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WHATSAPP AS A LEARNING MEDIA AND ENGLISH VOCABULARY LEARNING

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Keywords

Mobile-Assisted Language Learning (MALL), Multimedia Resources, Supplementary Learning Media, Vocabulary Acquisition, WhatsApp Application.

Palabras clave

Aprendizaje de idiomas asistido por dispositivos móviles (MALL), Recursos multimedia, Medios de aprendizaje complementarios, Adquisición de vocabulario, Aplicación WhatsApp.

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Resumen

The need to effectively engage students in English vocabulary learning has increased among educators, given the growing interest of students in mobile technology and the integration of new strategies that enhance their motivation in the learning process. In this context, this study explores the effect of WhatsApp as a learning medium on English vocabulary acquisition among superior basic education students at an educational institution in Loja during the 2023-2024 school year. To achieve this objective, a mixed-methods approach was adopted, involving 15 superior basic education students who participated in a seven-week intervention in which vocabulary learning was facilitated through the WhatsApp application. To address the research inquiry, a pre-test and post-test were administered to assess students' vocabulary knowledge, along with a questionnaire to examine their perceptions of the intervention. The quantitative data obtained was analyzed using descriptive statistics, while the qualitative data was examined through thematic analysis. The findings revealed a statistically significant improvement in students' vocabulary knowledge after receiving instruction via WhatsApp. Additionally, students' perceptions of this mobile application were largely positive. Consequently, this study concludes that WhatsApp has the potential to be integrated as a supplementary learning tool due to its diverse multimedia resources, which support students' vocabulary development and enhance their engagement in English learning.

WHATSAPP COMO MEDIO DE APRENDIZAJE Y APRENDIZAJE DE VOCABULARIO EN INGLÉS

Abstract

La necesidad de involucrar eficazmente a los estudiantes en el aprendizaje de vocabulario en inglés ha aumentado entre los educadores, dado el creciente interés de los jóvenes en la tecnología móvil y la integración de nuevas estrategias que mejoran su motivación en el proceso de aprendizaje. En este contexto, este estudio explora el efecto de WhatsApp como medio de aprendizaje en la adquisición de vocabulario en inglés entre estudiantes de educación básica superior de una institución educativa de Loja durante el ciclo escolar 2023-2024. Para lograr este objetivo, se adoptó un enfoque de métodos mixtos, involucrando a 15 estudiantes de educación básica superior que participaron en una intervención de siete semanas en la que se facilitó el aprendizaje de vocabulario a través de la aplicación WhatsApp. Para abordar la indagación de la investigación, se administró una prueba previa y una prueba posterior para evaluar el conocimiento del vocabulario de los estudiantes, junto con un cuestionario para examinar sus percepciones de la intervención. Los datos cuantitativos obtenidos se analizaron mediante estadística descriptiva, mientras que los datos cualitativos se examinaron mediante análisis temático. Los hallazgos revelaron una mejora estadísticamente significativa en el conocimiento del vocabulario de los estudiantes después de recibir instrucción a través de WhatsApp. Además, las percepciones de los estudiantes sobre esta aplicación móvil fueron en gran medida positivas. En consecuencia, este estudio concluye que WhatsApp tiene el potencial de integrarse como una herramienta de aprendizaje complementaria debido a sus diversos recursos multimedia, que apoyan el desarrollo del vocabulario de los estudiantes y mejoran su participación en el aprendizaje del inglés.

Introduction

Nowadays, English vocabulary is seen as one of the fundamental components of the English language that needs to be mastered for L2 learners, since vocabulary knowledge has become the key to transform learners into active communicators in speaking and writing activities as well as competent listeners and readers in the English language (A'izah, 2020). Therefore, vocabulary itself represents an essential component for understanding, and using the English language.

Despite of the vocabulary importance, second language learners in many Latin American countries like Ecuador face some complexities when learning English vocabulary presenting a low English proficiency level that rank in the 90th position according to the results of the English Proficiency Index (EF EPI, 2019). This current situation was evidenced by this research since it could be noticed that learners of different school levels struggled when understanding, writing and using new English words.

Therefore, becoming vocabulary one of the most necessary components of a language, its learning is essential for the correct development of linguistic competence; it means that learners need to learn and acquire vocabulary within the scope of its use, which involves receptive and productive vocabulary. Receptive vocabulary related to the comprehension skills found in reading and listening activities that make learners comprehend messages in context, while the productive vocabulary related to the development skills aims to produce spoken and written messages (Dakhi & Nur, 2019).

In the same vein, Nation (2001) argues that learning a vocabulary word encompasses knowing its different aspects such as its form, meaning, and use since those components are essential to acquire, retain, and effectively utilize words in various contexts. In other words, mastering the word aspects can help students to effectively master the major skills of the language. The three main vocabulary aspects are word form, word meaning and word use.

Form: According to Nation (2001) knowing the form of new words entails knowing its spoken and written form. In a receptive way, knowing the spoken and written form of a word allows learners recognize how does the word sounds and looks like when it is pronounced or written by others; while, in the productive sense, learners can already pronounce the sounds and spell the phonological structure of words to convey meaning.

Meaning: Knowing the meaning of a word goes through learning what does the word means in insolation or in context and what word should be used to express a specific meaning (Nation, 2001). Therefore, to effectively know the meaning of a word, learners must make a connection between its form and its meaning, in this way, learners can retrieve the meaning of a word when they see or hear its form or vice versa by retrieving the word form when they express the meaning of it.

Use: Nation (2001) states that knowing the usage of a word involves knowing the place where it is expected to meet the word and the place where the word can be used. In other words, knowing the use of a word also involves knowing where, when, and how often to use a specific word. In learning vocabulary use, understanding how the language is really used in real-life contexts is emphasized.

With that in mind, this research study emphasizes the importance of English vocabulary, and it is interested in addressing the vocabulary learning issues that Ecuadorian students face, through the use of innovative and useful tools that have emerged recently in order to enhance the English vocabulary learning.

This is why the process of transformations and accelerated changes that affect all areas, especially the educational context, where the insertion of new technological structures opens up possibilities for educational innovation (Vargas et al., 2022), in this sense rapid technological advances have brought with them many innovative aspects for the field of language education, one of these aspects is the application of language learning assisted by mobile devices (MALL) that refers to the use of mobile devices such as mobile phones and mobile applications on the assistance of the language learning (Halim & Arifin, 2023). One of these mobile applications that provides educators with a space for sharing easier knowledge and communication at anytime and anywhere is WhatsApp (Bokhari, 2023). WhatsApp (hereafter, WA) becoming a popular social network application for any individual, has reached the educational settings involving teachers and students as active users, since its functions can be used as a bridge to establish interaction between teacher and students to facilitate instruction, discussion, and feedback during the teaching-learning process (Syarif & Zaim, 2021).

For that reason, WhatsApp has become one potential learning media to assist English teaching-learning and the online interaction among teachers and students due to its different functions that allow teachers and students communicate thought text, video, audio files, and pictures without worrying about the limitations of place and time (Jasrial, 2019; Garcia et al., 2023). For instance, the usage of pictures can help students to remember the meanings of words and their representation. The text messages can be used by teachers as ways to introduce, review or incorporate words into the learning process. Besides, audios files can convey the spoken forms of unknown words as well as their grammatical functions and collocations. Furthermore, videos or video segments produced by native speakers are one of the most useful media that help learners realize the authentic use of language behind words and sentences.

In this sense, this research suggests using WhatsApp pictures and videos to learn the meaning of new words since both resources can make the learning of new words more memorable and meaningful. Moreover, WhatsApp text messages

and audio files are proposed to learn the written and spoken form of words since those functions can help learners understand and get accustomed to the form of a word especially to how it sounds and how it is spelled. Furthermore, WhatsApp videos, audio files and text messages to effectively immerse learners into real-life contexts in which words are used in a natural way. Hence, by showing to learners the situations in which the language is used they will notice the appropriate use of words for certain contexts and will already use them to express meaning.

Due to the adaptability of WhatsApp application into education, researchers have incorporated WhatsApp as a learning media into their current studies to study their effects on the English vocabulary. For instance, Sivabalan & Ali (2022), noticed the potential of WhatsApp application as an effective tool for assisting tertiary-level students in learning vocabulary.

Besides, Wirayuda et al. (2019) noticed an improvement in the students' vocabulary meaning after they were taught in WhatsApp group since this tool allowed students to easily remember some words by re-opening the learning material on their phones.

Similarly, the research findings of Namaziandost et al. (2020) manifested that utilizing WhatsApp as a mobile instant messaging in learning vocabulary could be an advantageous technique that can significantly expand the students' vocabulary.

Based on these views and convictions, this study decided to examine the effectiveness of WhatsApp on the English vocabulary learning among secondary students by following the next objectives:

- To describe the effect of WhatsApp as a learning media on the English vocabulary learning among superior basic education students at an educational institution in Loja, school year 2023-2024.
- To verify the effectiveness of using WhatsApp as a learning media on the English vocabulary learning in terms of meaning, form and use.
- To explore the students' perceptions regarding the use of WhatsApp as a learning media on the English vocabulary learning.

In this regard, this study will provide empirical data about the effect of WhatsApp as a learning media on the English vocabulary learning, offering valuable insights for the advancement of knowledge about the use of mobile-assisted language learning (MALL) and how educators can manipulate new technologies of mobile messaging, in this case WhatsApp, for enhancing the teaching-learning process.

Methodology

As the attention of the study was focused on assessing the effectiveness of WhatsApp as a learning media and the students' perceptions regarding the app, this study adopted a mixed method, which combines the quantitative and

qualitative approach that according to Taherdoost (2022) help to expand the strength of the research. Likewise, an action research design was employed in this study to address the English vocabulary deficiencies by intervening with the use of WhatsApp application.

Setting and participants

The present research work was carried out at an Ecuadorian educational institution located in the city of Loja at the south of Ecuador which its geographical coordinates correspond to 4°00'15.7" South and 79°11'49.7" West.

The participants of this study were 15 superior basic education students of an educational institution, which were selected by purposive sampling. This non-probability sampling method emphasizes the selection of participants that better match the accomplishment of the research aims and objectives (Campbell et al., 2020), thus the purposive sample of this current research included ninth-grade students with access to a mobile phone, internet connection, and WhatsApp application since those characteristics were essential to the well-development of the study.

Besides, the age average of research participants ranged between fourteen and fifteen years old and whose expected English proficiency level according to the EFL Ecuadorian Curriculum was A1.2. Due to the age of the participants, informed consent forms and students' codes were used to maintain the ethical principle of privacy.

Data collection techniques and instruments

To carry out the data collection of the study, different techniques as well as instruments were adopted. In the first instance, to collect quantitative data, the test and survey techniques were used. The testing technique through the use of a pre-test and a post-test to diagnose and assess the vocabulary knowledge of students before and after being exposed to the innovative proposal in order to notice if any changes occurred in the students' vocabulary learning.

On the other hand, the survey technique through the use of a questionnaire was applied to collect and to notice the students' perceptions toward the development of the intervention proposal and the effectiveness of the innovative proposal. Furthermore, the observation technique through the use of field notes was applied in order to observe, analyze, and record the development of the intervention proposal and the students' behavior toward it.

Procedure

Regarding the aims of the research project, this study was aligned with the Classroom Action Research (CAR) model proposed by Kemmis & Mctaggart (1988) which emphasizes the use of a spiral process of four not static steps that include: planning, action, observation, and reflection. In the planning stage, some research regarding WhatsApp application was carried out by asking the question: What is the effect of WhatsApp as a learning media

on the English vocabulary learning? Through that general research question, the intervention was planned to be applied through the use of ten lesson plans that were aligned to the PPP lesson plan model (Presentation, Practice, and Production) by adapting the WhatsApp multimedia resources to instruct vocabulary knowledge inside and outside the classroom. Besides, at this stage the research instruments such as the pre-test, post-test, questionnaire, field notes, scoring guides and vocabulary grading scale were created.

Moving towards the phase of action, all the things that were considered in the planning stage were developed. In the first week, a pretest was administered to diagnose the current level of students in terms of vocabulary knowledge.

Consequently, the intervention plan was carried out over six weeks in which the classes were developed by using WhatsApp application inside the classroom through a projector in order to provide vocabulary instruction, besides WhatsApp application was used by students outside of the classroom to recall the English vocabulary contents provided on the mobile application.

Finally, at the end of the intervention, a posttest and a questionnaire were administered to explore the effect and the students' perceptions about the use of the WhatsApp application on their vocabulary learning in order to notice if any changes emerged after the intervention proposal. Moreover, in the observation phase, the observation technique through the use of field notes was carried out to notice and document the students' behaviors and actions toward the use of WhatsApp in order to gain knowledge of what was happening in the classroom during the development of the treatment.

Finally in the reflection stage, the quantitative and qualitative data gathered during the action and observation stage was analyzed to identify the effectiveness of the treatment, and the learning outcomes achieved during the intervention proposal.

Data analysis

Once the data had been collected, the data analysis was carried out in the following ways: Initially, the quantitative data obtained from the pre-test and post-test and in some extent from the application of the questionnaire was analyzed through descriptive statistics, which is described by Mishra et al. (2019) as the process researchers follow to summarize the sets of data to easily communicate their basic data features such as the mean and standard deviation in a simple and concise way. In this regard, as descriptive statistics use graphical representations to summarize the data sets (Cooksey, 2020), this research displayed the quantitative data obtained from the pre-test and post -test into tables that helped to compare in detail the mean scores of the three vocabulary aspects. Meanwhile, the data obtained from the questionnaire was illustrated into bar charts which showed the frequency measures or the number of times the participants agree with each question.

On the other hand, the qualitative data obtained from the use of field notes was analyzed through thematic analysis which according to Crosley (2021) it helps to analyze the similar patterns and themes within the subjective data set to uncover its meaning and combine it with the theoretical bases of the study. In this sense, the data was analyzed by generating initial codes that were searched across the data in order to review and name repetitive themes that helped to understand the significance of the qualitative data.

Moreover, this qualitative data obtained was combined with the quantitative one to contrast and validate the research findings in order to triangulate all the information of the study and gain a better understanding about the phenomena under study.

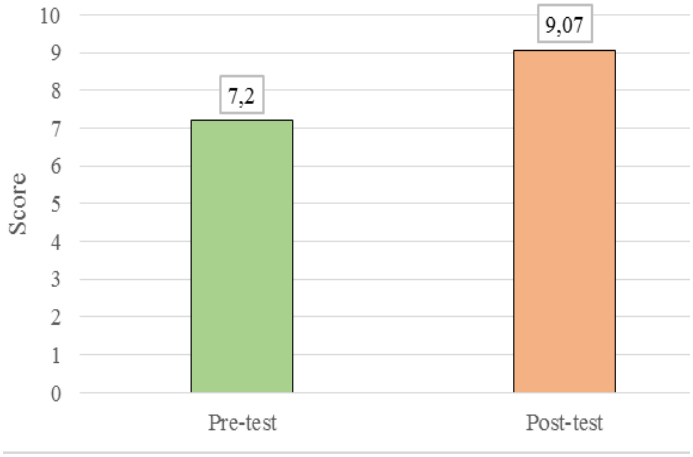
Results and discussion

Findings on the effect of WhatsApp on students' vocabulary knowledge

Figure 1 shows the general mean score obtained from the pre- and post-tests. Before the intervention, the general mean obtained from the pre-test was 7,2/10 while after the intervention, a mean of 9,07/10 was obtained from the post-test, resulting in a difference of 1,84 points which indicates that utilizing WhatsApp for receiving instruction leaded to a remarkable improvement in the English vocabulary knowledge of participants in terms of word meaning, form, and use.

Figure 1.

Pre-test and Post-test results regarding the students' vocabulary level



Fuente: researcher's elaboration (2024)

These results are aligned with the findings of Gürlüyer (2019) who found that the utilization of WhatsApp cause a remarkable improvement in the EFL vocabulary learning and performance of university students since this application supported them in constructing their own vocabulary knowledge at their own pace.

By the same token, Shofa (2021) found that the students improved their vocabulary mastery and looked engaged when vocabulary learning took place through WhatsApp media. These statements are supported by Syairofi et al. (2023) who highlight that "WA-supported foreign language activities facilitate active learning, learner-instructor interaction, learner satisfaction and motivation to learn languages and autonomous learning".

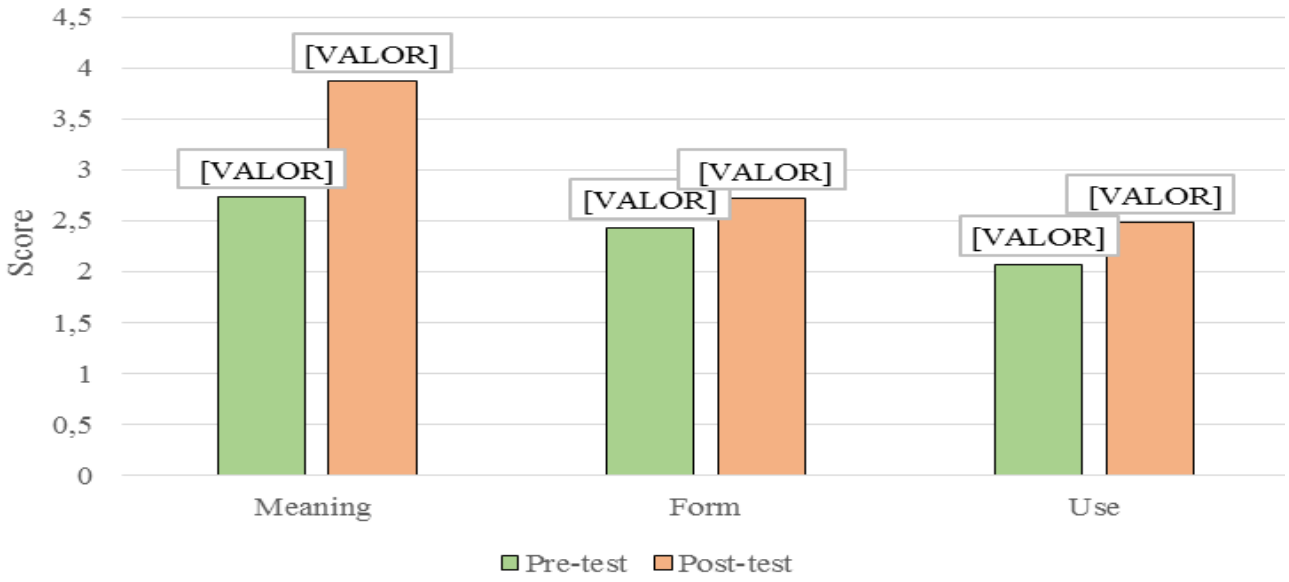
The figure 2 illustrates the general mean of each vocabulary aspect obtained during the pre and posttest. In the first instance, the vocabulary aspect "meaning" obtained a mean of 2,73/4 in the pre-test, which indicates that the students partially understood the meaning of a word when pictures were presented, however, when definitions were provided, it was more difficult for them, resulting in a vague or partially inaccurate understanding of the vocabulary meaning. On the other hand, after the treatment, the students achieved a mean of 3,87/4 in the post-test, which indicates a difference of 1,14 points, and demonstrates that the students gained a not precise but a generally accurate understanding of the meaning of words in isolation and in different contexts.

Furthermore, regarding the "form" vocabulary aspect, the students obtained a mean of 2,43/3 in the pre-test, indicating that students had not problems when identifying the form of a word since they were able to use the word in a grammatically correct but basic form. However, during the post-test, a mean of 2,72/3 was obtained resulting in a slight difference of 0,29 points, which indicates that the students still use the word in grammatically correct form even considering plurals or verb tenses of the word.

Finally, in the "use" vocabulary aspect, the total mean acquired by the students in the pre-test was about 2,07/3, which demonstrates that the students partially knew how to use a word in limited contexts. In contrast to the results achieved in the post-test, where the students got a mean of 2,48/3, it is evidenced an improvement of 0,41 points that indicates that the students could use a word correctly in simple statements conveying a clear intended meaning.

Figure 2.

Comparison of the results of the pre and post-test regarding the vocabulary aspects



Source: researcher's elaboration (2024)

In relation to these research findings, the ones gotten by Wirayuda et al. (2019) appeared to be similar, since they stated that the students improved their vocabulary knowledge after they were taught through WhatsApp group chat discussion, more specifically on the word meaning since students easily found the meaning of the new words though the group chat leading to major improvement in this vocabulary aspect, meanwhile, lowest improvement in the form vocabulary aspect was evidenced because students were not able to understand and use the word in the correct sentences after they arranged the words into the correct form.

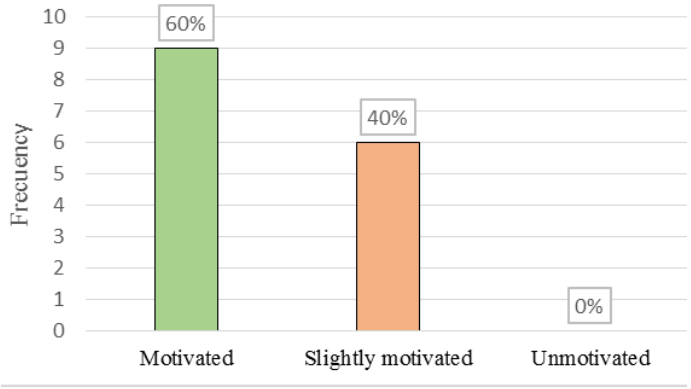
Findings on the students' response toward WhatsApp

In figure 3, the students' motivation levels toward the use of WhatsApp application to learn new vocabulary are presented. On this occasion, 60% of the students indicated that they felt motivated while 40% of the students felt slightly motivated indicating that WhatsApp was perceived as a new and engaging way to learn and understand new words.

On the other hand, 40% of the students stated that the use of this application made them feel slightly motivated because they didn't use too much WhatsApp outside the classroom and because of some drawbacks that shaped their motivation such as the small font of the app as well as the number of pictures that filled up easily the students' smartphones' memory.

Figure 3.

How did you feel with the use of WhatsApp application to learn new vocabulary?



Source: researcher's elaboration (2024)

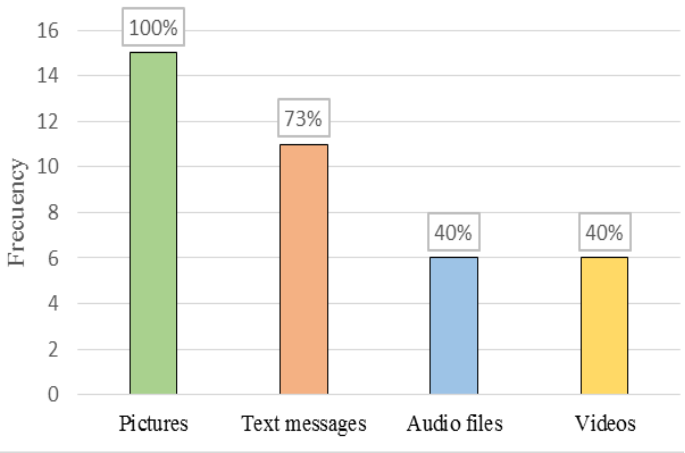
In this regard, the positive findings are aligned with the research of Shofa (2021) who identified that the students' response toward the WhatsApp media was good since the use of this app allowed students to feel engaged and actively involved when vocabulary learning took place. Conversely, regarding the drawbacks, Suárez et al. (2022) mention that the use of WhatsApp for educational purposes can bring some disadvantages such as high volume of messages that can result in dispersion of topics and wasted time and generation of fatigue among students because of information overload that easily brings problems to their mobiles' capacity. Moreover, these negative results are supported by the study of Cetinkaya & Sutcu (2019) who perceived that the students welcomed the process of receiving the multimedia annotations warmly, however the irrelevant messages and the mobile storage problems influenced the students'

attitudes toward the use of WhatsApp application for vocabulary learning purposes.

Figure 4 illustrates the most preferred WhatsApp multimedia resources to learn vocabulary regarding the students' perceptions. In the first instance, 100% of the students preferred the use of WhatsApp pictures to learn new vocabulary since most of them mentioned that they were easier, didactic and more interesting to understand. Likewise, 73% of the students chose WhatsApp text messages because most of the time they were linked to the WhatsApp pictures, therefore they found it easier and quicker to learn new words. The qualitative data obtained from the field notes support these findings since it was identified that the majority of the students could learn new vocabulary words due to realistic and easy-to-catch pictures linked to the text messages that were shared through the WhatsApp group.

Figure 4.

Which kind of WhatsApp multimedia resources did you like most to learn vocabulary?



Source: researcher's elaboration (2024)

Furthermore, the WhatsApp audio files were preferred by 40% of the students, which indicated that audio files were also useful and didactic when learning new words. In the same way, 40% of the students said that WhatsApp videos were more interesting when delivering vocabulary instruction. All these results agree with the observations in which it was noticed that students looked engaged when new words were presented in context though audios and videos. However, a drawback of both multimedia resources was that they were presented on a few occasions, therefore, the students did not receive enough exposure to them and to their advantages.

In this sense, Cetinkaya & Sutcu (2019) found that the use of WhatsApp and the multimedia annotations sent to the students contributed to a vocabulary learning success, since the pictures, audio files and texts that were sent together contributed to better vocabulary acquisition rather than solitary annotations.

Conclusions

As this study was pursed to describe the effect of WhatsApp as a learning media on English vocabulary learning, this research study found that WhatsApp as a learning media had a statistically positive effect on the English vocabulary learning among research participants, since after receiving vocabulary instruction inside and outside the classroom through WhatsApp application students tend to understand better the meaning, form, and use

of new vocabulary words, demonstrating an improvement on their receptive vocabulary knowledge.

Particularly, through the different WhatsApp multimedia resources, students appeared to be exposed to more comprehensible and real-time input that eventually made them learn new vocabulary items. This was particularly evident in WhatsApp pictures and text messages which were seen as the most effective in developing a better understanding of what a word means. Besides, regarding the understanding of the written and spoken form of new words, the use of WhatsApp audio files and text messages seemed to be useful because they helped to provide multiple exposure of the correct spelling and pronunciation of new words.

Furthermore, the use of WhatsApp videos, audio files, and text messages appeared to be the most useful multimedia resources to understand the usage of a word since these suitable resources allowed students to identify how a word is used in written and spoken contexts.

Therefore, WhatsApp as a learning media for learning English vocabulary was perceived as a different and engaging way to know and understand new English vocabulary words. However, as the number of research studies regarding the use of WhatsApp on vocabulary knowledge is limited, more studies should be conducted among secondary and adult students as well as larger samples and interventions' duration to obtain more precise and generalizable results to study the use of this app as a learning supplement media for teaching and learning vocabulary outside the confines of the classroom considering its flexibility and availability to enhance the time students are exposed to comprehensible English input, as well as its multimedia resources to promote the productive vocabulary knowledge too.

Furthermore, it is strongly recommended that future research consider using WhatsApp outside the classroom for sending content before to be checked in class, in order to help students be prepared and focused on the contents of the next class. For that reason, the smartphone availability of the students should be considered to better develop the research, therefore a questionnaire at the beginning of the intervention would be of great help.

Finally, it is recommended to students to take part in WhatsApp as well as other mobile technologies, since these innovative tools not only provide online environments for entertainment but spaces in which autonomous learning and exposure to the English language can be maximized.

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