questionnaire "The reality and effects of using Duolingo to develop English writing skills for EFL learners in Jordan" included 10 items, and the participants were asked to select the response that better describes their opinion on each item. In this respect, the arithmetic means and standard deviations related to the third part of the questionnaire are represented in Table (4) below.

Table 4. Arithmetic means and standard deviations of the participants' responses to the items constituting the part of (The reality and effects of using Duolingo to develop English writing skills for EFL learners in Jordan)

Items of the third part (the reality of using task based activities in learning English writing skills in the Saudi Universities)	Scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation	Result
Duolingo enables me to use a wide range of vocabulary.	Frequency	20	40	40	300	80	3.79	0.956	Agree
	Percentage (%)	%4.16	%8.33	%8.33	%62.5	%16.66			
The application enables me to use my thoughts confidently.	Frequency	0	20	20	380	60	4	0.577	Agree
	Percentage (%)	%0	%4.16	%4.16	%79.16	%12.5			
Duolingo helps in knowing the correct spelling of words.	Frequency	0	20	40	360	60	3.95	0.610	Agree
	Percentage (%)	%0	%4.16	%8.33	%75	%12.5			
I use the application to develop my punctuation skills.	Frequency	0	40	20	340	80	3.95	0.734	Agree
	Percentage (%)	%0	%8.33	%4.16	%70.83	%16.66			
I use Duolingo to understand different types of sentence construction.	Frequency	0	0	40	380	60	4.04	0.454	Agree
	Percentage (%)	%0	%0	%8.33	%79.16	%12.05			
The application helps me practice writing on different texts.	Frequency	10	10	20	400	40	3.93	0.626	Agree
	Percentage (%)	%2.08	%2.08	%4.16	%83.33	%8.33			
Through the use of Duolingo I can learn from my mistakes in writing.	Frequency	0	10	20	380	70	4.06	0.516	Agree
	Percentage (%)	%0	%2.08	%4.16	%79.16	%14.58			

The application helps in developing my skill of word choice.	Frequency	0	10	30	390	50	4	0.5	Agree
	Percentage (%)	%0	%2.08	%6.25	%81.25	%10.41			
Duolingo helps in developing punctuation skills.	Frequency	0	0	20	410	50	4.06	0.376	Agree
	Percentage (%)	%0	%0	%4.16	%85.41	%10.41			
The application is useful for learning grammatical skills like subject verb agreement.	Frequency	0	0	10	420	50	4.08	0.343	Agree
	Percentage (%)	%0	%0	%2.083	%87.5	%10.41			
Result of the first part (The reality and effects of using Duolingo to develop English writing skills for EFL learners in Jordan)							3.09	0.172	Agree

Table (4) above presents the frequencies, arithmetic means and standard deviations related to the participants' responses to the items of the third part. Furthermore, the arithmetic means of the said items ranged between (3.09 and 4.08). This point evidently shows the agreement of the participants on the items of the third part, as the arithmetic means from 3.41 to 4.30 indicate the agreement of the respondents according to Table (1). The first item (Duolingo enables me to use a wide range of vocabulary) got an arithmetic mean (3.79) and a standard deviation (0.956), and the second item (The application enables me to use my thoughts confidently) got an arithmetic mean (4) and a standard deviation (0.577).

Moreover, the third item (Duolingo helps in knowing the correct spelling of words) obtained an arithmetic mean (3.95) and a standard deviation (0.610), the fourth item (I use the application to develop my punctuation skills) obtained an arithmetic mean (3.95) and a standard deviation (0.734), the fifth item (I use Duolingo to understand different types of sentence construction) got an arithmetic mean (4.04) and a standard deviation (0.454), the sixth item (The application helps me practice writing on different texts) got an arithmetic mean (3.93) and a standard deviation (0.626), while the seventh item (Through the use of Duolingo I can learn from my mistakes in writing) obtained an arithmetic mean (4.06) and a standard deviation (0.516). Furthermore, the eighth item (The application helps in developing my skill of word choice) obtained an arithmetic mean (4) and a standard deviation (0.5), the ninth item (Duolingo helps in developing punctuation skills) obtained an arithmetic mean (4.06) and a standard deviation (0.376), while the last item (The application is useful for learning grammatical skills like subject verb agreement) got an arithmetic mean (4.08) and a standard deviation (0.343).

These results evidently reflect that the Jordanian EFL learners are aware of the effectiveness of using Duolingo to develop English writing skills. The results of each item of the third part are interpreted as follows:

The results related to the first item of the third part of the questionnaire (Duolingo enables me to use a wide range of vocabulary) reflected a high degree of agreement, as it obtained an arithmetic mean (3.79) and a standard deviation (0.956). This result evidently reveals that the Jordanian EFL learners find Duolingo effective in enhancing their vocabulary. The results also reflected that the second item of the same part (The application enables me to use my thoughts confidently) obtained an arithmetic mean (4) and a standard deviation (0.577). This result evidently reveals that the participants are aware of the role of Duolingo in developing their self-confidence to write about different topics. Apart from this, the results embodied that the third item of the same part (Duolingo helps in knowing the correct spelling of words) obtained a high degree of agreement with an arithmetic mean (3.95) and a standard deviation (0.610). This value obviously reveals that Duolingo is effective in helping EFL learners understand the correct spelling of different words.

Furthermore, the results revealed that the fourth item (I use the application to develop my punctuation skills) got an arithmetic mean (3.95) and a standard deviation (0.734). This result embodies that the Jordanian EFL learners use Duolingo to develop their punctuation skills. Apart from this, the fifth item (I use Duolingo to understand different types of sentence construction) obtained a high degree of agreement with a mean (4.04) and a standard deviation (0.454). These values are powerful evidence of the effectiveness of Duolingo in developing EFL learners' awareness of different types of sentence construction.

Moreover, it is evidently noticed that the sixth item (The application helps me practice writing on different texts) obtained a high degree of approval with an arithmetic mean (3.93) and a standard deviation (0.626). These values imply that the Jordanian EFL learners use Duolingo to practice English writing. It is also revealed that the seventh item (Through the use of Duolingo I can learn from my mistakes in writing) obtained a high degree of agreement with an arithmetic mean (4.06) and a standard deviation (0.516). Significantly, these values reflect the effectiveness of Duolingo in helping EFL learners correct their mistakes and learn from them.

Much significantly, the result associated with the eighth statement (The application helps in developing my skill of word choice) obtained a high degree of agreement with an arithmetic mean (4) and a standard deviation (0.5). It is evident that the Jordanian EFL learners know the effectiveness of Duolingo in developing their skill of word choice, which is an important writing skill.

Moreover, the result related to the ninth statement (Duolingo helps in developing punctuation skills) obtained a high degree of agreement, with a mean (4.06) and a standard deviation (0.376). This result ultimately shows Duolingo's role in improving EFL learners' punctuation skills. Besides, the result related to the last item (The application is useful for learning grammatical skills like subject verb agreement) obtained a high degree of agreement, with an arithmetic mean (4.08) and a standard deviation (0.343). This value is an obvious evidence of the effectiveness of Duolingo in developing learners' knowledge of subject verb agreement.

These results evidently reveal that the Jordanian EFL learners are aware of the effectiveness of using Duolingo to develop English writing skills.

Fourth: The results related to the fourth part (The reality and effects of using Duolingo to develop English speaking skills for EFL learners in Jordan):

The fourth part of the questionnaire “The reality and effects of using Duolingo to develop English speaking skills for EFL learners in Jordan” included 8 items, and the participants were asked to select the response that better describes their opinion on each item. In this respect, the arithmetic means and standard deviations related to the fourth part of the questionnaire are represented in Table (5) below.

Table 5. Arithmetic means and standard deviations of the participants' responses to the items related to (The reality and effects of using Duolingo to develop English speaking skills for EFL learners in Jordan)

Items of the fourth part (The reality and effects of using Duolingo to develop English speaking skills for EFL learners in Jordan)	Scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation	Result
Duolingo is effective in improving my skill of straight talking	Frequency	0	10	20	390	60	4.04	0.498	Agree
	Percentage (%)	%0	%2.083	%4.16	%81.25	%12.5			
The application helps in developing non-verbal communication	Frequency	0	0	30	410	40	4.02	0.381	Agree
	Percentage (%)	%0	%0	%6.25	%85.41	%8.33			
It is helpful in developing my ability of stress management	Frequency	0	0	40	420	20	3.95	0.351	Agree
	Percentage (%)	%0	%0	%8.33	%87.5	%4.16			
Duolingo helps in emotion control	Frequency	0	0	20	400	60	4.08	0.399	Agree
	Percentage (%)	%0	%0	%4.16	%83.33	%12.5			
The application provides practice to eliminate nervousness	Frequency	0	0	30	390	60	4.06	0.428	Agree
	Percentage (%)	%0	%0	%6.25	%81.25	%12.5			
Duolingo makes me believe in my ability to speak	Frequency	0	10	10	420	40	4.02	0.432	Agree
	Percentage (%)	%0	%2.08	%2.08	%87.5	%8.33			
The application allows me to imitate native speakers	Frequency	0	10	20	400	50	4.02	0.478	Agree
	Percentage (%)	%0	%2.08	%4.16	%83.33	%10.41			
Duolingo helps me learn vivid language to use while speaking	Frequency	0	20	20	410	30	3.93	0.516	Agree
	Percentage (%)	%0	%4.16	%4.16	%85.41	%6.25			
Result of the fourth part (The reality and effects of using Duolingo to develop English speaking skills for EFL learners in Jordan)							4.01	0.058	Agree

Table (5) above presents the frequencies, arithmetic means, and standard deviations of the participants' responses to the items included in the fourth part. The arithmetic means of the said items ranged between (3.93 and 4.08). This is an obvious evidence of the participants' agreement on the items of the fourth part, as the arithmetic means from 3.41 to 4.30 indicate the agreement of the participants according to Table No. (1). The first item (Duolingo is effective in improving my skill of straight talking) got an arithmetic mean (4.04) and a standard deviation (0.498), the second item (The application helps in developing non-verbal communication) got an arithmetic mean (4.02) and a standard deviation (0.381), the third item (It is helpful in developing my ability of stress management) got an arithmetic mean (3.95) and a standard deviation (0.351). Furthermore, the fourth item (Duolingo helps in emotion control) got an arithmetic mean (4.08) and a standard deviation (0.399).

Moreover, the fifth item (The application provides practice to eliminate nervousness) got an arithmetic mean (4.06) and a standard deviation (0.428), the sixth item (Duolingo makes me believe in my ability to speak) obtained an arithmetic mean (4.02) and a standard deviation (0.432), the seventh item (The application allows me to imitate native speakers) got an arithmetic mean (4.02) and a standard deviation (0.478), while the last item (Duolingo helps me learn vivid language to use while speaking) got an arithmetic mean (3.93) and a standard deviation (0.516).

These values evidently reflect the high awareness of the Jordanian EFL learners of the effects of using Duolingo to develop their speaking skills. The result of each statement is discussed below.

The result related to the first item of the fourth part of the questionnaire (Duolingo is effective in improving my skill of straight talking) reflected a high degree of agreement, as it obtained an arithmetic mean (4.04) and a standard deviation (0.498). These values represent the awareness of the Jordanian EFL learners of the importance of Duolingo and its effectiveness in developing their skill of straight talking. The results also revealed that the second statement (The application helps in developing non-verbal communication) got a high degree of agreement with an arithmetic mean (4.02) and a standard deviation (0.381). Significantly, this result reflects the awareness of the Jordanian EFL learners of Duolingo as an effective means to develop their non-verbal communication.

It is also evident that the third item (It is helpful in developing my ability of stress management) got a high degree of agreement, with a mean

(3.95) and a standard deviation (0.351). Evidently, this result shows the psychological role of Duolingo in helping EFL learners manage their stress while speaking. Furthermore, the result associated with the fourth item (Duolingo helps in emotion control) revealed a high degree of agreement, with a mean (4.08) and a standard deviation (0.399). This point can be attributed to the fact that the Jordanian EFL learners feel the importance of Duolingo in helping them control emotions while speaking.

Besides, the results reflected that the fifth item (The application provides practice to eliminate nervousness) got a high degree of agreement, with a mean (4.06) and a standard deviation (0.428). From this, it is noticed that Duolingo, according to the Jordanian EFL learners, is an effective means to develop learners' ability to eliminate nervousness while speaking. It is also noticed that the sixth item (Duolingo makes me believe in my ability to speak) received a high degree of agreement, with a mean (4.02) and a standard deviation (0.432). This is a strong indication of the role played by Duolingo to increase the learners' confidence in their abilities to speak.

It is also revealed that the seventh item (The application allows me to imitate native speakers) received a high degree of agreement, with a mean (4.02) and a standard deviation (0.478). These values represent powerful evidence that Duolingo increases the level of learners' exposure to the language spoken by the native speaker. Moreover, it allows them to imitate the native speakers and develop their pronunciation.

Significantly, it is reflected that the last item (Duolingo helps me learn vivid language to use while speaking) got a high degree of agreement, with a mean (3.93) and a standard deviation (0.516). These values represent a strong evidence of the effective role played by Duolingo in developing learners' usage of correct and vivid language.

These results evidently reveal that the Jordanian EFL learners are aware of the effectiveness of using Duolingo to develop English speaking skills.

5. Conclusion

A. Findings:

Based on the quantitative data, the following are the most important findings:

1. The Jordanian EFL learners are aware of the effectiveness of Duolingo in developing their listening skills, for it makes them focus on the body language, gives them time to paraphrase what has been, helps them keep an open mind, and includes audios on different topics and audios from daily life. Moreover, the audios included in Duolingo vary in terms of difficulty.
2. The Jordanian EFL learners are aware of the effectiveness of Duolingo in developing their reading skills, for it is effective in enhancing word power. It repeats words so that they can be categorized. Moreover, it provides different meanings of words in different sentences, helps learners understand the meaning of new words in context, enables them to find information, develops their ability to understand the purpose of texts, helps them distinguish between facts and opinions, and develops the skill of finding the main idea.
3. The Jordanian EFL learners are aware of the effectiveness of Duolingo in developing their writing skills, for it enables learners to use a wide range of vocabulary. It enables them to use their thoughts confidently, helps in knowing the correct spelling of words, develops learners' punctuation skills, provides learners with different types of sentence construction, and helps learners practice writing on different texts. Moreover, through the use of Duolingo, learners can learn from their mistakes in writing. Besides, the application helps them in developing their skill of word choice, and it is useful for learning grammatical skills like subject verb agreement.
4. The Jordanian EFL learners are aware of the effectiveness of Duolingo in developing their speaking skills. It is effective in improving their skill of straight talking. Furthermore, it helps in developing non-verbal communication, developing learners' ability of stress management, helps in emotion control, provides practice to eliminate nervousness, makes learners believe in their ability to speak, allows learners to imitate native speakers and helps them learn vivid language to use while speaking.

B. Recommendations:

It is recommended that:

The departments of English at the Jordanian universities should direct their students to use Duolingo. In this respect, the use of Duolingo should be part of daily homework, and lecturers should make sure that all students follow the instructions.

2. The Jordanian EFL learners should spend more hours using Duolingo and other similar apps. The syllabus should include activities based on such apps, along with instructions on how to use them.

3. The departments of English at the Jordanian universities should work to design mobile applications that help learners improve their English language skills. The applications should target all the main skills of English, and they should be interactive and user friendly.

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