Promote vocabulary learning in context through the CLIL methodology

Potenciar el aprendizaje de vocabulario en contexto a través de la metodología CLIL

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Resumen

Content Language Integrated Learning (CLIL) es una metodología que ha sido asociado con el mejoramiento del aprendizaje de vocabulario en contexto. El objetivo principal de esta investigación fue determinar la efectividad de la metodología CLIL para incrementar el aprendizaje de vocabulario de inglés. El estudio involucró a 30 estudiantes de primero y segundo año de Bachillerato de la Unidad Educativa UK en el periodo lectivo septiembre 2022-mayo 2023. La investigación fue de tipo no experimental-descriptivo de corte transversal. Para recoger la información se utilizó una encuesta con 20 ítems; 5 de opción múltiple y 15 tipo Likert. Se validó por expertos y el Alfa de Cronbach con un valor de 0.76%. Las preguntas encuestaron sobre las asignaturas que influyen en el aprendizaje del idioma, la metodología CLIL, el desarrollo de las destrezas del idioma inglés y las estrategias y actividades para aprender vocabulario. Posteriormente, los datos fueron analizados a través de la estadística con la ayuda del programa SPSS. Los resultados revelaron que en la asignatura de Lenguaje los estudiantes aprendieron más el idioma, que aprender vocabulario fue más difícil en la clase de Ciencias, y que la asignatura en la cual se sintieron más motivados fue Ciencias Sociales. La metodología CLIL hizo énfasis en: enseñanza de gramática y vocabulario, proyectos a largo plazo, cultura y trabajo cooperativo, y el uso frecuente de la lengua nativa. Asimismo, mejoraron las habilidades de lectura y el aprendizaje de vocabulario. CLIL mejoro el aprendizaje de vocabulario mediante la utilización de estrategias y actividades tales como: estrategias de memoria, cognitivas, de activación y metacognitivas.

Palabras clave: aprendizaje del idioma inglés, aprendizaje de vocabulario en inglés, contexto, estrategias para aprender vocabulario, metodología CLIL

Abstract

Content Language Integrated Learning (CLIL) is a methodology that has been associated with improving vocabulary learning in context. The main objective of this research was to determine the effectiveness of the CLIL methodology in increasing the learning of English vocabulary. The study involved 30 first- and second-years Baccalaureate students from the UK Educational Unit, in the school period September 2022-May 2023. The research was of a non-experimental, descriptive, cross-sectional type. To collect the information, a survey with 20 items (five multiple choices and fifteen Likert) was applied. It was validated by experts, and the Cronbach's Alpha had a value of 0.76%. The questions asked about the subjects that influence language learning, CLIL methodology, the development of English language skills, and strategies and activities to learn vocabulary. Subsequently, the data was analyzed through the statistics with the help of the SPSS program. The results revealed that in the Language subject, the students learned the language more, that learning vocabulary was more difficult in the Science class, and that the subject in which they felt more motivated was Social Sciences. The CLIL methodology emphasized grammar and vocabulary teaching, long-term projects, culture and cooperative work, and the frequent use of the native language. Likewise, reading skills and vocabulary learning improved. CLIL improved vocabulary learning through the use of strategies and activities such as: memory, cognitive, activation, and metacognitive strategies.

Keywords: CLIL methodology, English language learning, English vocabulary learning in context, strategies to learn vocabulary.

INTRODUCTION

CLIL is a powerful methodology that offers several advantages in terms of language learning. In this context, the purpose of this study was to determine the importance of using CLIL in EFL teaching to expand the vocabulary range of high school students. And, it is possible since CLIL combines and integrates both content and language learning.

Furthermore, CLIL helps to improve the fluency and the oral communication skill of any learner. According to Sanad and Ahmed (2017), CLIL helps in bringing updated practices into the curriculum since students learn one or more of their school subjects in a targeted language, frequently in another second language.

It is important to add that, three key steps for integrating language into the curriculum should be outlined: Specific vocabulary, choice of structures to deal with the content to be taught, supports learners with spontaneous language constructs in dealing with problems that may arise in class (Lavrysh et al., 2019). Additionally, professors with appropriate language knowledge in the foreign language and subject are needed, and teaching methods adaptations to integrate both content and language.

Furthermore, Coyle et al. (2010), found that CLIL requires teachers to work on a variety of lesson plans for successful learning. CLIL does not mean to teach wider content, neither language translation. On the contrary, it is two languages being used to promote cognitive abilities and skills. On the other hand, in bilingualism there are always two languages presented, but in CLIL they can appear together or separated. In addition, the foreign language is the minority language used, but the combination of both languages should not be underestimated in this type of education (Méndez and Vázquez, 2012).

Mehist, Marsh, and Frigorus laid down the basic principles of this approach. These are also seen as starting points for lesson plans. In this sense, Verdugo (2011), states that this approach has five basic principles. First, content includes the development of knowledge, skills, and understanding related to specific elements of a defined curriculum. It provides an opportunity to study content from different perspectives, leading to a deeper understanding of the topic. Using the target language through this approach helps learners understand the topic and its core terminology. A focus on content prepares students for the rest of their studies and professional lives.

Second, the language focuses on communication and interaction, which improves overall proficiency in the target language and improves oral communication skills.

Third, learning involves the development of thinking skills that combine the formation of abstract and concrete concepts, language, and comprehension.

Fourth, culture is a very fundamental principle because it exposes students to different perspectives and opinions, which help build cross-cultural knowledge, awareness, and understanding. CLIL helps to develop intercultural communication skills and learn more about other European countries, regions, and minorities. Last but not least, cross-border development prepares students for internationalization and integration as it facilitates global communication and access to international certifications.

There are two versions of CLIL. Baranova et al. (2020) found that these are soft and hard CLIL. Soft CLIL is a model that allows partial immersion in language, and it is the most effective way to learn a foreign language for non-linguistic major students. In the soft version of the CLIL approach, learning is driven by the language itself, and the entire discipline curriculum is guided by the language. Therefore, the specificity of Soft (voice-driven) CLIL techniques requires knowledge of the language and consistent use of that language as a tool for learning a variety of subjects.

In addition, the main role of the linguistic content of a given text, especially technical terms and grammatical structures, is emphasized. In addition, we support a language environment for opportunities to discuss thematic content. Additionally, it increases the level of encouragement to use the language in the context of the subject module being studied.

In addition, task types are designed according to levels of complexity, focusing on language content, comprehension, and verification. Its purpose is a subsequent discussion on the subject considered. Nevertheless, teachers should consider the subject content of their lessons, tailor them to the course structure and requirements, and carefully select materials that can complement or enhance what is learned in specialized courses. On the other hand, Boyes and Gallagher (2020) noted that learners were taught primarily content-based information and provided a small amount of supportive information. Language skills in a hard CLIL approach. In other words, intensive CLIL students tend to prioritize content almost exclusively, with no focus on language.

Understanding the structure of the CLIL curriculum is essential, as it provides a measurable roadmap for delivering quality education to students, professors, school leaders, and others. In this sense, McDougald (2018), argues that educators use multiple curriculum models in different contexts to achieve CLIL goals. These goals will not be achieved overnight, so institutions should plan short, medium, and long-term goals related to curriculum change. Moreover, careful planning with context in mind, supporting teamwork, and providing good feedback on implementation procedures are essential to successful CLIL curriculum planning. Feedback can be provided in a

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DESARROLLO AGROPECUARIO, TECNOLOGICO, EMPRESARIAL Y HUMANISTA
UNIVERSIDAD TECNICA DE COTOPAXI · LA MANA. COTOPAXI. ECUADOR

Volumen 5. No.3

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octubre 2023

variety of ways, including in the classroom. Regular meetings with observations, stakeholders, and focus groups too.

Following a good process is very important for delivering courses using the CLIL approach. In this sense, Coyle et. al. (2010), defined four main stages of the process of implementing CLIL lessons. Stage 1 focuses on a common vision: This includes people interested in setting CLIL, such as language teachers, subject teachers, managers, etc. Then, in stage 2, CLIL context. At this stage, the CLIL Program Manager should build a model of CLIL based on the vision shared in the previous phase. Add local conditions such as school type and size, environment and teachers' staff, national and current affairs, etc. The third stage focuses on session planning and preparation. This phase has four steps related to the 4Cs: content, cognition, communication, and culture. Step 1: content considerations. Step 2: connect, analyze, and select content and insights. Content-related thinking skills, problem-solving skills, and creativity. Step 3: Define communication, language learning, and use, and provide an appropriate language framework. Step 4: Develop cultural awareness and opportunities. Finally, stage 4 emphasizes the importance of unit monitoring and evaluation. Therefore, it monitors unit development and assesses the processes and outcomes underlying the teaching and learning process. In other words, this phase focuses on understanding and gaining helpful insights into classroom processes as they evolve into future plans.

Assessment plays an important role in the learning process since it allows determining if educational goals are being achieved. In this regard, Massler (2011), points out that CLIL evaluation should be different from normal evaluation. It needs to consider goals of knowledge, ability, skill, attitudes, and behavior towards both language and content.

Moreover, in order to master a language, a learner must have a large vocabulary in mind to be able to understand the language. Robani (2014), claimed that vocabulary is a central part of language ability and generates the foundation for learning how well scholars speak, read, write, and listen. It is without a doubt that vocabulary is seen as a key to all language skills, since it covers all lexical items that learners need to know to meet their numerous educational and general needs.

Students with a low vocabulary range show poor academic performance in different subjects in relation to language skills, linguistics, literature, and translation skills.

Currently, there are four main groups of strategies for learning vocabulary. The first one is memory strategies. Its objective is to link the student's learning of new words with mental processing by relating what they already know to the new words. Second, cognitive strategies allow the learner of a foreign language to directly manipulate the linguistic material. Third, metacognitive strategies consist

of selective attention and self-initiation activities to identify which words are fundamental for them to learn and are pivotal for adequate comprehension of a determined passage. Last but not least, activation strategies include those activities through which the students employ new vocabulary in different contexts.

MATERIALS AND METHODS

The employment of various human and technical resources was essential for the development of the research. It included students of the 1st and 2nd year Baccalaureate from the UK School. In addition, several books, academic papers, theses, and articles from journals were referenced to develop the theoretical framework and produce the survey. Furthermore, Google Forms was used to apply for the survey. Finally, the software SPSS (Statistical Package for the Social Sciences) was used to illustrate and analyze the results of the research work.

Additionally, the research was non-experimental, with a quantitative approach considering that the information was collected through a survey and then analyzed and interpreted through graphs and tables to describe the phenomenon.

The researcher visited the school's facilities on December 20, 2022, to collect information and had the opportunity to explain the phenomenon based on real observations. Besides, it was necessary to obtain information from books, theses, academic papers, and articles from journals to develop the theoretical framework and produce the survey.

Due to the time spent researching, it was only possible to apply a non-experimental type. Therefore, a literature review was conducted to learn about CLIL methodology and vocabulary learning in context. Likewise, any experiments or treatments were applied.

To collect the information, a survey was elaborated and then validated by five experts in the field of CLIL and its reliability through Cronbach's alpha with a value of 0.76%. Moreover, the research questions had to deal with the subjects taught in English and their influence on high schoolers' learning, in what extent the CLIL methodology improved students' English language skills, and the strategies and activities students use to learn vocabulary. The questionnaire contained multiple-choice questions requesting information about Science, Math, Language, And Social Studies. By comparison, the next fifteen questions used the Likert scale. The options were: never, rarely, sometimes, often, and always.

The research implied 30 students from the first and second years of Baccalaureate from the UK School. The group was formed by 15 women and 15 men. Their ages ranged from 14 to 17 years old. These participants were selected because they have been immersed in the Content and Language Integrated Learning (CLIL) methodology for a

long time, considering that their institution applies the methodology mentioned previously.

First of all, the theoretical framework was created by reviewing various academic papers, and

journals. After that, the operationalization of variables was developed with the following dimensions: subjects taught in English using CLIL methodology, CLIL methodology overview, English language skills, and strategies and activities to learn vocabulary. All the questions in the questionnaire were derived from the theoretical framework. Additionally, the first questions were multiple-choice. By comparison, the next fifteen questions used the Likert scale. Next, the survey was validated by five experts in the field. Then, the survey was applied through Google Forms. Finally, all the data were analyzed and interpreted through SPSS (Statistical Package for Social Science).

RESULTS AND DISCUSSION

The main purpose of the CLIL methodology is to improve the fluency and oral communication skills of any learner. It also provides learners with the opportunity to study content from different perspectives and complements other subjects rather than competing with them.

Therefore, four representative questions with their sub-questions were considered to analyze the CLIL methodology. One of the questions was in relation to the extent to which subjects taught in English influence students' learning and English language skills, as well as how teachers handle this methodology and the strategies students use to learn vocabulary.
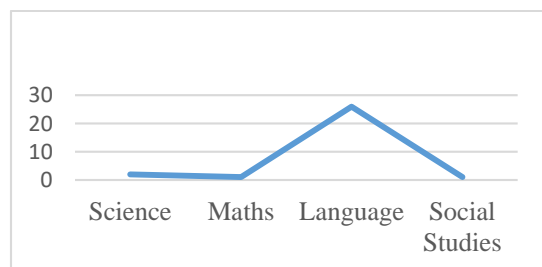

Figure 1. *Subjects taught in English*

Note. *The figure shows the subject in which students have learned the most English. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from the UK School Educational Unit (2022).*

Findings indicated that students have learned English the most in their language class, with 86.7%. Therefore, it can be deduced that grammar, idioms, colloquialisms, and so forth have played a significant role in learning the target language.
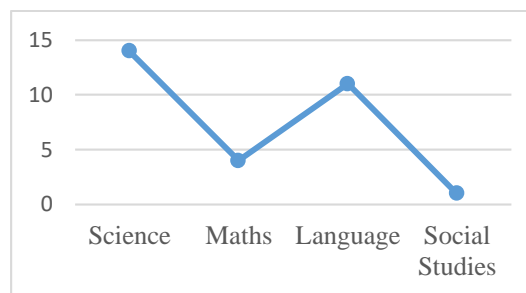

Figure 2. *Vocabulary difficulties.*

Note. *The chart shows the subject in which students have had more vocabulary difficulties. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from UK School Educational Unit (2022).*

Learners found the Science class more challenging than the other subjects when learning vocabulary (46.7%). Consequently, it can be deduced that complex scientific vocabulary, such as the ones found in Math and Social Studies, is not as simple as Language terminology.
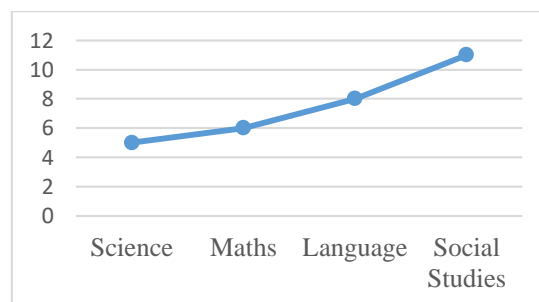

Figure 3. *Motivation*

Note. *The line chart shows the subject in which the students felt most motivated. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from UK School Educational Unit (2022).*

Students felt more encouraged in the Social Studies classes with 36.7%. So, it can be inferred that history and current social issues are far more amusing for them. Lastly, learners mentioned that their teacher advocates more oral interaction such as conversations and group discussions in Language with 43.3%. Thus, it can be inferred that the tutor prefers to make students discuss topics concerned with the language field and that it is easier to employ the lexicon of the Language subject rather than one of Science, Math, and Social Studies.
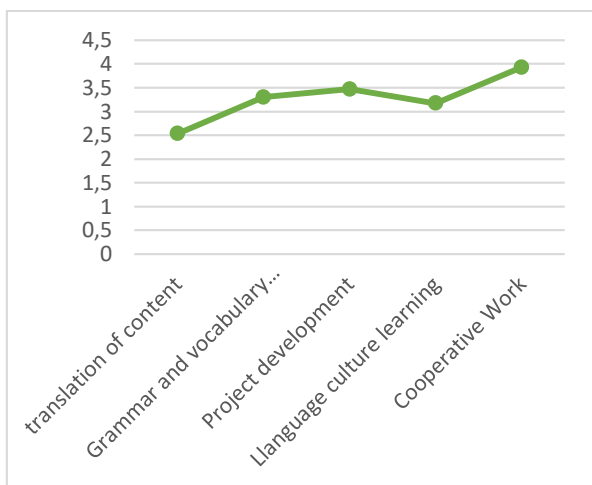
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DESARROLLO AGROPECUARIO, TECNOLOGICO, EMPRESARIAL Y HUMANISTA
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Volumen 5. No.3

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Figure 4. CLIL methodology overview

Note. The figure shows how CLIL methodology is implemented in the classroom. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from UK School Educational Unit (2022).

Results demonstrated that more than half of the content taught in classes is translated into Spanish, with a mean of 2.53. Hence, it can be inferred that learners are not used to complex terminology. That is why their teacher translates the content to facilitate learning. Furthermore, there is a high emphasis on grammar and vocabulary by the teacher, with a mean of 3.30. It can be assumed that the curriculum expects students to dominate grammatical structures and vocabulary. Moreover, learners develop a project at the end of each term, which reflects that goals are planned for the long term because things cannot be achieved overnight, with a mean of 3.47. In addition, English culture is learned by students with a mean of 3.17. Thus, it can be assumed that the institution really cares about preparing students to get used to the English culture when they go abroad. Last but not least, learners work cooperatively most of the time, with a mean of 3.93. So, it can be inferred that the teacher is just a learning facilitator, and students are the ones who work together to find solutions.
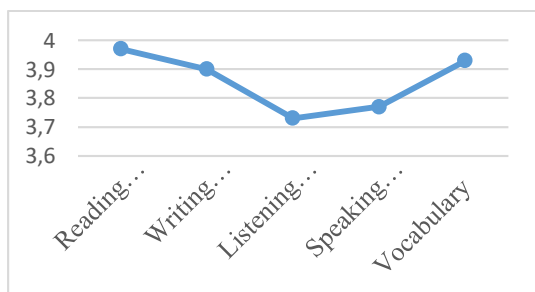

Figure 5. *Development of English language skills*

Note. The chart shows the skill that students developed the most. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from UK School Educational Unit (2022).

Students have improved their reading skills a lot by reading texts about Math, Science, Language, and Social studies, with a mean score of 3,97. Consequently, students have improved their performance in reading due to the variety of topics in the different subjects. Additionally, their writing skills got better due to writing paragraphs about the different subjects with a mean of 3,90. Thus, it can be deduced that they have written a lot of paragraphs for each subject. As a result, they comprehend the writing process very well. By comparison, listening was the least upgraded skill, with a mean of 3,73. This can be caused by a lack of exposure to different accents. In addition, students' speaking skills have improved due to talking about different subject topics, with a mean of 3,77. Therefore, it can be inferred that students have been exposed to many situations in which they have had to argue their points of view about the different topics of the subjects. Finally, high schoolers have learned more vocabulary due to their immersion in different classes, with a mean of 3,93. Therefore, it can be deduced that the variety of terminology in each subject has been quite fruitful for learning new words.
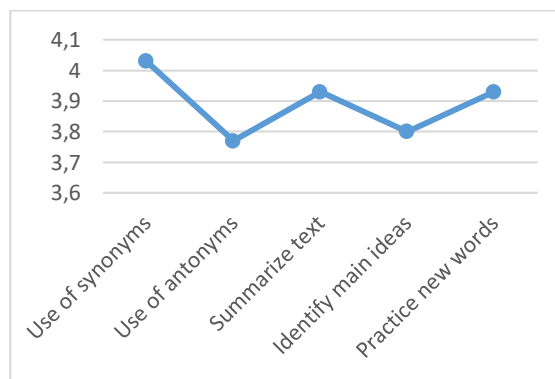

Figure 6. *Vocabulary learning strategies*

Note. The graph displays the most effective strategies and activities to learn vocabulary. Source. Survey applied to 1st. and 2nd. year Baccalaureate students from UK School Educational Unit (2022).

Findings showed that within the memory strategies, it is easier for students to relate information when they employ synonyms, with a mean of 4,03. In contrast to that, it is more complex for them to learn new words when they use antonyms, with a mean of 3.77. Hence, it can be assumed that similar terminology is simpler than opposite stuff when relating information. Moreover, learners dominate the cognitive activity of summarizing texts of the subjects taught in English with a mean of 3,93. Additionally, within the metacognitive strategies, students are able to identify

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DESARROLLO AGROPECUARIO, TECNOLOGICO, EMPRESARIAL Y HUMANISTA
UNIVERSIDAD TECNICA DE COTOPAXI · LA MANA. COTOPAXI. ECUADOR

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the main ideas of a text with a mean of 3.80. Therefore, it can be assumed that it is easy for them to find the most important ideas and keywords to sum up different texts. In the last instance, students learned more vocabulary by employing activation strategies such as writing paragraphs with a mean of 3.93. Thus, it can be assumed that using the new words in paragraphs helps them activate what they have learned previously.

DISCUSSION

CLIL has relied on numerous theoretical sources and adapted its methodology to the needs of 21st century students. CLIL is an ecological approach that combines cultural, political, social, and environmental approaches to meet the needs of language and content. Although there are some similarities with other bilingual programs, language teaching approaches, and content-based language teaching, there are identifiable traits that characterize CLIL as a unique approach. Baranova et al. (2020), pointed out that CLIL is a model that increases the level of motivation due to the employment of the target language in the context of different thematic modules. In that regard, it was found that high schoolers feel quite motivated when learning English with CLIL methodology. Particularly, they feel more encouraged in their Language and Social Studies classes because they address topics of social interest. Moreover, Verdugo (2011), claimed that within the CLIL methodology, language develops oral communication skills. In that sense, findings demonstrated that oral interaction, such as conversations and group discussions, is definitely promoted in Language and Social Studies classes. It is easier for learners to talk about current social topics and language than complex issues related to Math and Science.

Coyle et al. (2010), established that CLIL is not content teaching translated into a different language (code) from the mother tongue. However, results demonstrated that the teacher translates more than half of the content taught in the different subjects, which is striking considering that the institution where the research was conducted is a bilingual institution. Moreover, McDougald (2018) claimed that schools need to plan for short, medium, and long-term goals because those objectives cannot be achieved quickly. In that vein, it was found that students develop a project at the end of each term for every subject they take, which demonstrates that teachers definitely plan for long-term goals.

Genesee (1994), suggested that students who are immersed in CLIL methodology can demonstrate the same abilities, even beyond those of native speakers, in terms of writing or speaking. In that regard, it was found that learners improved the core skills of the English language by improving their reading, listening, writing, and speaking skills about the different subjects. Finally,

students learned more vocabulary due to the content of the subjects.

Finally, Schmitt (1997), divided strategies to learn vocabulary into memory, cognitive, metacognitive, and activation. In that sense, it was found that students employ them all to learn new words. Nevertheless, it is fundamental to highlight that memory, cognitive, and activation strategies were the most used by high schoolers. Using the memory strategy, learners relate words to their synonyms and antonyms, employ new terminology in a sentence, and paraphrase. Moreover, within the cognitive strategies, students summarize, synthesize, outline information, and so forth. Lastly, within the activation strategies, they write sentences using the new terminology they have just learned. On the other hand, the metacognitive strategy was the least used. In other words, it was found that it is still challenging for students to identify which words are crucial for them to learn and to get the main idea of a determined passage.

CONCLUSIONES

Students feel more motivated to learn English when they find opportunities to employ the language and are exposed to oral interaction and group discussions about interesting current social issues.

Learners develop a project at the end of each term, to even more expose them to the target language. Teaching about culture prepares students to go abroad. Students' role is active since they are the ones who work together in order to find solutions.

Students' linguistic skills and vocabulary improved because they had a lot of practice reading, listening, writing, and speaking, but they still need more exposure to listening skills.

Memory strategies are the best for students when they want to relate information because they can employ synonyms. By contrast, it is more complex for them to learn new words when they use antonyms. Moreover, learners could summarize texts, identify main ideas, and learn more vocabulary by employing activation strategies such as writing paragraphs.

CONTRIBUTION OF THE AUTHORS

The contribution made in this study all researches played a fundamental role in the development of the investigation those are: Marbella Cumandá Escalante Gamazo, Erick Patricio Arias Quinga, Xavier Sulca Guale y Dorys Cumbe.

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