# CAPÍTULO 3

UNLOCKING CREATIVITY: HOW MNEMONIC STRATEGIES SPARK CREATIVE SKILLS IN LEARNING ENGLISH VOCABULARY COMMUNICATIVELY DESBLOQUEAR LA CREATIVIDAD: CÓMO LAS ESTRATEGIAS MNEMOTÉCNICAS DESPIERTAN LA CREATIVIDAD

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#### 1. INTRODUCTION

In the context of 21<sup>st</sup> century English language learning, creativity is seen as one of the most relevant skills that involves problem-solving, innovation and the ability to adapt to new situations. Piirto (2011), emphasizes that creativity is not limited to the artistic realm but extends to a wide range of disciplines and skills. Therefore, creativity covers all areas, meaning that anyone can be creative, without any restraints, in their specific field and in their everyday life. Notwithstanding, Lee (2013) acknowledges the lack of a clear relationship between English learning and creativity, which limits students' opportunities to properly develop their creative skills in suitable environments that need to be provided and created by the teachers, as the guides inside the classrooms.

Taking the aforementioned into consideration, it is imperative to make the shift from passive knowledge acquisition towards activities and strategies that prompt learners to discover and develop their creative skills by being active participants in their learning processes and by being involved in said activities that are useful beyond the subject matter (Kyriacou, 2014). The present research work proposes and focuses on the use of mnemonic strategies, specifically acronyms, rhyme method, and visual mnemonics, to develop students' creative skills in learning vocabulary. It is worth mentioning that, according to Pillai (2017), mnemonic strategies are not only focused on the skill of simple memorization, they are also concerned with the meticulous art of imagination, effort, and having a good mind. Likewise, these characteristics of mnemonic strategies are the tools that could potentially prompt the development of students' creative skills. In this specific study, four out of the seven components of creativity proposed by Hadani and Jaeger (2015) will be addressed, namely imagination and originality, flexibility, communication and self-expression, and collaboration.

Moreover, the relevance of this study lies in the fact that there is a lack of focus on creative skills regarding mnemonic strategies for learning vocabulary communicatively, as most studies only focus on the memorization aspect. Consequently, the present research work aims to answer the following research question: Do students develop creative skills by using different mnemonic strategies in learning new English vocabulary communicatively?

#### 2. THEORETICAL FRAMEWORK

This theoretical framework aims to offer a complete understanding of the two variables under study, namely mnemonic strategies and creative skills. To achieve this goal, research papers and previous studies will be featured to establish the backbone of the current research work.

# 2.1. Mnemonic strategies

# 2.1.1. Definition of Mnemonic strategies

First and foremost, it is worth mentioning that the word "mnemonic" comes from the Greek word "Mnemosyne", which refers to the ancient Greek Goddess or deity associated with memory (Kanko, 2022). This insight helps with understanding what mnemonic strategies are and what they are used for. Moreover, to further extend the understanding of mnemonic strategies, Dobakhti et al. (2020) have defined them as memory strategies that enhance memory by using information encoding. Furthermore, memory strategies have been described as beneficial for assisting learners to store new information in their memory and recalling it when necessary (Kurniarahman, 2019).

Additionally, Levin (1993) stated that what is involved in the usage of a mnemonic strategy is the transformation of "difficult-to-remember" material into something more memorable. Also, he mentions that several factors contribute to the aspect of "difficult-to-remember", which mostly includes amount, unfamiliarity, abstractness, and complexity. Thus, mnemonic

strategies serve their purpose by addressing these issues and making it easier for learners to remember and recall the vocabulary items.

# 2.1.2. Types of Mnemonic strategies

Mnemonic strategies have been classified by different authors, for example Han (2023) classifies them into ten types: method of loci, peg word method, link method, acronyms, acrostics, story method, rhyme method, gestures method, keyword method, and digit-consonant encoding method. Additionally, Thompson (1987, as cited in Farrokh et al., 2021) organizes these mnemonic strategies into 5 types: linguistics, spatial, visual, physical response, and verbal methods. For the purpose of this research project, only three, combined from both lists, will be described and considered:

# 2.1.2.1. Rhyme method

This strategy is aligned with musical intelligence, Governor et al. (2013) believes that it is relevant within a constructivist framework since it aids students in constructing meaning. And, from a cognitive perspective, these strategies help learners in making connections during their learning processes, which would allow them to build upon previous knowledge to create meaningful vocabulary. Moreover, this strategy also fosters student engagement in the classroom.

# 2.1.2.2. Acronyms

It is widely known that remembering a vast list of words can be challenging, for that reason acronyms are very beneficial. Asma and Nesrine (2023) explain that acronyms work by first organizing the vocabulary items in the personalized order that you want to recall them, if possible. Then you recognize the first letter of each vocabulary item and you write them down to form a totally new word. There are some cases in which the initials make up a meaningful word. For instance, "FANBOYS" for when you want to recall the most used conjunctions in the English language. But for the most part the resulting "word" might not be coherent; even more so when you have to

remember the list of words in a particular order that is not of your choosing. However, sometimes you could identify a way to make up a word that sounds similar to another word, or that can be more easily pronounced, for example using the acronym "ROYBI" to recall a list of colors; red, orange, yellow, blue, and indigo.

#### 2.1.2.3. Visual

In this type of mnemonic strategy, the main aids are pictures, photos, and drawings and they are used by pairing new vocabulary items with said pictures to not only enhance understanding but also to foster motivation and interest from learners. For this strategy, pictures are used to demonstrate the meaning of the word, and therefore boost memorization and recall of the vocabulary items (Kanko, 2022). However, this strategy might only be effective with concrete ideas, as opposed to abstract concepts, as they would be too difficult to represent with a picture.

# 2.2. Mnemonic strategies and creative skills

It could be seen that mnemonic strategies take various formats, from chants to rhymes and even pictures. That is why another advantage of using mnemonic strategies is the development and improvement of learners' creative skills. This happens mostly because learners are inclined to create their own personalized mnemonic strategy. And mnemonic strategies offer them the freedom to design their own mnemonics in a flexible and creative way, which in turn is a manifestation of the development and enhancement of learners' creative skills. What is more, it was revealed that learners who used their creative skills had a better performance at memorizing the vocabulary items (Thảo, 2022).

For this part, it is important to mention the 7 components of creativity proposed by Hadani and Jaeger (2015), which are organized into three developmental domains:

- ~ Cognitive: Imagination and Originality, Flexibility, and Decision Making
- ~ **Social and Emotional:** Communication and Self-Expression, Motivation, and Collaboration
- ~ Physical: Action and Movement

Nonetheless, for the purpose of this research study and because the learners are still very young, only four components will be considered and described:

# 2.2.1. Imagination and Originality

It is mentioned by Hadani and Jaeger (2015) that these two elements are the "heart of creativity". They also consider that creativity is about the production of original ideas that can be even considered "unusual". Moreover, it is mentioned that in certain situations idea production would mean merging two or more different concepts to create a new and different idea. For this concept of idea production, learners and children in general can be supported by being encouraged to develop certain activities that promote and stimulate them to think outside the box. Additionally, they can be prompted to build upon previous ideas and knowledge, this can be done by proposing different and innovative activities in the classrooms.

Therefore, this component can potentially be promoted by using mnemonic strategies, because "unusual" ideas can be generated by learners. For example, some of them might memorize and recall certain vocabulary items by connecting them to unusual pictures or words, and of course by connecting them to vocabulary items they already recognize.

# 2.2.2. Flexibility

As for this component, Hadani and Jaeger (2015) note that flexibility can be experienced by learners by allowing themselves to see from different perspectives and being open to diverse experiences. Only then can they become aware that seeing from a single perspective is what restricts their creativity. That is why promoting flexibility is quite so important. Therefore, learners need to be provided with an ample variety of new and exciting experiences while simultaneously encouraging them to be active participants of said experiences. Another important aspect to encourage flexibility is perspective taking, which basically involves finding other learners that perceive certain situations or problems differently. This is done with the purpose of prompting learners to ask thought-provoking questions and therefore promoting understanding of various points of view.

That being stated, mnemonic strategies can be a good way to promote flexibility. To exemplify, learners can create their own mnemonic device, like acronyms, and then they can explain how it works and what it can assist with regarding vocabulary learning. This can open up the path to explore diverse perspectives due to the fact that every single learner is different, which means that they are going to provide a large number of proposals.

# 2.2.3. Communication and Self-Expression

Being able to communicate one's perspective is a crucial aspect of creativity, as it allows learners to express themselves and their own ideas and knowledge. For this part, an environment appropriate for self-expression needs to be created, so that learners feel comfortable enough to express their ideas even if they are considered "unusual", or might be labeled as "wrong", this way promoting creative confidence (Hadani & Jaeger, 2015).

As the main purpose of vocabulary learning is communication, this aspect is beyond important. This will be the foundation of proper communication, providing a sense of confidence so that learners can express what they have to say. Also, mnemonic strategies will provide with the vocabulary items necessary for learners to not struggle as much when producing the language.

#### 2.2.4. Collaboration

As Hadani and Jaeger (2015) explain, this component of creativity allows learners to exchange their ideas among themselves, also giving space for exploring new perspectives. This in turn, helps with providing learners with the opportunity to explain their reasoning and broaden their way of thinking. In addition, for collaboration to be its most successful, an approach based on "yes... and" needs to be promoted, as it allows learners to build upon their classmates' ideas, instead of limiting creativity by using a "yes... but" approach.

In a language teaching classroom where communication is the primary outcome, collaboration plays a big role. Having the opportunity to engage with other learners is a way to improve one's language skills, more so, when using mnemonic strategies for vocabulary learning. This happens because learners can openly work together to create and discuss mnemonic strategies that can be useful for themselves and their classmates.

#### 3. MATERIALS AND METHODS

# 3.1. Participants

This research study was carried out at a public institution in Loja, a city situated in the Sierra region, in the southern part of Ecuador. Moreover, the participants were 22 students (11 females and 11 males) of elementary basic education, specifically from 4th grade of General Basic Education (EGB). These participants were chosen using a convenience sampling technique, which according to Creswell (2012) involves the researcher selecting the participants based on both willingness and availability. However, since the participants were still underage, their legal guardians or parents had to sign an informed consent form so that their ward or child could be part of the study.

#### 3.2. Method

The research study used the mixed method approach, which has been defined by Morse and Niehaus (2016) as the collection of both qualitative and quantitative data to carry out a research work. Additionally, the study followed the action research model, explained as an inquiry that facilitates practitioners around the world to investigate and evaluate their work by being immersed in the research environment (McNiff & Whitehead, 2006) . Additionally, this approach involved conducting research and the application of an intervention proposal that consisted in the application of Mnemonic techniques for developing the students' creativity in learning vocabulary in the English language subject.

Moreover, this research project followed the structure of the Action Research Cycle proposed by Willis and Edwards (2014) which was based on the model proposed by Kemmis and McTaggart (1988) and on the work of Seymour-Rolls and Hughes (1995).

#### 3.3. Procedure

#### 3.3.1. Reflection

The starting point of action research is reflection, namely on the issues that are of interest to the study, the problems that make the research study necessary, and the goals that guided it. In this stage, a tentative draft of the research questions was proposed. As this is a part of a cycle, the researcher not only conducted this stage at the beginning of the study, instead, using an observation instrument, reflection was conducted weekly to gather qualitative findings.

#### 3.3.2. Plan

Upon acquiring a preliminary and tentative grasp of the research study's goal, the researcher proceeded to start exploring and investigating potential ways in which the research problem could have been handled. This

exploration took the form of various types of information gathering, namely literature reviews in the form of previous studies, consulting with experts on the field, and conducting robust research on both variables under study. For this intervention proposal, the researcher developed the lesson plans by emphasizing the implementation of mnemonic strategies. Besides, they were structured following the Engaged, Study and Activale (ESA) lesson plan model, which has three stages, during an English lesson.

#### 3.3.3. Act

Another essential stage in the action research cycle is acting, which is the stage that revolves around the implementation of the intervention proposal. The intervention plan had a duration of 6 weeks, equivalent to one month and a half, with 2 hours of English classes per week using mnemonic strategies for enhancing vocabulary learning. These two hours were distributed across one single class consisting of a double-period session.

#### 3.3.4. Observe

In order to properly carry out the observations, field notes were used as the instrument. This instrument was implemented to gather data to see if students developed creative skills by using mnemonic strategies, these findings corroborated the qualitative data gathered in the questionnaire. The action research required more than just one round of Reflect-Plan-Act-Observe, for it to be adjusted and improved, and therefore, obtain the most optimal results.

#### 3.4. Instruments

The survey technique was used, implementing a questionnaire as the instrument. This research instrument has been defined as a set of written questions that participants will have to answer by writing or selecting their choice, often by means of circling or checking the option that best applies to them within the scale (Morgan & Harmon, 2001). The scale that was used for

this questionnaire was a 3-point Likert scale, with the response set being "Never", "Sometimes", and "Often", with an additional section named "Remarks". This instrument had to be applied using a translated version, due to students still being quite young and not having a high enough English proficiency level to properly understand the questions. Additionally, for the observation technique, the researcher gathered these qualitative data through field notes, which were useful to write down and note if students developed creative skills while using mnemonic strategies.

# 3.5. Data analysis

As it has been stated before, there are two types of data that were collected throughout this research study; qualitative and quantitative data. For that reason, there were several ways to carry out the analysis of said data, after it was collected. Specifically, descriptive statistics was used, to carry out the analysis of the quantitative data gathered through the questionnaire. Then, this data was tabulated and presented in graphs, to measure the percentages tendency of the results obtained. As for the qualitative data, and due to its interpretative nature, thematic analysis was used to analyze the data gathered using the field notes.

#### 4. RESULTS

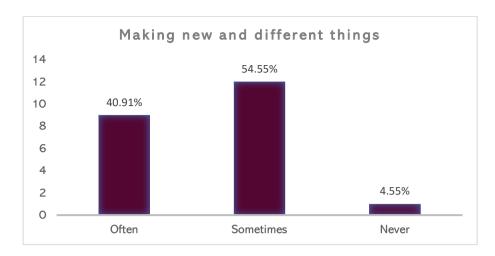
This section aims to respond to the following specific objective: To identify the students' creative skills in using different types of mnemonics strategies, in learning new English vocabulary communicatively.

#### Coming up with unique and imaginative ideas 16 63.64 % 14 12 10 36.36 % 8 6 4 2 0% 0 Often Sometimes Never

# Dimension one: Imagination and originality

Figure 1. How often do you come up with unique and imaginative ideas?

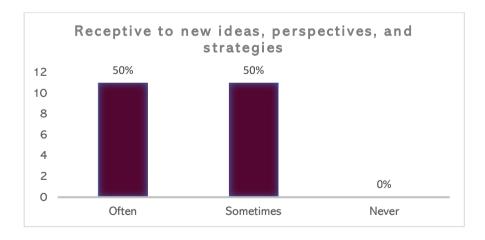
Figure 1 indicates that students engage in creative thinking regularly or occasionally, highlighting a considerable degree of imagination and originality among the students while using mnemonic strategies. This can also be corroborated by class observations, since students occasionally came up with very creative acronyms and rhymes, as proposed by the lesson plan activities. Furthermore, students, when prompted to work on these activities of creating their own mnemonics, seemed to have a vast number of ideas. So, this fostered creativity in terms of originality and imagination, while also encouraging vocabulary learning and recall, in a way that students enjoyed.



**Figure 2**. How often do you make things that are totally new and different from what you've seen or learned before?

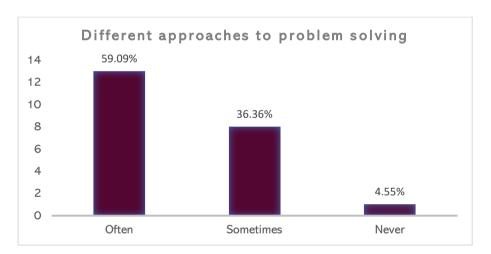
The findings shown in Figure 2 suggest that half of the time students are involved in producing novel and innovative work, reinforcing the presence of creative skills. Moreover, the results can also be further supported by the fact that during the implementation, students, occasionally but diligently, worked with some strategies, like acronyms and rhymes, that they had not worked with before and still managed to create outstanding tasks, where creativity was reflected upon. Additionally, learners could demonstrate the new vocabulary items they learned by actively using them.

## **Dimension two: Flexibility**



**Figure 3.** How often do you find yourself being receptive to new ideas, perspectives, and strategies?

The data depicted in Figure 3 indicates an occasional and balanced level of flexibility in students' thinking, which is related to being open-minded, as well. This open-mindedness, also appreciated during the class observations, was crucial for creative learning and the application of mnemonic strategies, since it aided in the process of students being comfortable and willing to participate and learn with the strategies suggested. Even if, at first, students were apprehensive to use these strategies, due to lack of familiarity, they steadily gained confidence when using them and that reflected on their vocabulary proficiency, as well. Additionally, students were also open and receptive to their classmates' ideas and perspectives, in the cases that they had to perform the tasks in pairs or in groups, an occurrence that did not take place in every single class, but still happened in some lessons.

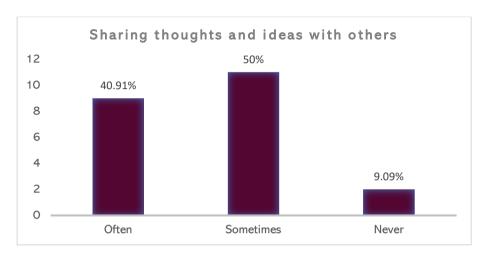


**Figure 4.** How often do you explore different ways of solving problems or completing creative projects?

Now moving on to the results obtained regarding the exploration of different approaches to problem-solving, it can be seen in Figure 4 that a high percentage of students frequently explore different approaches, indicating a strong tendency towards flexible and innovative problem-solving skills, to handle creative projects. Specifically, this was reflected in the classroom observations, as well. Because some of the activities required learners to come up with acronyms or rhymes, which were considered

"creative projects" and students exceeded expectations, using and exploring with different approaches to fulfill the task, all the while using the intended vocabulary items that they learned.

# Dimension three: Communication and self-expression



**Figure 5.** How often do you tell others about your thoughts and ideas when you're talking about creative projects?

In Figure 5, the findings show that while most students are willing to communicate their creative ideas, even if at different levels of frequency, a small portion of them are less inclined to do so. This was also appreciated during class observations, noticing that only a small number of students sometimes struggled with their ability to share and voice their ideas, mostly due to shyness and unsureness. However, despite those struggles, it could also be observed that when students did share their creative ideas, they not only did it with their classmates, but they also did it with their teacher. This positively reflected on their vocabulary proficiency since they had to actively interact to share their ideas.

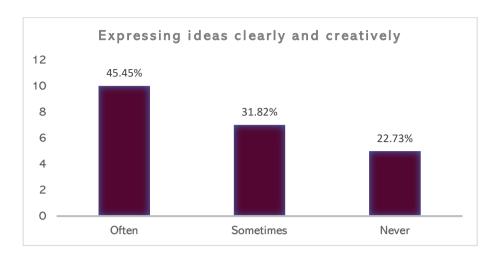
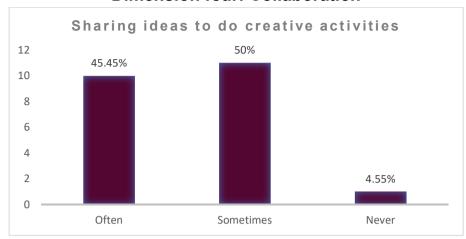


Figure 6. How often do you express ideas and thoughts clearly and creatively?

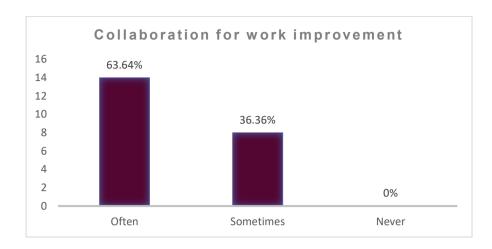
Now, in terms of expressing ideas clearly and creatively, the findings demonstrate that while students can clearly and creatively express their ideas most of the time, a notable percentage of students struggle with this aspect of communication. They find it challenging to choose the proper words to express their ideas accurately and creatively, which reduces the frequency in which they can engage in these creative exchanges. This was also observed during class observations, for instance, on some occasions students would try to share their ideas creatively during group or pair work and it was noticeable that they were having problems conveying their ideas properly. This might be the case because, at first, they were unfamiliar with the nature of the suggested tasks and, therefore, they were not confident enough that their ideas were acceptable, even if the researcher often reminded them that when concerning creativity there is not a right or wrong answer. However, those limitations did not stop them from trying, always being prompted by the teacher to try with different words or to regroup their ideas, a fact that greatly helped them find their vocabulary proficiency.

## **Dimension four: Collaboration**



**Figure 7**. How often do you work with others to share ideas and do creative activities together?

The data depicted in Figure 7, shows that collaborative creativity was fairly common among the students while using mnemonic strategies, with the vast majority engaging in shared creative activities at least occasionally. Likewise, this is corroborated by the class observations, during the lessons students engaged in some activities performed in pairs or small groups, which provided them with opportunities for sharing different perspectives and ideas, and learners did take that opportunity somewhat frequently. This aspect of using mnemonic strategies positively impacted students' vocabulary proficiency, by prompting interaction.



**Figure 8.** When working in pairs or groups, how often do you collaborate to improve the group work?

Lastly, regarding collaboration for work improvement, Figure 8 shows a strong inclination from students to build on each other's ideas, share ideas and listen to each other, highlighting a collaborative culture that fosters creativity. It was clear during class observation that students were open to actively collaborating with their classmates, doing this to obtain a better result in their task. This was an essential aspect for the effective development and application of mnemonic strategies and the betterment of students' vocabulary proficiency since collaboration was essential for the proposed activities using these strategies.

As has been noted, the questionnaire results indicate that students generally exhibit strong creative skills, regarding imagination and originality, flexibility, communication and self-expression and collaboration. Moreover, it is important to mention that these creative skills were really helpful for the smooth implementation of mnemonic strategies and for the steady improvement of students' vocabulary skills.

## 5. DISCUSSION

In this section of the report, the main findings are compared and contrasted to those of the previous studies and to the existing literature. By the same token, in this section, the research question will be answered and addressed, while also highlighting some limitations and making recommendations for future studies.

As for the research question that inquiries on whether students develop creative skills by using different mnemonic strategies, the results indicate that students do in fact develop these skills while using the proposed strategies. Therefore, it can be said that the use of visual imagery, rhymes, acronyms and the creation of personalized mnemonics encouraged students to engage creatively with the vocabulary, leading to better retention and a deeper understanding of the words. This is aligned with Thảo's (2022) findings, who acknowledges that students who engage in creative thinking have a better performance at vocabulary memorization. Additionally, what students reported through their questionnaire responses is absolutely consistent with the creativity components proposed by Hadani and Jaeger (2015). To illustrate, a great number of students reported that by using mnemonic strategies they appreciated a significant development of creative skills regarding imagination and originality, flexibility, communication and self-expression, collaboration.

Likewise, by creating their own mnemonic devices like rhymes, students had to come up with original and imaginative material to learn and better recall vocabulary items. Additionally, it could be observed that students were open to using mnemonic strategies, they also listened to each other during pair or group work and accepted each other's ideas, which demonstrated a great amount of flexibility. What is more, even though some students struggled to express their ideas regarding the activities performed, they did try to convey their creative thoughts to both their classmates and their

teacher, strengthening their self-expression and communication skills. Lastly, several of the activities were performed in pairs or small groups, and it could be observed that students readily collaborated among themselves to have a better performance, exchanging ideas and building on each other's thoughts to enhance their creative input. Overall, these findings reinforce the perspective that mnemonic strategies are not only able to enhance vocabulary, but also creative skills.

While this study provides valuable insights about mnemonic strategies and creative skills, there were still some limitations that need to be addressed. For instance, the present research work implemented a mixed-method approach, combining both quantitative data through the questionnaire and qualitative observations of classroom interactions. This approach allowed for a broad analysis of both variables, making this an effective research method to fulfill the objective of the current study. Nevertheless, further studies could implement additional instruments for observation such as a reflective journal, and an additional questionnaire to gather students' perceptions and opinions about the use of mnemonic strategies outside of the context of creative skills. This could also be implemented alongside interviews to gather more personalized feedback from learners themselves. This could be done with the purpose of supporting and complementing the findings from this research work.

Ultimately, despite these findings being a great source of information in the field of education, future studies could expand the sample size and include diverse educational settings to validate the findings, so that they can be generalized. Another aspect that could potentially have an impact on implementation of the proposed strategies is the amount of time allocated for the intervention. For this specific study, the intervention had a duration of 6 weeks, therefore, future studies should consider lengthening the intervention period to allow more satisfactory results to emerge, and those results could be complementary to the findings from this research work.

# 6. CONCLUSIONS

The different mnemonic strategies proved to be effective at assisting students in developing creative skills, which was reflected across all the four dimensions that were considered for the study. Consequently, students developed creative skills regarding imagination and originality, flexibility, communication and self-expression, and collaboration while learning English language vocabulary

Imagination and originality were prompted by asking students to create their own mnemonics, like rhymes and acronyms. These activities exposed them to new strategies and gave them the opportunity to come up with unique ideas. Also, by being exposed to these novel strategies and asking them to work in pairs or groups while using them really cultivated flexibility. Students demonstrated openness to using these new strategies and they were also open to their classmates' ideas and perspectives while working together.

Communication and self-expression were developed by actively motivating students to share their ideas, this was done mostly during group and pair work to complete creative projects and activities about English vocabulary learning, where students had to engage with the creation of mnemonics such as acrostics, rhymes and acronyms. What is more, not only did these activities give them the opportunity to communicate their thoughts and express themselves, but they also fostered active collaboration among the members of the group to achieve more creative tasks.

#### 7. CONTRIBUCIÓN DE LAS AUTORAS

VNAQ: Introduction, Theoretical Framework, Results and References

MICV: Materials and Methods, Discussion and Conclusions and revision of the whole document

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