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**ESCUELA DE EDUCACIÓN
CARRERA DE PEDAGOGÍA DE LOS IDIOMAS NACIONALES Y
EXTRANJEROS**

**RESEARCH REPORT
DIDACTIC STRATEGY TO IMPROVE HIGH SCHOOL
STUDENTS' ENGLISH LANGUAGE READING
COMPREHENSION USING ARTIFICIAL INTELLIGENCE**

**INFORME DE INVESTIGACIÓN:
ESTRATEGIA DIDÁCTICA PARA MEJORAR LA
COMPRESIÓN LECTORA DEL IDIOMA INGLÉS EN
ESTUDIANTES DE BACHILLERATO USANDO INTELIGENCIA
ARTIFICIAL**

**PREVIO AL TÍTULO ACADÉMICO DE:
LICENCIADO EN PEDAGOGÍA DEL IDIOMA INGLÉS**

**LINE OF INVESTIGATION:
INNOVATIVE DIDACTIC STRATEGIES AND METHODOLOGIES FOR
ENGLISH LANGUAGE TEACHING**

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Yo, PhD. Arelys Rodríguez Mestre, en calidad de directora de esta tesis, certifico haber revisado que el trabajo cumple los requisitos de calidad, originalidad y presentación exigibles y que se han incorporado las sugerencias del Tribunal al trabajo de grado.

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STATEMENT BY THE AUTHOR

I, Melanie Jivet Orrala Rodríguez, affirm that the investigation in the present report research is authentic, unique, and personal.

The content of this research is a legitimate legal and academic responsibility of the author and PUCE Esmeraldas.

Melanie Jivet Orrala Rodríguez

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DEDICATION

“I dedicate this work to my dear English teachers at PUCESE and to all the professors who struggle every day to provide an efficient and quality education, training future professionals who will contribute positively to society.”

To the current generations because you are the change.

“I hope that we do not regard the future only as gloomy darkness. We still have many pages left in our history, and we should not speak as if the end is already written.”

Kim Namjoon

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ABSTRACT

To design a didactic strategy to improve English language reading comprehension in high school students using artificial intelligence (AI) tools such as ChatGPT, was conducted at “La Inmaculada” school in Esmeraldas, Ecuador, with a sample of 20 eighth-grade students. A mixed-methods approach was used, combining qualitative and quantitative data collection. The techniques applied included surveys, observations, and documentary analysis, allowing a comprehensive understanding of students' reading difficulties and preferred learning strategies. The data were analyzed using descriptive statistics and interpretative methods. Reading comprehension is a fundamental skill for academic and professional success. However, in Ecuador, particularly in Esmeraldas, many high school students struggle with understanding English texts due to a lack of effective reading strategies and motivation. The findings revealed that most students (65%) sometimes relate new information to prior knowledge, while 55% had only a fair ability to identify the main idea of a text. Regarding pronunciation improvement, 80% of students relied on mobile applications, while AI tools were used by 45% of students to infer the meaning of unknown words. Additionally, a lack of motivation and limited use of structured reading strategies were identified as key barriers to reading comprehension. The results confirm that integrating AI into English reading instruction can enhance student engagement and support vocabulary acquisition. However, for a significant impact, AI tools should be combined with structured didactic strategies and teacher guidance. Future research should implement the proposed strategy in real classroom settings to measure its effectiveness over time.

Keywords: Reading comprehension; didactic strategy; artificial intelligence; ChatGPT; English learning; high school students.

RESUMEN

Diseñar una estrategia didáctica para mejorar la comprensión lectora del idioma inglés en estudiantes de bachillerato utilizando herramientas de inteligencia artificial (IA) como ChatGPT, se realizó en el colegio «La Inmaculada» de Esmeraldas, Ecuador, con una muestra de 20 estudiantes de octavo de bachillerato. Se utilizó un enfoque de métodos mixtos, combinando la recopilación de datos cualitativos y cuantitativos. Las técnicas aplicadas incluyeron encuestas, observaciones y análisis documental, lo que permitió una comprensión global de las dificultades de lectura de los alumnos y de sus estrategias de aprendizaje preferidas. Los datos se analizaron mediante estadística descriptiva y métodos interpretativos. La comprensión lectora es una habilidad fundamental para el éxito académico y profesional. Sin embargo, en Ecuador, particularmente en Esmeraldas, muchos estudiantes de secundaria tienen dificultades para comprender textos en inglés debido a la falta de estrategias de lectura eficaces y de motivación. Los resultados revelaron que la mayoría de los estudiantes (65%) a veces relacionan información nueva con conocimientos previos, mientras que el 55% sólo tenía una capacidad regular para identificar la idea principal de un texto. En cuanto a la mejora de la pronunciación, el 80% de los estudiantes recurrió a aplicaciones móviles, mientras que el 45% utilizó herramientas de IA para deducir el significado de palabras desconocidas. Además, la falta de motivación y el uso limitado de estrategias de lectura estructuradas se identificaron como barreras clave para la comprensión lectora. Los resultados confirman que la integración de la IA en la enseñanza de la lectura en inglés puede mejorar el compromiso de los alumnos y favorecer la adquisición de vocabulario. Sin embargo, para lograr un impacto significativo, las herramientas de IA deben combinarse con estrategias didácticas estructuradas y con la orientación del profesor. Las investigaciones futuras deberán aplicar la estrategia propuesta en aulas reales para medir su eficacia a lo largo del tiempo.

Palabras clave: Comprensión lectora; estrategia didáctica; inteligencia artificial; ChatGPT; aprendizaje del inglés; estudiantes de secundaria.

INTRODUCTION

Theme Presentation

Language is the instrument by which we communicate, we use it to transmit knowledge, ideas and criteria with other human beings. In addition, English is a global language spoken by many people around the world, this is the language that opens the doors to get more job opportunities, to grow professionally and personally in whatever we propose. We know that one of the main objectives of teaching and learning the English language is to use the target language in different life situations to communicate correctly; without fear of making mistakes. For this, the development of the four macro skills of the English language is essential: Listening, Speaking, Reading, and Writing.

Focusing on Reading Comprehension, this is a fundamental skill for the cognitive, academic, and professional development of students at all levels. According to Moreira and Chancay (2022), reading comprehension allows us to process information effectively, interpret texts, and think critically about what we read. Many studies point out the importance of promoting reading comprehension in students from an early age. One of them, the Program for International Student Assessment (PISA), stated that countries with better results in reading comprehension have a greater chance of success in school and work.

It is important to say that many people think that the act of reading is a simple and easy task to master, however, reading is a complex process that requires many different skills to develop. In fact, reading comprehension is one of the challenges which teachers and students face in the teaching-learning process of English as a foreign language.

On the other hand, artificial intelligence has positively evolved the pedagogy and teaching of the English language, with a wide variety of innovative digital tools that offer more personalized and interactive learning. Artificial intelligence contributes to the construction of students' knowledge, not only to generate information; but to increase our levels of knowledge and improve the specific skills of each area; such as reading comprehension. (Lightfoot, 2023; Rodríguez et al., 2023).

Problem Statement

Nowadays, in the context of Latin America, reading comprehension is one of the weakest skills in high school students. The results of the UNESCO Regional Office (2023) indicate that most students cannot understand texts effectively, neither can they identify the main idea and relevant information. This presents a challenge for the Ecuadorian education system, since reading comprehension is essential for the proper academic, professional and personal development of young people.

In the Ecuadorian context, students in higher education also have difficulties in developing reading comprehension of the English language. Despite the constant efforts of teachers and authorities, many students continue to have problems reading and interpreting texts, assimilating and remembering information.

High school students do not improve their English language reading comprehension, which may be caused by the facts that they do not like to read, and families do not help to promote reading habit from home. Likewise, there is a lack of knowledge on the part of some teachers regarding reading strategies. Consequently, this reality could bring about poor reading comprehension, poor spelling, loss of communication skills, and school dropout.

From this problem the following question arises:

Which didactic strategy would be appropriate to improve high school students' English language reading comprehension using artificial intelligence?

Justification

This topic was investigated because it will contribute to the English Language Didactic. In addition, it will have a significant contribution to Ecuadorian society, since reading is one of the skills with a low level throughout the country.

Didactic strategies are designed to solve learning problems taking into consideration specific context. On this sense, it is necessary the application of a didactic strategy based on an artificial intelligence tool to improve high school students' English language Reading Comprehension.

Objectives

General Objective

- To design a didactic strategy to improve English language reading comprehension in high school students using an artificial intelligence tool such as ChatGPT at “La Inmaculada” school in Esmeraldas.

Specific Objectives

- To analyze the high school students' expertise about reading comprehension of the English language.
- To determine the content to be included in the activities that high school students would prefer to use in the English classroom based on ChatGPT.
- To plan the main phases, roles, steps or procedures to be included in the didactic strategy for students' improvement in reading comprehension of the English language.

CHAPTER I

THEORETICAL FRAMEWORK

1.1 Scientific-Theoretical Foundation

1.1.1 Didactic Strategies

Didactics is a word of Greek origin that means “art of teaching.” According to Stöcker, K. (1964) “Didactics is a set of principles, phenomena, forms, precepts and laws of teaching.” (p.3).

Medina, A. (2003) defines didactics as a “discipline of pedagogical nature that focuses on teaching objectives and is committed to the goal of better human principles through the understanding and change of social communicative developments.” (p.7).

I can say that didactics is a pedagogical discipline that studies techniques, procedures, strategies and methods to facilitate and enhance the teaching-learning process, in order students to have a meaningful learning of English as a foreign language.

1.1.1.1 Reading Strategies

Reading strategies are teaching procedures and stages that teachers use within the classroom to help students develop their reading skills. Teachers often use the seven cognitive reading strategies to improve students' reading comprehension, which are: keep a sharp eye on visual clues, sound it out, summarizing, ask questions, make predictions, story mapping, and comprehension monitoring. These strategies are based on promoting skills such as activating, inferring, monitoring-clarifying, questioning, summarizing and visualizing (Twinkl, 2021, p.1).

1.1.2 What is Reading?

According to Richards, J. (2025) “reading is the ability we have to understand and analyze a written text; it is an interaction between the reader and the text.” (p.1).

Reading is one of the most important language skills when learning a language, along with listening, speaking and writing; because you master a language when you are

able to read any text and identify the words, the main idea, understand the meaning of the text; and also read fluently.

When we read, we look at written symbols (letters, punctuation, and spaces); our brain converts these symbols into words and compound sentences that have meaning for us. In addition, we can read silently (in our heads), or read aloud, which allows us to pronounce each word we read.

To be able to read, we need:

- Identify the words we see (word recognition)
- Understand what the text means (comprehension)
- Connect words and their meaning so that reading is automatic and accurate (fluency) (Twinkl, 2021)

1.1.2.1 Reading Skills

Reading skills are very necessary to develop children's reading ability, it is not only a matter of knowing how to read well, but also understanding what you are reading. There are six essential skills for reading comprehension: Decoding, Fluency, Vocabulary, Sentence construction and cohesion, Reasoning and background knowledge; Working memory and attention (Lee, 2019, p. 1).

Reading skills fall into four main categories: decoding, fluency, vocabulary, and sentence comprehension. These skills together lead to the ultimate goal of reading, which is Reading Comprehension or understanding what has been read (Twinkl, 2021, p. 2).

These skills are not only fundamental for English classes, but also for all school subjects, and areas of life beyond education.

1.1.2.2 Reading Comprehension

Comprehension is the ability to understand something, the comprehension exercise helps to examine your expertise in the language, being able to understand a text demonstrate our mastery of a language. Reading comprehension requires the ability to relate textual material to one's own knowledge. According to Anderson (1977), “each act

of comprehension also implies knowledge of the world” (p.369). Understanding a text enriches the reader with valuable information, enriches our vocabulary and improves critical thinking.

1.1.3 Artificial Intelligence (AI)

Artificial Intelligence (AI) is a field of computer science that focuses on creating systems capable of performing tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and language understanding. According to Russell & Norvig (2021), AI can be categorized into different approaches, including rule-based systems, machine learning, and deep learning, with the latter being the foundation of modern AI applications.

1.1.3.1 What is ChatGPT?

ChatGPT is an AI model created by Open AI that works like an advanced chatbot. It is trained to understand and generate human-like text, making it a useful tool for answering questions, summarizing texts, or helping students improve their reading skills. Think of ChatGPT as a very smart assistant that can explain things, give suggestions, and even help with writing.

1.1.4 Sociocultural Theory for Language Teaching

This theory focuses on meaning and sociocultural interactions as essential elements for language teaching and learning. According to Vygotsky (1978) "Learners are active creators of meaning, capable of solving problems" (p.2).

Furthermore, Vygotsky defends that learning arises from the interactions of individuals with the environment, thus developing mental skills such as logical thinking, problem solving, voluntary attention and intentional memory.

1.1.5 Zone of Proximal Development

According to Vygotsky, the ZPD is "the distance between a child's actual level of development as determined by independent problem solving and the highest level of potential development as determined through problem solving under the guidance of an adult or in collaboration with more capable colleagues" (Turuk, 2008, pp. 248-249).

In other words, Vygotsky refers to skills that a person can do with the help of another person, but cannot do independently or alone. For example, when teachers help students carry out an activity in class, or when parents help their children do their homework at home.

1.1.6 Humanistic Theory

This theory is related to constructivism and learning theory. Carls Rogers states that learning is a natural desire with the ultimate goal of achieving self-actualization, that is, a state in which one feels that all of one's emotional, physical, and cognitive needs have been satisfied. According to psychologist Rogers, C. (1951), "Humanistic theory emphasizes the inherent human drive to achieve self-actualization and maintains that people have a natural ability to make decisions about their lives and control their own behavior" (p.1-6).

The humanistic theory of learning emphasizes the freedom and autonomy of students, this connects the ability to learn with the satisfaction of other needs (based on Maslow's hierarchy).

1.2 ANTECEDENTS

Amin, R. (2019) in his research work on “Developing Reading Skills through Effective Reading Approaches”, in Bangladesh. He explored how students can develop their reading skills using effective reading approaches, the author developed action research, the sample was 40 high school students in Manikganj, Bangladesh. The most important question of his research was Could reading approaches help students' English reading comprehension studies? The final result he discovered that the students who have been tutored on reading strategies have great development in reading comprehension of the English language.

Mardase, S. (2020) developed a research work on “Reading Comprehension Strategies of Senior High School Students in Reading English Textbooks” in Salatiga, Indonesia. The author used a descriptive method to answer the research question about reading strategies; and she used a questionnaire to 34 first-year high school students from State Senior High School 3 Salatiga. The results showed that the strategies most used by students were previewing, coding, highlighting, and skimming. The author concluded that students sometimes applied the reading strategies and sometimes not, so the strategies should be re-applied to help them have a better reading comprehension of the English texts presented in their textbooks.

Panchi, V. (2021) developed a research work called “Reading Comprehension Strategy to Improve Students' Critical Thinking Skills”, in Esmeraldas, Ecuador. The research was mixed with a descriptive scope, and was carried out at the “Simón Plata Torres” High School in Esmeraldas. Analysis and hermeneutics methods based on data interpretation were used; Survey and observation techniques were also applied to a sample of 30 students and 3 English teachers. The author applied a test to diagnose the level of critical thinking of 10th grade students, and identify whether they correctly use reading comprehension strategies.

The data collected indicated that students limit themselves to reading a text quickly to find specific information, and that English teachers do not apply appropriate reading comprehension strategies in the teaching-learning process of the English language.

Recalde, A. (2022) conducted research on “Traditional Tales as Innovative Didactic Strategies to Improve Junior Students Reading Skills at 28 de Septiembre High School of Ibarra, Ecuador.” This study was carried out during the 2020-2021 academic period, the author used the mixed method to collect qualitative and quantitative data, and the sample was 56 students. The results showed that junior students have a literary affinity with the mystery and horror subgenres, and it was also discovered that the greatest cause of reading comprehension problems is the poor interpretation of new vocabulary in the texts.

The author concluded that traditional tales have a direct impact on the development of English language skills, since students improved productive (speaking and writing) and receptive (reading and listening) skills.

Gracia, T. & Ramírez, H. (2023) carried out educative research called “Didactic Strategies to Improve the Reading Comprehension Skill in the English Language Teaching-Learning Process” in Esmeraldas, Ecuador. This was a qualitative and quantitative descriptive research that was carried out at the “Nuevo Ecuador” school. The population was 1089 students and 5 teachers; and the sample was 102 students and 5 teachers, the data being chosen intentionally. On the other hand, they used the analysis, synthesis, and hermeneutic methods, with the survey and essay technique.

The results indicated that the majority of students read when the teacher ordered them, which reflects that there is no real motivation to read in English. Also, some students showed reading comprehension of texts using dictionaries, with scanning being the most used reading strategy. Finally, the authors concluded that the learners needed to reinforce more strategies to improve the reading comprehension of high school students efficiently.

CHAPTER II

METHODOLOGICAL FRAMEWORK

2.1 Context

This research was carried out at “La Inmaculada” school, located on Colon Avenue between Mexico and *El Oro* in the city of Esmeraldas. It is a Catholic and private school directed by the “Hermanas de la Providencia e Inmaculada Concepción”, being *Sor. Marcela Mafla* is the principal of “La Inmaculada” (morning session); and there are about 1200 students in total.

2.2 Type of Investigation

This type of research had a mixed approach, i.e., quantitative and qualitative; with a descriptive scope. Hernández, R. (2014) states that the mixed approach consists of collecting, analyzing and integrating quantitative data (numerical measurement) and qualitative data (describing opinions) in order to understand the research phenomenon in greater depth. (p. 10)

On the other hand, Hernandez, R. (2014) indicates that the descriptive scope details the characteristics or properties of any phenomenon through observation and hypothesis. In addition, the design was non-experimental, since the study variables were not manipulated and were not under any experiment (p. 92).

2.3 Population and Sample

The population was 40 eighth grade students from “La Inmaculada” school; and the sample was 20 students.

2.4 Operationalization of the variables

The dependent variable is *English Language Reading Comprehension*, and the independent variable is *Didactic Strategies*, since didactic strategies are needed to improve high school students' English language reading comprehension.

The operationalization of the variables is in Appendix 1.

2.5 Methods

The research was developed with the inductive method, which starts from the particular to the general. First of all, it was diagnosed the expertise of the students in English reading comprehension, then it was improved through the design of a didactic strategy.

I also used the analytic-synthetic and hermeneutic method. According to Hernández, the analytical-synthetic method is the analysis of the bibliographic information obtained, and synthesize the most relevant theories that support the research. Likewise, the final results were analyzed and synthesized.

Additionally, the hermeneutic method is the science of interpretation, which consists of interpreting the most important information of the theoretical framework (Hernández Sampieri, 2014).

2.6 Techniques and Instruments

A survey was applied as a technique whose instrument was a questionnaire with ten multiple questions, the observation technique was used by means of an observation rubric with five items.

Appendix 2

Appendix 3

2.7 Data processing

The data were processed using different statistical figures and techniques on Microsoft Excel Program. Also, percentages, frequencies and arithmetic mean were obtained.

CHAPTER III

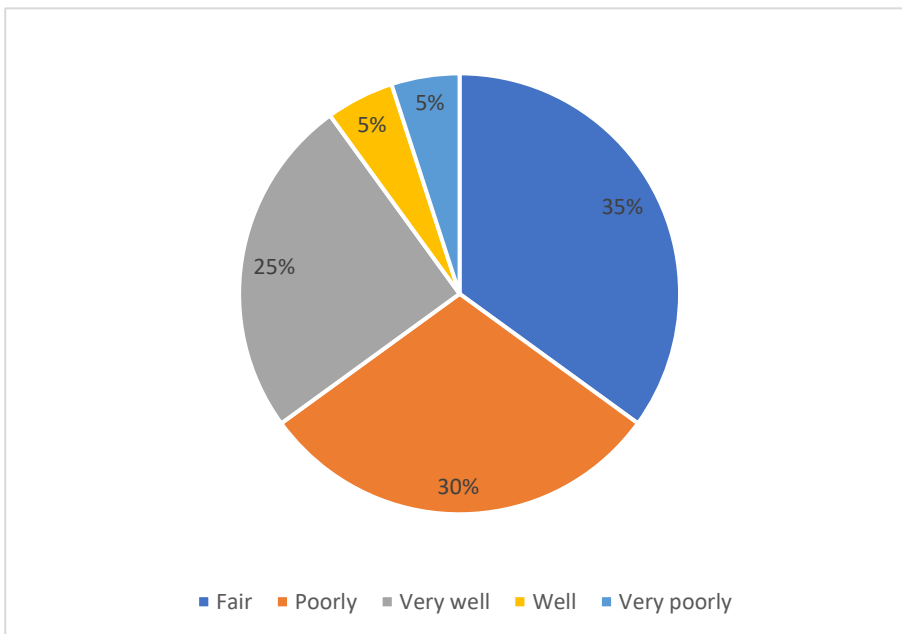
RESULTS

Dimension 1: Students' decoding

Regarding students' understanding level when they read English texts aloud (Figure 1). The results revealed that the majority (35%) selected the category Fair, the 30% selected the category Poorly, and the 25% chose Very well category.

Figure 1

Students' understanding level when they read English texts aloud

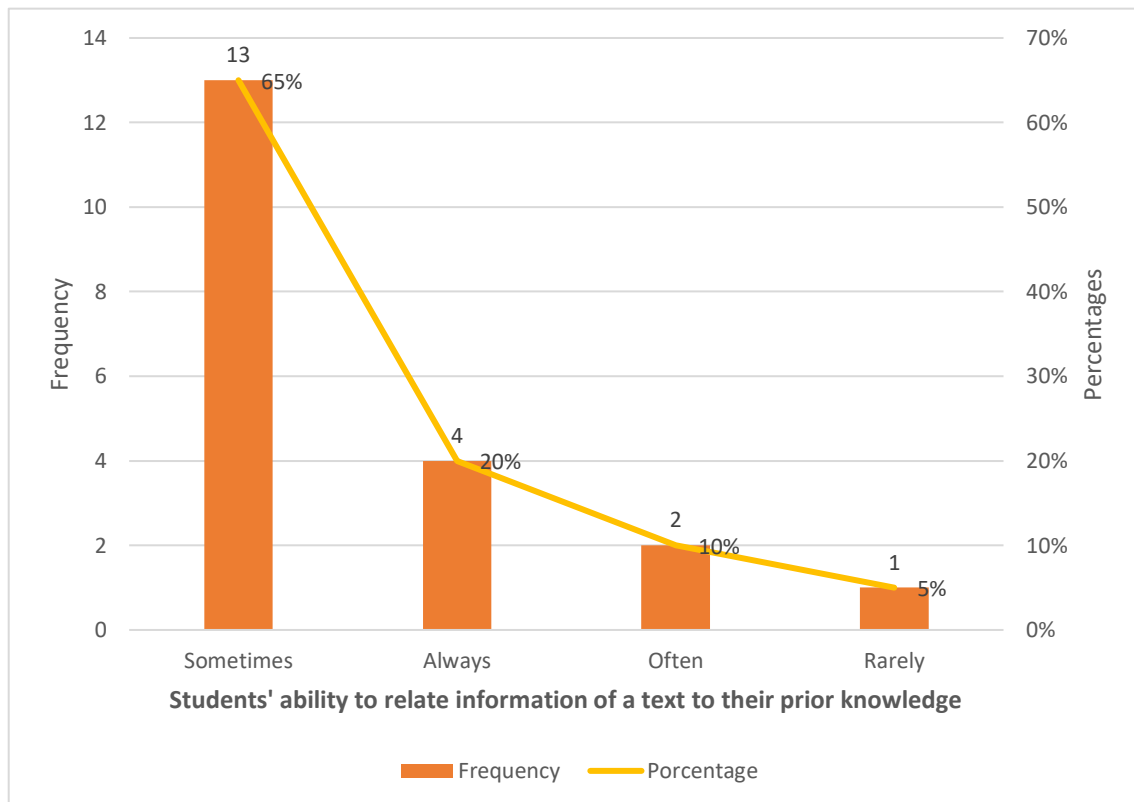


Note: The data were taken from the survey applied.

In accordance with the students' ability to relate information of a text to their prior knowledge (Figure 2). The results showed that most of the students (65%) chose the category Sometimes, followed by the 20% who chose the category Always.

Figure 2

Students' ability to relate information of a text to their prior knowledge



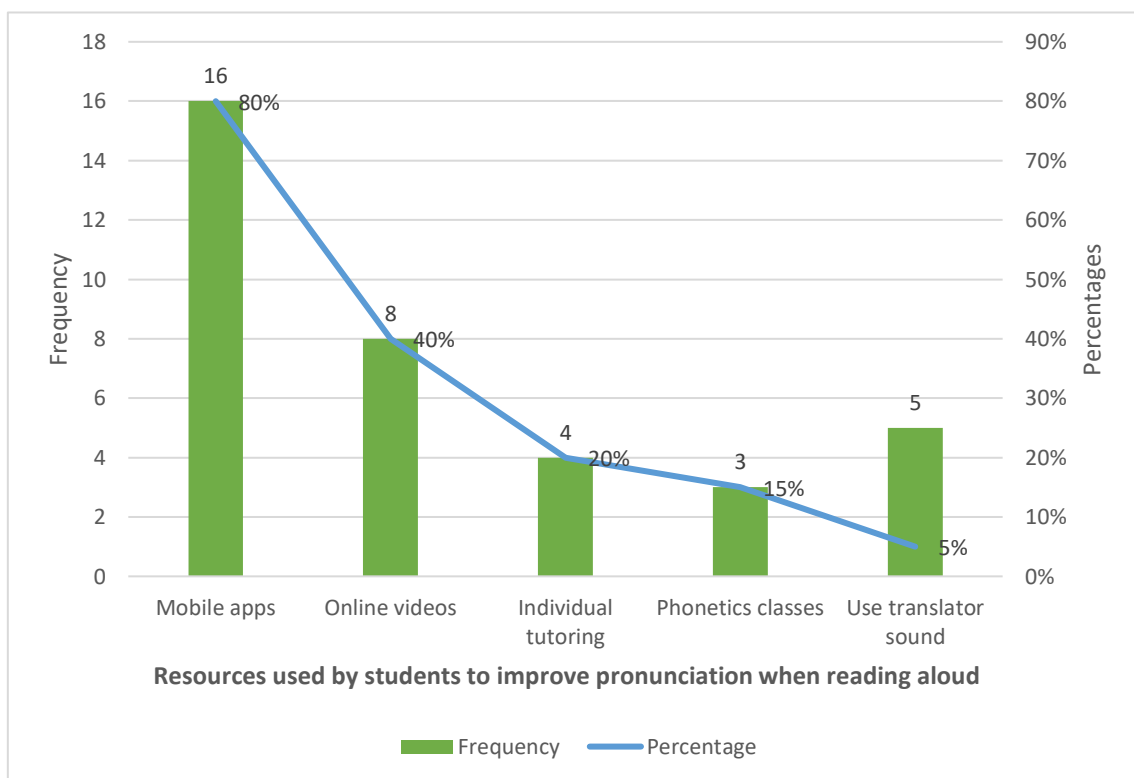
Note: The data were taken from the survey applied.

Dimension 2: Students' pronunciation

According to the resources used by students to improve pronunciation when reading aloud (Figure 3). The results indicated that the majority (80%) selected the Mobile apps category, 40% chose online videos, and 15% Phonetics classes.

Figure 3

Resources used by students to improve pronunciation when reading aloud



Note: The data were taken from the survey applied.

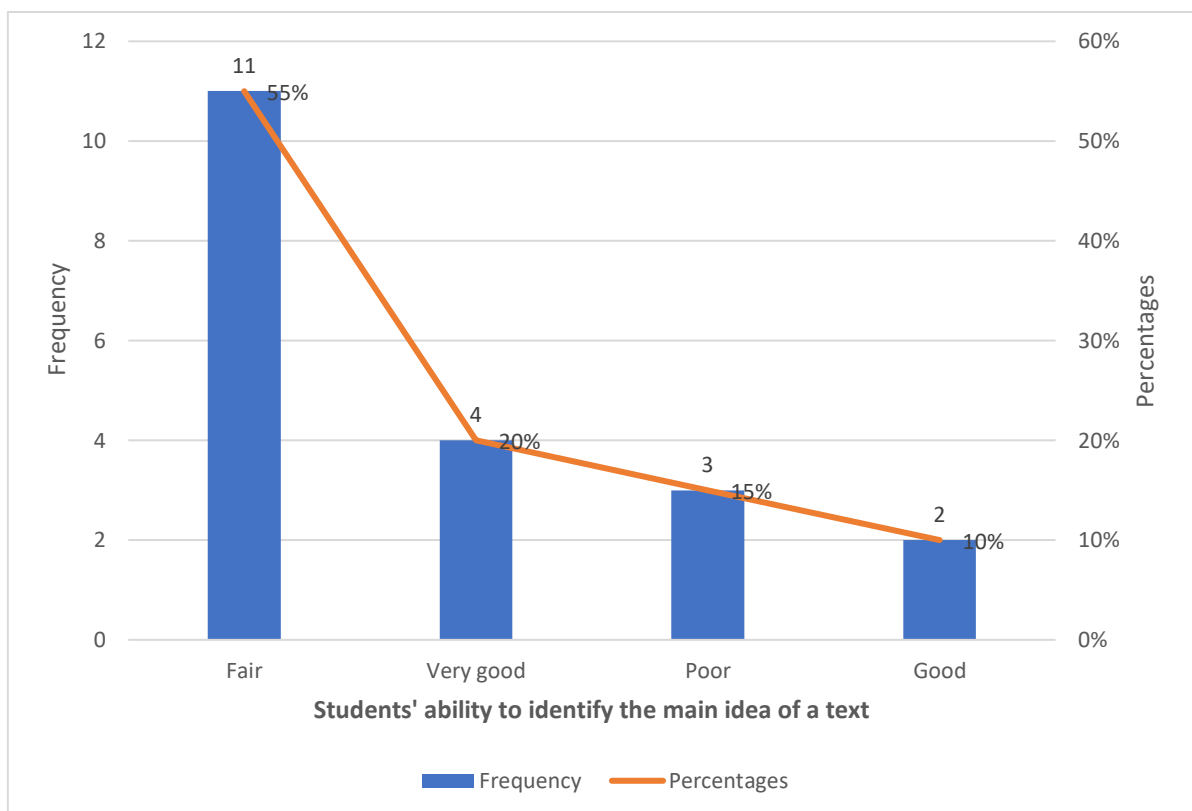
Dimension 3: Students' critical thinking

Regarding students' ability to identify the main idea of a text in English (Figure 4).

The results revealed that the majority (55%) selected the category Fair, the 20% selected Very good, and the 10% chose Good category.

Figure 4

Students' ability to identify the main idea of a text in English

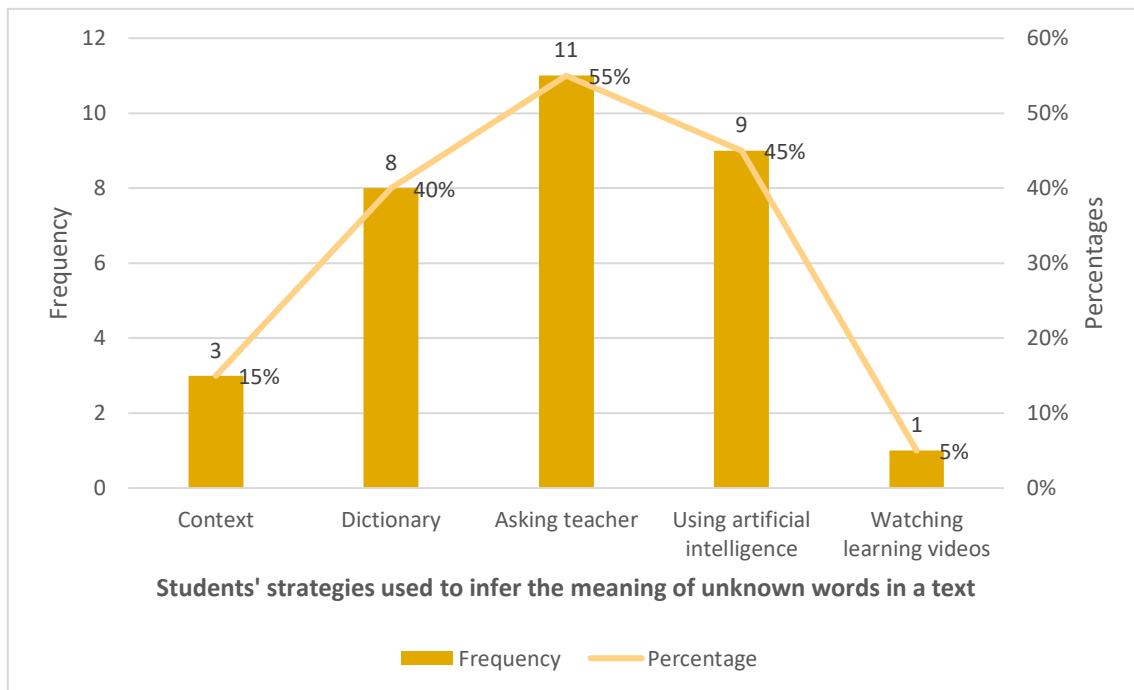


Note: The data were taken from the survey applied.

Regarding the strategies that students used to infer the meaning of unknown words in a text (Figure 5), the results showed that most of the students (55%) prefer to ask the teacher, 45% use artificial intelligence, and 40% of the learners use the dictionary.

Figure 5

Students' strategies used to infer the meaning of unknown words in a text



Note: The data were taken from the survey applied.

PROPOSAL

A DIDACTIC STRATEGY

“CLEAR Strategy”

Comprehension, Language, and Engaged Active Reading

The name Clear suggests a focus on making English comprehension clearer and easier for students while also being memorable and straightforward.

Objective: To improve English language reading comprehension of senior high school students developing critical thinking, analysis and synthesis by using ChatGPT.

First stage: Pre-reading

Activating prior knowledge

Teacher asks students to share what they know about the topic of the text, they will use ChatGPT to ask and explore key terms. For example, they could ask: What do you know about English literature? How did poetry come about? Who is the most famous writer of English literature?

Content prediction

Students will read the title, or first paragraph of the text, and then with the help of ChatGPT, they will ask questions about the content of the text. Example:

What do you think this text will be about? What ideas might be included in this topic?

Vocabulary Introduction

Using ChatGPT, students will look at the meaning of key and unknown words. They can type the words and ask for examples based on context, synonyms and additional sentences to reinforce their understanding.

Second stage: While-reading

Guided reading with interactive questions

Students will read the text in sections and then ask ChatGPT questions about the content to check their understanding.

For example, they can ask What does this part mean? or What is the main idea of this paragraph?

Paraphrasing and Summarizing

As they read, students can ask ChatGPT to paraphrase complex sentences or help them summarize information.

This helps simplify ideas and solidify reading comprehension.

Character and Event Analysis

One section of the text is about the story of Romeo and Juliet, students will analyze the characters and events using ChatGPT. For example: Why did the character do this? What effect does this event have on the story?

Third stage: Post-reading

Summary and reflection

Students will use ChatGPT in pairs to create a summary of the text they have read in their own words. They can compare their version of the summary with ChatGPT's version.

Analysis and Opinion Questions

To encourage critical thinking, students will ask ChatGPT open-ended questions based on the text, such as: What message does this text convey? Or how does this text relate to real life?

Discussion and closure

Students will have a discussion in groups, giving their opinions on the text and topic.

The teacher will ask what they learned, what caught their attention the most, and how ChatGPT helped them better understand the text and topic.

CHAPTER IV

DISCUSSION

The results of the research revealed that the majority of students have difficulties in understanding English texts, which is reflected in the fact that 35% evaluated their comprehension as “Fair” and 30% as “Poor”. This is consistent with previous studies such as that of UNESCO (2023), which showed that Latin American students have problems identifying main ideas and processing information effectively.

Likewise, the findings coincided with the research of Panchi (2021), who found that high school students in Esmeraldas tend to read superficially to locate specific information, without applying deep comprehension strategies. This limitation in text processing was also observed in the study by Gracia and Ramírez (2023), who concluded that lack of motivation and adequate strategies are key factors affecting reading performance.

An innovative aspect of this study is the use of artificial intelligence tools to support reading comprehension. The results revealed that 45% of students used AI to infer the meaning of unknown words, while 55% preferred to ask the teacher and 40% used dictionaries.

This finding suggests that artificial intelligence is beginning to play an important role in language learning, aligning with studies such as Lightfoot (2023) and Rodriguez et al. (2023), who highlight the positive impact of AI in English language teaching. In contrast, Recalde (2022) found that the main obstacle in the reading comprehension of Ecuadorian students was the interpretation of new vocabulary, which reinforces the need for more effective lexical acquisition strategies.

The results showed that 80% of the students used mobile applications to improve their pronunciation, suggesting an interest in autonomous learning. This is consistent with the research of Mardase (2020), who found that strategies such as coding and the use of technologies improve reading in English. However, the low incidence of traditional methods, such as phonics classes (15%), reflects a transition to more technological approaches.

Regarding the identification of main ideas in a text, 55% of the students were in the “Regular” category, which suggests a difficulty in analyzing and interpreting information. According to Vygotsky (1978), learning arises from social interaction and the environment; therefore, didactic strategies based on collaboration and the use of technologies can improve these results.

The study also supported Rogers' (1951) Humanistic Theory, which emphasizes the importance of autonomy and motivation in learning. Given that students showed a preference for digital tools, greater independence in reading could be encouraged through strategies that integrate artificial intelligence with active methodologies.

Study Limitations

The study was conducted with a limited sample of 20 high school students from “La Inmaculada” school. This small sample size may not fully represent the broader student population, making it difficult to generalize the findings to other educational contexts.

The research incorporated artificial intelligence tools to enhance reading comprehension, but not all students may have equal access to technology outside the classroom. This digital divide could impact the effectiveness and scalability of AI-driven strategies.

CHAPTER V

5.1. CONCLUSIONS

- The results of this research confirm the need to implement innovative teaching strategies to improve reading comprehension in English. The findings are consistent with previous studies, but also highlight the emerging role of artificial intelligence in learning. To achieve a significant impact, it is recommended that future research implement the didactic strategy designed in this study and evaluate its effectiveness in different educational contexts.

- The findings indicated that artificial intelligence tools, such as ChatGPT, can serve as effective didactic resources to enhance students' reading comprehension skills in English. A significant portion of students used AI for inferring unknown words, demonstrating that technology can complement traditional teaching methods. However, its effectiveness depends on proper guidance from teachers and students' motivation to use it as a learning aid.

- The results reveal that many students struggle with identifying main ideas, relating information to prior knowledge, and interpreting unfamiliar vocabulary. This aligns with previous studies indicating that Ecuadorian high school students have difficulties in deep reading comprehension. The lack of structured reading strategies and low motivation contribute to these challenges, highlighting the need for systematic didactic interventions.

- The study confirmed that traditional methods alone are insufficient to develop strong reading comprehension skills. A well-structured didactic strategy, integrating cognitive reading techniques and AI-driven tools, is essential for fostering engagement and improving students' abilities. Future research should implement the proposed strategy in real classroom settings to measure its long-term effectiveness.

5.2. RECOMMENDATIONS

I encourage teachers and researchers to continue with this investigation, applying a pedagogical experiment where the didactic strategy proposed could be implemented in order to improve the English reading comprehension in all educational levels, not only in high school, but also from an early age.

Teachers should incorporate artificial intelligence tools like ChatGPT into their reading lessons to enhance students' engagement and comprehension. AI can assist with vocabulary expansion, summarization, and text interpretation, especially for students struggling with reading comprehension.

Educators should implement proven reading comprehension strategies such as skimming, scanning, inferencing, and questioning. These techniques can help students to analyze texts more effectively, fostering critical thinking and deeper understanding.

Given the sociocultural context of Esmeraldas, teachers should use reading materials that reflect students' realities and interests. Incorporating local stories, news, and literature can increase motivation and engagement in reading activities.

Many educators are unfamiliar with the potential of AI in language teaching. Schools and educational authorities should provide training on how to effectively integrate AI into the English curriculum while reinforcing didactic strategies.

REFERENCES

- Amin, R. (2019). Developing Reading Skills through Effective Reading Approaches. *International Journal of Social Sciences & Humanities*, 4(1), 35-40.
doi:10.5281/zenodo.2557919
- Anderson, R., Reynolds, & Schallert, D. (1977). Frameworks for comprehending discourse. *American Educational Research Journal*, 14(4), 369.
- Gowrie. (n.d.). *Lev Vygotsky's Theory of Child Development* . Retrieved from Gowrie:
<https://www.gowriensw.com.au/thought-leadership/vygotsky-theory>
- Gracia Salvatierra, T., & Ramírez Lozada, H. (2023, January). Didactic Strategies to Improve the Reading Comprehension Skill in the English Language Teaching-Learning Process. *Journal for Research Scholars and Professionals of English Language Teaching*, 7(35), 1-8. doi:10.54850/jrspelt.7.35.008
- Hernández Sampieri, R. (2014). *Metdología de la Investigación*. Mexico D.F.: Mc Graw Hill Education.
- Irawati, D. (2023). *Improving the Reading Comprehension of the 9th Grade Students using Literature Circles Technique at Junior High School State 14 of Surabaya*. Surabaya, Indonesia: Junior High School State 14 of Surabaya. Retrieved from <https://repository.stkipgri-sidoarjo.ac.id/1717/1/1988103020%20-%20Article.pdf>
- Kelland, M. (2022, December 01). *Carl Rogers and Humanistic Psychology*. Retrieved from LibreTexts Social Sciences:
https://socialsci.libretexts.org/Bookshelves/Psychology/Culture_and_Communit

y/Personality_Theory_in_a_Cultural_Context_(Kelland)/08%3A_Carl_Rogers_and_Abraham_Maslow/8.02%3A_Carl_Rogers_and_Humanistic_Psychology

Lee, A. (2019, October 17). *6 essential skills for reading comprehension*. Retrieved from Understood.org: <https://www.understood.org/en/articles/6-essential-skills-needed-for-reading-comprehension>

Mardase, S. (2020). *Reading Comprehension Strategies of Senior High School Students in Reading English Textbooks*. Salatiga, Indonesia: Universitas Kristen Satya Wacana. Retrieved from https://repository.uksw.edu/bitstream/123456789/20766/2/T1_112016085_Full_text.pdf

McLeod, S. (2024, August 09). *Vygotsky's Theory of Cognitive Development*. Retrieved from SimplyPsychology: <https://www.simplypsychology.org/vygotsky.html#:~:text=Vygotsky's%20theory%20emphasizes%20individuals'%20active,actively%20interact%20with%20their%20environment.>

Medina, A. (2003). *La didáctica: disciplina pedagógica aplicada*. Madrid: Prentice Hall.

Moreira Palacios, S., & Chancay Cedeño, C. (2022). Comprensión lectora para la construcción de aprendizajes significativos en estudiantes de Educación Básica Superior. *Cognosis*, 7(4), 31-40.
doi:<https://doi.org/10.33936/cognosis.v7i4.3616>

Panchi Candonga, V. (2021). Reading Comprehension Strategy to Improve Students' Critical Thinking Skills. *Journal for Research Scholars and Professionals of*

- English Language Teaching*. Retrieved from
<https://repositorio.puce.edu.ec/items/787820a3-7cd6-4b95-b57e-3825f103eec1>
- Recalde Torres, A. (2022). *Traditional Tales as Innovative Didactic Strategies to Improve Junior Students Reading Skills at 28 de Septiembre High School of Ibarra*. Ibarra, Ecuador: Universidad Técnica del Norte. Retrieved from
<http://repositorio.utn.edu.ec/bitstream/123456789/12235/2/05%20FECYT%203926%20TRABAJO%20GRADO.pdf>
- Rentauli, M. (2019). Understanding Vygotsky's Zone of Proximal Development for Learning. *Polyglot*, 15(2), 169-186. doi:dx.doi.org/10.19166/pji.v15i2.1544
- Richards, J. (2006). *Communicative Language Teaching Today*. New York: Cambridge University Press. Retrieved from <https://www.professorjackrichards.com/wp-content/uploads/Richards-Communicative-Language.pdf>
- Richards, J. (2025). *English language learning in primary school*. Retrieved from Professor Jack C. Richards: <https://www.professorjackrichards.com/english-language-learning-in-primary-school/>
- Rogers, C. (1980). *A way of being*. Boston, Massachusetts: Houghton Mifflin. Retrieved from <https://www.perlego.com/book/2450068/a-way-of-being-pdf>
- Russell, S., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach*. Pearson Education.
- Stöcker, K. (1964). *Principios de la didáctica moderna*. Buenos Aires: Kapelusz.
- Twinkl. (2021, January 29). *What are Reading Skills?* Retrieved from Twinkl:
<https://www.twinkl.com/teaching-wiki/reading-skills>

UNESCO. (2023). *Global education monitoring report, 2023: technology in education: a tool on whose terms?* Paris: United Nations Educational, Scientific, and Cultural Organization.

APPENDICES

Appendix 1: Operationalization of the variables

OBJECTIVES	VARIABLES	CONCEPTUAL DEFINITION	OPERATIONAL DEFINITION	DIMENSIONS	INDICATORS	TECHNIQUES	INSTRUMENTS	ITEMS
To diagnose senior high school students' difficulties in English Language Reading Comprehension.	DEPENDENT English Language Reading Comprehension	Reading comprehension is the ability to relate textual material to one's own knowledge. Being able to understand a text demonstrate our mastery of a language.	Students' reading comprehension to understand, interpret, and apply the information contained in a written text will be measured through the following dimensions: Critical thinking, Decoding and Pronunciation.	- Critical thinking - Decoding - Pronunciation	- Inferential questions - Speech - Fluency and accuracy	- Survey - Observation - Documentary study	- Questionnaire -Observation Guide - A guide of review	10 5 5
To determine the content to be included in the activities.	INDEPENDENT Didactic Strategies							
To plan the main stages, actions, and procedures to be included in the strategy.								

Appendix 2

Survey: Reading comprehension of the English language.

Dimension: Critical Thinking

1. How do you assess your ability to identify the main idea of a text in English?

- a) Very good
- b) Good
- c) Fair
- d) Poor
- e) Very poor

2. How often can you relate information from an English text to your prior knowledge?

- a) Always
- b) Often
- c) Sometimes
- d) Rarely
- e) Never

3. What strategies do you use to infer the meaning of unknown words in an English text?

- a) Context
- b) Dictionary
- c) Asking someone
- d) Ignoring the word
- e) Others (specify) _____

Dimension: Decoding

4. How well do you understand texts in English when they are read aloud?

- a) Very well
- b) Well
- c) Fair
- d) Poorly

e) Very poorly

5. What methods do you use to improve your reading speed and accuracy in English?

a) Reading aloud

b) Silent repeated reading

c) Timed reading exercises

d) Using apps or software

e) Others (specify) _____

6. How often do you practice reading in English outside of school hours?

a) Daily

b) Weekly

c) Monthly

d) Rarely

e) Never

Dimension: Pronunciation

7. How would you rate your confidence when reading aloud in English?

a) Very confident

b) Confident

c) Neutral

d) Slightly confident

e) Not confident at all

8. What resources do you use to improve your pronunciation in English?

a) Phonetics classes

b) Online videos or audios

c) Mobile apps

d) Individual tutoring

e) Others (specify) _____

9. How often do you receive feedback on your pronunciation from your teachers?

- a) Always
- b) Often
- c) Sometimes
- d) Rarely
- e) Never

Combined Dimension

10. What type of classroom activities do you think are most effective for improving your reading comprehension in English?

- a) Group discussions
- b) Teacher-guided reading
- c) Independent reading
- d) Interactive activities (games, apps)
- e) Others (specify) _____

Appendix 3

Observation Guide on Reading comprehension of the English language

Observer: _____ Date: _____ Class: _____

Teacher: _____ Student: _____

1. Critical Thinking

Objective: Evaluate the student's ability to analyze and evaluate the content of the text.

1. Identification of main ideas:

- Can the student identify the main ideas of the text?
- Can the student accurately summarize the text?
- **Scale:**
 - 1: Does not identify main ideas.
 - 2: Identifies some main ideas but with errors.
 - 3: Identifies most of the main ideas accurately.
 - 4: Identifies all main ideas accurately.

2. Inferences:

- Can the student make inferences based on the text?
- Can the student justify their inferences with evidence from the text?
- **Scale:**
 - 1: Does not make inferences.
 - 2: Makes inferences but without adequate justification.
 - 3: Makes inferences with some justification.
 - 4: Makes accurate and well-justified inferences.

3. **Opinion and Argumentation:**

- Can the student express their opinion about the text?
- Can the student argue their opinion with logical reasons and examples from the text?
- **Scale:**
 - 1: Does not express an opinion.
 - 2: Expresses an opinion without argumentation.
 - 3: Expresses an opinion with some argumentation.
 - 4: Expresses an opinion with solid argumentation.

2. **Decoding**

Objective: Evaluate the student's ability to recognize and understand words and phrases in English.

1. **Word recognition:**

- Can the student recognize basic and advanced words in the text?
- **Scale:**
 - 1: Recognizes less than 50% of the words.
 - 2: Recognizes between 50% and 70% of the words.
 - 3: Recognizes between 70% and 90% of the words.
 - 4: Recognizes more than 90% of the words.

2. **Understanding phrases:**

- Can the student understand simple and complex phrases in the text?
- **Scale:**
 - 1: Does not understand phrases.
 - 2: Understands simple phrases but not complex ones.
 - 3: Understands most simple phrases and some complex ones.
 - 4: Understands all simple and complex phrases.

3. Use of context:

- Does the student use context to understand unknown words?
- **Scale:**
 - 1: Does not use context.
 - 2: Uses context in a limited way.
 - 3: Uses context effectively occasionally.
 - 4: Uses context effectively to understand unknown words.

3. Pronunciation

Objective: Evaluate the student's ability to pronounce words and phrases in English clearly and accurately.

1. Clarity of pronunciation:

- Does the student pronounce words clearly?
- **Scale:**
 - 1: Unintelligible pronunciation.
 - 2: Comprehensible pronunciation but with frequent errors.
 - 3: Clear pronunciation with some errors.
 - 4: Clear and accurate pronunciation.

2. Intonation and rhythm:

- Does the student use appropriate intonation and rhythm?
- **Scale:**
 - 1: Inappropriate intonation and rhythm.
 - 2: Appropriate intonation and rhythm with frequent errors.
 - 3: Generally appropriate intonation and rhythm with some errors.
 - 4: Appropriate and natural intonation and rhythm.

3. Pronunciation of specific sounds:

- Does the student correctly pronounce specific English sounds (vowels, consonants, diphthongs)?

- **Scale:**
 - 1: Incorrect pronunciation of most sounds.
 - 2: Incorrect pronunciation of some key sounds.
 - 3: Correct pronunciation of most sounds with some errors.
 - 4: Correct pronunciation of all sounds.

Additional Comments

- General observations about the student's reading comprehension:

- Observed strengths:

- Areas for improvement:

- Recommendations for future teaching strategies:

ANNEXES

