

**The CALLA instructional model as a pedagogical strategy to improve English reading
skills in rural students of ninth grade at Florentino González School**

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According to Steve Jobs: You cannot connect the dots looking forward; you can only connect them looking backwards. So, you have to trust that the dots will somehow connect in your future. Therefore, my acknowledgments are for all the dots in my life: my parents, family, close friends, tutors, and mainly my students. Today I am a better teacher thanks to my students' curiosity, doubts, and confidence. I hope in the future to be a big dot in their life.

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Content

The document consists of five chapters. The first chapter includes an introduction to the investigation, in which the statement of the problem and the context in which the study was carried out are analyzed. It also briefly explains the research topic and the general objectives, the specific objectives, and why the research problem was chosen. The second chapter presents some theories and research carried out by other authors on the object of study. This section describes the theoretical and conceptual bases that support the research proposal. The third chapter includes the research design, emphasizing the method and approach adopted for data collection and analysis. In addition, the study population, the impact of the research, the ethical protocols, and the techniques for data collection are described. The fourth chapter covers data analysis and results, including everything related to data management processes, surveys, interviews, testing-presentation, and the reliability and validity of the investigation and results. The discussions and conclusions, as well as the relevance of the findings, pedagogical and research implications for the field of study, suggestions for future research, a bibliography, and appendices, are all included in the fifth chapter.

Methodology

This research study was conducted at the Florentino González School located in a rural area of the municipality of Coromoro - Santander, in Colombia. A group of 16 ninth-grade students participated in the study to whom were applied different questionnaires, interviews, and comprehension checks. The data was obtained through the implementation of surveys, interviews, observations, diagnostic activities, and workshops focused on improving students' reading comprehension through the CALLA instructional model and the reading strategies of

the SQ3R reading comprehension method named for its steps: survey, question, read, recite, and review.

The research was carried out in five stages: problem identification, literature study and selection, design of activities and workshops, data collection and interpretation, results presentation. To determine the type of study first stage included three activities: the approach of the study object and objectives, a preliminary analysis, and the methodological design. During the second stage, all the theoretical content was classified and organized, which allowed choosing the CALLA instructional model and the SQ3R reading comprehension method as the basis for designing the reading comprehension activities. In the stage three all the activities, workshops, reading comprehension test, and questionnaires were designed and applied. The data obtained during stage three were tabulated and analyzed in stage four. Finally, for a complete analysis of the object of study were written the results, conclusions, and recommendations were.

Results

The results obtained in the research are the product of the application of reading workshops based on the CALLA instructional model and SQ3R reading comprehension method. However, to obtain more reliable information, an initial questionnaire was applied to find out how the students read in English, the strategies they applied, and how they managed to understand the texts. This questionnaire was complemented with direct observation carried out with the application of a reading workshop and reflective dialogue with the students after the reading workshop was applied. From this process, two situations could be highlighted that prevented students from reading comprehensively. The first refers to the traditional teaching of reading comprehension where for example, the teacher reads while students just listening or

where the teacher promotes the dictionary use to understand the text, and so on. In this sense, the students, before reading the text completely, used the dictionary to translate word by word each of the sentences and thus achieve understanding. The second refers to the way they tried to understand the general information in the texts. In general, the students did not know any reading strategy or were not aware of the processes they carried out while reading.

Considering the previous situation, learning guides focused on the application of the CALLA instructional model and SQ3R reading comprehension method were designed. The learning guides were designed with the main objective of teaching ninth-grade students the steps they should take considering the principles of the CALLA instructional model and the SQ3R method: 1. Preparation – Survey, 2. Presentation – Question, 3 Practice – Read, 4. Self-Evaluation – Recite, 5. Expansion – Review. The first two reading workshops were guided by the researcher and the others were resolved by each of the students autonomously. To evaluate if they really understood or were able to do it on their own, after the students understood how to apply the reading strategy, control workshops and questionnaires were applied that allowed them to reflect on the reading process. Once all the workshops were applied, five questionnaires were applied to the students to measure their progress in developing their reading ability and their understanding of the use of the steps contemplated in the CALLA instructional model. The data was organized in a Microsoft Word and Excel file where from statistical graphs, it was easy to compare and see the evolution of the students. (See chapter 4)

Conclusions

The research development, in addition to improving the reading skills of the ninth-grade students at the Florentino González School, managed to motivate them to continue learning English with metacognitive and reflective processes. For example, using the CALLA

instructional model as one of the research axes helped students become aware of how they learned, evaluate their effectiveness, and significantly improve the processes that prevented them from learning. On this aspect, it should be noted that most students had never analyzed how they learned. However, as the students became aware of their learning, they became more committed to the processes proposed in the research and developed strategies for themselves that allowed them to advance faster in developing their reading skills. The application of the SQ3R reading comprehension method positively impacted the improvement of the reading skills of ninth-grade students.

Additionally, learning and applying the method in different reading activities changed their vision and how they learned English. Therefore, it is vital to highlight the continued participation and commitment of the students involved in the research. The active involvement of the students in each of the sessions allowed for the creation of activities that coincided with their level and interests.

On the other hand, how the intervention was structured in the classroom and the mediation directly and in three ways, teacher-student, student-teacher, and student-student, contributed to achieving the objectives in the planned time. However, like any skill, it is necessary to continue applying more workshops and strategies such as those proposed in this research to improve students' reading skills.

Abstract

Many teachers of English use the CALLA instructional model to teach English as a foreign or second language. According to Linde (2016), the model is focused on increasing language fluency and understanding through strategies that promote autonomous learning. Therefore, using this model in rural schools in Colombia, where there is generally no access to sufficient educational resources for learning English, is essential. The teaching-learning strategy helps students develop skills to understand and process information in texts in English. Additionally, it contributes to developing metacognitive skills in students, allowing them to recognize their strengths and weaknesses while learning and develop strategies to improve their learning.

This research focused on enhancing the English reading skills of rural ninth graders at Florentino González School through the CALLA instructional model. To this end, the researcher designed and implemented different reading comprehension activities based on the structure of the CALLA instructional model, which includes five phases: preparation, presentation, practice, self-evaluation, and expansion. Different data collection instruments were also carried out while applying the reading comprehension workshops to the 16 rural ninth graders at Florentino González School, such as surveys, interviews, observations, diagnostic activities, and workshops.

All these applied elements were favorable to analyzing the relevance of using pedagogical strategies such as CALLA instructional model in English teaching, mainly in developing reading comprehension skills. The results showed an improvement in how students read, analyze, interpret, and discuss the ideas of the texts. Therefore, it is essential to mention that the CALLA instructional model is fundamental to improving the English reading comprehension of rural school students in Colombia because it provides them with a structured

and systematic approach to language learning and understanding of academic concepts in English.

Keywords: English learning, instructional model, learning strategies, metacognition, reading strategies

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Introduction of the Research Study

Learning English in rural areas for years has been one of the most notorious difficulties in Colombian education. Rural schools need teachers specialized in teaching English, and the gap in this area compared to urban schools tends to grow larger. Additionally, while teachers in rural areas seek to facilitate learning a foreign language for their students, the government from the national education ministry requires that eleventh-grade students finish their school cycle with a B1 level according to the Common European Framework of Reference. (CEFR). However, only some reach the expected level when analyzing standardized test results. When students were asked why they did not perform better on a standardized test, many said they had difficulty understanding the texts on the test. Unfortunately, reading comprehension problems are one of the most common difficulties in learning English. In many cases, these problems may occur due to the students' lack of vocabulary, the unawareness of reading comprehension strategies, and a low level of proficiency in the foreign language.

To know the most common issues in reading comprehension, this research was carried out at the Florentino González rural school in Coromoro - Santander, Colombia, with a group of 16 ninth-grade students who presented reading comprehension difficulties in English. The group was selected because they were part of Colombia's last basic education cycle. Therefore, it allowed measuring the effectiveness of the strategies proposed more effectively, providing, in turn, the necessary time to improve the strategies and skills of the students before the end of their school cycle. On the other side, the research focused on the search for metacognitive strategies that would help students improve their reading comprehension skills and reflect on their learning process. Additionally, to achieve the study's objectives, various pedagogical activities were

carried out based on the CALLA instructional model as the basis for learning and the SQ3R reading strategy as a critical factor in improving students' reading comprehension skills.

Context of the Research Problem

Teaching English in rural schools in Colombia is a challenging task. Many rural schools do not have access to the resources needed to teach English, such as textbooks, teaching materials, language learning software, or internet access. Additionally, teachers in rural schools may not have adequate training to teach English. This may be due to the lack of training opportunities since rural schools often have less access to training programs or because there are not enough English teachers in Colombia to cover the different needs in urban and rural public schools. According to research by the British Council (2015), in Colombia, government policies on bilingualism do not reach rural areas due to a lack of resources or labor. Consequently, the level of English of rural students compared to students from urban areas or cities remains low. To try to mitigate this educational gap, it is common in rural schools for teachers with training in other subjects to teach English classes despite not having adequate training to teach the foreign language. As a result, instruction in English is inadequate for students. An example is the case of the ninth-grade students at the Florentino González school, who have been experiencing this situation for many years. Florentino González School is a rural school located in a remote area of Coromoro-Santander. It is an official mixed educational institution that offers preschool, primary, and secondary. The pedagogical model followed by the teachers of the Florentino González school is called "Escuela Nueva," a formal education school model, with responses to the rural multigrade and the heterogeneity of ages and cultural origins of the students. This model is focused on the student, promoting active, autonomous, and cooperative learning.

However, although the educational model allows the development of different skills in the students, due to the fact that ninth-grade students have not had teachers trained to teach English, it has not been possible to improve their level of English. Therefore, one of the pedagogical alternatives to help students progress in learning English is to plan activities based on the CALLA instructional model. The Cognitive Academic Language Learning Approach (CALLA) is a pedagogical approach that focuses on developing cognitive and academic skills in students to improve their ability to learn a second language. Another characteristic of the CALLA instructional model is that it encourages autonomous learning, meaning that students become responsible for their learning. Additionally, CALLA is a flexible model that can be adapted to the needs of students and the resources available in rural schools, making it suitable for rural contexts where students may have less access to trained teachers and educational resources created to learn English.

On the other hand, another of the fundamental characteristics of the CALLA instructional model is that it is based on the principles of metacognition. Metacognition refers to students' ability to understand how they learn, including knowing their abilities, strengths, weaknesses, and learning preferences. CALLA emphasizes metacognition's importance in helping students understand how they learn the language and develop strategies to improve their learning. Students learn to reflect on their learning, set learning goals, and assess their progress. In addition, CALLA emphasizes the development of effective learning strategies, such as planning, monitoring, and evaluation, which are important components of metacognition. In summary, teachers of English can use the CALLA instructional model because it focuses on the development of cognitive and academic skills, is flexible, focuses on language learning in academic contexts, and encourages students' active participation in their own learning.

Research Question

How to improve English reading skills in rural ninth graders at Florentino González School through the CALLA instructional model?

Objectives

General Objective

To enhance the English reading skills of rural ninth graders at Florentino González School through the CALLA instructional model.

Specific Objectives

To identify ninth-grade students' barriers using the current English learning guides.

To design English learning material based on the CALLA instructional model.

To analyze implemented material in ninth-grade students on improving English reading skills.

Scope, Limitations, and Delimitations of the Research

Research topic

The current study aimed to examine the role of the CALLA instructional model in improving English reading skills in rural ninth-grader students at Florentino González School. The sample was the ninth graders who participated in various instructional initiatives as part of the current research. The procedure involved the design of new learning materials with a metacognitive approach and the assessment of their impact on English learning. With this strategy, it was possible to evaluate how well the metacognitive approach is integrated into the English teaching materials and how well the students adapt to the new process.

Scope

This research focused on searching for strategies that improve reading skills in English in high school students. Although there may be different methodologies that can be applied in teaching English, in this research, the Cognitive Academic Language Learning Approach (CALLA) instructional model was selected as it has proven to be effective in improving English language proficiency in students in various contexts. This study is expected to provide valuable information on the effectiveness of CALLA in improving the English reading skills of rural students in Colombia. Also, a look at rural students' perception of the use of CALLA in reading comprehension activities and an evaluation of the effectiveness of CALLA in improving their English reading skills. The study also provides information on the challenges and opportunities to implement CALLA as a pedagogical strategy to teach English in rural schools where there are usually no teaching materials or trained teachers for foreign language teaching.

Limitations

Although implementing the different activities was feasible, some restrictions had to be solved. First, it was necessary for the headmaster's permission to apply the activities. Even though the institution did not have teachers trained to teach English and the research development offered an opportunity to improve student learning in this area, because it is a public school, the headmaster took a long time to grant the necessary permission. Secondly, the parents' consent had to be obtained for the students to participate in the research, which caused another delay at the start of the study. The third limitation that had to be solved before applying the activities was to commit all the participating students to solve all the activities and deliver them on time. In rural areas, it is common for learners to study and work. For this reason, many students do not complete their school activities, lose interest, or quit their studies. Therefore, all the material had to be designed to be solved during class time. The fourth difficulty that had to be resolved was the class time for applying all the workshops. Throughout the research process, the classroom time assigned to the research was affected by different situations, which caused the process to be interrupted on several occasions.

Significance of the Study

The findings of this study will benefit the students at rural schools in Colombia since it will provide some strategies to improve their English reading skills. The study searches for breaking the traditional schemes in English teaching and offering strategies based on autonomous learning and metacognitive processes. According to Chamot (2009), the Cognitive Academic Language Learning Approach (CALLA) is a teaching model created to improve students' learning and academic performance in a second language. The principles of the model are simple and are based on improving students' academic performance through a methodology

that integrates language, content, and learning strategies. The CALLA instructional model goal is to help students "learn to learn" and become autonomous learners. In the words of Belhadia (2014), the CALLA learning model is based on the teaching of clear learning strategies through a process that the teacher initially directs and that, as it progresses, develops the student's autonomy. Therefore, designing learning strategies based on metacognitive elements will help the students transform how they learn, participate in class, and collaborate with others.

Literature Review

Introduction to the Literature Review

One of the most crucial language skills is reading. More than any other period in human history, its significance is felt in daily life. Owing to significant technological advancements, we now have access to a massive body of knowledge via the internet. For students to understand and benefit from this knowledge, they must be proficient readers. According to Ghahari and Basanjideh (2017), reading comprehension is a challenging process involving understanding a text and synthesizing its meaning. Students must successfully mix a variety of reading sub-skills to read fluently and comprehend what they are reading. CALLA instructional model is a strategy that could help students reach this goal considering the metacognitive processes that make them aware of how they learn and allow them to improve themselves as they progress. On the other hand, the technology made available to teachers and students a broader vision of what the academic world has achieved. In that way, the pedagogical models in this new era have been nourished by the different experiences of teachers and students worldwide. Therefore, reading is the most effective way to learn about the various advances in teaching and learning English. In other words, one of the most urgent tasks for teachers must be to strengthen the reading skills of their students. Students need to develop problem-solving and analytical skills, critical thinking, and reading skills, allowing them to access all the academic content produced every day in the world. However, teachers must teach students to learn with metacognitive processes that make them aware of how they learn and allow them to improve themselves as they progress. The following chapter describes some theoretical aspects of the role of the CALLA instructional model in learning English, the reading process, and the SQ3R strategy.

State of the Art

In a research made by Belhadia (2014) titled *Enhancing Reading Comprehension through Metacognitive Reading Strategies for Business English Learners*, the author analyzed the influence of the CALLA instructional model and other strategies in the development of reading skills. The research was conducted through metacognitive reading strategies training focusing on reading skills. The researcher conducted the research at the Faculty of Economic Sciences, Management, and Commercial Sciences at the University of Hassiba Ben Bouali in Algeria. The study showed that raising participants' metacognitive awareness of reading strategies and promoting their use is possible. Besides, he confirmed that students of the experimental group improved their skills in comprehending reading materials.

Another study was conducted by Shamsi and Mahmoodi (2015) about the effectiveness of metacognitive strategies instruction on the reading comprehension performance of EFL students. The researchers found that after applying the different activities based on the Cognitive Academic Language Learning Approach (CALLA) instructional model, the students achieved improved reading comprehension. To Shamsi and Mahmoodi (2015), this improvement was facilitated by the experimental group's clear instructions and practice on planning and monitoring reading. Besides, the findings also corroborated the results of similar research that evaluated the effectiveness of metacognitive strategies in language teaching, suggesting that students can be trained to use many techniques for reading comprehension.

Karbalaei (2011) evaluated some reading strategies that were based on the CALLA instructional model and that were used in two different contexts: English as a foreign language (EFL) and English as a second language (ESL). The study was conducted at universities in Iran and India with a sample of 189 randomly selected students. The strategies focused on teaching

students underlining methods to solve multiple-choice reading comprehension tests. After several sessions of pedagogical intervention, the results showed that explicit instruction helped improve university students' reading comprehension. Gurses (2013) investigated the effects of reading strategies based on the CALLA instructional model applied to 18 students at the French Preparatory Program at Eskisehir Osmangazi University. The study data were collected through different reading comprehension tests, with scales that evaluated reading strategies and other techniques that included thinking aloud. After analyzing the data, the researcher concluded that the type of instruction and the strategies applied had positive effects on the reading comprehension of the students and the frequent use of the reading strategies learned during the research. According to Gurses (2013), the Cognitive Academic Language Learning Approach (CALLA) and its instructional design effectively train students in analytical expository reading strategies.

Tristiana (2016) researched to validate the use of reading strategies based on the CALLA instructional model applied to reading expository, analytical texts. The research used the qualitative approach, and the participants were students from 11th grade. Data collection was done with think-aloud protocols, observations, and questionnaires. The research results showed that when the students applied the CALLA instructional model as a reading method in analytical expository texts, they could use metacognitive, cognitive, and socio-affective strategies, which helped them improve their reading comprehension. Therefore, the methodological characteristics of the academic, cognitive approach to language learning (CALLA) contribute to enhancing students' reading skills and their ability to apply different reading strategies. Rafidi (2021) conducted a study examining the effect of the Cognitive Academic Language Learning Approach (CALLA) on developing students' reading skills and satisfaction with English. The research

involved 59 students from Birzeit University, Palestine, and five instruments were applied at different intervals for 14 weeks. The main findings revealed that the applied strategies significantly impacted the development of students' reading skills. According to Qustandi (2021), integrating reflective processes in learning reading skills and using cognitive, metacognitive, and socio-affective learning strategies of the CALLA instructional model is essential to develop reading self-regulation. Therefore, differentiation in reading instruction proved effective, reinforcing motivation, and creating readiness among students.

Theoretical Framework

Cognitive Academic Language Learning Approach (CALLA)

CALLA is a teaching-learning model based on principles of cognitive psychology and instructional design created by Anna Uhl Chamot and J. Michael O'Malley. The main objective of the method is to provide the student with a pedagogical structure that allows them to advance quickly in their learning and in an autonomous way. The structure comprises five phases that are developed in the following order: 1) Preparation; 2) Presentation; 3) Practice; 4) Self-evaluation; 5) Expansion. In each phase, the student reflects on the learning strategies and how he learns, allowing him to move forward with more security. Once the students incorporate the method into their way of learning, they eliminate the initial rigidity and become more competent in solving the different activities proposed by the teacher. According to Innovative Language (2009), the objective of CALLA is to allow students to learn a new language independently and self-regulate as learners while managing to master different learning strategies. Therefore, one of the main advantages of the CALLA instructional model is that it promotes using metacognitive strategies in students. In this way, students constantly reflect on their learning process, creating mental structures that allow them to learn faster.

The CALLA Phases

O'Malley and Chamot (2009), in their book "The CALLA Handbook," developed an instructional model based on the principles of the CALLA. The instructional model provides five stages to present, teach, practice, evaluate, and apply different strategies for learning English. It also includes activities the teacher directs and centers on the student, encouraging autonomous learning. In Figure 1, O'Malley and Chamot (2009) summarize the responsibility of students and teachers in each stage so that the active participation of the students and continuous accompaniment by the teachers are involved. In the first two stages (Prepare and Present), it explains that although it is the teacher's responsibility to activate the student's prior knowledge and propose some strategies to use depending on the type of reading, it is also the responsibility of the student to be attentive to the instructions given by the teacher. In the third stage (Practice), students must use the selected strategies to understand the text following the teacher's instructions. Meanwhile, the teacher observes how the students apply the strategy and provides continuous feedback. Finally, in the last two stages (Evaluate and Expand), students must evaluate the effectiveness of the method used in the reading process, compare it with other techniques, and reflect on which ones are most useful depending on the type of text. For his part, the teacher evaluates the effectiveness of the strategy applied by the students and motivates them to use it in other reading comprehension activities. All these actions while the CALLA instructional model is carried out show the development of the cognitive and metacognitive abilities in students because, at each step, they must reflect on all the actions they carry out to understand the texts and evaluate their effectiveness to finally select those that best suit their style and level of learning.

a) Preparation: the purpose of this stage is to activate in students their prior knowledge about the topic. In this step, the teacher introduces the theme with many questions and explains the importance of using metacognitive learning strategies. The students' answers provide information to know their current level of language proficiency and the learning strategies they use for solving similar tasks.

b) Presentation: this stage aims to model the learning strategy. The teacher can use many techniques, like demonstrations, visual support, and graphic organizer, to explain to students how to use them in the different learning processes. This step helps students understand the relationship between effective learning and strategies to improve each of their English skills. According to Chamot (2009), it always takes time for students to learn new learning strategies. For this reason, teachers should use a variety of examples to help students understand how to apply them in different contexts.

c) Practice: in this stage, students use the strategies they learned in the presentation phase to acquire new knowledge. While students explore the latest knowledge, they probe the different techniques and know what is the most adequate for their learning process. During this phase, the teacher observes and analyzes how students use the various strategies and provide simple examples for students with difficulties. The activities in this stage can be solved individually or in groups depending on the level of the students. While the students work in groups, the teacher must provide spaces for reflecting and analyzing the applied strategies.

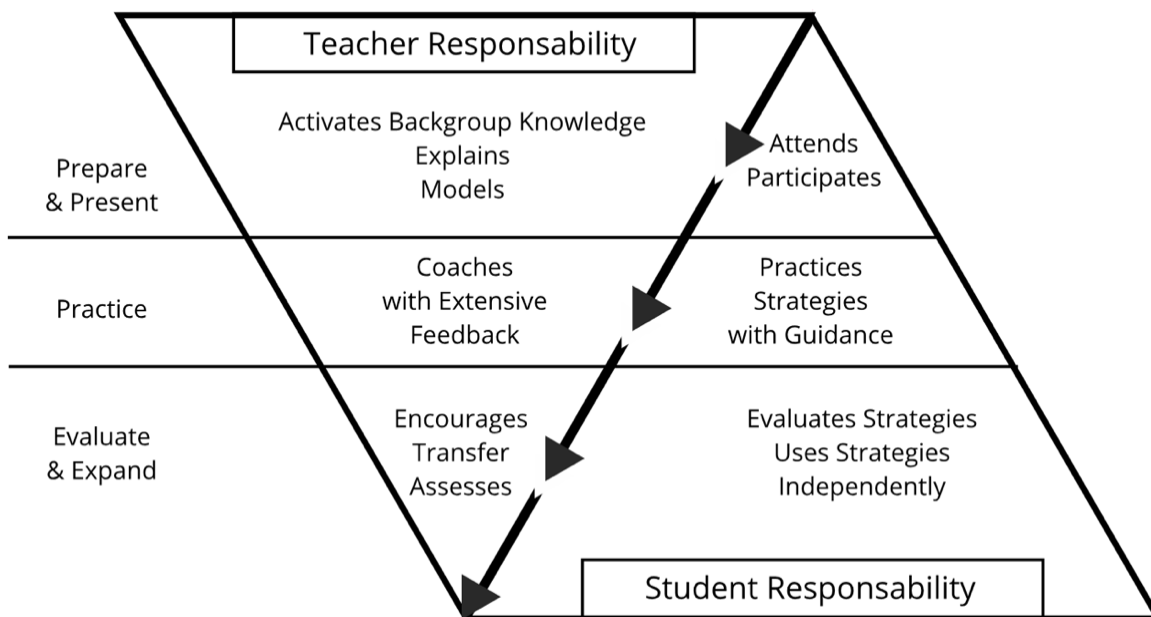
d) Self-evaluation: in this phase, the teacher and students reflect on the strategies used in the lesson. Besides, students can judge the strategy based on their progress and share the adaptations they have realized to improve the learning process. During this stage, reflecting on the difficulties students had with the learning strategies is fundamental. Knowing the positive

and negative effects of the procedure can help students and teachers to choose better methods according to students' levels. According to Chamot (2009), teachers can ask students to reflect on their learning styles and help them realize that some strategies may not suit everyone.

e) Expansion: in this final stage, the teacher motivates students to use the most effective strategies in other activities or contexts. This activity can provide students with another way to evaluate the strategy used in the classroom. With this reflection, teachers can ask students to list the techniques they have used so far and determine which of them they can use in each learning moment.

Figure 1

Framework for strategies instruction



Note. Instructional model based on the principles of the CALLA designed by Chamot (2009).

Metacognition

According to Anderson (2008), metacognition is simply knowing beyond knowledge. Metacognition encourages healthy, critical assessment and evaluation of knowledge, which can

result in certain adjustments to how learning is organized, and the methods used. To reduce any potential frustration or demotivation that may arise during the English language learning process, students must develop metacognitive skills. Students become aware of how they learn by utilizing metacognitive techniques while learning English. They are, therefore, more likely to swiftly improve the up downs once they have given it some thought and identified the best ways for their learning rate. To Anderson (2008), metacognition in language learning can be divided into five main and overlapping elements. In Figure 2, Anderson (2008) shows a model of metacognition.

1) Preparing and planning for learning: an essential stage of any learning process is planning. During this stage, the teacher selects designs and organizes the strategies he will use in each class lesson. At this stage, the teacher must consider the different levels of the students and how they will activate their previous knowledge. For example, in developing reading skills, prior knowledge and vocabulary play a vital role in understanding different texts. If students do not have enough prior knowledge to understand a text, the teacher must find a way to create it before starting the lesson. When students do not know part of the content or vocabulary of the texts they will read, they are less likely to feel motivated to carry out the activities proposed by the teacher.

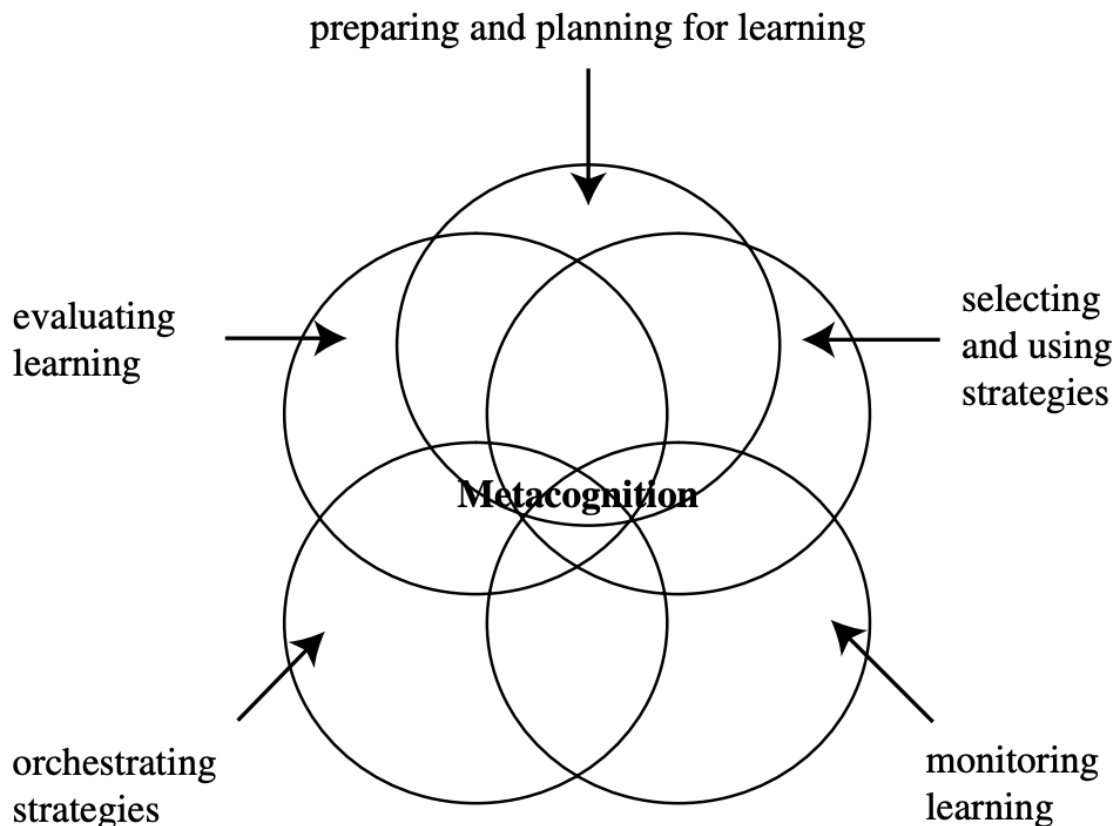
2) Selecting and using strategies: Selecting and using strategies: Learning strategies are the set of procedures or techniques teachers use to mediate knowledge in the classroom. Therefore, selecting the most appropriate strategies and knowing when and how to use them is one of the most fundamental tasks in teaching. To Kohler (2005), learning strategies not only train students' ability to learn and solve problems but also engage students' intellectual development, strengthening their abilities as they learn. According to Anderson (2008), the

metacognitive ability to decide when to use specific strategies suggests that students reflect on their learning process and make conscious decisions about what they should do to learn better.

3) *Monitoring learning*: Once students learn to use the different learning strategies, their next step is monitoring their use. At this point, students can identify where they are having the most trouble and what they do not understand, and they can start thinking about how to approach the obstacles that have been set before them. Teachers can help students manage their learning through simple assessment rubrics that allow them to reflect on their learning. This aspect is defined as metacognitive behavior and benefits student learning.

4) *Orchestrating strategies*: Learning strategies do not work in isolation. Commonly, the strategies that work to learn a specific skill or content do not work for learning a different skill. However, recognizing which aspects of a process are helpful at a given moment and using them is a characteristic of metacognitive skills. Students must not depend on a single learning strategy; they must be able to integrate several strategies in such a way that it helps them to become better learners.

5) *Evaluating learning*: Another of the metacognitive skills that students must develop is the ability to evaluate their knowledge. According to Anderson (2008), good language learners will be able to measure the effectiveness of what they do. Students who fail in learning do not measure academic success or failure. However, teachers can facilitate this task in students through evaluation forms, self-assessments, and reflection.

Figure 2*A model of metacognition*

Note: process designed by Anderson (2008)

The Reading Process

For many people reading is only an activity where the reader gives meaning to the group of letters in a text. Nevertheless, reading implies a broader process that includes different tasks like extracting, comparing, and integrating the information of the text with what is already known. According to Grabe and Stoller (2020), having complete knowledge about the complexity of reading is challenging because texts serve different purposes, and there are various processes for reading comprehensively. Grabe and Yamashita (2022) describe the reading processes in Table 1.

Table 1*Processes that define reading*

-
1. A rapid process
 2. An efficient process
 3. A comprehending process
 4. An interactive process
 5. A strategic process
 6. A flexible process
 7. A purposeful process
 8. An evaluating process
 9. A learning processes
 10. A linguistic process
-

Note: Reading processes designed by Grabe and Yamashita (2022).

Reading is a rapid and efficient process: a typical reader can read 250 or 300 words per minute, even though some people can read faster. Reading requires the use of several skills at the same time. Grabe and Yamashita (2022) believe that while we read, our brain performs rapid coordination between the automatic recognition of letters, words, and syntax while it forms meanings, criticizes, evaluates, and compares the entire text with prior knowledge. Therefore, reading is quite an efficient activity.

Reading is a comprehending process: the first purpose of any reader is to understand the ideas the writer is trying to convey. Comprehensive reading is an essential step for developing the reader's critical thinking. During the critical reading process, the reader analyzes the meaning of the text and infers and deduces the implicit information.

Reading is an interactive process: reading is such a complex process that it builds an imaginary dialogue between the writer and the reader. Immediately when the reader starts a text, he becomes an active subject that uses his knowledge to interpret the information. Based on this

understanding, the reader asks himself different questions, identifies the key and secondary ideas, and uses his vocabulary to give meaning to what he reads.

Reading is a strategic process: many people develop strategies to read and understand texts. For example, scanning, skimming, and SQ3R are some strategies people use to read with confidence. Therefore, reading is an intentional, interactive, and gradual process. In short, the comprehension of a text does not occur immediately, but it is a successive process.

Reading is a flexible process: in the same way that there are many types of texts, there are also different strategies and methods that can be applied to the reading process. Commonly, people do not use the same approach when they read for pleasure that when they read to learn. Even the strategies can be different for each learning level.

Reading is a purposeful process: one of the main goals of reading is to expand the knowledge about a specific topic. Therefore, readers use many strategies to determine what is the most meaningful information depending on their interests.

Reading is an evaluation process: according to Grabe and Yamashita (2022), evaluation is a type of reading strategy. While people read, they evaluate and monitor how they read and if they understand the texts—carrying out the evaluation process. At the same time, reading involves our attitudes, emotions, a set of inference skills, and the use of prior knowledge.

Reading is a learning process: in any way, reading is an activity of learning. According to Becker et al. (2017), as with almost any text a person reads, learning occurs when the information in the text is evaluated, associated with prior knowledge, and made inferences. Additionally, when the reader answers the unknowns that may appear in the reading, he/she strengthens his/her ability, which implies a process of continuous learning.

Reading is a linguistic process: according to Grabe and Yamashita (2022), reading requires making graphemic-phonemic connections and recognizing the words and phrases that are read. In addition, the reader must have morphological, syntactic, and semantic knowledge of the language in which the text is written.

SQ3R Reading Strategy.

SQ3R is a reading strategy created to improve students' reading comprehension. The method was proposed by psychologist Francis P. Robinson and is described in his book *Effective Study* published in 1946. SQ3R is an acronym that means Survey, Question, Read, Recite, and Review. The strategy seeks to familiarize students with the texts so that they can understand them easily. The method includes active review exercises to ensure that students retain the material over time. According to the University of Manitoba (2020), people remember information more quickly when they connect it with their emotions and when they make associations with pre-existing ideas. Therefore, SQ3R is a reading strategy that helps speed up and improve reading comprehension. The method was proposed by psychologist Francis P. Robinson and is described in his book *Effective Study* published in 1946. SQ3R is an acronym that means Survey, Question, Read, Recite, and Review. Each of the steps of the SQ3R reading strategy is described below.

Survey(S).

This is the first step of the method; during this stage, the reader must thoroughly review the text. Among the actions that the reader can perform are the following:

- Read the title and subtitles.
- Highlight familiar words.
- Briefly review the illustrations, graphs, tables, etc.

- Read the summary of the text (if you have it)
- Revise the highlighted or italicized words or phrases.

Question (Q).

This stage establishes that the reader must ask himself some questions before reading the text in its entirety. This way, the reader will be able to focus while reading. Some of the questions the reader may ask: This way, the reader will be able to focus while reading. Some of the questions the reader may ask:

- What do I want to achieve with this reading?
- What do I need to know?
- What are you most interested in learning?
- What will the information be useful to you?
- What is this text about?

Additionally, the reader can also perform at this stage to convert the titles and subtitles into possible questions.

Read (R1).

During this stage, readers read the text trying to answer the questions raised in the previous step. Some actions that can be carried out during this stage are the following:

- Actively read the text, underlining the ideas that allow them to answer the questions posed in the previous phase
- Make notes at the edge of the pages
- Answer the questions in their words. They can write the answers if necessary
- Match the reading speed with the degree of comprehension. Before reading the text entirely, they can stop or reread it if they do not understand it

- Underline or circle the key or unknown words
- Create keys with signs or colors to mark the most crucial information or the one that is difficult to understand

Recite (R2).

This stage is considered the most important in the reading process. At this point in the SQ3R strategy, the reader is expected to be able to recite in their own words the general meaning of the text. Paragraph by paragraph, the reader can summarize the main ideas to assess his understanding of the text. According to Virginia Polytechnic Institute and State University (2023), it is essential that after reading each section of the text, the reader stop, think about the questions that were previously asked, and try to solve them. If he cannot solve the questions, stop, and go to the next section when he solves the questions.

Review (R3).

After reading, immediately review the main ideas and the ones underlined. This process should be brief. During this stage, the reader must examine the answers to the questions that were raised and reflectively evaluate how much they understood the text. Discuss your solutions and what you learned with others who have read the same text; this action is an effective strategy for reviewing information. Another technique you can apply at this stage is to tell what you have understood from the text in your own words or associate it with a more familiar context.

The Marbella International University (2020), purpose in Figure 3 actions to use the SQ3R reading strategy.

Figure 3

Strategies to use to prepare for reading, engage in reading, and review reading

SQ3R READING STRATEGY	HOW TO SURVEY	HOW TO QUESTION	HOW TO READ	HOW TO RECITE	HOW TO REVIEW
	<ul style="list-style-type: none"> Look over the material: title, preview, headings, visuals, summary Read the summary if possible Think about background knowledge or information 	<ul style="list-style-type: none"> Turn headings into questions Ask what? Who? Why? And How? 	<ul style="list-style-type: none"> Look for answers to your questions Write in the margins Underline or highlight important concepts Break up the reading into chunks Take breaks when needed 	<ul style="list-style-type: none"> Say it out loud in your own words Write a summary of the paragraph or section Write notes or notecards for information Create a mind map or graphic organizer of the ideas and how they relate 	<ul style="list-style-type: none"> Look over your reading notes and quiz yourself on the information Make connections between readings and notes from class Revisit it weekly and test yourself on new and old material each week
FUN-DAMENTALS	WHY SURVEY?	WHY QUESTION?	WHY READ?	WHY RECITE?	WHY REVIEW?
	<ul style="list-style-type: none"> It gives you the big picture It helps you decide what's important You can connect information to what you already know It prepares you to read 	<ul style="list-style-type: none"> It helps you stay focused on the reading It gives you a purpose (looking for the answer) and creates interest It's good practice for quizzing yourself on topics 	<ul style="list-style-type: none"> It's how to get information from the textbook It's good preparation for your lectures & discussions It's an essential part of test preparation 	<ul style="list-style-type: none"> It helps you retain information after you read it It checks for your level of understanding It's a way to interact with the reading and stay awake 	<ul style="list-style-type: none"> It helps you retain information from week to week It helps you prepare for exams, papers, and assignments

Note. Actions to use the SQ3R reading strategy created by Marbella International University (2020).

Conceptual Framework

Grammatical Knowledge

Grammatical knowledge is fundamental to developing reading skills. The lack of grammatical knowledge causes reading comprehension problems. In the words of Zhang (2012), Grammatical knowledge is essential to understand what is read, especially when the linguistic information is evident, but the grammatical structures need to be clarified. To Macartney (2022), at each step of the reading process, readers must be actively involved and use various skills to understand texts fully. Some of the skills include having an extensive vocabulary, having prior knowledge of the subject you are reading about, and having an adequate understanding of grammar. Therefore, it is essential to analyze three critical English grammar aspects necessary for good reading comprehension.

1. Making links and connecting ideas: Writers shape texts by clicking the ideas they want to communicate. Cohesion is the term that best defines this process of combining ideas. Nuttall (2005) classifies the words and phrases of a text into two types. Those that are related to the “meaning” and those that are related to the “functional value.” The meaning refers to words used to avoid repetitions, such as pronouns and demonstratives. The functional value is the discursive markers and the conjunctions. In short, readers must know the function of each word in the texts to understand the ideas the writer wants to convey.

2. Understanding sentence structure: Readers must know the rules and principles of sentence formation to understand the texts they read quickly. According to Macartney (2022), good readers in English usually analyze sentences in parts to understand more complex ideas or expressions. In this sense, English teachers should strengthen the teaching of syntax as a critical element in reading comprehension.

3. *Recognizing uses of punctuation:* Another fundamental aspect to consider in the reading process is punctuation. The punctuation marks structure the text, delimiting the ideas and ordering the paragraphs. Because punctuation marks the rhythm and fluency of reading, English teachers must teach their students to make the respective pauses depending on the punctuation mark in the text.

Vocabulary Knowledge

According to Chen et al. (2019), for learning a second language and developing basic language skills (reading, listening, writing, and speaking), knowing a vast vocabulary of the language being studied is essential. To Figueroa et al. (2021), developing reading skills in students is one of the most critical challenges in learning any language. Currently, reading is considered one of the pillars of education and a fundamental element for constructing new meanings. According to this, different authors such as Perfetti (2010), Lopez and Rubio (2014), and Villalonga et al. (2014) consider that vocabulary plays a relevant role in reading comprehension, suggesting that linguistic richness increases textual understanding and promotes association with new vocabulary. Therefore, vocabulary learning is not only necessary for acquiring a foreign language but also for developing linguistic skills such as reading. When students do not know many words in the texts they read, their difficulties in understanding the content of the text will likely increase.

Vocabulary is essential to any reading process because it is the basis students use to predict reading content. Therefore, some reading comprehension difficulties may be associated with an insufficient level of the learners' lexicon. Goossen et al. (2012) suggest that knowing an expansive vocabulary is essential for reading comprehension because words are the basic elements of language from which larger structures such as sentences, paragraphs, and texts are

formed. Although learning a new language is not achieved solely with vocabulary and knowledge of grammatical rules and other elements typical of the culture is needed, English teachers must incorporate strategies that contribute to improving the linguistic level of students. For Altalhab (2019), vocabulary learning cannot be the primary objective in teaching a foreign language; however, it must be a priority to help students in this sense to develop their skills more effectively.

Nation (2013) studied vocabulary learning in a second language. His study describes the elements needed to improve how words are used in different contexts and levels. For a better understanding, he classifies information into form, meaning, and use. Nation (2013) organized the information to help students to know their abilities and weaknesses in perceiving information through reading or listening comprehension. "Form" refers to the oral or written knowledge students must consider when learning new vocabulary. The "meaning" includes the words' concepts, meanings, and referents. The "use" refers to the grammatical functions that words must fulfill in forming sentences and paragraphs. Table 2 created by Nation (2013) briefly describes what it means to know a word.

Table 2

What is involved in knowing a word?

Form	spoken	R	What does the word sound like?
		P	How is the word pronounced?
	written	R	What does the word look like?
		P	How is the word written and spelled?
	word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express the meaning?
Meaning	form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?

	concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	collocations	R	What words of types of words occur with this one?
		P	What words of types of words must we use with this one?
	Constraints on use (register, frequency...)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

Note. R = receptive knowledge, P = productive knowledge. Created by Nation (2013).

Having a large vocabulary is a fundamental factor for reading comprehension. It can even be shown that as students read texts on different topics, they expand their vocabulary. Therefore, English teachers should incorporate tasks in reading comprehension that focus on learning unknown language that students find in the texts they read. For Nouri and Zerhouni (2016), speech plays an essential role in the learning process of a foreign language to such an extent that it cannot be neglected in any of the activities that the teacher carries out in the classroom.

Prior Knowledge and Reading.

Reading implies that the reader can analyze the text and answer its associated questions. When a student reads a book, a letter, a magazine, an internet publication, or any other text, they must use all their thinking skills (interpret, analyze, evaluate, infer, explain, etc.) to fully understand it. In this sense, the reading process implies not only knowing how to read each of the words and sentences in the text but also connecting them with what they already know, anticipating the information, and highlighting the main ideas. In the words of Bleach (2019),

understanding a text requires complex interactions between the reader's prior knowledge and information in the text. Everything the reader learns during and after reading depends on what he already knows.

In general, prior knowledge is formed through students' life experiences and learning. According to Bleach (2019), when students know the topics they read, it is easier to understand new information, even when the sentence structure is very complex. Additionally, reading comprehensively requires that the student has developed higher-order thinking skills. The more complex the language of the text, the more you need to make connections between what you already know and the new knowledge. For this reason, students require a considerable accumulation of prior knowledge to make sense of the contents of the texts they read. While reading, all the knowledge associated with the text is activated to build the new meaning and understand all the information. When readers do not have sufficient prior knowledge to integrate the main ideas of what they read, it is more difficult for them to create a reading model.

Therefore, they may present reading comprehension problems. According to Hipwell (2020), reading comprehension depends on different factors; however, the most important is prior knowledge of the subject being read. For anyone, it is easier to understand what they read when they know the vocabulary or topic of the text. Prior knowledge enables the reader to understand much of the language in the text and prepare to understand many of the ideas and concepts. To Hipwell (2020), prior knowledge is the glue that allows associating what is already known with new knowledge.

Bottom-Up and Top-Down Processing

For human beings, language is the fundamental tool for communicating, expressing thoughts, ideas, and feelings, and understanding the opinions, ideas, and feelings of others. In

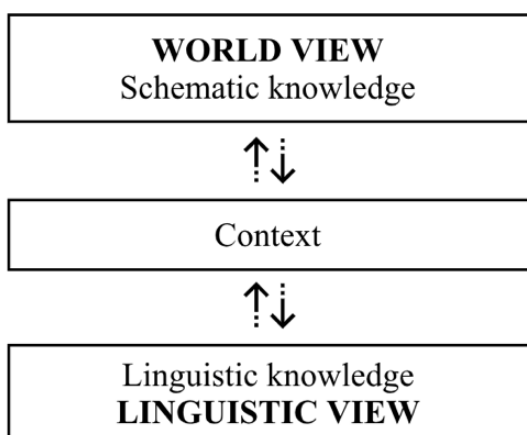
addition, depending on the use given to language, it is possible to construct and interpret the world differently. When people use their native language, they can understand information almost instantly because they use strategies (unconsciously) that help them decode ideas quickly. However, when it is necessary to understand the information in a foreign language, strategies must be used consciously. These strategies are called top-down and bottom-up and are used by the brain to break down and process the information it receives.

The Bottom-Up Processing.

According to Taylor (2022), during this process, the decoding of the text begins with the recognition of each of the letters, syllables, words, sentences, and others until reaching the general information. For Nadea et al. (2021), although word recognition depends on the reader's ability to process each of its features, it is likely that the most crucial component for a reader to quickly understand a text has to do with the frequency with which they use or see the words of the language he is facing. Figure 4 is a schema of the bottom-up processing purposed by Taylor (2022).

Figure 4

Bottom-up processing



Note. Schema by Taylor (2022).

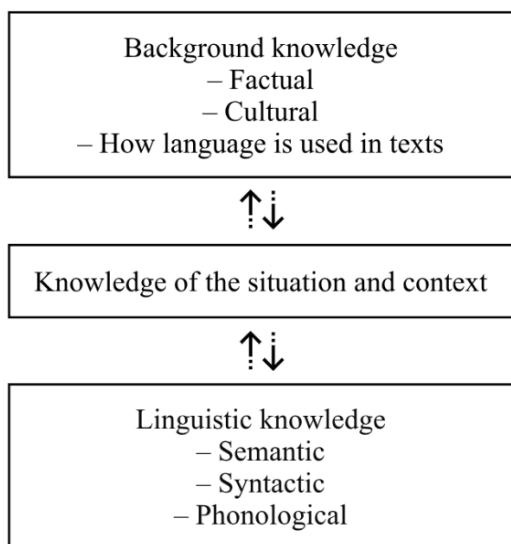
The Top-Down Processing.

Taylor (2022) suggests that to process and interpret information in any text, readers make use of "higher-level" features such as prior knowledge they have about the main topic, context, and meaning of the word, and main vocabulary, among others. They then make different steps "down" to the "lower level" syntactic and phonological features.

This process plays a fundamental role in reading comprehension, especially since the knowledge that readers have about the meaning of words allows them to quickly associate it with the content of the text. According to Nadea et al. (2021), because top-down processes activate word meaning based on the interpretation of the text context, they provide clear predictions about paragraphs, even when some words are unknown or visual information is missing. In fact, many readers use vocabulary recognition strategies to understand the main ideas of the text before reading it. Figure 5 shows the top-down processing purposed by Taylor (2022).

Figure 5

Top-down processing



Note. Schema by Taylor (2022).

Reading Comprehension Levels

According to Cervantes et al. (2017), the reading comprehension level can be defined as the degree and ability of the reader to interpret, process, and evaluate the information in the text. This ability includes the independence, originality, and creativity with which the reader reviews and analyzes the data. Therefore, considering that understanding a text requires constructing meanings beyond the text, strategies must be applied in the classroom to develop the three levels of reading comprehension: literal, inferential, and critical.

Literal Comprehension Level (what the author is saying): at this level, the reader recognizes the keywords and ideas of the text. In addition, he can understand information without active or deep intellectual intervention. It is common for the reader to be able to identify lexical and idiomatic terms and follow instructions. In the words of Cervantes et al. (2017), Recognition implies the identification of the following elements in the text:

- Main ideas: the most fundamental idea of a paragraph or story
- Sequences: identifies the order of the actions
- By comparison: identifies characters, times, and places explicitly
- Cause or effect: identifies exact reasons for specific events or activities

Inferential Comprehension Level (what the author means by what is said): this level is characterized because the reader can analyze the information beyond what the text says. Additionally, the reader can achieve deeper meanings by finding relationships between the different ideas in the text. The inferential comprehension level includes different thought processes, such as generalizing information, concluding, or predicting results. In other words, at this level, the reader can deduce similarities and differences, discover cause-effect relationships, and infer implicit meanings. For Cervantes et al. (2017), this level is characterized by the careful

exploration and interpretation of the ideas of the text and the association of meanings, which allows the reader to read between the lines and accept and infer what is implicit.

This level includes the following processes:

- Identify other details that the reader thinks could be included in the text to make it more informative, engaging, and persuasive
- Infer main ideas not contained directly
- Determine the sequence of actions that could occur if the text ended differently
- Infer the relationships between the causes of different events in the text and formulate hypotheses about motives or characters and their relationships in time and place
- Speculate what prompted the author to include specific ideas, words, qualities, and actions
- Predict events based on ambiguous readings, whether consciously or not
- Interpret figurative language and deduce the literal meaning of the text.

Critical Comprehension Level (why the author says what he or she says): at this level, the reader can evaluate the different ideas and information in the text. Readers must be able to differentiate between fact and opinion, identify persuasive statements, and judge the truth of the information in the text. This level is ideal since the readers can make judgments with arguments that allow them to accept or not what the text says. According to Cervantes et al. (2017), critical reading is evaluative because it involves the formation of the reader, his standards, and his knowledge of what he reads. These evaluations consider the properties of precision, acceptability, and probability.

The evaluation can be:

- *Reality or fantasy*: according to the reader's experience of the things or readings that surround him.
- *Relevance and validity*: compare your writing with other sources of information.
- *Appropriation*: it needs a relative appreciation of the different parts to assimilate it.
- *Rejection or acceptance*: it depends on the moral code and the reader's value system.

Rationale of the Research Study on the Literature

The bibliographic references selected for the development of this research marked the bases of the design and implementation of the learning material. They were also the theoretical support to understanding the different processes involved in the reading comprehension of texts in English. On the other hand, each of the theories described above strengthened the understanding of the study problem and how students can monitor their learning through metacognitive strategies. Additionally, all the theoretical support and the analysis of similar studies contributed to generating confidence about the research approach, the objectives set, the methodology, and the instruments designed for data collection.

Research Design

Introduction to the Research Design

This chapter specifies the methodological design used to obtain the information needed for this study. In addition, the elements, and the stages necessary to analyze the aspects of the CALLA instructional model to enhance the reading comprehension of students at Florentino González School are also described in this section.

Methodological Design

To understand how metacognitive processes like the CALLA instructional model and the SQ3R reading comprehension method contribute to improving reading skills, for this study, participatory action research (PAR) was chosen. According to Zapata and Rondan (2016), the PAR involves a continuous cycle of reflection in which both the researcher and the participants analyze the research activities and results. In this way, the researcher is engaged throughout the investigation and can better understand the object of study. In addition, the study involved mainly a qualitative study approach. According to Denzin and Lincoln (2017), one of the strengths of qualitative research is that it can locate the observer in the research object. This method includes various interpretative practices that allow the researcher to make what he is studying tangible. In this investigation, five stages were developed that gave structure and order to each of the fundamental moments of the investigative process. The process carried out is presented in Figure 6.

Figure 6*Investigation process*

Note. Own construction (2022).

Research Method

In this study, a mixed research method was applied. It involves explanatory, exploratory, transformative, and triangulation design. The mixed method integrates quantitative and qualitative research methods to draw on the strengths of each that allowing researchers to

combine inductive and deductive thinking. The mixed method is a longitudinal used to better understand a research problem in a particular group of students over a specific time. According to Coghlan and Brydon-Miller (2014), the quantitative method refers to a set of strategies and techniques to study psychological, social, and economic processes by examining numerical patterns. In this research, the quantitative approach was used to analyze different questionnaires, allowing us to know the students' perceptions about various topics related to the investigation. Besides, qualitative methods like one-to-one Interviews, focus groups, and observation processes were applied. In the words of Bhandari (2020), qualitative research involves collecting and analyzing non-numerical data (such as text, video, or audio) to understand concepts, opinions, or experiences. This approach was vital to the research because it allowed for collecting comprehensive data and generating new ideas that enhanced each research phase. A qualitative approach of a naturalistic interpretive method was implemented to obtain reliable information. In the words of Denzin and Lincoln (2017), qualitative research focuses on studying phenomena that occur in their natural environment, trying to understand or explain them based on the meanings that participants assign to them. In this sense, the procedures and interventions implemented in this study never manipulated the students' behavior, ensuring a more reliable data collection. This type of research allowed the researcher to look at people holistically and analyze the different characteristics of each of the participants. According to Diaz Herrera (2018), qualitative research can be understood as a set of techniques to extract descriptions of observations in the form of interviews, stories, field notes, audio, video recordings, and photographic documents, among others. As the study of the students' reading and interpretation of the texts advanced, the researcher made direct observations, took field notes, and conducted some interviews that provided information for developing techniques to help students improve

their English reading skills. However, to clarify the observations, it was necessary to apply elements of quantitative research, especially for the tabulation and analysis of the data obtained. In this regard, Sampieri (2014) argues that qualitative research uses data collection and analysis to answer research questions. The method is based on the count and the use of statistics to identify behavior patterns of a determined population

Research Approach

Concerning the methodology used for the research, it must be formulated descriptively to assess some features of a population or a specific circumstance, in this case, the elements of the CALLA instructional model, to improve reading comprehension skills. This approach seeks to gather exact data that may be used in statistical computations that reflect trends and averages. Like that, describing implies that the subject concerned grasp the phenomenon being studied from several angles.

Context of the Research

Population and Sampling Procedures

The population selected for this research was a group of 16 ninth-grade students from the Florentino González School. The students live in a rural community in Coromoro - Santander, and most come from nearby rural schools where the "Escuela Nueva" model is used. At the school, students receive their classes from teachers from various areas who sometimes use learning guides for their classes, similar to those of the "New School" model. However, because it is a rural school, teachers are almost always needed in different areas, mainly in English. For this reason, students receive their English classes through teachers from other areas who often use material from the Internet or books that often do not match the context or level of the

students. Additionally, the lack of teachers trained in teaching English makes it difficult for students to advance because doubts about the language, in many cases, cannot be resolved.

Ethical Protocol

For this research, the following principles and ethical protocols will be considered.

- No one student will be obliged or blackmailed to participate in the research
- Participation in the research will be strictly voluntary
- The students will not pay for their participation, nor will they receive any pay
- Whatever student could drop the investigation when she/he wishes it without her/his decision affecting her grades
- All the participants in the research and their parents (can be mother or father) must sign the document "Informed consent to participate in research" (Appendix A). The paper explains, in a nutshell, the research name, the methodology, the activities, and so on. Nonetheless, the researcher explains each item to each participant, and he will solve all the questions made for them and their parents

According to the confidentiality agreements described in the informed consent, all the information collected will be confidential and will only be used for research purposes. This means that your identity will be anonymous; in other words, no one besides the researcher will know your name. Your name will not be used whenever data from this study is published. The data will be stored on a computer, and only the researcher can access it. Finally, all the participants will have a copy of the informed consent signed by the researcher.

Data Collection Techniques

Description and Rationale of the Instruments

This proposal used some tools for the data collection, described as follows.

Questionnaires.

During the investigation, three types of questionnaires were applied. The first, titled "Pre-Course Reading Strategies Questionnaire" (Appendix B), was applied to find information about the way students read the texts, the strategies they used to understand them, and if they carried out any analysis or reflection afterward to read. The second type of questionnaire applied focused on simple questions about the texts. They were used to explain the CALLA instructional model and SQ3R reading comprehension method. These questionnaires were used to identify the most common difficulties that the students presented when reading the texts. Based on the respective analysis, the learning guides were redesigned to help students overcome these difficulties. The third type of questionnaire was the "Reading Control Questionnaire" (Appendix D). This last questionnaire was applied after the second reading workshop. The questionnaire's objective was to help the students carry out a reflective analysis of how they read the texts, considering the CALLA instructional model and SQ3R reading comprehension method. All the questionnaires in this research followed the principles mentioned by Burgess (2001). In his opinion, the design of the questionnaire can be split into three elements:

- Determine the questions to be asked.
- Select the question type for each question and specify the wording.
- Design the question sequence and overall questionnaire layout.

Focus Groups.

For this investigation to control the amount of data and the application of the reading strategies, a group of 16 ninth-grade students was selected. All students participated in the six lessons. In addition, all classes were held in groups through analysis, discussion, and reflection. However, creating subgroups of three or four students was sometimes necessary to review more

complex texts. This strategy stimulated student participation and helped those with difficulties to express their doubts comfortably.

Process of Observation.

Direct observation was fundamental during the six class lessons, where different strategies were applied to collect information. Through the observation process, it was possible to detect the difficulties presented by the ninth-grade students in reading and understanding the texts in English. Based on the observations made in each class, the readers, reading comprehension activities, and the way to teach the different reading steps contemplated in the previously designed strategy were modified. In addition, the observation allowed for a continuous reflection on the effectiveness of the CALLA instructional model and SQ3R reading comprehension method. However, it is essential to clarify that to guarantee the data's reliability. The researcher did not modify the students' behavior or expression freedom during the observation process.

Interviews.

In each class, two types of interviews (personal and group) were carried out to determine the student's perception of the reading process, strategies, and applied activities. Individual interviews were randomly conducted with students who presented difficulties and with those who solved the exercises faster. Group interviews were conducted at the end of each class to find out the main challenges presented by the students in the development of the activities, resolve concerns, and comment on the changes and progress of the students in the reading process.

Validation Procedures

A mixed research method was selected to answer the question and the objectives formulated in this study. The mixed method provides a flexible and comprehensive approach to

research because it uses multiple data sources, such as surveys, interviews, focus groups, observations, and documents. Using various data sources provides a fuller understanding of the research question and can help triangulate findings. In this way, it is easier to understand the reality studied and propose actions to transform it. In this study, the qualitative elements of the mixed method made it possible to capture the different characteristics related to the difficulties of reading comprehension in English of the ninth-grade students at the Florentino González school. Additionally, the quantitative element contributed to the organization, measurement, and analysis of patterns and relationships of the data obtained in the questionnaires and reading workshops applied in each investigation stage. According to Halcomb and Hickman (2015), the mixed method offers an excellent opportunity for researchers to better understand the situations they study, which would not be possible if only one of the two qualitative or quantitative methods were used separately.

Pedagogical Intervention and Application

Instructional Design

Cognitive Academic Language Learning Approach CALLA

CALLA instructional model and SQ3R reading comprehension method were chosen, which incorporate metacognitive processes and contribute to the development of reading skills. The Cognitive Academic Language Learning Approach (CALLA) is a instructional model designed to help students acquire practical skills and strategies for learning a new language, such as English. The CALLA instructional model focuses on three key areas: teaching learning strategies, language development, and creating a positive and collaborative learning environment. These three elements work together to help students develop skills and strategies to

read and understand texts in English more effectively. The CALLA instructional model consists of five phases, which can be applied to teaching reading comprehension. These phases are:

Preparation.

In this phase, the teacher prepares students for the reading activity by introducing relevant vocabulary, concepts, and background knowledge related to the text. This could be done through pre-reading activities, such as brainstorming, previewing the text, and activating prior knowledge.

Presentation.

In this phase, the text is presented to the students, who read it individually or in groups. The teacher may provide support by modeling reading strategies, such as skimming, scanning, and predicting, to help students comprehend the text.

Practice.

In this phase, students practice reading strategies and comprehension skills. The teacher can provide guided practice by asking comprehension questions, giving feedback, and offering student support.

Self-Evaluation.

Students evaluate their reading comprehension skills and strategies in this phase. They may reflect on their learning and identify areas needing further improvement. The teacher can support this by encouraging self-reflection, providing feedback, and offering additional resources.

Expansion.

In this phase, students apply their learning to real-world contexts by using reading skills to explore new topics, participate in discussions, and create written responses. The teacher can

encourage students to expand their reading comprehension skills and strategies by providing opportunities for extension activities, such as research projects or creative writing assignments.

By following these five phases of the CALLA instructional model, teachers can support their students in developing strong reading comprehension skills and strategies in English. This model promotes an interactive and student-centered approach to teaching, which fosters independent and critical thinking skills that students can apply beyond the classroom.

SQ3R Method

The SQ3R reading comprehension method is a strategy for comprehending and retaining information from a written text. The method was developed by psychologist Francis P. Robinson in 1946 and has since become a widely used and effective reading comprehension strategy. It involves five stages, these are:

Survey.

In this stage, the reader surveys the text to get a general idea of its contents. The reader scans the headings, subheadings, and visual cues like images, graphs, and charts. The main characteristics of this stage include:

- Quick scanning of the text
- Noting the headings and subheadings
- Glancing through the visual cues

Question.

In this stage, the reader formulates questions based on the headings, subheadings, and other visual cues in the text. The reader identifies unfamiliar vocabulary and concepts that need to be learned. The main characteristics of this stage include:

- Generating questions based on the headings and subheadings

- Identifying unfamiliar vocabulary and concepts
- Formulating a purpose for reading

Read.

In this stage, the reader reads the text actively, paying attention to the questions formulated and visual cues in the text. The reader comprehends the information and builds an understanding of the text. The main characteristics of this stage include:

- Reading actively
- Paying attention to the questions formulated
- Comprehending the information

Recite.

In this stage, the reader pauses and recites or summarizes what they have read. The reader reinforces comprehension and retention of the information. The main characteristics of this stage include:

- Reciting or summarizing what has been read
- Reinforcing comprehension and retention
- Identifying key concepts and details

Review.

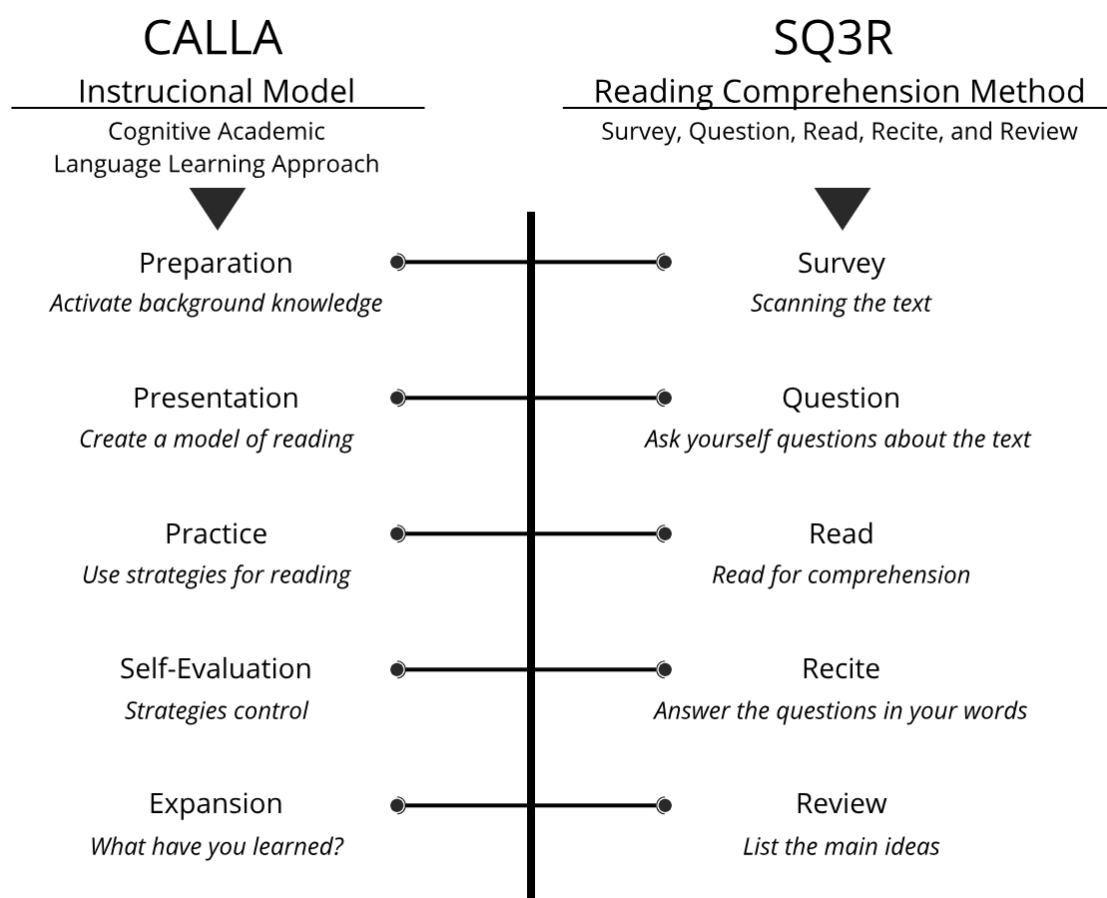
In this stage, the reader reviews the text and the questions formulated. The reader goes back over the text, reviews the key concepts, and details, and identifies any areas that may require further study. The main characteristics of this stage include:

- Reviewing the text and the questions formulated
- Going back over the text
- Reviewing key concepts and details

In this study, the biggest challenge was to link the two strategies to form a single instructional axis in such a way that the students could follow the steps easily. The results of the combination of the two strategies are presented in Figure 7 which guided the work of all the students in the classroom.

Figure 7

Relation between the CALLA instructional model and SQ3R reading comprehension method



Note. Own construction.

Data Analysis and Findings

Introduction to Data Analysis and Findings

This chapter describes the different data obtained during the investigation. The data type is classified into qualitative and quantitative and responds to the applied research instruments. Additionally, a description and summary of the findings presented are presented. In this way, it seeks to publicize the impact of metacognitive and reading strategies applied to improve the reading ability in English of the ninth-grade students at Florentino González School.

Data Management Procedures

Data for this study were obtained through questionnaires, focus groups, observation, and interviews. The information was collected in three stages:

- 1) Before starting the intervention in the field, the researcher obtained accurate data on the student's reading levels and the strategies they applied to read and understand texts in English.
- 2) During the direct intervention, the researcher made precise observations about applying the metacognitive and reading strategies (the CALLA instructional model and the SQ3R reading comprehension method).
- 3) After applying the metacognitive and reading strategies (the CALLA instructional model and the SQ3R reading comprehension method), the researcher compared students' reading levels in the final phase with the initial level. The data was organized in statistical tables in Microsoft Word and Microsoft Excel documents to be able to analyze them more precisely. Finally, they were managed by categories, and the results and conclusions were redacted.

Data Analysis Process

For the organization and processing of the data obtained, the technique used was descriptive statistics. In the words of Rendon et al. (2016), descriptive statistics is the branch of statistics that formulates recommendations on how to summarize, clearly and simply, the data of an investigation in charts, tables, figures, or graphs.

Data Collection Processing

Considering the characteristics of descriptive statistics, the steps that were carried out for data collection were the following. An initial questionnaire was carried out to characterize the students and a diagnostic test of their reading skills. Based on the results obtained from the two applied instruments, the pedagogical strategies to be applied were proposed. Once all the pedagogical methods have been carried out, a final test is used again to compare the results with the diagnostic test and thus show the strengths and weaknesses of the applied activities.

Initial Questionnaire (Appendix b).

To know the different perceptions that the students participating in the research had about learning English, the questionnaire entitled "Initial questionnaire" was carried out. The questionnaire was divided into three parts. The first part sought to discover the students' interest in learning English, learn about their language skills, and how they resolved their concerns. The results revealed that 100% of the students like to learn English, that 68.75% cannot understand the texts they read, and that 87.5% find it easier to ask questions when they have doubts about the language. Table 3 shows the results of the initial questionnaire (First part).

Table 3*Analysis initial questionnaire. First part*

Question	Answer		Total
	Yes	No	
Do you like to learn English?	100%	0%	16 100%
Can you understand the texts you read in English?	31,25%	68,75%	16 100%
While you learn English, is it easy for you to ask questions to clarify your doubts?	87,5%	12,5%	16 100%

Note. This table shows the analysis of the results of the initial questionnaire applied to the 16 rural students. Own construction.

The second part of the questionnaire focused on determining which skills were most difficult for them and which they wanted to improve. In this regard, 37% of the students responded that the most difficult skill for them was speaking, 32% answered that reading, 18% responded to listening, and 13% writing. Based on the results, reading was chosen as the main object of study. Table 4 shows the results of the initial questionnaire (Second part).

Table 4*Analysis initial questionnaire. Second part*

Question	Answer				Total
	Speaking	Reading	Listening	Writing	
Which of the following skills are the most difficult for you when learning English?	37%	32%	18%	13%	16 100%
What skill do you want to improve?	37%	32%	18%	13%	16 100%

Note. This table shows the analysis of the results of the initial questionnaire applied to the 16 rural students. Own construction.

The third part of the questionnaire focused on finding out what motivated students to learn a second language, how they were learning English, and how they would like English classes. The results obtained were very diverse and are described in Table 5.

Table 5

Analysis initial questionnaire. Third part

Question	Answer		Total
What motivates you to learn a second language?	- Study opportunities	18,75%	16
	- Job opportunities.	12,5%	100%
	- Job opportunities in other countries.	43,75%	
	- Travel to other countries.	25%	
How do you like to learn English?	- With trained teachers.	31,25%	16
	- With practical classes.	6,25%	100%
	- Practicing all skills.	18,75%	
	- Virtually.	6,25%	
	- Through videos.	6,25%	
	- Through an intensive course.	6,25%	
	- Interacting with native people.	6,25%	
	- Devoting more time to learning the language.	18,75%	

How do you think English classes should be?	- Methods focused on the level of learning.	12,5%	16
	- With trained teachers.	12,5%	100%
	- Clear activities.	12,5%	
	- Creative classes.	12,5%	
	- Classes focused on pronunciation.	12,5%	
	- Classes focused on writing.	6,25%	
	- With practical activities.	12,5%	
	- Simple and more didactic classes.	12,5%	
	- With more hours.	6,25%	
While you learn English when you face an activity that is difficult for you, what do you do to solve it?	- Asking the teacher.	25%	16
	- Asking the companions.	25%	100%
	- Reviewing the notes.	12,5%	
	- With the help of the dictionary.	18,75%	
	- Searching the internet.	18,75%	

Note. This table shows the analysis of the results of the initial questionnaire applied to the 16 rural students. Own construction.

Pre-Course Reading Strategies Questionnaire (Appendix C).

The following questionnaire was applied to determine the students' actions during three stages of the reading process: pre-reading, reading, and post-reading. The answers obtained allowed us to identify how many students were aware of each step of the reading process and which were not. Questions 1,2,3, and 4 corresponded to the pre-reading stage. Questions 5,6,7,8,9, and 10 corresponded to the Reading stage. Questions 11,12,13,14, and 15 corresponded to the post-reading stage. Table 6 shows the results..

Table 6*Analysis pre-course reading strategies questionnaire*

QUESTION	Answer				TOTAL
	Never	Rarely	Occasionally	Always	
1. Do you recognize the purpose of the texts before reading them?	18,75%	50%	12,5%	18,75%	16 100%
2. Before reading a text completely, do you select relevant information and concentrate on it as you read?	6,25%	75%	18,75%	0%	16 100%
3. Before reading, do you ask yourself if you already know about the topic of the text?	43,75%	12,5%	12,5%	31,25%	16 100%
4. Before reading a text, do you try to predict its content?	0%	18,75%	56,25%	25%	16 100%
5. When you read, do you constantly ask yourself if you have understood the text?	0%	6,25%	68,75%	31,25%	16 100%
6. Can you imagine or project images in your mind related to what you read?	0%	6,25%	25%	68,75%	16 100%
7. When you read a text that you cannot easily understand, do you motivate yourself to find ways to understand it?	0%	18,75%	12,5%	68,75%	16 100%
8. When you can't understand what you read, do you rely on other people to understand the text?	0%	6,25%	25%	68,75%	16 100%

9. Can you use the context of the text to understand words you don't know?	0%	6,25%	31,25%	62,5%	16 100%
10. Do you use any additional material (dictionary, books, internet, or others) to solve reading comprehension problems?	0%	25%	25%	50%	16 100%
11. After reading, do you check if your predictions were correct?	0%	6,25%	12,5%	81,25%	16 100%
12. After reading, can you summarize the relevant information in the text?	0%	25%	56,25%	18,75%	16 100%
13. When you finish reading, do you wonder how much you have understood the text?	0%	25%	31,25%	43,75%	16 100%
14. After reading, do you reflect on the strategies you applied to understand the text?	0%	68,75%	31,25%	0%	16 100%
15. When you finish reading a text, do you reflect on the things that prevented you from fully understanding it?	0%	37,5%	50%	12,5%	16 100%

Note. This table shows the analysis of the pre-course reading strategies questionnaire applied to the 16 rural students. Own construction.

Diagnostic Test.

To know the students' initial level of reading comprehension, a test was applied that was divided into two parts. The first part evaluated the students' ability to read and obtain information

from images. In the second part, the students had to read a short text and then answer some literal questions. The results obtained are described in Table 7 and Table 8:

Table 7

Analysis of reading comprehension diagnostic test 1

QUESTION	ANSWER		TOTAL
	Correct	Wrong	
1	100%	0%	16 100%
2	100%	0%	16 100%
3	87,5%	12,5%	16 100%
4	87,5%	12,5%	16 100%
5	100%	0%	16 100%
6	68,75%	31,25%	16 100%
7	100%	0%	16 100%
8	100%	0%	16 100%
9	75%	25%	16 100%
10	100%	0%	16 100%

Note. This table shows the analysis of reading comprehension diagnostic test 1 applied to the 16 rural students. Own construction.

Table 8*Analysis of reading comprehension diagnostic test 2*

Question	Answer		Total
	Correct	Wrong	
1	56,25%	43,75%	16 100%
2	62,5%	37,5%	16 100%
3	50%	50%	16 100%
4	25%	75%	16 100%
5	37,5%	62,5%	16 100%
6	12,5%	87,5%	16 100%

Note. This table shows the analysis of reading comprehension diagnostic test 2 applied to the 16 rural students. Own construction.

Reading Control Questionnaire.

To analyze the progress of the students in their reading comprehension process with the use of the CALLA instructional model and the SQ3R reading method during the research process, three control questionnaires were applied. The questionnaires were applied at different stages of the investigation and show the progress of the students. The results obtained are described in Table 9, Table 10, and Table 11.

Table 9*Reading control questionnaire 1*

	Question	Answer				Total
		Never	Rarely	Occasionally	Always	
Preparation- Survey	1. Do you preview the full text before starting?	18,75%	0%	18,75%	62,5%	16 100%
	2. Do you seek guiding questions or words before starting?	18,75%	12,5%	50%	18,75%	16 100%
	3. Do you use your background knowledge to understand the text before reading it?	18,75%	12,5%	25%	43,75%	16 100%
Presentation- Question	4. Before reading, can you ask yourself questions about the text?	25%	25%	25%	25%	16 100%
	5. Can you concentrate while reading?	18,75%	18,75%	43,75%	18,75%	16 100%
	6. Before Reading, can you create a model of reading?	18,75%	6,25%	62,5%	12,5%	16 100%

	7. Do you underline unknown words while reading?	18,75%	37,5%	31,25%	12,5%	16	100%
Practice- Read	8. Do you take notes while you read?	18,75%	37,5%	25%	18,75%	16	100%
	9. Do you mark the text or write in the margins?	18,75%	43,75%	25%	12,5%	16	100%
	10. Do you recognize your reading strategies?	18,75%	18,75%	37,5%	25%	16	100%
Self- Evaluation- Recite	11. Can you predict the text while you read?	25%	6,25%	37,5%	31,25%	16	100%
	12. Can you visualize the main information of the text in your mind?	25%	0%	56,25%	18,75%	16	100%
	13. Can you write a list with the main ideas of the text?	18,75%	50%	18,75%	12,5%	16	100%
Expansion- Review	14. Can you summarize the text information?	25%	6,25%	56,25%	12,5%	16	100%
	15. After reading, do you evaluate	18,75%	6,25%	37,5%	37,5%	16	100%

your reading
comprehension?

Note. This table shows the analysis of the reading control questionnaire 1 applied to the 16 rural students. Own construction.

Table 10

Reading control questionnaire 2

Question	Answer				Total
	Never	Rarely	Occasionally	Always	
1. Do you preview the full text before starting?	12,5%	6,25%	6,25%	12%	16 100%
2. Do you seek guiding questions or words before starting?	0%	25%	12%	0%	16 100%
3. Do you use your background knowledge to understand the text before reading it?	6,25%	12,5%	6,25%	12%	16 100%
4. Before reading, can you ask yourself questions about the text?	6,25%	6,25%	87,5%	0%	16 100%

	5. Can you concentrate while reading?	6,25%	0%	18,75%	75%	16 100%
	6. Before Reading, can you create a model of reading?	6,25%	0%	12,5%	81,25%	16 100%
	7. Do you underline unknown words while reading?	12,5%	18,75%	37,5%	31,25%	16 100%
Practice- Read	8. Do you take notes while you read?	18,75%	12,5%	25%	43,75%	16 100%
	9. Do you mark the text or write in the margins?	18,75%	50%	31,25%	0%	16 100%
	10. Do you recognize your reading strategies?	6,25%	6,25%	0%	87,5%	16 100%
Self- Evaluation- Recite	11. Can you predict the text while you read?	6,25%	0%	18,75%	75%	16 100%
	12. Can you visualize the main information of the text in your mind?	6,25%	0%	0%	93,75%	16 100%

Expansion- Review	13. Can you write a list with the main ideas of the text?	6,25%	12,5%	18,75%	62,5%	16 100%
	14. Can you summarize the text information?	6,25%	0%	0%	93,75%	16 100%
	15. After reading, do you evaluate your reading comprehension?	6,25%	0%	6,25%	87,5%	16 100%

Note. This table shows the analysis of the reading control questionnaire 2 applied to the 16 rural students. Own construction.

Table 11

Reading control questionnaire 3

Question	Answer				Total
	Never	Rarely	Occasionally	Always	
1. Do you preview the full text before starting?	0%	0%	43,75%	56,25%	16 100%
2. Do you seek guiding questions or words before starting?	0%	0%	62,5%	37,5%	16 100%
3. Do you use your background knowledge to	0%	0%	50%	50%	16 100%

	understand the text before reading it?					
	4. Before reading, can you ask yourself questions about the text?	0%	18,75%	25%	56,25%	16 100%
Presentation- Question	5. Can you concentrate while reading?	0%	0%	25%	75%	16 100%
	6. Before Reading, can you create a model of reading?	0%	0%	81,25%	18,75%	16 100%
	7. Do you underline unknown words while reading?	6,25%	6,25%	31,25%	56,25%	16 100%
Practice- Read	8. Do you take notes while you read?	0%	18,75%	68,75%	12,5%	16 100%
	9. Do you mark the text or write in the margins?	12,5%	18,75%	31,25%	37,5%	16 100%
Self- Evaluation- Recite	10. Do you recognize your reading strategies?	0%	0%	56,25%	43,75%	16 100%

	11. Can you predict the text while you read?	0%	0%	62,5%	37,5%	16 100%
	12. Can you visualize the main information of the text in your mind?	0%	0%	56,25%	43,75%	16 100%
	13. Can you write a list with the main ideas of the text?	0%	0%	56,25%	43,75%	16 100%
Expansion- Review	14. Can you summarize the text information?	0%	0%	56,25%	43,75%	16 100%
	15. After reading, do you evaluate your reading comprehension?	0%	0%	62,5%	37,5%	16 100%

Note. This table shows the analysis of the reading control questionnaire 3 applied to the 16 rural students. Own construction.

Categories

Considering the results of the Initial questionnaire (Appendix B), the Pre-Course reading strategies questionnaire (Appendix C), the theory of the Cognitive Academic Language Learning Approach (CALLA) instructional model, and the SQ3R reading comprehension method, five categories were analyzed. Preparation-survey, presentation-question, practice-read, self-evaluation-recite, and expansion-review. Each of them is described below.

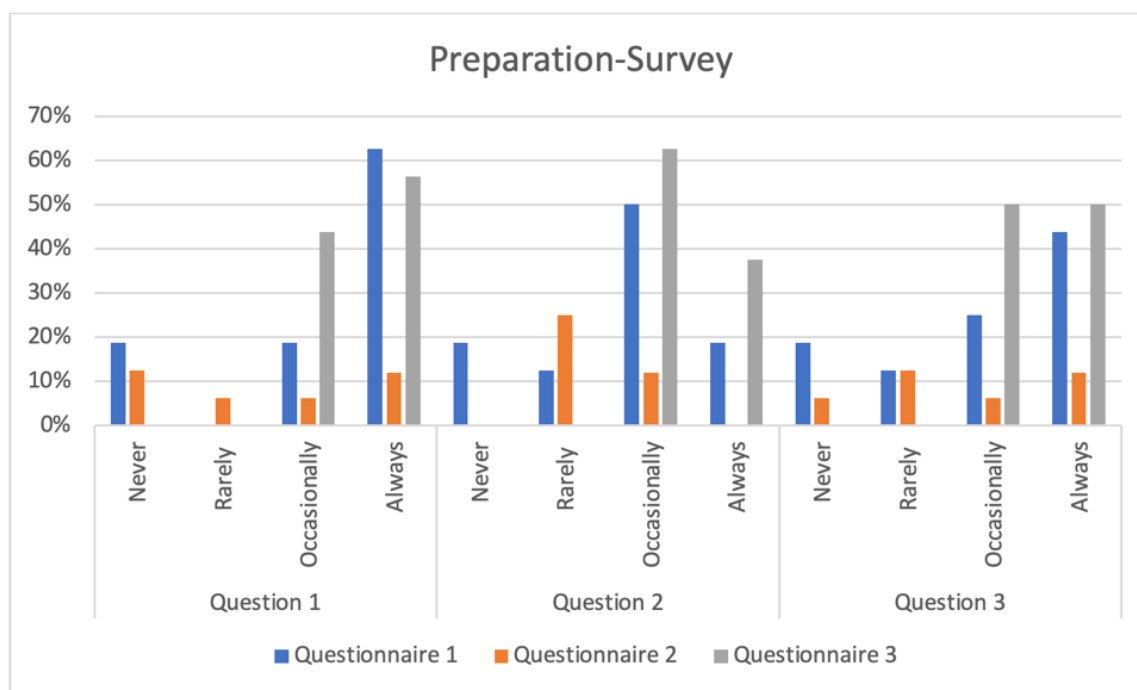
Discussion of Categories

Category 1: Preparation-Survey.

This category analyzes the ability of students to activate their prior knowledge and make a general recognition of the text. This involves scanning the headings, subheadings, and any other organizational elements to understand the structure of the text. Using this step as a reading strategy can help students anticipate the main ideas and focus their reading. Figure 8 shows the results.

Figure 8

Consolidated results obtained in category 1



Note. The image shows the students' progress in terms of the use of previous knowledge and the understanding of new vocabulary to carry out a comprehensive reading. The results are based on analyzing the information collected after applying three questionnaires at the beginning, during, and end of the investigation.

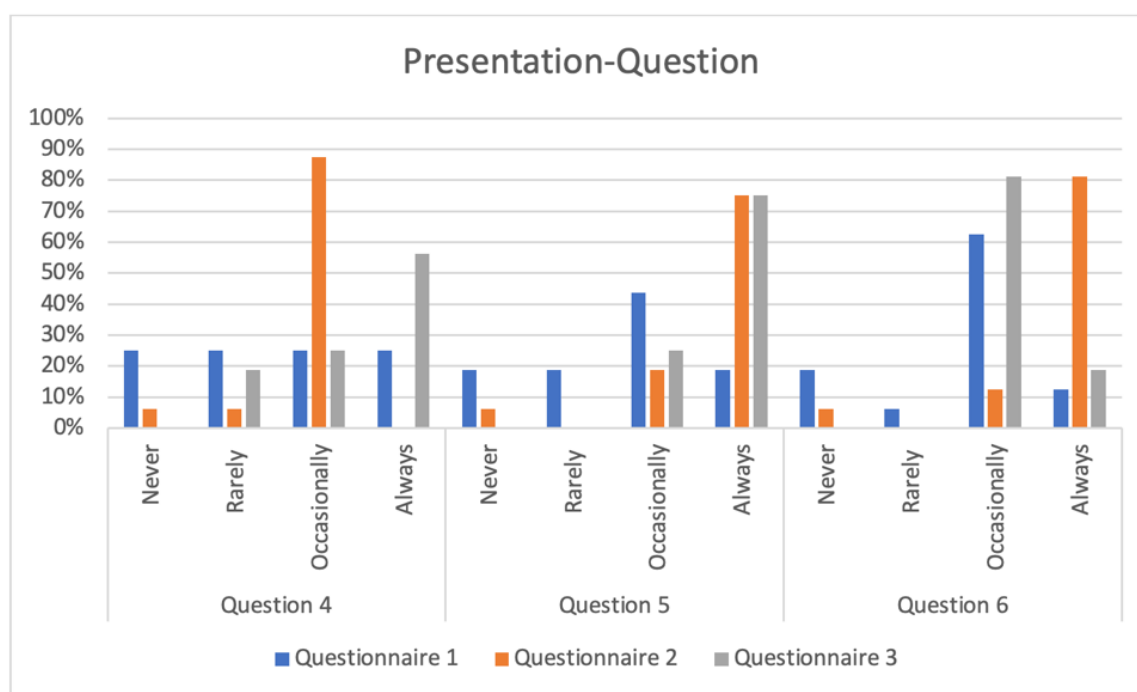
Category 2: Presentation – Question.

In this stage, the students must create a set of questions based on the text scan they did in the “Preparation-Survey” step. These questions can be as simple as "What is the main idea of this chapter?" or more detailed and specific to the content of the text. Based on the questions, they create a model or reading strategy in such a way that it allows them to better understand the text.

Figure 9 shows the results.

Figure 9

Consolidated results obtained in category 2



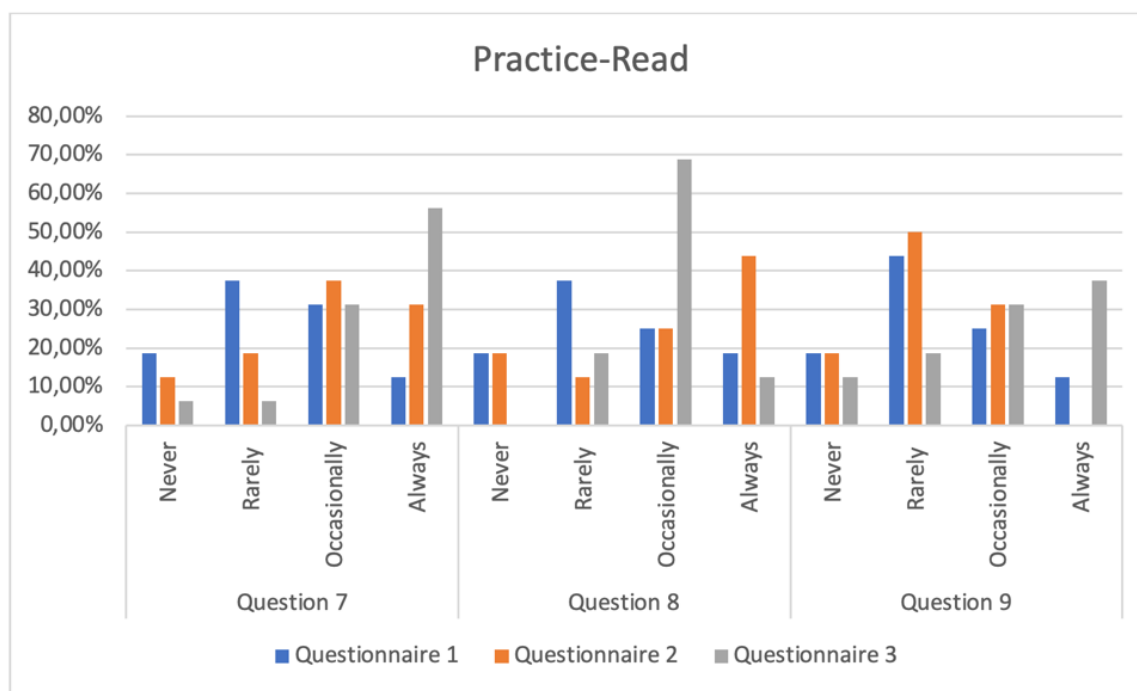
Note. The image shows the students' progress to analyze the texts in a general way and to choose a reading strategy that allows them to better understand the text. The results are based on analyzing the information collected after applying three questionnaires at the beginning, during, and end of the investigation.

Category 3: Practice – Read.

In this stage, students read the text considering the chosen strategies and questions posed in the "Presentation-Question" stage. They can underline or take notes on important information related to their questions as they read. This stage aims to comprehend the information and build an understanding of the text. Figure 10 shows the results.

Figure 10

Consolidated results obtained in category 3



Note. The image shows the students' progress to apply the reading strategies and skills they have learned. The results are based on analyzing the information collected after applying three questionnaires at the beginning, during, and end of the investigation.

Category 4: Self-Evaluation – Recite.

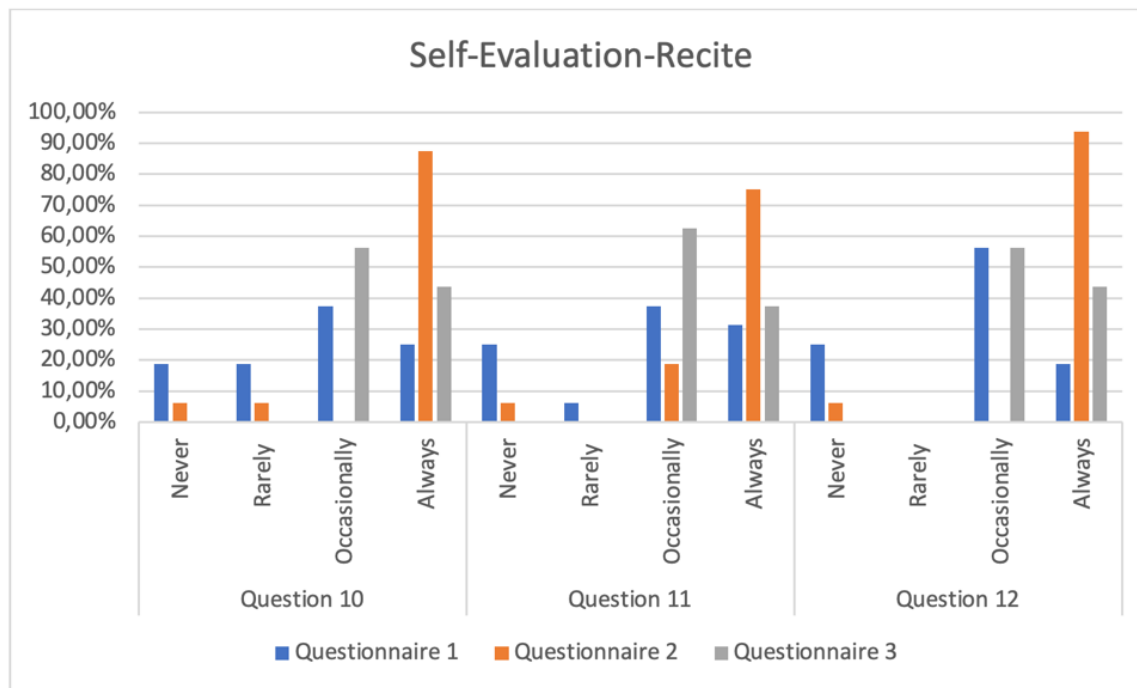
After reading a section of the text, the students should pause to analyze if the strategies they use to understand the text work for them and answer the questions in their minds. This

process helps consolidate the information in their memory and ensures they understand the main ideas. The purpose of this stage is to reinforce comprehension and retention of the information.

Figure 11 shows the results.

Figure 11

Consolidated results obtained in category 4



Note. The image shows the students' progress to reflect on their learning process, their progress in analyzing different texts, and their understanding of the use of reading strategies. The results are based on analyzing the information collected after applying three questionnaires at the beginning, during, and end of the investigation.

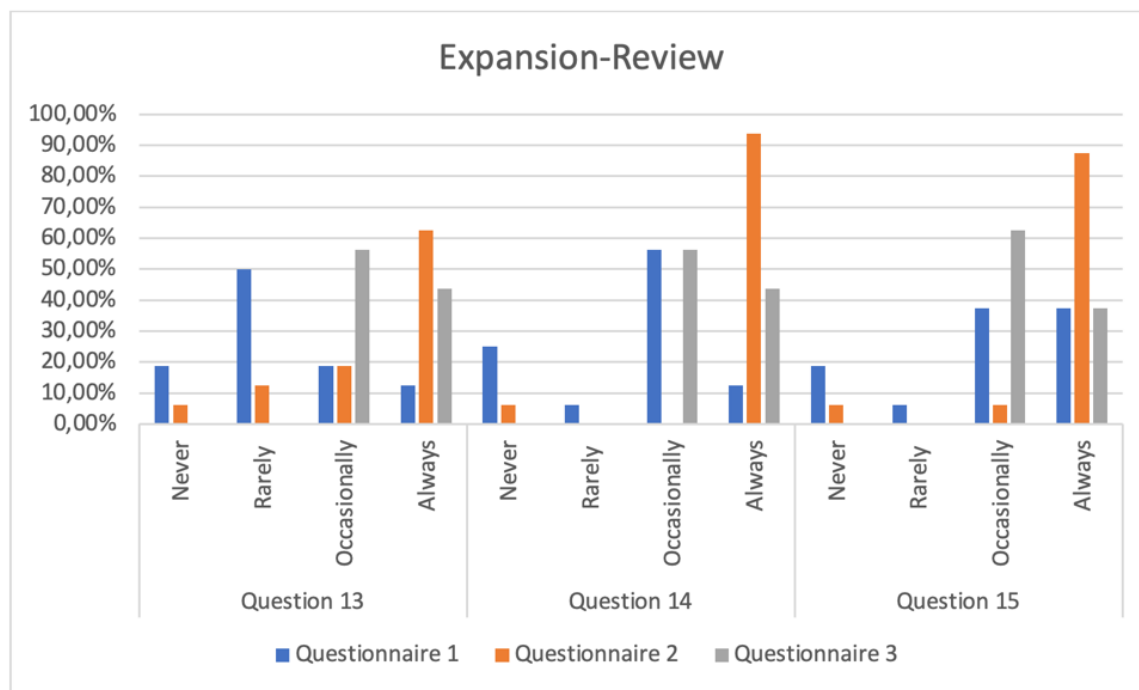
Category 5: Expansion – Review.

Once the students have completed the reading, they should review the text and the questions they formulated. This stage involves going back over the text and reviewing the key concepts and details, focusing on any areas where they still have questions or need clarification.

The purpose of this stage is to reinforce comprehension and retention of the information in the text. Students can ask themselves what they have learned or list the text's main ideas. Figure 12 shows the results.

Figure 12

Consolidated results obtained in category 5

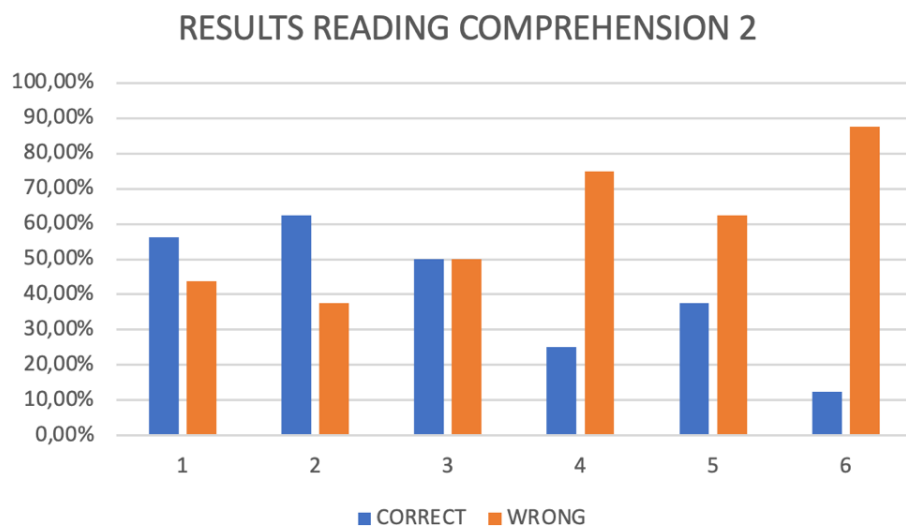


Note. The image shows the students' progress to analyze the level of reading comprehension they have achieved, review key information, and reflect on the reading strategies applied. The results are based on analyzing the information collected after applying three questionnaires at the beginning, during, and end of the investigation.

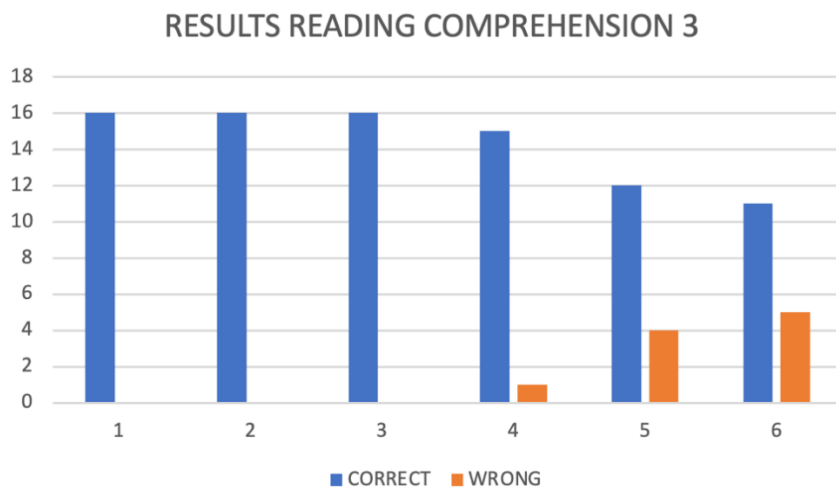
Hypothesis Testing and Operationalization of Variables

After analyzing the data obtained through the different questionnaires applied, it was possible to demonstrate the positive influence of the CALLA instructional model as a pedagogical strategy to improve English reading skills in rural students of ninth grade at

Florentino González School. The information from the questionnaires made it possible to classify and analyze different variables and categories in each investigation stage. Additionally, having designed the questionnaires to identify the progress in each of the steps of the CALLA instructional model made it possible to compare the findings with the theories studied easily. The two initial questionnaires focused on knowing the students' interest in learning English and how they read the texts. The results of these questionnaires allowed an appropriate selection of theories, models, and strategies to be developed. The control questionnaires were designed to find out the students' understanding of the CALLA instructional model and the use they gave it when reading texts in English. These questionnaires were essential throughout the process because, based on their analysis, the reading comprehension activities were designed and modified to test their effectiveness in different situations. From these questionnaires, the categories of study in the investigation were created. Once the results in each of the categories were analyzed, it was possible to verify that the use of the CALLA instructional model contributes to enhancing the English reading skills of rural ninth graders at Florentino González School, mainly because it incorporates metacognitive strategies that facilitate students reflect on their learning and improve those things that do not allow them to advance. Finally, the questionnaires applied in the reading comprehension activities made it possible to compare the students' progress during the investigation. Figure 13, Figure 14, and Figure 15 show the results of the three reading comprehension tests and the students' progress.

Figure 13*Results reading comprehension 2*

Note. The image shows the relationship between correct and incorrect answers marked by the 16 ninth-grade students after applying the reading comprehension text two.

Figure 14*Results reading comprehension 3*

Note. The image shows the relationship between correct and incorrect answers marked by the 16 ninth-grade students after applying the reading comprehension text three.

Figure 15*Results reading comprehension 4*

Note. The image shows the relationship between correct and incorrect answers marked by the 16 ninth-grade students after applying the reading comprehension text four.

Reliability and Validity of Analysis and Findings

According to Sampieri et al. (2014), an instrument is reliable when the results are coherent and consistent. In addition, it is considered valid when it meets the necessary parameters to measure the research variables adequately. Therefore, the findings obtained by applying the questionnaires and reading comprehension activities allowed us to analyze and understand each category proposed in the study. Each data obtained was organized, categorized, and examined very carefully, and to avoid errors in its tabulation, all the information was reviewed twice. To tabulate and analyze the information, Microsoft Excel was used, a software developed by Microsoft that allows, among other things, to organize, categorize, validation, and protect the data, keeping the information safe and preventing changes to it. Another advantage of Microsoft Excel is that in each of its cells, you can enter different types of data, for example,

texts, numbers, alphanumeric data, and formulas, among others. Additionally, Microsoft Excel allows graphical representations, which helps to understand the data more efficiently. Therefore, during the data analysis, all possible biases or personal conceptions of the researcher were avoided so that the findings were reliable and allowed objective reflection.

Discussions and Conclusions

Introduction to Discussions and Conclusions

This chapter describes the results obtained from the surveys, workshops, and observations to answer the question How to improve English reading skills in rural ninth graders at Florentino González School? Besides, it analyzes the significance of the results, limitations, and recommendations for future studies, among others.

Significance of the Results

The results obtained in the research are the product of the application of reading workshops based on the CALLA instructional model and SQ3R reading comprehension method. However, to get more reliable information, an initial questionnaire was applied to find out how the students read in English, their strategies, and how they managed to understand the texts. This questionnaire was complemented with direct observation carried out with a reading workshop and reflective dialogue with the students after the reading workshop was applied. From this process, two categories could be highlighted that prevented students from reading comprehensively. The first category refers to the traditional way students used to read texts. In this sense, before reading the text, the students used the dictionary to translate each sentence word by word, thus achieving understanding. The second category refers to how they tried to understand the general information in the texts. In general, the students needed to learn a reading strategy or were unaware of the processes they carried out while reading.

Learning guides focused on applying the CALLA instructional model and SQ3R reading comprehension method were designed from this first analysis. The learning guides were designed to teach ninth-grade students the steps they should take considering the principles of the CALLA instructional model and the SQ3R method: 1. Preparation – Survey, 2. Presentation –

Question, 3 Practice – Read, 4. Self-Evaluation – Recite, 5. Expansion – Review. The researcher guided the first two reading workshops, and each student resolved the others autonomously. In addition, after the students understood how to apply the reading strategy, control workshops, and questionnaires allowed them to reflect on the reading process.

Pedagogical and Research Implications for the Field of Study

The data analysis of this study was based on quantitative and qualitative information. The data was obtained from the application of six reading workshops, each lasting two hours. During each class session, 16 ninth-grade students actively participated and solved each reading workshop. The workshops' observations and results showed that the students learned the methods proposed in the research and therefore improved their reading skills. The learning experience for the participating students was mainly positive because they learned to analyze the texts without a dictionary or translator. In addition, it was charming for them to carry out all the reflective processes mediated by the researcher, stating that they had never carried out this type of process in English classes, for which they felt very motivated to participate actively in each of the reading workshops.

Research limitations on the Present Study

Some limitations had to be overcome that made the process difficult. The first limitation was having the permission of the headmaster to carry out the six class sessions. This situation affected the application process of all reading classes, data collection, and analysis. For this reason, some students did not deliver all the workshops on time or could not participate in all the class sessions. The second limitation was the analysis of the information. In rural schools, it is common for students to hand in only the activities they carry out with the accompaniment of teachers in the classroom. The class activities were often not completed on time, so students had

to finish them at home. In that case, collecting the learning guides and tabulating the information was tedious. Nevertheless, all the learning guides were collected.

Recommendations for Further Research

The main objective of this research has been to enhance English reading skills through the CALLA instructional model and SQ3R reading comprehension method. However, other strategies, such as scanning, skimming, making predictions, and so on, can improve reading comprehension and complement the technique used in this research. Additionally, although the main objective of this research was not the solution of reading comprehension tests, future research could focus on applying the strategies described to solve state tests such as SABER or SABER PRO.

Conclusions

The primary purpose of this research was to answer how to improve English reading skills in rural ninth graders at Florentino González School through the CALLA instructional model. For this purpose, different questionnaires and activities were carried out that yielded important information on the study problem and to know the students' most common difficulties in reading comprehension in English. It was found that most of the students liked learning English but still felt that their language skills could have been better, mainly in Speaking and Reading. Additionally, although the students wanted to improve their skills, they were unsure how to do it and needed more resources. It was also found that because the students needed a teacher specialized in teaching English, it was difficult for them to read texts in English, and they had to resort to using a dictionary or translator constantly. This problem caused the students to spend most of the class time translating the texts in many cases without comprehending them, preventing them from advancing their reading skills.

Therefore, this research focused on enhancing the English reading skills of rural ninth graders at Florentino González School, and for this purpose, the CALLA instructional model was used. During the study, the students were taught to use the CALLA instructional model and to analyze the texts with different strategies, such as the SQ3R, which improved their ability to understand texts in English without fully translating them. As students used the CALLA instructional model and its five steps (preparation, presentation, practice, self-evaluation, and expansion), they also developed metacognitive skills that helped them understand how they learned, the difficulties they presented, the use of strategies of learning, and how to regulate their learning by evaluating it reflexively.

In summary, the development of the research, in addition to improving the reading skills of the ninth-grade students at the Florentino González School, managed to motivate them to continue learning English with metacognitive and reflective processes. For example, using the CALLA instructional model as a research axis helped students become aware of how they learned, evaluate their effectiveness, and significantly improve the processes that prevented them from learning. It should be noted that most of the students had never analyzed how they learned. However, as the students became aware of their learning, they became more committed to the processes proposed in the research and developed strategies for themselves that allowed them to advance faster in developing their reading skills. Therefore, it can be concluded that the CALLA instructional model contributes to improving not only students' reading skills but also their learning processes in English because:

- The CALLA instructional model focuses on developing metacognitive skills, such as planning, monitoring, and evaluation of learning. These skills are especially relevant

- for rural students, as they can help them identify their strengths and weaknesses in reading comprehension in English and take steps to improve their performance.
- The CALLA instructional model contributes to developing autonomous learning skills in students, making them active builders of their knowledge.
 - The CALLA instructional model combines the development of linguistic skills with learning strategies, providing students with the necessary tools to improve both their competence in English and their ability to understand written texts in the language.
 - The CALLA instructional model uses explicit chain learning strategies (Preparation, Presentation, Practice, Self-Evaluation, and Expansion), allowing students to better understand the content of the text and make connections with their prior knowledge.

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Appendices

Appendix A. Consentimiento Informado 1

Título de la investigación: The CALLA instructional model and SQ3R reading comprehension method as a pedagogical strategy to improve English reading skill in rural students of ninth grade at Florentino González School (Coromoro-Santander)

Responsible: Franklin Ferney Rangel Grass

Yo, _____, identificado (a) con cedula de ciudadanía No. _____ de _____, en mi calidad de _____ del (la) menor _____, identificado(a) con Tarjea de Identidad No. _____, acepto de manera voluntaria que mi hijo(a) y/o representado(a) haga parte del proyecto de investigación titulado The CALLA instructional model and SQ3R reading comprehension method as a pedagogical strategy to improve English reading skill in rural students of ninth grade at Florentino González School (Coromoro-Santander) y realizado por el estudiante de la Universidad Nacional Abierta y a Distancia (UNAD) de Bucaramanga, FRANKLIN FERNEY RANGEL GRASS identificado con cédula No. 1098407447 de Charalá.

Bajo la salvedad que se respetarán los datos para uso exclusivamente académico, los cuales no serán divulgados comercialmente en ningún medio tanto digital como impreso; la información obtenida como encuestas, test, entrevistas, fotos y vídeos solo serán utilizados en materia académica y tendrán la reserva legal y confidencial que requieren estos casos, garantizando que recibirán respuesta a cualquier inquietud o aclaración frente al procedimiento. Se deja de manifiesto la libertad que tiene el participante de retirarse o renunciar a las actividades en el momento en que lo decida sin compromiso alguno.

Se me indicó que la metodología implica la aplicación de cuestionarios, entrevistas, pruebas de carácter diagnóstico, así como también la implementación de talleres enfocados a mejorar la habilidad lectora en inglés de los estudiantes de noveno grado del Colegio Florentino González (Coromoro-Santander).

Una vez leído y comprendido el procedimiento que se seguirá, APRUEBO la participación y AUTORIZO la aplicación de los cuestionarios y demás actividades señaladas.

Se firma el presente consentimiento el día ____ de _____ de 2022 en el municipio de Coromoro, Santander.

Firma:

Cédula

Appendix B. Cuestionario 1

El presente cuestionario tiene como finalidad recolectar datos importantes para el desarrollo de la investigación “The CALLA instructional model and SQ3R reading comprehension method as a pedagogical strategy to improve English reading skill in rural students of ninth grade at Florentino González School”. Por lo tanto, se le agradece su colaboración para responder las preguntas que encontrará a continuación. Los datos suministrados en el cuestionario serán tratados con profesionalismo, discreción y responsabilidad.

Instrucciones: responda las siguientes preguntas de acuerdo con sus experiencias en el aprendizaje del inglés.

Nombre: _____ Grado: _____ Edad: _____

	SI	NO
1. ¿Te gusta aprender inglés?		

2. ¿Qué es lo que te motiva a aprender un segundo idioma?

3. ¿Cómo te gustaría aprender inglés?

4. ¿Cómo consideras que deben ser las clases de inglés?

5. ¿Cuáles de las siguientes habilidades son las que más se te dificultan al aprender inglés?
(Puedes seleccionar varias opciones)

Hablar Leer Escuchar Escribir

6. ¿Cuál es la habilidad que más deseas mejorar?

Hablar Leer Escuchar Escribir

	SI	NO
7. ¿Puedes entender los textos que lees en inglés?		

	SI	NO
8. ¿Mientras aprendes inglés se te facilita hacer preguntas para aclarar tus dudas?		

9. Mientras aprendes inglés, cuando te enfrentas a una actividad que se te dificulta ¿Qué haces para resolverla?

Appendix C. Pre-Course Reading Strategies Questionnaire

Nombre: _____ Grado: _____ Edad: _____

PREGUNTAS	NUNCA	RARAMENTE	OCASIONALM ENTE	SIEMPRE
1. ¿Reconoces el propósito de los textos antes de leerlos?				
2. ¿Antes de leer un texto completamente, seleccionas información relevante y te concentras en ella mientras lees?				
3. ¿Antes de leer te preguntas si ya conoces sobre el tema del texto?				
4. ¿Antes de leer un texto tratas de predecir su contenido?				
5. ¿Mientras lees te preguntas constantemente si has comprendido el texto?				
6. ¿Logras imaginar o proyectar imágenes en tu mente relacionadas con lo que lees?				
7. ¿Cuándo lees un texto que no logras entender con facilidad te motivas a ti mism@ a encontrar maneras de comprenderlo?				
8. ¿Cuándo no logras entender lo que lees te apoyas en otras personas para comprender el texto?				
9. ¿Puedes usar el contexto del texto para entender las palabras que no conoces?				
10. ¿Usas algún material adicional (diccionario, libros, internet, u otros) para resolver problemas de comprensión lectora.				
11. ¿Después de leer revisas si tus predicciones fueron correctas?				
12. ¿Después de leer puedes resumir la información relevante del texto?				
13. ¿Cuándo terminas de leer te preguntas sobre que tanto has entendido el texto?				
14. ¿Después de leer reflexionas sobre las estrategias que aplicaste para comprender el texto?				
15. ¿Al finalizar de leer un texto reflexionas sobre las cosas que te impidieron comprenderlo completamente?				

Appendix D. Reading Control Questionnaire

Name: _____ Course: _____ Age: _____

		NEVER	RARELY	OCCASIONALLY	ALWAYS
Preparation-	1. Do you preview the full text before starting?				
	2. Do you seek guiding questions or words before starting?				
	3. Do you use your background knowledge to understand the text before reading it?				
Presentation-Question	4. Before reading, can you ask yourself questions about the text?				
	5. Can you concentrate while reading?				
	6. Before Reading, can you create a model of reading?				
Practice-	7. Do you underline unknown words while reading?				
	8. Do you take notes while you read?				
	9. Do you mark the text or write in the margins?				
Self-Evaluation	10. Do you recognize your reading strategies?				
	11. Can you predict the text while you read?				
	12. Can you visualize the main information of the text in your mind?				
Expansion-	13. Can you write a list with the main ideas of the text?				
	14. Can you summarize the text information?				
	15. After reading, do you evaluate your reading comprehension?				