Exploring the Role of Mobile Phone Applications in Improving Foreign Language Learners' Vocabulary Stuff

Dr. Shahid Ullah
Assistant Professor of English, Govt. Willayat Hussain Islamia Graduate College Multan, Pakistan

Muhammad Yousuf
English Teacher, Govt Higher Secondary School Samina, Dera Ghazi Khan, Pakistan

Dr. Muhammad Ahsan
Correspondence: Assistant Professor, Department of English, Ghazi University Dera Ghazi Khan, Pakistan.
Email: mahsan@gudgk.edu.pk

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Abstract

The objective of the study was to explore the role of mobile phone applications in improving foreign language learners' vocabulary items. For the execution of the study, the data for the present study was collected from the public sector colleges of Dera Ghazi Khan. All the students who participated in this study were from the 2nd, 4th, 6th & 8th Semesters and these students were registered in English Department. The majority of research participants agreed and strongly agreed that using mobile applications helps L2 learners become more critical thinkers, increases their self-esteem and sense of individuality, encourages self-directed learning, pushes them to study in both formal and informal contexts, and helps underachievers succeed academically. However, it is desirable to create, organise, and implement these mobile applications with extraordinary care and attention, according to the demands and levels of the learners, to achieve the desired positive effect.

Keywords: Foreign Language Learners, Foreign Language, Mobile Phone Applications, Vocabulary Items

Introduction

These days, cell phones are an essential component of our everyday existence (Darsih Asikin, 2020). The majority of individuals find it difficult to picture their lives without their mobile phones because we use them so regularly in our everyday activities (Siahaan, E. B., 2020). People may communicate and share information anywhere, at any time, thanks to these convenient internet-connected devices, regardless of location or time constraints. For those who are eager to learn a language, the distinctive portability, mobility, and connectivity of smartphones can open up new avenues for learning (Walsh, 2021). These mobile and

portable gadgets enable communication between academics and educators. Students today are reliant on technology, claim Shamim (2021) and Morgana (2019). Mobile software, particularly for ESL/EFL learners, is becoming an essential piece of knowledge with the introduction of mobile technologies. A software program that is frequently made to operate on a mobile device and enables the user to perform one or more tasks is known as an application, or app (Davis & Gardner). These mobile learning applications are growing so quickly that they are now widely used both inside and outside of schools. Time and location are no longer constraints for studying English thanks to mobile apps, according to Nami, F. (2020). Since the turn of the twenty-first century, there has been a tremendous increase in the methods for learning English due to the development of new technology such as the internet, smartphones, and tablets. Teaching-learning scenarios have undergone revolutionary alterations due to the rapid rise of technology (Pavlik, 2018). One of these more recent innovations is smartphones, which has led to the use of mobile apps in educational settings (Izadi, M., & Yarahmadzehi, N., 2020). Students have the opportunity to learn outside of the typical classroom setting when they use mobile apps effectively. Moreover, educational activities can happen at any time and anywhere. They don't depend on a certain place. Language learners are free to fill their own time without being constrained by location or time. Moreover, scenarios for instruction and learning have been significantly influenced by as a result of the exponential rise in popularity of mobile devices among university students and English language study apps, learners are intrinsically motivated to take advantage of these learning benefits (Siahaan, E. B., 2020). MALL researchers have found that using mobile devices and apps for ESL/EFL learning can improve learners' cognitive abilities, boost their self-esteem, and encourage individualised, autonomous, self-determined, and self-motivated learning. Due to their unique characteristics, mobile phones can help students improve a variety of English language learning abilities, including listening, speaking, reading, writing, grammar, vocabulary, and pronunciation (Nino, 2015). Language acquisition outside of the classroom can be uncontrollable for teachers, as Kukulska-Hulme (2009) found. A clear decision about what should be done both within and outside of the classroom must therefore be made after careful planning. Therefore, educators must provide activities that will help students.

Mobile Assisted Language Learning

Mobile Assisted Language Learning (MALL) is a phrase that refers to portable electronic devices that are easily portable from one location to another (Gharehbaghi Nasri, 2019). MALL is a recently developed learning approach that uses portable and handheld devices (such as MP3/MP4 players, tablets, and smartphones) to enhance language learning (Morgana, 2019). As a hybrid of mobile learning and computer-assisted language learning, MALL combines the best aspects of both approaches (Gonulal, 2019). According to Wulandari (2019), m-learning is learning that is aided by portable devices and physically available at any time or place, while CALL is the integration of computer technology in teaching and learning environments. According to Kukulska-Hulme & Shield (2008), MALL is quite different from CALL because of its use of personal and portable gadgets that make it possible to learn in innovative ways, emphasizing interconnectivity across different contexts because of continuity and spontaneity of access (Goodarzi, M., 2020). These characteristics of MALL

enhance the possibility of learning to happen in any possible situation and because of this learning becomes more potential and customized. Mobile handheld devices provide students an opportunity to integrate mobile technology into the language learning process. Nami, (2020) declared that teachers, students and institutions have successfully applied this newly emerged form of MALL – Mobile Assisted Language Learning in the domain of teaching and learning. Chik (2014) revealed that mobile handheld devices have emerged as one of the most promising strategies to facilitate language learning. Due to the unique features of interconnectivity, portability, flexibility, and convenience of mobile devices, MALL permits learners to learn a language without the constraints of time and place. Jin, Y. (2023) mention that the mobile internet due to its unique features of ubiquity, flexibility, mobility and connectivity is quite different from the desktop internet.

Languages cannot be universally learned by the conventional method of language instruction. The best tools for language learners are mobile devices. Smartphones are the most capable of all the readily available mobile-assisted language learning tools when it comes to improving and growing educational processes as well as creating engaging, stimulating, inspiring, and unique learning chances (Nami, F., 2020). This has been focused on the drastic expansion of easily accessible vocabulary applications, which could be highly beneficial for second and foreign-language learners in their vocabulary acquisition (Abdulrahman, 2020). In light of this, we created an internal mobile application with the express purpose of assisting Hong Kong University students with their business vocabulary. According to Izadi, M., & Yarahmadzehi, N. (2020), mobile technologies have become more sophisticated and accessible to a wider audience. As a result, researchers suggest using mobile apps to support English language learning, as they are proven to be useful as self-regulated and autonomous learning tools. At present, mobile technologies are beginning to offer educational opportunities that promote intentional learning. According to the literature, it is generally accepted that using mobile apps for vocabulary learning helps students acquire vocabulary more accurately. It can also accelerate students' vocabulary acquisition and lessen "the burden of memorization" (Morgana, V., 2019; Wu, 2015). Additionally, some researchers have compared the capabilities of apps to oral instruction as a traditional method and other researchers have looked at vocabulary acquisition enhancements (Basalama,2019; Steels, 2012). Researchers CalvoFerrer (2015) and Abdulrahman (2020) discovered that mobile applications are very useful resources for learners of foreign and second languages when it comes to expanding their vocabulary. According to research by Abdulrahman (2020), mobile apps are the most effective means for learners of second or foreign languages to expand their vocabulary. Numerous scholars have recognised the usefulness of mobile learning in educational settings, and students have generally responded favourably to their findings. Students respond more positively to programmes that incorporate flexibility, tailored learning, and an easy-to-use interface. In Mason and Zhang's (2017) study on Chinese learners, they found that, although the learners only utilised a portion of the apps' features, 132 out of 140 Chinese learners independently used the apps to improve their language acquisition.

Sorting of Mobile Phone Learning Application

The statistics data on mobile applications shows the robust development and rapid

downloads of these apps by consumers worldwide. Choosing the best app for learning English can be difficult because there are so many options for it in the app stores. The learner must determine which app is appropriate given the kids' needs and levels. Darsih (2020) and Gamlo (2019) emphasise the importance of motivation for learning English. The author firmly believes that game-based language learning is beneficial. He goes on to say that kids' interests, needs, and levels should all be taken into consideration while selecting apps. Keeping in view the convenience of the learners, apps can be classified as under:

Primary Learners

Children between the ages of three and ten are considered primary learners. They begin their English language education with the alphabet and its sounds. Acquiring knowledge of the names of various fruits, vegetables, colours, and shapes will help them acquire language more effectively. Certain mobile applications are specifically created by app developers to aid in the vocabulary development of young users within that specific demographic. Reviewers and academics have noted that children's learning can be improved with the help of mobile devices, given their increasing popularity among younger students. According to Liu (2016) incorporating mobile technology into education has had favourable results. These educational apps for primary learners have the following benefits, that is

- Source of enjoyment
- Useful for social interaction
- ➢Easily accessible
- Potential use of leisure time
- Learning through gamification.

Secondary Learners

12 to 17-year-old students are classified as secondary learners. Because of this useful tool, secondary school pupils have complete control over their education (Betsy Redd, 2011). Jennifer Betsy Redd conducted experiments to demonstrate how well an app may help high school students expand their vocabulary. For three weeks, she introduced a game software to help these youngsters improve their vocabulary. The results of the pre-and post-tests confirmed that mobile devices were a very successful tool for helping high school students expand their vocabulary.

Tertiary Learners

College students and an adult learning community are examples of tertiary learners. Due to the rapid expansion of English learning applications and the rising popularity of mobile devices among college students, users are more persuaded of the educational value of mobile apps. Chik (2014) claims that MALL increases students' willingness to learn while also improving their capacity to learn English. College students can learn English independently with the use of mobile gadgets, which are very practical and efficient. Students are unable to get the most out of these apps since there isn't enough advice and tips about which apps to use and how to utilise them properly (Huang & Sun, 2017).

Favourable Heights of Language Learning Applications

The widespread use of smartphones, iPads, Chromebooks, iPods, and other wirelessly connected portable devices has given students access to a variety of cutting-edge educational resources. These teaching resources are in the form of applications. Flexible applications are extremely helpful tools for language learning since they provide students access to a variety of ESL perspectives, so helping them to improve their language skills and become proficient in English as a second language (Nino, 2015). Most of the applications may be downloaded easily and for almost no cost (like Web recordings), or they only require a small amount of money. Some applications can be downloaded on cell phones without anyone else (Chik, 2014), though some other applications can fill their roles online as well as disconnected. Sweeney (2013) laid out the way that language applications are generally intended for self-controlled, individualized learning, without the help of some other source. To fill the roles freely without the guidelines of the educator, applications are planned with various capacities to help self-concentrate on very much like the ability of a student to customize a rundown of things to work on as indicated by his own decision (Sweeney, 2013). Moreover, applications have the ability to manage complex information in a valid manner and to alter the growth opportunities for imaginative students. Schmidt (2016) saw that versatile applications are skilled to feature the recurrence of student mistakes. When featured and introduced to the students then they can address the identified mix-ups which can in any case be ignored.

Learning Vocabulary Items of the Target Language

English has been the most widely spoken language among non-native speakers of the language in the age of globalisation, earning it the title of lingua franca. Since vocabulary knowledge is considered to be one of the primary building elements of a language, learning a second language is directly tied to learning that language's vocabulary (Grimshaw & Cardoso, 2018). Harmer (1991) utilised the analogy of the skeleton and the vital organs, or the flesh, for that language's lexicon and linguistic structures to convey that concept. According to him, if language structures serve as a language's skeleton, then a language's vocabulary contains its life and soul. Huckin (1995) expounded on this concept by stating that the most essential components for the success of second language acquisition are vocabulary items and reading comprehension. Additionally, McCarthy (2001) notes that a small bit of notion is not enough to grasp a language's syntax and pronunciation. Although acquiring vocabulary is one of the most important aspects of learning a second or foreign language, ESL/EFL students are thought to have the most difficult task ahead of them (Li & Cummins, 2019). Additionally, ESL speakers have a very hard time understanding a language. Nonetheless, learning new words and memorising them have always been challenging and demanding for ESL and EFL students. Consequently, in order to support learners' vocabulary acquisition, it is crucial to offer them with efficient vocabulary learning tools. Currently, pedagogical affordances offered by mobile technology allow for meaningful learning—particularly vocabulary learning—without being limited by time or location (Chai, Wang & King, 2016). Mobile application systems, or apps, were thought to be very useful tools for vocabulary development, given the necessity for vocabulary expansion. According to research by CalvoFerrer (2015), mobile apps are the greatest way for people learning a second or foreign

language to expand their vocabulary. It is essential to learn the vocabulary of that language because it is one of the crucial components of language. To gain mastery over that language, the learners are required to retain an extensive range of vocabulary to be utilized for various purposes. It would also be quite helpful for learners to comprehend that language. Folse (2010) asserts that academic success is largely dependent on the comprehension of a language which is directly linked to vocabulary acquisition. Therefore, students need to know the strategies of acquiring vocabulary to achieve the desired goals in both curricular and co-curricular settings. Numerous researchers have recognized the fact that vocabulary knowledge is one of the most significant elements in second or foreign language performance, especially for academic purposes. Nonetheless, students believe that memorising a vast vocabulary is a tedious effort and that acquiring new words is not an easy undertaking. This view negatively impacts learners' learning objectives and interests, which eventually causes them to lose faith in their ability to learn English. As a result, methods and resources for education should be developed to increase students' motivation and interest in learning English. The purpose of this study is to encourage teachers to employ effective learning and memorization techniques to support students' vocabulary acquisition. In recent years, there has been a noticeable increase in the use of mobile phones for vocabulary learning and instruction. As a result, researchers are becoming increasingly interested in investigating mobile applications that can be used to help second language learners expand their vocabulary. SMS was the first mobile phone feature that was widely utilised to increase ESL vocabulary (Short Message Service). To compare the efficacy of SMS-based training with traditional oral instruction for the development of ESL vocabulary, several experimental experiments were carried out. Comparing SMS messages to printed documents. Their research revealed that SMS groups outperformed printed material control groups in terms of performance, but there was no discernible difference in the late post-test findings. Saran and Seferoglu (2010) used Multimedia Messaging Service (MMS) in addition to SMS text messaging in their research, where the experimental group's participants received vocabulary-learning instructions via MMS and SMS The study reported that the scores of the experimental groups in the post-test were comparatively higher than the control group. Houser (2010) attempted to assess the efficacy of emails on smartphones for vocabulary learning. During a four week long experimental study, the students were given vocabulary lessons through emails on their mobile phones in the first two weeks of their study, and on their computers in the last two weeks of study. In another experiment, learners were categorized into two groups, out of which one group received instructions through e-mails while the other group through hard-form textual material. Students expressed that mobile phones are more preferable and convenient to use than computers or any other material in printed form. Wu (2015) explored a mobile app named Word Learning-CET6, for vocabulary building of a group of 70 Chinese students. These Chinese college students were also divided into control and experimental groups. The control group students were just reminded through text messages to learn vocabulary items on their own. On the contrary, the learners in the experimental group used apps for vocabulary learning. At the end of the experiment, the results of the post-test showed a remarkable difference in the scores of both groups. Similarly, Basalama (2019) introduced mobile vocabulary-developing apps in their experimental study and concluded that the scores of the experimental groups were

significantly higher than the control group, who learnt through paper-based teaching materials. Keeping in view the literature, it is generally an agreed opinion that vocabulary learning via mobile apps assists learners in gaining vocabulary accuracy (Castaneda & Cho, 2016), and likewise, it can increase learners' vocabulary acquisition and decrease "the burden of memorization" (Wu, 2015). Furthermore, some researchers have investigated the capabilities of apps in comparison to traditional ways of oral teaching and some other scholars have examined the advancements in vocabulary learning (Steel, 2012). Calvo-Ferrer (2015) explored that mobile apps are the best vehicles for second or foreign-language learners to gain unique vocabulary. Argon learning is vital in language advancement as it is the necessity of turning into an equipped language client of an unknown dialect with regards to perusing, tuning in, talking and composing (Basalama, 2019). Contingent upon the utilization, there are two kinds of jargon which are open and useful. Realizing a word gainfully is marginally more troublesome than realizing it responsively as open jargon can develop quickly. In this manner, language instructors ought to show useful and open jargon together so students can utilize both in the objective language. Jargon learning can occur by either coincidental learning or express education. The above suggests that one can learn via interactions that have no intention of promoting knowledge. The final choice has to do with keeping the terms in mind till the pupils understand the meaning. In "deliberate" training, jargon is learnt. Gaining from the setting is also essential for the advancement of jargon since it helps students acquire the target language naturally. Understudies focus on vocabulary that is gathered into two main classes: combination and revelation approaches. They also employ certain learning procedures. Social systems and assurance are provided by disclosure procedures. Social, memory, mental, and metacognitive systems comprise union procedures. Keeping jargon journals is one helpful method for helping union jargon learning methodologies which are memory, social, metacognitive and mental systems in jargon learning since it empowers students to modify each word and, along these lines, enact the jargon they meet.

Research Techniques

To find out the answers to research questions, a mixture of qualitative and quantitative research designs was adopted. The purpose of this mixed-method approach was to investigate the students' attitudes and responses towards the use of mobile apps for learning English by themselves. The study incorporated a questionnaire as a data collection tool. The questionnaire was filled up by the students to explore their behavior and attitude towards the use of mobile devices for educational purposes and to find out the effectiveness of using mobile apps for English language learning, particularly vocabulary learning.

Institutions & Participants Information

The data for the present study was collected from the public sector colleges of Dera Ghazi Khan. The total population was 245 BS students (Male and Female). All the students were from the 2nd, 4th, 6th & 8th Semesters and these students were registered in English Department.

Objectives of the Study

Based on the purpose of the study, the following research objectives have been formulated:

- To study the situations in which mobile phone applications help L2 learners in improving foreign language vocabulary items.
- To investigate the impact of mobile applications in enhancing L2 learners' vocabulary stuff.

Research Questions

This study attempts to answer the following research questions:

- What are the situations in which mobile phone applications help L2 learners in improving foreign language vocabulary items?
- What is the impact of mobile applications in enhancing L2 learners' vocabulary stuff?

Data Analysis

Table # 1 I was able to participate in class more effectively by using mobile applications

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	22	9.0	9.0	9.0
Disagree	34	13.9	13.9	22.9
Neutral	21	8.6	8.6	31.4
Agree	144	58.8	58.8	90.2
Strongly Agree	24	9.8	9.8	100.0
Total	245	100.0	100.0	

Table 1 elucidates the responses of 245 research respondents. 22 students out of 245 which were 9.0% of the total population strongly disagreed (SD) with the research statement 'I was able to participate in class more effectively by using mobile applications'. 34 out of 245 which were 13.9% of the total number of respondents disagreed (D) with the statement, 21 students 8.6% remained neutral (N), 144 out of 245 58.8% agreed (A) and 24 students who were 9.8% of the total population strongly agreed (SA) with the statement mentioned above.

Table # 2 It was simpler to use mobile applications than to browse the internet

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	19	7.8	7.8	7.8
Disagree	51	20.8	20.8	28.6
Neutral	13	5.3	5.3	33.9
Agree	122	49.8	49.8	83.7
Strongly Agree	40	16.3	16.3	100.0
Total	245	100.0	100.0	

Table 2 explains the rejoinders of 245 research respondents. 19 students out of 245 which

were 7.8% of the total population strongly disagreed (SD) with the research statement 'it was simpler to use the mobile applications than to browse the internet'. 51 out of 245 which were 20.8% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 122 out of 245 49.8% agreed (A) and 40 students who were 16.3% of the total population strongly agreed (SA) with the statement mentioned above.

Table # 3 When I'm travelling, mobile applications are easier to access than books

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	48	19.6	19.6	24.5
Neutral	14	5.7	5.7	30.2
Agree	131	53.5	53.5	83.7
Strongly Agree	40	16.3	16.3	100.0
Total	245	100.0	100.0	

The table above illuminates the replies of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'when I'm travelling, mobile applications are easier to access than books'. 48 out of 245 which were 19.6% of the total number of respondents disagreed (D) with the statement, 14 students 5.7% remained neutral (N), 131 out of 245 53.5% agreed (A) and 40 students who were 16.3% of the total population strongly agreed (SA) with the statement.

Table # 4 Using the mobile applications improved my memory of English vocabulary

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	30	12.2	12.2	17.1
Neutral	12	4.9	4.9	22.0
Agree	151	61.6	61.6	83.7
Strongly Agree	40	16.3	16.3	100.0
Total	245	100.0	100.0	

Table 4 describes the responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'using the mobile applications improved my memory of English vocabulary'. 30 out of 245 which were 12.2% of the total number of respondents disagreed (D) with the statement, 12 students 4.9% remained neutral (N), 151 out of 245 61.6% agreed (A) and 40 students who were 16.3% of the total population strongly agreed (SA) with the statement mentioned above.

Table # 5 With mobile apps, I can easily access my notes and study resources

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9

Disagree	38	15.5	15.5	20.4
Neutral	13	5.3	5.3	25.7
Agree	141	57.6	57.6	83.3
Strongly Agree	41	16.7	16.7	100.0
Total	245	100.0	100.0	

The table above labels the highly positive responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'with mobile apps, I can easily access my notes and study resources'. 38 out of 245 which were 15.5% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 141 out of 245 57.6% agreed (A) and 41 students who were 16.7% of the total population strongly agreed (SA) with the statement.

Table # 6 Vocabulary was easier for me to learn when it was presented in a variety of formats, including definitions, sounds, and visuals

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	37	15.1	15.1	20.0
Neutral	13	5.3	5.3	25.3
Agree	161	65.7	65.7	91.0
Strongly Agree	22	9.0	9.0	100.0
Total	245	100.0	100.0	

Table 6 reveals the responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'vocabulary was easier for me to learn when it was presented in a variety of formats, including definitions, sounds, and visuals'. 37 out of 245 which were 15.1% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 161 out of 245 65.7% agreed (A) and 22 students who were 9.0% of the total population strongly agreed (SA) with the statement mentioned above.

Table # 7 By using English mobile applications, I was able to engage in a greater variety of vocabulary exercises

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	19	7.8	7.8	7.8
Disagree	54	22.0	22.0	29.8
Neutral	22	9.0	9.0	38.8
Agree	131	53.5	53.5	92.2
Strongly Agree	19	7.8	7.8	100.0
Total	245	100.0	100.0	

Table 7 describes the responses of 245 research respondents. 19 students out of 245 which were 7.8% of the total population strongly disagreed (SD) with the research statement 'By using English mobile applications, I was able to engage in a greater variety of vocabulary

exercises'. 54 out of 245 which were 22.0% of the total number of respondents disagreed (D) with the statement, 22 students 9.0% remained neutral (N), 131 out of 245 53.5% agreed (A) and 19 students who were 7.8% of the total population strongly agreed (SA) with the statement.

Table # 8 It was more enjoyable and less stressful to test my vocabulary using a smartphone app

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	4.9	4.9	4.9
	Disagree	30	12.2	12.2	17.1
	Neutral	13	5.3	5.3	22.4
	Agree	149	60.8	60.8	83.3
	Strongly Agree	41	16.7	16.7	100.0
	Total	245	100.0	100.0	

The table above labels the highly positive responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'it was more enjoyable and less stressful to test my vocabulary using a smartphone app'. 30 out of 245 which were 12.2% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 149 out of 245 60.8% agreed (A) and 41 students who were 16.7% of the total population strongly agreed (SA) with the statement.

Table # 9 I felt more confident in my ability to learn after using English mobile applications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	4.9	4.9	4.9
	Disagree	27	11.0	11.0	15.9
	Neutral	31	12.7	12.7	28.6
	Agree	135	55.1	55.1	83.7
	Strongly Agree	40	16.3	16.3	100.0
	Total	245	100.0	100.0	

Table 9 designates the responses of 245 research respondents in a highly positive sense. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'I felt more confident in my ability to learn after using English mobile applications'. 27 out of 245 which were 11.0% of the total number of respondents disagreed (D) with the statement, 31 students 12.7% remained neutral (N), 135 out of 245, 55.1% agreed (A) and 40 students who were 16.3% of the total population strongly agreed (SA) with the statement.

Table # 10 Because apps give me more examples in the form of images, I can utilise the words I've learned through them more effectively

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	4.9	4.9	4.9
	Disagree	48	19.6	19.6	24.5
	Neutral	12	4.9	4.9	29.4
	Agree	153	62.4	62.4	91.8
	Strongly Agree	20	8.2	8.2	100.0
	Total	245	100.0	100.0	

Table 10 narrates the responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'Because apps give me more examples in the form of images, I can utilise the words I've learned through them more effectively'. 48 out of 245 which were 19.6% of the total number of respondents disagreed (D) with the statement, 12 students 4.9% remained neutral (N), 153 out of 245 62.4% agreed (A) and 20 students who were 8.2% of the total population strongly agreed (SA) with the above statement.

Table # 11 After using the mobile applications, my confidence increased during classroom assessments

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	12	4.9	4.9	4.9
	Disagree	39	15.9	15.9	20.8
	Neutral	13	5.3	5.3	26.1
	Agree	141	57.6	57.6	83.7
	Strongly Agree	40	16.3	16.3	100.0
	Total	245	100.0	100.0	

The table above labels the highly positive responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'After using the mobile applications, my confidence increased during classroom assessments'. 39 out of 245 which were 15.9% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 141 out of 245, 57.6% agreed (A) and 40 students who were 16.3% of the total population strongly agreed (SA) with the statement.

Table # 12 I find that playing English games or taking tests on mobile apps helps me become more confident and manage my tension during class evaluations

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	19	7.8	7.8	7.8
	Disagree	45	18.4	18.4	26.1

Neutral	12	4.9	4.9	31.0
Agree	136	55.5	55.5	86.5
Strongly Agree	33	13.5	13.5	100.0
Total	245	100.0	100.0	

Table 12 relates the responses of 245 research respondents. 19 students out of 245 which were 7.8% of the total population strongly disagreed (SD) with the research statement 'I find that playing English games or taking tests on mobile apps helps me become more confident and manage my tension during class evaluations'. 45 out of 245 which were 18.4% of the total number of respondents disagreed (D) with the statement, 12 students 4.9% remained neutral (N), 136 out of 245, 55.5% agreed (A) and 33 students who were 13.5% of the total population strongly agreed (SA) with the above statement.

Table # 13 My confidence is bolstered by mobile applications, which allow me to access my resources anytime I need to

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	59	24.1	24.1	29.0
Neutral	23	9.4	9.4	38.4
Agree	99	40.4	40.4	78.8
Strongly Agree	52	21.2	21.2	100.0
Total	245	100.0	100.0	

The table above labels the highly positive responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'My confidence is bolstered by mobile applications, which allow me to access my resources anytime I need to'. 59 out of 245 which were 24.1% of the total number of respondents disagreed (D) with the statement, 23 students 4.9% remained neutral (N), 99 out of 245, 40.4% agreed (A) and 52 students who were 21.2% of the total population strongly agreed (SA) with the statement.

Table # 14 Using mobile apps improved my ability to communicate with my classmates

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	30	12.2	12.2	17.1
Neutral	13	5.3	5.3	22.4
Agree	178	72.7	72.7	95.1
Strongly Agree	12	4.9	4.9	100.0
Total	245	100.0	100.0	

Table 14 relates the responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'Using mobile apps improved my ability to communicate with my classmates'. 30 out of 245 which

were 12.2% of the total number of respondents disagreed (D) with the statement, 13 students 5.3% remained neutral (N), 178 out of 245, 72.7% agreed (A) and 12 students who were 4.9% of the total population strongly agreed (SA) with the above statement.

Table # 15 With mobile applications, I can quickly access my notes and study resources

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.9	4.9	4.9
Disagree	27	11.0	11.0	15.9
Neutral	12	4.9	4.9	20.8
Agree	158	64.5	64.5	85.3
Strongly Agree	36	14.7	14.7	100.0
Total	245	100.0	100.0	

The table above labels the highly positive responses of 245 research respondents. 12 students out of 245 which were 4.9% of the total population strongly disagreed (SD) with the research statement 'With mobile applications, I can quickly access my notes and study resources'. 27 out of 245 which were 11.0% of the total number of respondents disagreed (D) with the statement, 12 students 4.9% remained neutral (N), 158 out of 245, 64.5% agreed (A) and 36 students who were 14.7% of the total population strongly agreed (SA) with the statement as mentioned earlier.

Results & Findings

Q. No: 1 What are the situations in which mobile phone applications help L2 learners in improving foreign language vocabulary items?

The current study backed to the current literature and explored that mobile phone applications for English language vocabulary learning can be employed as a useful instrument as compared to traditional paper-based activities. The findings reveal that the learners have expressed a highly positive response towards using mobile applications for vocabulary learning in various situations. The main reason students have a positive attitude toward using mobile applications to acquire vocabulary is the ease of use of these tools. Because mobile applications are easily accessible anywhere, the learners firmly believed that learning ESL vocabulary through them is feasible. Siahaan, E. B. (2020) has supported the notion, stating that the rate at which these mobile learning applications evolve has led to their widespread use inside and outside classrooms. Based on the research, most students agreed—strongly or only—that using mobile phone applications helps them acquire definitions, sounds, and images; it also facilitates vocabulary exercises and enhances their memory. According to Siahaan (2020), using mobile apps to learn English breaks down barriers of time and location and allows students to study the language whenever and wherever they choose. The study's findings also suggested that mobile apps had much promise for expanding the vocabulary of ESL students. Additionally, using mobile apps for ESL instruction successfully boosts learners' confidence, and cognitive ability, and promotes individualised, independent, self-determined, and self-motivated learning. Due to its unique qualities, mobile phones can help students improve their grammar, vocabulary, pronunciation, speaking, listening, reading, and

writing abilities in the English language.

Q. No: 2 What is the impact of mobile applications in enhancing L2 learners' vocabulary stuff?

The purpose of the second research question was to determine how mobile phone applications can improve the vocabulary of L2 learners. The study's findings suggest that phone applications can significantly enhance pupils' vocabulary acquisition. It appears to be true that mobile learning presents a big opportunity due to the widespread use of mobile devices and the potential for using mobile apps. The study's findings demonstrated the impact of mobile learning on vocabulary acquisition and retention, and they also showed that while traditional teaching methods had some advantages of their own, mobile-assisted devices performed noticeably better than these traditional approaches. According to Klimova (2019), mobile applications support the growth of all language abilities, particularly the retention of new vocabulary, and they also motivate students to study. Using these apps also helps students become more self-assured, participate better in class, and become more motivated to use mobile apps in the classroom. The usefulness of mobile dictionaries for learning English as a second language was another goal of this study. Positive outcomes were discovered that supported online dictionaries. Hennessy and Ruthven (2016) and Pourhosein Gilakjani, A., & Sabouri, N. B. (2017) claim that teachers can reconfigure a variety of learning activities and turn certain common and regular kinds of activities into unique and interactive kinds of activities by using a variety of mobile apps in vocabulary acquisition.

Conclusion

The study's conclusions show that using mobile applications can drastically alter L2 learning environments and significantly increase vocabulary in foreign languages. Additionally, the majority of research participants agreed and strongly agreed that using mobile applications helps L2 learners become more critical thinkers, increases their self-esteem and sense of individuality, encourages self-directed learning, pushes them to study in both formal and informal contexts, and helps underachievers succeed academically. However, it is desirable to create, organise, and implement these mobile applications with extraordinary care and attention, according to the demands and levels of the learners, to achieve the desired positive effect.

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