INTEGRATING THE VIRTUAL PLATFORM MEMRISE AS A TEACHING TOOL FOR ENGLISH VOCABULARY IN FOREIGN LANGUAGE STUDENTS OF SECOND SEMESTER AT A UNIVERSITY

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ABSTRACT

This research was done to arise students and teachers consciousness about the importance of integrating technology, which allows students to keep learning and improving out of their class time. The objective was to determine the effect of integrating the virtual platform Memrise as a teaching tool. The methodology used a quantitative approach that aims to better understand the results measurement, based on the information obtained from the pre-test, post-tests and Memrise’s database. The context was a program of foreign languages at a Colombian University in the 2018B period for students of the second semester of a Foreign Languages program, integrating the...
virtual platform Memrise. The conclusion was that the effect of integrating the virtual platform Memrise as a teaching tool for English vocabulary was effective, even though this application was not interesting or easy to use for some students.

**KEY WORDS:** Virtual platform, Memrise, Technology, English, foreign language.

**INTRODUCTION**

In the modern world, the English language has become an essential requirement in the educational, professional and social fields; it brings people more opportunities...
and it nourishes the spirit. In Colombia, English has a significant effect in the field of education thanks to its positive outcomes. Therefore, Colombian educational institutions are always looking for different advance and development systems that permit a productive learning.

In this context, virtual platforms appear as important tools in the educational environment, mostly in the learning of a foreign language; these technological instruments provide access to the entire information of the world and complement the traditional education, in order to go beyond the requirements of survival. Thus, virtual platforms should be considered as a notable element that furnishes human language and social development. González (2015) mentioned that the achievement of significant value of technology as an academic tool can be a determinant factor in classes.

This research shows how technology has brought a massive change to humanity and it also shows that the integration of technology in a language teaching process can lead to a successful learning process by using virtual platforms. In a program of foreign languages at a Colombian University, some students lack English vocabulary because they are not in direct contact with a foreign context, they do not study at home or they do not use any alternative tool to improve this situation.

This study suggests that foreign languages students lack knowledge about the technological systems of the current world, it also suggests that learners are not interested in an autonomous learning. Therefore, this study proposes the integration of a virtual platform as support of the English class.

In the technological era, there are diverse tools for learning a language, one of these is the virtual platform Memrise created in 2010; it includes different strategies to enhance vocabulary in the long-term memory. This learning platform is available in mobile and web versions, also, it won the Google Play award in 2017 for the best languages application.

Accordingly, this research is important in terms of exploring the effects of using virtual tools such as Memrise in a course of foreign languages. It shows the need of learning vocabulary, language theories and other concepts related to learning through a quantitative analysis, which develops the research hypothesis that aims to better understand the results measurement.
The study was conducted with second-semester foreign languages students at a University in Cali, Colombia, in the 2018B period. The virtual platform Memrise was integrated as a teaching tool for the learners in order for them to practice the vocabulary of the English class in their free time. This was done to examine how Memrise impacts vocabulary learning. As González, Villota and Medina (2017) argued, technology is part of the daily activities of many people, and students are a population that maintains permanent contact with it.

The research pursued four objectives in its procedure; to apply, to create, to implement and to measure. First, it was necessary to administer a pre-test and a post-test to measure the knowledge of the students before and after the use of the Memrise platform; in order to determine the effect of such resource on the academic performance of the learners, a content-based approach that included the use of the Memrise platform was followed in the English course. Consequently, a post-test and the database of Memrise were used to analyze and measure the impact of the research.

Vocabulary

Words of a language are like bricks of high buildings, despite their very small size, they are necessary for the strength of the structure, (Zhan-Xiang, 2004, as cited in Nasrollahi and Daneshfar, 2018). It means that to achieve the correct use of a language there are two important aspects that depend on each other, first the vocabulary and second everything about grammar. It is necessary to mention this because even when vocabulary is the basis of a language, if a speaker uses it without a specific order, it will be hard or impossible to send a message and, in contrast, if someone knows a lot of grammar, but he does not have a wide vocabulary, he will not be able to communicate correctly.

Every language around the world is made up by words. Historically human beings start to accept a language word by word, either the mother tongue or a second one. Oxford and Scarcella, (1994) affirmed that researchers consider vocabulary as one of the most important components of a language upon which effective communication relies. From their perspective, vocabulary enables meaningful knowledge about how to communicate and the best way to do it.
Rivers (1983, as cited in Nasrollahi and Daneshfar, 2018) stated that the best method for learning vocabulary was not just teaching but introducing, defining, and including it through activities. That author also explains that language teachers need to encourage focusing attention on words, and they must help their students by directing them toward vocabulary learning and using the methods to achieve it successfully. These statements show that teaching lexical items must be an end and not the means to learn a language.

**Vocabulary Learning Strategies (VLS)**

According to Catalán (2003, as cited in Nosratinia and Zaker, 2015), vocabulary learning strategies (VLS) refer to

- the knowledge about the mechanisms (processes, strategies) used in order to learn vocabulary as well as steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode.

Thus, vocabulary learning strategies are created and used by teachers according to the needs of their students, in order to improve their use of the foreign language.

According to Kocaman, Yıldız and Kamaz (2018) when the Turkish language initiated its adventure as a taught foreign language, we have come a long way. In a parallel way, with the increasing demand of Turkish as a Foreign Language (TFL), VLS facilitates the learning process of foreign language learners. In fact, it enlarges the vocabulary as the virtual platform Memrise does within its vocabulary learning techniques. There are six types of strategies: cognitive, metacognitive, memory, compensatory, effective, and social.

**CALL**

The Computer-Assisted Language Learning (CALL) approach uses computers in teaching and learning a language. According to Gafni, Achituv and Rachmani (2017), the term CALL established in language education in the early 1980s. At first, this approach was limited to desktop computers with a few basic mechanical software programs. However, this field has grown to include applications, online blogs, and
vlogs (video blogs), virtual learning environments, online courses, and more. Hence, it has already been acknowledged and established, to a great extent, as a supportive and productive way of learning that adds to the learning process (Mishou, 2017). CALL is a useful approach to cover the needs of students and teachers.

As technology is an integral part in this modern society, CALL in the language classroom enables active learning and teaching, because learners receive a meaningful feedback and tutoring guides, while teachers gain knowledge about a variety of sources that are flexible and convenient in order to enhance their academic responsibilities. Therefore, this approach permits the understanding of the virtual platform Memrise.

**MALL**

Mobile-assisted language learning (MALL) is a well-known approach that uses mobile devices in order to facilitate that learning. At first, the term MALL was introduced by the approach Computer-Assisted Language Learning (CALL), which uses applications, online blogs and vlogs (video blogs), virtual learning environments and online courses to enhance languages skills and learning results (Gafni et al., 2017). Then, MALL established thanks to the widespread development of mobile devices. It provides language learning solutions thanks to the highly-interactive ubiquitous and user-convenient portable environments (Miraz and Ali, 2018).

Since mobile devices became a fundamental part of most humans, this approach is used in the field of foreign language learning. According to Miraz and Ali (2018), it is a cheaper and convenient alternative to actually being able to spend the time (...) where the language is naturally spoken. Also, it provides appropriate learning contents where learners can access the content at any time they want and they can seek help any time they want (Radin, 2017). Moreover, it provides solutions to the problem of improving lexical knowledge (Gürkan, 2018).

Mobile applications in the educational context are recognized because of their benefits. Gafni et al., (2017) claimed that MALL is an attractive and dynamic process, which increases motivation and encourages students to study.
The purpose of integrating virtual platforms is not to be proficient in their use, but to reach the learning objectives through those tools (Radin, 2017). If learners and teachers get to know this difference it will be easier to achieve the correct use of foreign languages, because a virtual platform is a useful tool as the ruler is to the architect.

**Autonomous learning**

Autonomous learning is a well-known theory, which permits students to learn by themselves, they are able to take decisions in order to construct their own knowledge. According to Henric Holect, It refers to “the ability to take charge of one’s own learning” (As cited in Little, Dam, and Legenhausen, 2017), it was established that learning in an independent way and with great amounts of freedom is better achieved, while the student is aware of his academic goals. González, Ramírez and Villota (2019) stated that it is necessary to generate ways of training in which it is possible to acquire the knowledge supported by technological tools, which in turn motivate students to continue with the process on their own, that is to say, autonomously.

Henric Holect is considered the father of Autonomous Learning, he proposed the term “Learner autonomy” which explains “learners’ ability for self-management” Holect (as cited in Líttle et al., 2017). The autonomous learning process requires a previous knowledge about the interests and motivations of learners, because their interests will show what they really want to learn about. Likewise, motivation will explain why people decide to do something, how hard they are going to pursue it, and how long they are willing to sustain the activity (MacFarlane, 2004).

When talking about autonomous learning in education, it is necessary to talk about the role of the teacher and the elements that are required to promote it. According to Cao, (2013) the guidance of teachers is an inevitable choice for students to become the masters of learning as well as to achieve personal development and self-improvement. The basis of Cao’s argument is that the teacher is merely support and guidance to students and, hence, their learning process becomes easy and assertive. But, to make it happen, it is essential for teachers to provide students with different tools like books, virtual platforms, flashcards, forums, games and more in order to achieve academic growth and to develop the ability of self-study. In Cao’s words (2013), teachers’ innovative teaching and students’ innovative learning.
Virtual platforms “facilitate the learning process through easy and accessible tools” (González, Villota and Medina, 2017). However, the use of virtual platforms requires certain autonomy, because they have all the subjects that a person wants to learn, and it manages different strategies not to become boring. Thus, if a person does not have an interest or a motivation on learning through a virtual platform, she or he is not going to obtain positive results because a platform cannot cover the lack of motivation or interest of a person, it just works as a useful element to improve learners skills as long as they manage them correctly.

ICT

Information and Communication Technology (ICT) refers to information activities that are supported by technology. One of the technology principles has witnessed, within very short time, noticeable progress across all the aspects of life; particularly the sector of education (Eldow, Shakir, Abdullah and Malik, 2017). Clearly, in the last decade, it has been practiced to enhance education quality, to contribute to knowledge to achieve the demands of society.

ICT has proliferated in the educational system because it brings advancement and experiences to educators and students. Oni, Odaro-Ekhaguebo and Akpoduado (2018) claimed that ICT have potentials of being used to meet the learning needs of individual students, promote equality of educational opportunities, offer high quality learning material, increase self-efficacy and independence and improve the professional development of teachers. In other words, it enhances the cognitive, affective-social and psychomotor domains of learning (Buabeng-Andoh, 2012).

In the same line, ICT tools and devices are used for different purposes such as timetabling, library management, electronic reporting, monitoring attendance and to empower the pedagogical process (Eldow et al., 2017) to facilitate learning without leaving behind the normative values of professional teaching in the pedagogical practice. It is essential to know that the integration of “Information and Communication Technology (ICT) works as the means to assist teaching and learning” Willian (as cited in Buabeng-Andoh, 2012).
METHODOLOGY

Type and approach

This research used a quantitative approach, it is considered accurate, valid and reliable, and it is where the researcher generalizes, leading to predictions, explanations, and understandings, Creswell (as cited by Smith, 2013). The quantitative approach uses data collection and analysis to answer research questions and test previously established hypotheses, and relies on numerical measurement, counting, and often on the use of statistics to accurately establish patterns of behavior in a population (Hernandez, Fernandez, & Baptista, 2004).

Specifically, this research was based on the comparison and analysis of information that was obtained from the tests that were done in two different moments by a group of English II students of a Foreign Languages program.

It is important to mention that the group was asked to use the virtual platform Memrise during the second term of the semester, in that way it was possible to get more exact results about the effect, either positive or negative, of integrating this resource as a teaching tool in a foreign language course.

Procedure

1. To prepare the material for the research.
2. To upload the material to the virtual platform.
3. To download the program in its app and virtual version, for the researchers.
4. To create a study group where participants were immersed on the subjects.
5. To create a Pre-test on Google Forms.
6. To give students access to the virtual group on the platform, and help them learn how to use it properly.
7. To create the Post-test, also on Google Forms.
8. To start the field work with the group.
Instrumentation

With the purpose of finding accurate and adequate information to achieve each one of the specific and general objectives of this paper, we had to use the instruments mentioned below:

**Instrument #1**

Students’ book in order to have a previous knowledge of the subjects of the class.

**Instrument #2**

Pre-Test to know how much students know about the integration of the virtual platform (created on Google forms).
Integrating the virtual platform memrise as a teaching tool for English vocabulary in foreign language students...

Figure 3: Pre-test

Instrument #3

Closed questions (multiple choice) based on units 9 and 10 from the English book Speak Out for the second semester.

Figure 4: Multiple choice questions
Instrument #4

A variety of flashcards adapted to the subject-matters and uploaded to the virtual platform Memrise. (It is possible to use illustrations and videos, but in this research, only the written words and their respective sounds were used).

Figure 5: Memrise Group and content

Instrument #5

Post-Test to know how much students learned and the impact of integrating Memrise to their learning process; we asked the same questions to facilitate the analysis of the results.
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![Figure 6: Post-test](image)

It is also important to mention that the tests were made online, but students had to take them in a computer room at their university, in order to avoid any kind of tricks that could have changed the results of our research.

Moreover, in order to optimize time, one of our biggest limitations, we used the tool Google documents, to work on this paper. It allowed us to work on it online and to keep in touch sharing information and correcting each other in real time.

Additionally, for the implementation of the contents in the virtual platform, first, we drew up an inventory of the vocabulary needed from the students’ book, after that, we used the voice recorder of a cell phone to upload the audios with the pronunciation of the vocabulary.

None of the mentioned instruments could have worked properly without the constant online access to different tools such as libraries to search for scientific and academic documents to support our research.

**Participants**

Twenty-four students of a second-semester English class where the virtual platform Memrise was integrated to the teaching-learning process participated in the study. Only twenty of them took both tests, even though the app was available to all of them.
Finally, only fifteen joined the virtual group; five used it at least 20 minutes per day, seven barely used the app during the whole field work time, and three never used it.

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students from the course English 2</td>
<td>24</td>
</tr>
<tr>
<td>Number of students able to use the App</td>
<td>24</td>
</tr>
<tr>
<td>Number of students who took the Pre and the Post-test</td>
<td>20</td>
</tr>
<tr>
<td>Number of students who joined the App</td>
<td>15</td>
</tr>
<tr>
<td>Number of students who used the App as recommended (at least twenty minutes per day)</td>
<td>5</td>
</tr>
<tr>
<td>Number of students who used the App from time to time (three to four days a week)</td>
<td>7</td>
</tr>
<tr>
<td>Number of students who never used the App but joined it</td>
<td>3</td>
</tr>
<tr>
<td>Number of students who never joined to the App group</td>
<td>9</td>
</tr>
<tr>
<td>Number of students who took the tests but never joined the App</td>
<td>5</td>
</tr>
<tr>
<td>Number of students who did not take the tests or did not use the App</td>
<td>4</td>
</tr>
</tbody>
</table>

**Figure 7:** Students English 2

**DISCUSSION**

The results of the pre and post-test were analyzed, the final database in Memrise allowed to see the students who were using the virtual platform, how much they practiced, and how much they learned. Afterward, a one-closed question survey was administered to the students for them to say if Memrise was or was not useful for their learning process.

**Tests**

As mentioned before, the pre-test and post-test were created considering the information on the students’ book (vocabulary and English expressions), also, both tests were exactly the same, with the purpose of facilitating the data analysis.
Integrating the virtual platform memrise as a teaching tool for English vocabulary in foreign language students...

The use of technology along the research made the data collection and its analysis easier. Google forms allowed to see the summary of the results of the whole course before and after integrating the platform, and to check if there was or was not an improvement.

Figure 9: Tests

Figure 10: PRE-TEST GENERAL RESULTS
Figure 11: POST-TEST GENERAL RESULTS

Figure 12: Comparing the general results. Pre and Post-test.

In order to accurately compare both tests, it was necessary to divide the results considering different ranges as shown in the diagram below.
Analysis: In this general observation of the results obtained from the same group of students in the pre and post-tests, it was evident the improvement they had after the implementation of the virtual platform Memrise by simply observing the highest range in both tests. In the pre-test 15% of the students got scores between 61 and 76, while in the post-test 60% of the participants got similar or better results.

The total results were:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>PRE-TEST</th>
<th>PERCENTAGE</th>
<th>POST-TEST</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-40</td>
<td>2</td>
<td>10%</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>41-50</td>
<td>6</td>
<td>30%</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>51-60</td>
<td>7</td>
<td>35%</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>61-76</td>
<td>5</td>
<td>25%</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>TOTAL OF STUDENTS</td>
<td>20</td>
<td>100%</td>
<td>20</td>
<td>100%</td>
</tr>
</tbody>
</table>

Moreover, thanks to Google forms it was also possible to see the questions in which most of the students got trouble in both tests. It is easy to observe that students failed in several questions in the pre-test, but just in a few ones in the post-test. This may be understood as a good effect of the implementation of the app, but also leads us to think that students improved a lot by learning without any extra help, that they need teaching techniques in the classroom.

**Figure 14: ERROR RANGE, PRE-TEST**
Analysis: students failed several questions, more exactly 13, but not only that, the number of students who failed those questions went mostly from 4 to 9 per question, it refers to around 20% to 45% of the population evaluated.

![Figure 14: ERROR RANGE, POST-TEST](image)

Analysis: the post-test led to observe that the number of students who failed these questions remained almost the same. Also, the number of questions in which students got trouble decreased from 13 to only 3.

As mentioned before, there were some irregularities on the students’ participation, some of them used the app as recommended, some others barely used it, others joined the app but never used it, and some others never joined it. Therefore, it was necessary to analyze the results in 4 different groups:

![Figure 15: Students who used the App as recommended](image)

Analysis: After implementing the use of the virtual platform Memrise, the students who used the app as recommended, 20 to 30 minutes a day, got a higher score (between 13 and 21 correct answers) in the post-test compared to the scores they got in the on the pre-test.
Considering that 76 points represented 100% of the test, after the implementation of Memrise as a Teaching tool for the learning and enhancement of vocabulary, the result were:

STUDENT 1: went from 60% to 82%, he improved his level in around 23%.
STUDENT 2: went from 68% to 96%, he improved his level in around 28%.
STUDENT 3: went from 60% to 77%, he improved his level in around 18%.
STUDENT 4: went from 63% to 82%, he improved his level in around 20%.
STUDENT 5: went from 67% to 86%, he improved his level in around 20%.

Analysis: The students who barely used the Application also got higher results in their post-test, but the quantity of good answers improved in around 8 and 12 extra points, 11% to 16%, it means that they had improved their vocabulary level, but not as much as the ones who used the application properly.

After the implementation of Memrise as a Teaching tool, the results obtained were:

STUDENT 6: improved 16% his range of good answers.
STUDENT 7: improved 11% his answers.
STUDENT 8: improved 12%
STUDENT 9: improved 13%
STUDENT 10: improved 11%
STUDENT 11: improved 10%
STUDENT 12: improved 15%
Figure 17: Students who were in the App but never used it

Analysis: Considering that these students were part of the group in the virtual platform, but never used it and that they also received the same information in class time, their results in the post-test were not too different from those in the pre-test. They got about 5 to 11 more correct answers compared to their pre-test, 5% to 15% of improvement.

The results for these students were:

STUDENT 13: showed 7% of improvement with 5 excellent answers.
STUDENT 14: showed 8% of improvement with 6 excellent answers.
STUDENT 15: can be considered as an exception; he/she showed 15% of improvement with 11 excellent answers that made us consider two situations: this student may have learned a lot during the face-to-face class, or he/she had his/her own strategy for better learning.
Analysis: it is evident that the improvement of the students who never joined the application was not the best, but just as in the previous chart an exception was evidenced. In their post-test, they got between 2 and 13 extra points or they simply did not show any improvement.

The results for this last group of students were:

STUDENT 16: showed exactly the same results in both tests; 0% of improvement.
STUDENT 17: got 2 more correct questions, it means 2% of improvement.
STUDENT 18: 5% of improvement, 4 more good answers in the post-test.
STUDENT 19: 3% of improvement, 3 extra points.
STUDENT 20: another exception that made us consider the same situations from student 15 in the previous chart.

GENERAL ANALYSIS: Every student learns differently, some of them create their own strategies to improve their knowledge as evidenced in the exceptions from the last two groups; some others do not like to change, and remain dependent on the information given by the teachers. Nevertheless, after looking at the previous four diagrams of the information obtained in this research, it was easy to notice the usefulness of the integration of virtual platforms like Memrise, especially in foreign languages courses where the practice leads speakers to use a language properly. To integrate a virtual platform into the teaching-learning process does not mean that a teacher is not needed, certainly, the diagrams show that 18 out of 20 students...
improved their English level, but the differences are perceived when comparing the ones who used the app, the ones who barely used it, and the ones who never used it. For instance, student 2 used the application as recommended and he got 21 extra points, in the pre-test this student got 52 points and in the post-test he got 73 points, whereas student 17 who never used the app showed an improvement of only 2 points, he got 62 points in the pre-test and 64 point in the post-test.

Analysis: Even when most of the students answered that the use of virtual platforms like Memrise is useful in the process of learning vocabulary in a foreign language, it was evident that there is a lack of autonomy at the moment of improving their language level, they are conscious about their weaknesses and about how useful this kind of applications are, however, they do not make any effort to improve their language skills.

CONCLUSION

- After analyzing the participation of the students in the use of the virtual platform Memrise, it was possible to conclude that students still keep a traditional mind at the moment of learning, it means that they consider more useful the traditional teaching-learning process where the teacher gives information and the student just receives and strictly follows it.
• Despite the easy access to the virtual platform Memrise and the advantages it gives to language learners, many of them are not really interested in finding different strategies to improve their foreign language skills.

• The teacher becomes a really important part of the academic process by helping and motivating students to integrate different and useful methods to improve learning.

• A virtual platform can be understood not as a tool for helping students to learn but as an interesting and flexible method to improve students’ foreign language learning skills.

• The implementation of virtual platforms like Memrise as a teaching tool does not mean that there is no need for guidance or a teacher, this kind of platforms have better results if they are used as complementary work.

• The gap of autonomy in students is now smaller than before, most of the students nowadays take advantage of technology to improve or to create new knowledge in different areas.

• Young students are more likely to adapt to the continuous change of nowadays world, while older students struggle with the idea of changing the way they do several things.

• Based on the information obtained from the pre-test, post-tests and Memrise’s database, this study concludes that the effect of integrating the virtual platform Memrise as a teaching tool for English vocabulary learning was effective, even though this application was not interesting or easy to use for some students.

• Students were able to manage the application in their free time with the aim of enhancing vocabulary, however, it was evident that there was a lack of learning strategies and autonomy in them. The students who used the platform showed better results compared to the ones who barely used it or never used it.
• Virtual platforms like Memrise are normally seen as tools that facilitate the learning process. Nevertheless, it is also possible that some students find them as extra work since they need to be used as an extracurricular activity. Due to this, students can fall into the routine and lose their interest.

• When integrating a teaching tool, it is relevant to be conscious about the fact that its use does not replace the teacher. Therefore, it is seen as a facilitator of the learning process instead of a 100% learning method.

• All the process helped the teacher understand the benefits of keeping students close to technology in their academic process to integrate the global change that education has had.

• Thanks to the literature review of the theoretical framework and according to the results obtained in the research process, it can be stated that the use of technological devices as virtual platforms like Memrise is well known and considered important for learning development. Institutions where foreign languages and other knowledge fields are taught are integrating such resources in their curricula. Thus, the general conclusion shows the positive effect of integrating Memrise as a teaching tool in a foreign language course, without leaving aside the fact that for obtaining good results, it is necessary to be interested, and motivated as well as persistent.

REFERENCES


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