	UNIVERSIDAD SURCOLOMBIANA	
	GESTIÓN SERVICIOS BIBLIOTECARIOS	
	CARTA DE AUTORIZACIÓN	

CÓDIGO	AP-BIB-FO-06	VERSIÓN	1	VIGENCIA	2014	PÁGINA	1 de 1

Neiva, ___23 de octubre de 2019_____

Señores

CENTRO DE INFORMACIÓN Y DOCUMENTACIÓN

UNIVERSIDAD SURCOLOMBIANA

Ciudad

El (Los) suscrito(s):

___Oscar Fernando Penagos Rojas_____, con C.C. No. __1075269821_____,

Autor(es) de la tesis y/o trabajo de grado titulado__ Using Metacognitive Strategies to Improve Reading Comprehension by Means of Using Tablets in an EFL Context.

presentado y aprobado en el año ___2019___ como requisito para optar al título de

_____Magister en didáctica del inglés_____:

Autorizo (amos) al CENTRO DE INFORMACIÓN Y DOCUMENTACIÓN de la Universidad Surcolombiana para que, con fines académicos, muestre al país y el exterior la producción intelectual de la Universidad Surcolombiana, a través de la visibilidad de su contenido de la siguiente manera:

- Los usuarios puedan consultar el contenido de este trabajo de grado en los sitios web que administra la Universidad, en bases de datos, repositorio digital, catálogos y en otros sitios web, redes y sistemas de información nacionales e internacionales "open access" y en las redes de información con las cuales tenga convenio la Institución.

- Permita la consulta, la reproducción y préstamo a los usuarios interesados en el contenido de este trabajo, para todos los usos que tengan finalidad académica, ya sea en formato Cd-Rom o digital desde internet, intranet, etc., y en general para cualquier formato conocido o por conocer, dentro de los términos establecidos en la Ley 23 de 1982, Ley 44 de 1993, Decisión Andina 351 de 1993, Decreto 460 de 1995 y demás normas generales sobre la materia.

- Continúo conservando los correspondientes derechos sin modificación o restricción alguna; puesto que, de acuerdo con la legislación colombiana aplicable, el presente es un acuerdo jurídico que en ningún caso conlleva la enajenación del derecho de autor y sus conexos.

De conformidad con lo establecido en el artículo 30 de la Ley 23 de 1982 y el artículo 11 de la Decisión Andina 351 de 1993, "Los derechos morales sobre el trabajo son propiedad de los autores" , los cuales son irrenunciables, imprescriptibles, inembargables e inalienables.

EL AUTOR/ESTUDIANTE: Oscar Fernando Penagos Rojas.

Firma: _Oscar F. Penagos Rojas_

Vigilada Mineducación

La versión vigente y controlada de este documento, solo podrá ser consultada a través del sitio web Institucional www.usco.edu.co, link Sistema Gestión de Calidad. La copia o impresión diferente a la publicada, será considerada como documento no controlado y su uso indebido no es de responsabilidad de la Universidad Surcolombiana.

TÍTULO COMPLETO DEL TRABAJO: Using Metacognitive Strategies to Improve Reading Comprehension by Means of Using Tablets in an EFL Context

AUTOR O AUTORES:

Primero y Segundo Apellido	Primero y Segundo Nombre
Penagos Rojas	Oscar Fernando

DIRECTOR Y CODIRECTOR TESIS:

Primero y Segundo Apellido	Primero y Segundo Nombre
Salazar Aristizabal	Sonia Amparo

ASESOR (ES):

Primero y Segundo Apellido	Primero y Segundo Nombre
Salazar Aristizabal	Sonia Amparo

PARA OPTAR AL TÍTULO DE: Magister en didáctica del inglés

FACULTAD: Postgrados

PROGRAMA O POSGRADO: Maestría en didáctica del inglés

CIUDAD: Neiva   **AÑO DE PRESENTACIÓN:** 2019   **NÚMERO DE PÁGINAS:** 90

TIPO DE ILUSTRACIONES (Marcar con una **X**):

Diagramas_x__ Fotografías_x_ Grabaciones en discos___ Ilustraciones en general___ Grabados___ Láminas___ Litografías___ Mapas___ Música impresa___ Planos___ Retratos___ Sin ilustraciones___ Tablas o Cuadros_x_

SOFTWARE requerido y/o especializado para la lectura del documento:

MATERIAL ANEXO: Prueba Saber, cuestionario, plan de clases.

PREMIO O DISTINCIÓN (En caso de ser LAUREADAS o Meritoria):

PALABRAS CLAVES EN ESPAÑOL E INGLÉS:

	Español	**Inglés**		**Español**	**Inglés**
1.	Instruccion	Instruction	6.	Vocabulario	Vocabulary
2.	Estrategias	Strategies	7.	Tabletas	Tablets
3.	Lectura	Reading	8.	_____	_____
4.	Metacogniccion	Metacognitive	9.	_____	_____
5.	Mapa G	G-map	10.	_____	_____

RESUMEN DEL CONTENIDO: (Máximo 250 palabras)

Este estudio explora los efectos de enseñar estrategias metacognitivas para mejorar la comprensión lectora de estudiantes de décimo grado. Este fue un estudio mixto, en el cual se instruyó en estrategias metacognitivas de lectura para hacerlos conscientes de su proceso de lectura. El investigador entreno a los estudiantes en la implementación de tres estrategias: skim, scan y el mapa-G. Ese entrenamiento tuvo dos ciclos y los estudiantes presentaron un pre-test y post-test ante y después de los ciclos. Los resultados mostraron que las estrategias de lectura metacognitivas fueron útiles para mejorar la comprensión de lectura de los estudiantes, esas estrategias hicieron al aprendiz consiente de su proceso de aprendizaje y le ayudo al investigador identificar algunas de las principales dificultades que los estudiantes afrontan cuando leen textos en inglés.

ABSTRACT: (Máximo 250 palabras)

This study explores the effects of teaching metacognitive strategies to improve 10th graders´ reading comprehension. This research study was a mixed-method study in which participants went through metacognitive strategies instruction to make them aware of their reading process. The researcher trained students in the implementation of three strategies: skim, scan, and G-map. That training had two cycles; students took a pre-test and post-test before and after the cycles. The results showed that metacognitive strategies classes were useful to improve students reading comprehension as those strategies made learners aware of the learning process and helped the researcher to identify some of the main difficulties students face when reading texts in English.

APROBACION DE LA TESIS

Nombre Presidente Jurado: CLAUDIA TORRES JARAMILLO

Firma:

Nombre Jurado: MARIA FERNANDA JAIME OSORIO

Firma:

Nombre Jurado: JAIRO ENRIQUE CASTAÑEDA TRUJILLO

Firma: Jairo Castañeda.

Using Metacognitive Strategies to Improve Reading Comprehension by Means of Using Tablets

in an EFL Context

Oscar Fernando Penagos Rojas

Thesis Director

Sonia Amparo Salazar Aristizábal

Universidad Surcolombiana

School of Education

Masters' Program in English Language Teaching

Neiva, Huila

2019

_____

Note of acceptance

Claudia Torres Jaramillo

_____

External Juror

Universidad Externado de Colombia

_____

Institutional affiliation

Acknowledgment

Abstract

This study explores the effects of teaching metacognitive strategies to improve 10th graders´ reading comprehension and vocabulary acquisition. This research study was a mixed-method study in which participants went through metacognitive strategies instruction to make them aware of their reading process. The researcher trained students in the implementation of three strategies: skim, scan, and G-map. That training had two cycles; students took a pre-test and post-test before and after the cycles. The results showed that metacognitive strategies classes were useful to improve students reading comprehension as those strategies made learners aware of the learning process and helped the researcher to identify some of the main difficulties students face when reading texts in English.

Keywords: reading strategies instruction, metacognition, metacognitive strategies, skim, scan, G-map, vocabulary and tablets.

Resumen

Este estudio exploró los efectos de enseñar estrategias metacognitivas para mejorar la comprensión lectora y la adquisición de vocabulario de estudiantes de décimo grado. Este fue un estudio mixto, en el cual se instruyó en estrategias metacognitivas de lectura para hacerlos conscientes de su proceso de lectura. El investigador entreno a los estudiantes en la implementación de tres estrategias: skim, scan y el mapa-G. Ese entrenamiento tuvo dos ciclos y los estudiantes presentaron un pre-test y post-test ante y después de los ciclos. Los resultados mostraron que las estrategias de lectura metacognitivas fueron útiles para mejorar la comprensión de lectura de los estudiantes, esas estrategias hicieron al aprendiz consiente de su proceso de aprendizaje y le ayudo al investigador identificar algunas de las principales dificultades que los estudiantes afrontan cuando leen textos en inglés.

Palabras clave: instrucción de estrategias de lectura, metacogniccion, estrategias metacognitivas, skim, scan, mapa G, vocabulario y tabletas.

Table of contents

Introduction

According to Rios & Valcárcel (2005), students in public schools tend to have low levels of English, and that makes the reading comprehension challenging. This fact is supported by Rodríguez, Jurado, Rodríguez y Castillo, they affirmed that according to ICFES exam, secondary students know how to read in a literal level but, they continue showing difficulties to read inferentially (as cited in Aragon & Caicedo, 2009, p.126). Having this context in mind, it is mandatory that our students improve their reading skill by learning how to read inferentially. However, to achieve that goal students need to be aware of their learning process.

The implementation of metacognitive strategies has demonstrated to be very useful to enhance learners´ reading skill. Moreover, some of the research studies in the country, have implemented class instruction or activities to make learners aware of the use of those strategies. But, few of them have been carried out in public schools in the country. As a result, this study examined how instructional classes based on metacognitive reading strategies develop students' reading skill by using tablets in a public school. Thus, after noticing students´ lack of strategies when reading, I decided to instruct and implement three reading metacognitive strategies skim, scan and G-map with the students, to notice whether the instruction in metacognitive strategies help students to improve their reading skill and how the use of tablets affects students during the reading classes.

In the following sections, you will find five chapters within this research report. The first chapter shows the statement of the problem, the research questions and objectives, and the related studies. Then, you will find the setting and the rationale. The second chapter describes the literature review. It presents significant literature and concepts to frame my study within this field. In the third chapter, I explain the research design, the instruments, and stages for data

collection. In chapter four, I explain how I developed the data analysis and present the reflection

from the observation. Lastly, the fifth chapter will show the conclusions and the pedagogical

implications of my research.

Chapter I

Research Problem

Statement of the Problem

Several research studies (Rodriguez, (2017); Padilla de la Cerda, (2016); Gomez & Avila, (2009); Mikhailova,(2008) ; Bastidas,(2002). have implemented strategies, courses, and materials to address some difficulties learners face when reading texts in English at different educational levels in the country However, the key term involved in reading is comprehension. Hence, according to He Ji Sheng, comprehension is the understanding of the meaning of written material and involves the conscious strategies that lead to understanding (as cited in Gomez & Avila, 2009, p. 56). Consequently, the implementation of conscious strategies helps students to understand texts better. Besides, according to Hosenfeld, "when readers did not use appropriate reading strategies, they had problems with guessing the meaning of words, relied on word by word translation, often made inaccurate guesses and could not retain the meaning of what they read..." (as cited in Gomez & Avila, 2009, p. 57).

As discussed above, tenth-grade students at a public institution in the city were facing many difficulties when trying to comprehend texts in their English classes. I could observe and notice some students' attitudes and comments when they were taking a diagnostic reading test. Some students' comments were: "Teacher, I do not know anything about this"; another student said: "Teacher, I did not know how to answer then, I answered randomly." Moreover, the standard strategy in the classroom to comprehend the test was word by word translation.

It seemed that students do not know strategies to comprehend texts during English classes. After revising the tests, students showed low reading comprehension, lack of strategies

to understand texts, and poor vocabulary. Which caused low results on their reading tasks, exercises, and tests. Furthermore, they did not know any strategy to extract information from the texts. They just read the words in the text while trying to translate them into Spanish. I identified those issues after implementing a reading comprehension test taken from Prueba Saber exam, an online questionnaire whose objective was to identify students´ reading attitudes, habits and strategies and classroom observation during the implementation of the reading test.

This situation affects not only the results of some activities and tests in the school but also the results of the national SABER test. According to Padilla de la Cerda (2016) Saber test is mainly based on reading competence.

Related Studies

This section summarizes some articles and documents which carried out studies related to metacognitive strategies. In addition, this section addresses a report made by Aragon and Caicedo (2009) on research studies teaching metacognitive strategies. Then, it presents some studies that have implemented tablets and apps to teach different skills.

Metacognitive strategies. Rodriguez (2017) implemented a research study based on a reading comprehension course at a school in Colombia. The main purpose of this study was to design a genre reading course, which would provide learners with explicit strategy instruction and then determine how this would help them improve their comprehension when reading in English and to what extent this would impact their motivation towards reading in English. Its method was action research, Rodriguez (2017) concludes that students´ improvement in their reading comprehension level could be evidenced and at the same time, a higher level of motivation and commitment towards reading activities. The findings reported by the author are relevant for my study since the researcher points out that explicit instruction improve the development of metacognitive strategies. Moreover, the author adds that students´ motivation increased during the instruction, a fact that I had not taken into account in my study.

Similarly, Fabian Padilla de la Cerda (2016) conducted a study called the design of a theme-based and genre-oriented strategic reading course to improve students' reading comprehension skills at a public school in Colombia. The idea of this intervention was to understand if it was possible to design a course based on genre and content in order to improve the reading competence of students in public schools. Besides, it was also a purpose of this project to provide students with strategies which help them access academic texts in English despite their being low achievers, this process was carried out by implementing a placement test, questionnaires and think aloud protocol.

Some of his main findings were the fact that students recognized that it was not necessary to know every word in the text to understand the meaning of the whole text. Similarly, the author sat the low achievers next to more capable achievers. Thus, participation increased. Equally important a notable conclusion of this research study is the affirmation that most of the

difficulties faced by students regarding comprehension originate because students lack

competence in their mother tongue. This study is pertinent due to the fact that students

themselves realized that it is not necessary to know every word, second its improvement in

student's participation by working in pairs and it points outs a possible origin of the problem,

which students lack of competence in their mother tongue.

A study with a similar goal and strategy to the above intervention was carried out by

Gómez and Ávila (2009) at the university level. They found that some students presented low

reading comprehension and lack or inappropriate use of reading comprehension strategies. This

study was a qualitative research study, and they implemented a pre-test, survey, post-test; after

that, they analyzed to establish if there were any differences. The goal of this study was to

implement some reading strategies in EFL to obtain better results in the middle and long term

class. This study is significant for my research study because they implemented pre-test and

post-test after the training, which led me to implement a pre-test and a post- test in a similar way

and compare them after the intervention. Further, they concluded that all depends on the reader ́s

background knowledge concerning the language and their culture. That, last conclusion led me to

think about students' background knowledge as feature that may affect students 'reading

comprehension ability; this study could give the opportunity to analyze that issue.

Review of research studies and conceptual articles about teaching metacognitive.

Aragon and Caicedo (2009) analyzed reports of research studies and theories essays about teaching metacognitive, published between 1996 and 2008. They organized the results and variables in a matrix that allowed them to categorize all the variables found in those studies. Hence, I think this study represents an essential piece of literature that can help me to analyze my research study.

The first element that this study addressed was intervention programs, and instructional method implemented to teach those strategies. They affirmed that all the programs made more emphasis on teaching metacognitive strategies to improve reading comprehension. The researchers designed their own programs to improve reading and others researchers took and adjusted programs from previous research studies. This conclusion led me to research and look for a program that was appropriate for the setting and participants' levels in my research study.

Another instruction program was Question Answer Relationship (QAR), Ezell, Hunsiker & Quinque (1997) implemented this program that seeks to help students identify two sources of information when reading a test: the personal experience acquired and the information proposed by the text. This program teaches students three comprehension strategies: localize information, determine the structure of the text, and to establish the intention of the author. With the QAR, students showed enhancement in their comprehension abilities in the pre-test and post-test, without significant differences between the procedures. I found very useful this study since it takes into account the personal experience acquired through reading and only a few studies have mentioned it. It convinced me that students` background knowledge impacts positively their reading process. Moreover, it led me to add this as a question or theme during the focus group interview.

The previous section has shown research studies carried out in foreign countries. Therefore, concerning studies carried out in the country, Aragon and Caicedo (2009) mentioned just one study designed by Lopez and Arciniegas (2003). They create and implement a program about metacognitive strategies to improve comprehension of written texts in university students. They wanted their students to be able to assume "conscience, control, and auto regulation of their process"(p.129) This program showed positive results in each process mentioned. Thus far, I have addressed some of the programs mentioned in the study. They concluded that the intervention program had favored the teaching of metacognitive strategies, and help students improve their reading skill. Also, all the programs former mentioned have implemented instructional methods to teach metacognitive strategy. These aspects are relevant to my study since they state a solid practical and theoretical foundation to implement an instructional plan for my research study.

Technology, tablets, and apps. Some research studies in the country have implemented the use of tablets to improve different skills. Those studies have claimed many results concerning the implementation of tablets and their pros and cons. In the following section, I highlight their main findings concerning the use of tablets.

In a study conducted by Alpañez (2014), in two secondary institutions in Cartagena, which took part in Proyecto XXI, students worked with tablets. These institutions focused on the use of technology, taking advantage of their digital boards, Wi-Fi connection, and tablets for the use of teachers and students. She conducted interviews focused on the experience of a teacher's point of view. The aim was to identify if the use of the tablets in the classroom facilitates the learning of English and specifically if there is any improvement in the acquisition of grammar aspects.

She found that 60% of teachers affirmed that the tablet was handy for their teaching

practices. Furthermore, the activities most used with the tablets were grammar and oral activities.

A significant finding was that students' motivation increased with the use of tablets; this

statement was supported by 90 % of teachers. That finding was also supported by Domingo and

Marquez (2011) when saying that the most significant finding was that tablets help students to

obtain a better comprehension of the language and show improvement in the teaching approach

moving away from the traditional approach. Although, this study focused on grammar aspects

more than on reading itself. The same authors emphasized that tablets did not only help students

to have a better comprehension of the language but also helped teachers improve their teaching

practices. Finally, one of the suggestions of this paper was to study students' outcomes by

keeping track of their results and notice if indeed it has produced any improvement. The findings

in this study are relevant since they show that students´ motivation increased with the use of

tablets, and that aspect may be an advantage for my study regarding students' motivation

towards reading. Further, the authors affirm that tablets help students to obtain a better

comprehension of the language. Which may be useful for students when reading texts.

In the same way, in a study conducted by Gutierrez (2016), where applications, resources,

and activities previously implemented and tested were suggested to teach English, at the end of

his study, he highlighted some difficulties such as time, Wi-Fi, use of the tablet, and eye fatigue.

The author emphasized the need to control the activities students have to develop and guide them

through different pedagogical activities instead of using the tablets just for entertainment.

Finally, he concluded that the tablet is the invention of this generation, and it is changing

our way of living. He encourages teachers to use the tablets and complement the use of them

with other activities in the classroom. The previous study was carried out in primary education

and made more emphasis on the use of applications installed on the tablets. Furthermore, it

warns us about the regulation of the time students use the devices. It seems that the excessive use

of the tablet can cause myopia. This study warns me about the extensive use of tablets and how it

can affect students´ health. I was not aware of this aspect, and that could affect the students

reading process.

Concerning the use of tablets and apps, Hamodi & Bermejo (2014) conducted a case

study aiming at examining the impact of the use of tablets and its advantages and

disadvantages. Among the main advantages, they found that: a) tablet is a tool that works to

motivate students to practice reading, most of them prefer to read on this kind of devices. b)

tablets help students to reinforce their learning and c) their easy portability inside and outside the

classroom facilitates their use. However, they also found some disadvantages, such as a) lack of

specific applications designed for each grade, taking into account students' age and level of

English. b) students can distract easily while using these devices. c) danger of loss of

graphomotor skills. This study is relevant for my study since it emphasizes that most of students

prefer to read on this kind of devices. Moreover, it alerts that students can become distracted

easily while using these devices.

Setting

Institucion Educativa Tecnico Superior de Neiva is a public school, located in the center

of the city with a total of 1400 students. The institution is known for having a particular

emphasis on technical areas such as electronics, mechanics, among others. The school is part of a

project that makes a change in the school schedule, which makes students of 10th and 11th grade

stay one extra hour in the school. The project is known as Jornada Única and is being

implemented in some public schools in the city by the Minister of Education; seeking to enhance the quality of education.

The target grade 1001 has a population of 31 students; most of them are men, just 10 are women. Their ages are around 15-16 years old. Most of them were born in Neiva. The 46% of them belong to social stratum 2, and 25% of them are in social stratum 1. For the English classes, they have an English book named "English, please! 2 fast track. The book has a total of 7 modules; each module has three units. Each unit offers different exercises to work on a specific skill: reading, listening, writing and speaking. It also has a vocabulary and use of language section. Furthermore, there is a digital classroom, where students can go and have classes with tablets, video beam, and an internet connection.

Rationale

In the section that follows, I present the importance of this study. First, some reasons I found in the literature in general. Second, teacher and researcher reasons. Third, the results in the Saber pro exam. Fourth, a disparity found in the field of English teaching and the introduction of technology in the schools in the country.

Several studies in the country have addressed the issue of reading comprehension, implementing different strategies at different educational levels. However, few studies have been carried out in public schools in the country; and they represent the majority of students in our country. According to Padilla de la Cerda (2016), students from private schools often have a good level of English while students from public schools barely get to know the basics after finishing high school. That fact is reflected in the results of the SABER test, the national standardized examination for students finishing secondary school, where lots of public school students reach A2, the level expected for primary students according to the Common European

Framework of Reference (CEFR). This panorama makes the development of reading skill a

mandatory need for public schools in the country.

Equally important, the English teacher in charge of tenth grade and the researcher of this

research study, consider reading comprehension skill as a necessary skill to be developed

particularly at secondary level. Because students have to accomplish various tasks in the English

subject and to accomplish most of those tasks students need to read and comprehend texts. In

other words, the reading skill is embedded in most of the tasks that students have to complete

during the classes. Furthermore, students have to take the Saber pro exam. That exam is a written

exam that measures the level of English.

 According to Izquierdo and Jiménez (2014) "the English component of this exam is

based mainly on reading comprehension" (p. 68). Therefore, this makes the development of

reading comprehension a compulsory need for our students. Furthermore, on the Ministry of

Education official web page(http://aprende.colombiaaprende.edu.co/es/colombiabilingue/86689).

Shows that the weighted average of the Saber Pro exam last year in the target institution was

54,624, and the English Subject individual score was 52,06. Unfortunately, the score obtained in

the English subject was the lowest in comparison with the other subjects. The above mentioned

panorama makes the development of the reading skill a need for the students in public school.

During the last few years, technology has been integrated into many aspects of our lives.

This fact has changed the way we develop our daily activities. For instance, according to

McDougald (2013), the use of technology is becoming common in educational institutions in

Colombia. As a consequence, teachers and students are familiarized with the implementation of

technology in the classrooms. One of those technological developments that have been

introduced to the classrooms is the tablet. In 2017 the program computadores para Educar y la

Secretaria de Educacion Municipal de Neiva provided tablets to some public schools in the city.

One of those public schools which was provided with tablets was the Institucion

Educativa Tecnico Superior. In this institution, the teacher in charge of 10th grade has been

implementing different activities through different applications from the play store to teach

English using the tablets. One of his main concerns was the low level of reading comprehension

that his students have. According to Rios and Valcárcel (2005), students in public schools tend to

have low levels of English, and that makes the reading comprehension challenging.

To conclude this section, this study seeks to enhance 10th graders level of reading

comprehension through the implementation of three metacognitive reading strategies by using

tablets and the application named English Reading. This study is going to be conducted in

cooperation with the teacher in charge of the grade and the researcher.

Research Question

How do instructional classes based on metacognitive reading comprehension strategies develop

students' reading skills by using tablets?

Research Objective

General objective: To explore the contribution of metacognitive reading comprehension

strategies to the development of tenth graders′ reading comprehension skill with the use of

tablets.

Specific Objectives: (a) To assess the effects of metacognitive reading comprehension

strategies on students' level of reading comprehension; (b) To analyze how the use of tablets

affects students during the reading classes.

Chapter II

Literature Review

This section gives a brief overview of the main constructs of this research: metacognition and reading. First, it presents the relation of metacognition and reading comprehension. Second, it addresses the Strategic Iterative Reading Comprehension Approach (SIRCA), and it explains three strategies implemented in this study.

Metacognition, Reading Comprehension and its Relationship

Metacognition. According to Livingston (2003), metacognition is one of the latest buzz in educational psychology, but is not always clear what is meant. Hence, the author emphasizes that the term "metacognition" is most often associated with Flavell. Thus, according to Flavell (1979), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognition knowledge refers to acquired knowledge about cognitive processes; knowledge can be used to control cognitive processes (p.3)

Moreover, metacognition has been defined by several scholars in the field. Brown (1978) defined metacognition as knowing about knowing. Similarly, Garner (1987) stated metacognition as necessary cognition about cognition. Bastidas (2002) concluded that those definitions on metacognition coincided on characterizing metacognition as knowledge, awareness or belief and control that people have over their cognitive processes, experiences, and strategies. However, Livingston (2003) affirms that there is a problem with the definitions of metacognition. Most definitions of metacognition include both knowledge and strategy components. Hence, what is the difference between a cognitive and metacognitive strategy? Flavell himself acknowledges

that metacognitive knowledge may not be different from cognitive knowledge (Flavell, 1979). The distinction lies in how the information is used.

Roberts & Erdos states that:

> Metacognition is referred to as "thinking about thinking" and involves overseeing whether a cognitive goal has been met. This should be the defining criterion for determining what is metacognitive. Cognitive strategies are used to help an individual achieve a particular goal (e.g., understanding a text) while metacognitive strategies are used to ensure that the goal has been reached (e.g., quizzing oneself to evaluate one's understanding of that text). Metacognitive experiences usually precede or follow a cognitive activity. They often occur when cognitions fail, such as the recognition that one did not understand what one just read. Such an impasse is believed to activate metacognitive processes as the learner attempts to rectify the situation. (as cited in Livingston, 2003, p.3)

Finally, the author concludes that metacognitive and cognitive strategies may overlap in the same strategy. Because both of them are closely intertwined and depend upon each other. Hence, any attempt to examine one without acknowledging the other would not provide an adequate picture (p. 4)

Reading. Throughout this research study, the term reading was defined bearing in mind the student's level of English, the context, which is a public school and the limited time students are exposed to the target language. Thus, according to Hedge (2000), the term "interactive" has been used to describe the second language reading process. It describes a dynamic relationship with a text as the reader "struggles" to make sense of it (p. 188). The author claims that the reader

becomes involved in a struggle as they try to create meaning from the text and that involved the

reader in an active process (Hedge, 2000, p. 188). The author, interprets the dynamic relationship

as a dialogue between the reader and the text. Thus, this study focused on reading as a receptive

and reflective reading where students skimmed and scanned the text to get global and specific

information in texts. Besides, they address some questions about the text to implement the G-

map strategy.

Metacognition and reading. Bearing in mind that the scope of metacognition is broad in terms

of cognitive processes, I will address the connection between them, which is supported in the

literature by some experts in the field. Gardner outlines that relation, and she affirms that if

cognition involves perceiving, understanding, remembering, and so forth, then metacognition

involves thinking about one's perceiving, understanding and the rest (as cited in Bastidas,2002,

p.7). Therefore, thinking about your understanding is a metacognitive process and the way you

understand a message involves metacognition itself. Furthermore, metacognition has been the

main construct implemented to study reading comprehension, and it has been significant for its

explanation about the reading process. Besides, Bastidas (2002) affirms that it has contributed to

the development of theories and models of reading.

This section has reviewed the relationship between metacognition and reading

comprehension. It infers that the term metacognition is not clearly stated in the literature, but it

concludes that both concepts overlap and they depend upon each other. Then, it results complex

to address each concept individually.

Metacognitive reading strategies. According to Flavel reading, whether in L1or L2, is a

"cognitive enterprise," which occurs in part as a result of the interaction among the reader, the

text, and the context in which reading takes place (as cited in Karbalaei, 2011, p.7). Hence, to

complete a reading task and comprehend a text successfully, the reader must utilize

metacognitive knowledge and must invoke conscious and deliberate strategies (Karbalaei, 2001).

Besides, the author argues that the readers´ metacognitive knowledge about reading

include an awareness of a variety of reading strategies and of the fact that the cognitive

enterprise of reading is influenced by this metacognitive awareness of reading strategies.

Besides, Karbalaei adds that the combination of conscious awareness of reading, strategic

reading processes, and the actual utilization of reading strategies that distinguish skilled from

unskilled readers. Hence, reading is a cognitive process in which the implementation of

metacognitive strategies is involved to accomplish the reading comprehension process

completely. Bearing in mind the mentioned above, I decided to implement some reading

strategies proposed in the Strategic Iterative Reading Comprehension Approach.

Strategic Iterative Reading Comprehension Approach (SIRCA). According to Gomez

(2017), this approach recycles many of the theoretical models and findings in the field of

metacognitive strategies and organizes them into a systematic and strategic approach to reading

comprehension. Hence, this approach comprises previous models and findings in the field of

metacognitive strategies. Although, it seems that the approach is not applying something fresh.

Chamot emphasizes that "novelty is not what is most needed. It may be more beneficial to offer

synthesis and prescriptive proposals that make practical use of the wealth of available theoretical

models and tools" (as cited in Gomez, 2017, p. 190).

The Strategic Iterative Reading Comprehension Approach Implements some strategies

from EAP (English for academic purposes), students use text to serve their academic needs;

genre-Based Approach, genre analysis is focused on the structural organization of text, and

identification of lexicon-grammatical features (Osman, 2004). It also takes some tenets of Task-

Based Strategies (TBS); activities are guided by a well-defined task. Hence, SIRCA encourages a move from a transmission model of teaching toward an active transactional model that is based on student-centered learning goals. Besides, Graham & Harris (2000); Shen (2003) emphasize that SIRCA works to achieve those goals by answering the call for explicit and integrated strategy instruction.

This is also supported in the literature by Aragon and Caicedo (2009) in their report that affirmed that all the studies they reviewed on their research paper had implemented instructional methods to teach reading comprehension. Also, Chamot, Barnhardt, El-Dinary, & Robbins; Harris emphasize that SIRCA makes emphasis on awareness development through teacher modeling, practice and self-evaluation (as cited in Gomez, 2017,p.189).Hence, this research study took three strategies implemented within the SIRCA model with the aim of making students aware of their development through practice and self- evaluation.

During the implementation of the pre-test, some of the students did not have an objective, motivation, or guide to complete the reading task. However, according to Gomez (2017) what SIRCA model does according to the literature, is to promote student motivation by creating a sense of autonomy (student-centered) and a clear sense of purpose; a sense where the reader is headed, why, and how to get there. Besides, SIRCA focused on two aspects: (1) the ability to perform successfully in timed multiple-choice reading comprehension exams and (2) the ability to write an abstract based on a structural-semantic map (S-map). Due to students´ English level, I made more emphasis on helping students to perform successfully in timed multiple choice reading comprehension exam. Although, students will not take that kind of exams during the research study. The development of that ability may be useful for them when taking the Prueba Saber Exam. As a result, after searching in the literature and local educational projects, I found a

list of apps for reading comprehension that could be installed on the tablets and that do not require an Internet connection to run.

As this study seeks to help students comprehend texts by the implementation of a student-centered model, which makes emphasis on awareness development through teacher modeling, practice, and self-evaluation. The approach that reflects this development is the constructivist worldview. According to Creswell (2014), individuals develop subjective meanings of their experiences. Consequently, the goal of the research is to rely as much as possible on the participants' views of the situation being studied. (p.37).

Strategies Instruction (skim, scan, and G-map)

Skimming and scanning. This research study took three strategies proposed and defined in the SIRCA approach implemented by Gomez (2017). Those strategies were selected bearing in mind students' level of English, some strategies were implemented to help students comprehend texts at literal level and inferential level. Initially, according to Gomez (2017):

The task-based model relies heavily upon the well- established practice of "scanning" and "skimming" components. Scanning is scanning for clues such as dates and other temporal indicators to see if the text is organized sequentially. On the other hand, skimming is looking for general ideas in sentences, paragraphs, and texts. (p. 192)

Besides, Brown (1994) assures that the two most valuable reading strategies for learners as well as native speakers are skimming and scanning. Skimming consists of quickly running one´s eye across a whole text to get the gist. Skimming gives readers, the advantage of being able to predict the purpose of the passage. On the other hand, Scanning is, according to Brown (1994), the second most valuable strategy. He defines it as quickly searching for some particular piece or pieces of information in a text. Scanning exercises may ask students to look for names or dates,

to find a definition or a key concept or to list a certain number of supporting details. Also, the

author accentuates that the purpose of scanning is to extract certain specific information without

reading through the whole text.

G-map. Gomez (2017) affirms that SIRCA´S G-map consists of a set of questions tailored to

guiding students in their approach to academic texts. By using the G-map, the students will have

specific questions in mind, and he or she will always be scanning; looking for the answer to a

question. As they progress through the steps they find tips and complementary questions that

help them to answer the two primary questions: what and how. This strategy consists of

answering the questions "What is the author trying to do? (teach, inform or persuade). Then,

"How does the author try to do so?" (definitions, examples, ideas, terms, names). After that

provide a descriptive heading for each section. It should be in Spanish, and it must be useful to

you. Finally, organize these headings to create a map or outline of how the article persuades or

informs. (p.200).

To conclude, the author emphasizes that "developing these abilities requires the use of

metacognitive strategies like planning, selective attention, and self-monitoring. Once students

become accustomed to attacking the text; to actively searching through it with the sole purpose

of answering the questions in the G-map, measurable progress in their reading proficiency will

follow" (p.192).

The above data highlight the importance of SIRCA approach. It mentions that this

approach recycled many theoretical models and findings in the field of metacognitive strategies

and organized systematically to improve students reading comprehension. Besides, it mentions

the advantages of the approach such as: move toward an active transactional model that is based

on student-centered learning goals; implements explicit and integrated strategy instruction,

which has been demonstrated to be very useful in the field of reading comprehension. Furthermore, it promotes students´ motivation by offering students a clear sense of purpose when reading texts in English. Lastly, it explains the three strategies that will be developed in this research study.

The section that follows discusses two terms involved in the implementation of tablets in educational settings: the first term is mobile learning (M-learning) and the second term is e-reading. After that, the term tablet is also defined.

Mobile learning

After reviewing the literature about the use of tablets in educational settings, I found one concept that is considered as an umbrella term when using tablets; mobile learning (M-Learning). Thus, according to Robles (2016), it refers to the acquisition of knowledge through mobile devices. Its implementation serves not as a new way to learn languages but rather as a complement to specific learning activities in the educative context. This definition is very accurate for my research study since it represents the way I used the tablets.

E-reading. Biancarosa & Griffiths (2012) use the term e-reading technology to refer to the hardware and software used to display and interface with digital text. Hardware includes devices such as e-readers, tablets and smartphones. I rely on this definition since it acknowledges both elements that form a tablet; the hardware and software. The authors add that software includes a range of applications and programs that allow readers to interact with the text.

Tablet. The author Laura Mares, states that tablets are devices with wireless connection, thus can access to many resources on the web. In addition, they have excellent portability, touch screen with capacity to storage data, display pictures, videos and sounds. Their battery is long

duration which enables their continuous use during the school day (as cited in Sanchez, 2012, p.

162).

Chapter III

The third chapter is concerned with the methodology used for this study. It begins by addressing the research approach and type of study. Then, it will describe the participants. Further, I will mention the instruments and the data collection procedure and finishes with the instructional design.

Research Design

Research approach. This study gathered information from quantitative and qualitative data since I analyze and combined both kinds of data. Hence, by implementing the two types of data, I applied a mixed-method study. Due to that, I could obtain a holistic view of the real panorama and allowed me to support the findings by offering a variety of instruments. According to Hernández-Sampieri y Mendoza the mixed-methods represent a set of systematic processes, empiric, and critic of research that implied collect and analyze quantitative and qualitative data, as well as their blended integration and discussion, to make inferences product of all the information collected and get a higher understanding of the phenomenon under study (as cited in Hernández, Fernandez & Baptista (1997).

Type of study. As this study intents to improve students' reading skills in a public school, by researching and working hand in hand with the teacher in charge of the grade, in my opinion, action research is the most appropriate type of study to implement in this study. Thus, in the literature, action research has been defined by several authors, in several ways, according to the scope, principles, and characteristics. Every time researchers talk about a change and enhancement in a specific context, action research is mentioned. Besides, it has different definitions or conceptions, for example, Hopkins suggests that the combination of action and

research renders that action a form of disciplined inquiry, in which a personal attempt is made to understand, improve and reform practice (as cited in Cohen, Manion, & Morrison, 2007,p. 297).

Also, according to Mills action research designs are systematic procedures done by teachers (or other individuals in an educational setting) to gather information about, and subsequently improve, the ways their particular educational environment operates, their teaching, and their students' learning (as cited in Creswell,2012, p.577). Hence, after reviewing the literature about implementing metacognitive strategies to improve students´ reading skill, it seems that the most applied and useful method is action research.

However, bearing in mind the context of this study, the definition of action research that better reflects this research study is the one stated by Cohen and Manion (1994) who define it as 'a small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention' (p. 186) Besides, carried out with the rigor argued by Kemmis and McTaggart (1998, p. 10), for them 'to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life.'

Furthermore, action research has not only several definitions by authors, but it also has some ways or steps that you, as a researcher or teacher may use to carry your study. Hence, a model that summarizes the stages or phases in action research is the one proposed by Kemmis and McTaggart´s. According to Burns (2010), "their model is the best-known and affirms that is a "classic." Also, the author describes it as a "one-way street that moves forward in just one direction" (p.19).

Reflect

Plan

CYCLE 1

Observe

Action

Reflect

Revised
Plan

CYCLE 2

Observe
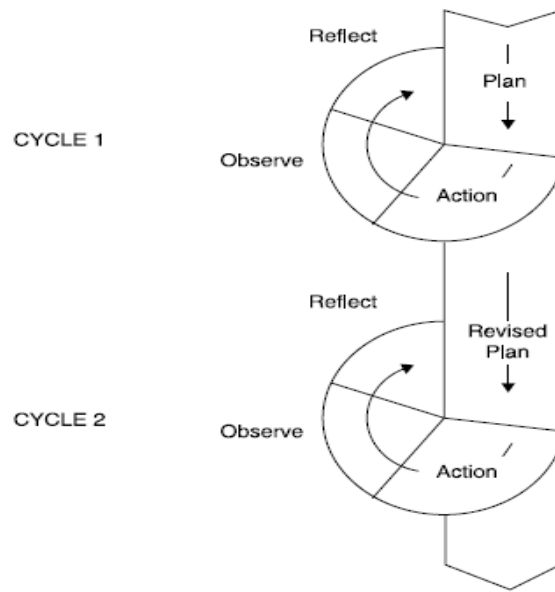
Action

Figure 1. This figure illustrates the Cyclical Action Research

(AR) model based on Kemmis and McTaggart (1988)

As a result, I have selected this model as an appropriate method to carry out this research study. According to Kemmis and McTaggart (1988), there are two cycles in this process, and each cycle comprises four steps. The first step is Planning; you identify a problem and develop a plan of action to improve a specific area of the research context. Then, the second step is Action; you make interventions in your teaching situation over some time. The interventions must be "critically informed" you must question your situation and plan new ways to do things. The third step is Observation; you observe systematically the effects of the intervention in the context, actions, and opinions involved. Hence, you collect information about what is going on. The fourth step is Reflection; you reflect, evaluate, and describe the effects of the intervention to understand better the issue you have explored (Adapted from Burns, 2010, p. 8).

Participants. This study was carried out with students from 10th grade from institution Educativa Técnico Superior. That grade was labeled as 1004; in that class, there are 33 students, 10 of them are women. Their ages range between15 - 17. The social strata range between 1-2. Just 13 of them live in their own houses: the other students live in rented houses. Most of them live with their parents.

Data gathering instruments. During this research study, I implemented several instruments that helped me to collect both quantitative and qualitative data. Initially I carried out a diagnostic stage, in which I implemented four instruments to gather data. After that, I developed an action - evaluation stage, in which I implemented two instruments and one observation technique.

Diagnostic Stage

During the diagnostic stage I implemented four instruments that gave me an overall idea about the current panorama in the classroom. First, the pre- reading comprehension test showed students´ level of reading comprehension. Second, the questionnaire helped to identify students' social aspects. Third, a questionnaire to inquire about students' reading habits and finally, a unstandardized interview with the English teacher in charge of 10th grade.

Pre-reading comprehension test. This instrument gave me an initial idea about students´ reading comprehension skill. Hence, I implemented a test designed for Prueba Saber. This test was based on a reading composed of 6 paragraphs with a set of five reading comprehension questions. 27 out of 33 students took the test. Besides, according to the literature mentioned in this study, a pretest is the most used instrument when addressing reading skills. (See appendix A)

Questionnaires. The goal of this questionnaire was to identify students' social background, gender, age, strata, address and parent´s level of education. It had ten questions.

Wilson and McLean stated that the questionnaire is a widely used and useful instrument for collecting information; it provides structured, often numerical data (as cited in Cohen, L., Manion, L., & Morrison, K. R. 2007). I implement two questionnaires with two different objectives. First questionnaire was answered by students on the tablets, and it was designed with google forms. This instrument was carried out after the implementation of the pre- reading test and helped me to identify students' social background. The second questionnaire was implemented to identify students reading habits. It was applied after the pre-reading comprehension test. (See appendix B, C)

Unstandardized interview. According to Berg, (2001) In an unstandardized interview, interviewers must develop, adapt, and generate questions and follow-up probes appropriate to the given situation and the central purpose of the investigation. Hence, in this type of interview, the questions are produced during the intervention and they are developed according to the topic of inquiring.

Action- Evaluation Stage

Post-test. After they practiced with various reading test on the tablets, students were asked to complete a post-test. However, the post- test was printed and students complete it individually.

Focus Interview. After the four interventions, I carried out a focus interview with some of the students. A focus interview is intended to explore and assess the strategies they have implemented and the results, to realize how useful were the strategies (Jimenez, S, Luna, M & Marin, M 1996). Bearing this definition in mind, through a focus group interview I could realize how useful was for students the strategies they implemented to comprehend texts in English.

Observation Techniques

Video-recording. According to Gomez, Jimenez, Luna & Marin (1993), these are a more sophisticated way of recording a class. They can be used to observe different aspects of the class, i.e. think time, pacing, interaction and so on. The purpose of using video- recording in this research study was to notice and obtain students comments, attitudes, reactions and changes during the two cycles of the action research and the focus group interview.

Research stages. Diagnosis. Students showed serious difficulties when trying to understand the text in English. They demonstrated to have a low level of reading comprehension, lack of useful strategies to comprehend texts and poor vocabulary. Hence, students obtained low results on their reading tasks, exercises, and tests. An initial diagnostic test, two students´ questionnaires, and one teacher's non-structured interview led me to conclude that information in the classroom. Besides, students have a low opinion about their ability to understand texts in English. Some students' comments were "teacher, I do not know about this" or "I do not understand this" and "I answered randomly".

Diagnosis test. I conducted a test composed of five reading comprehension questions that were implemented to the students to explore their reading comprehension skill in English. This test was based on a reading composed of six paragraphs with a set of five reading comprehension questions (sample test from Prueba Saber). The day I implemented the diagnosis test there were 28 students in the English class. (Appendix A). I decided to implement this test from Prueba Saber, bearing in mind that students' level of English is measured with this test. Also, that may help students to familiarize themselves with this kind of tests and they may learn strategies to

answer this test. Also, it can help to diagnose students' level of reading comprehension at inferential level. Questions were: What is the writer trying to do in this text?

A -In the text, the reader can find

B-According to the text, the customer

C-It can be inferred from the text that Mark

D-Mark would write at the end of the text:

Next, I show a comparison between the number of incorrect and correct answers.
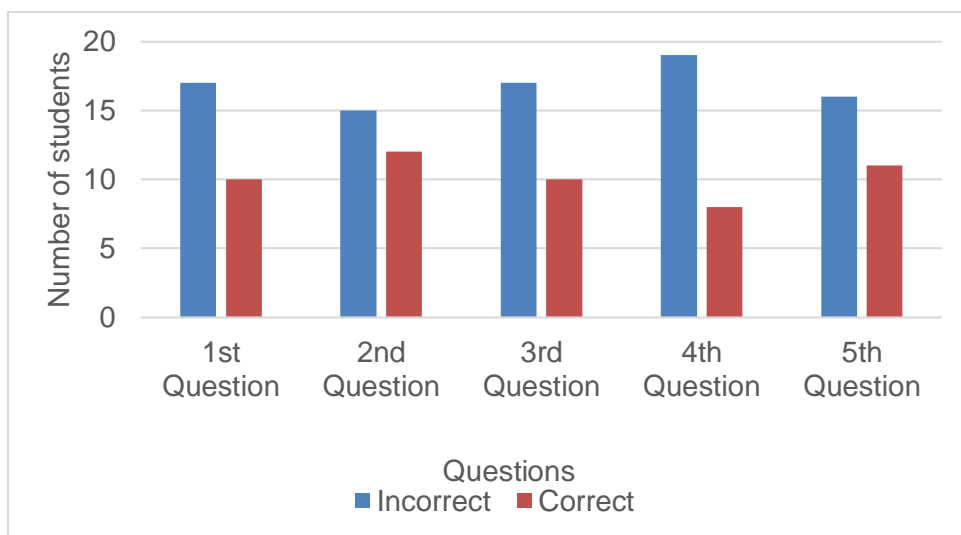
Figure 2. This figure illustrates the number of students who obtain incorrect and correct answers.

Figure 2 presents the number of students who obtained incorrect and correct answers in each question. The questions in which students had more difficulty were questions number one and four. Those questions were about inferring and proposing information about the text. In most of the questions the number of students who answered incorrectly is above the number of students who answered correctly. This fact shows the difficulty most students have when trying to comprehend texts in English.

Next, I show the global score students obtained in the reading test. Based on the information collected from the test.
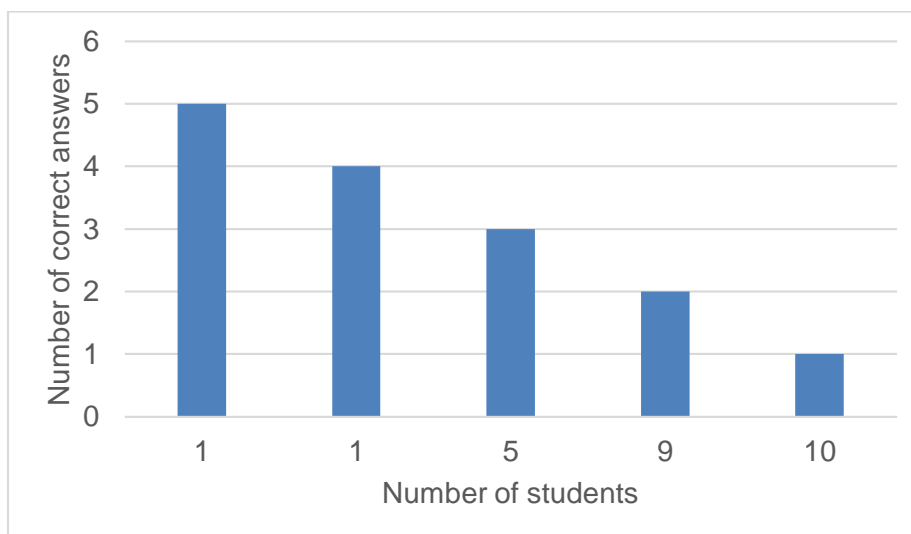
Figure 3. This figure shows the number of correct answers students obtained.

Two students had zero correct answers. Approximately 10 students had 1 correct answer. Nine students had two correct answers. Five students had three correct answers and one student obtained four correct answers. Finally, one student obtained five correct answers. With reference to the results, I can conclude that students have serious difficulties to comprehend texts. Just 12 students passed the test with three correct answers or more, which shows the need for students to improve and develop their reading comprehension skills.

Students' questionnaire 1. The students` questionnaire objective was to have a general idea about students` reading attitudes, feelings, habits, strategies, and obstacles they deal with when reading texts in English. This questionnaire has a total of eight questions. (Appendix B). However, I will highlight some of the most significant findings.

Question 1

How do you feel when you work on a reading comprehension activity in the English class?
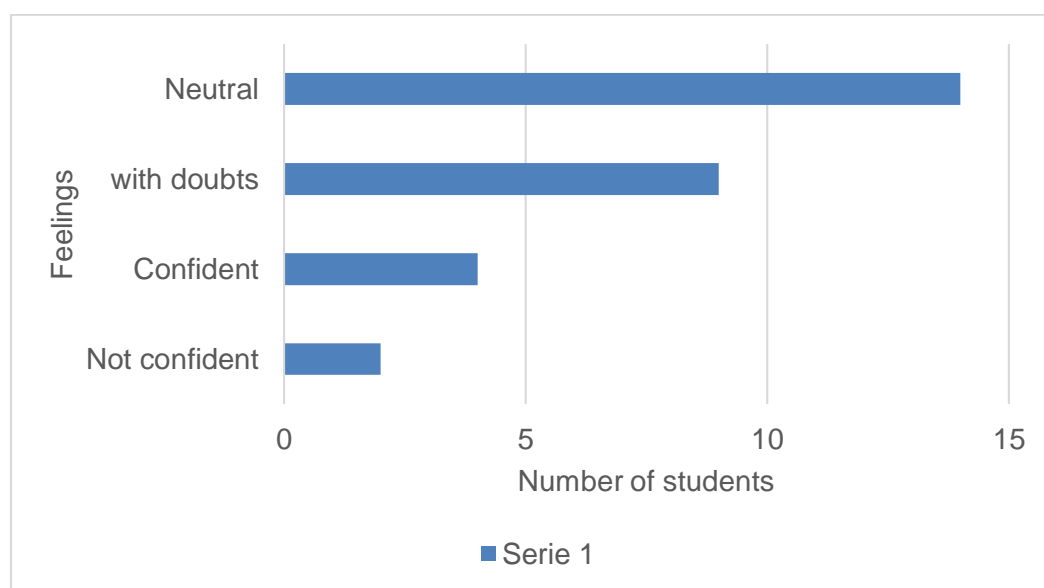
Figure 4. shows students' answers about how they feel during a reading activity in the English class.

48.3 % answered that they feel neutral during reading activity. However, 31% of students feel doubts. Besides just over 13.8 % feel confident, and 6.9 % of students feel unconfident during the reading tasks.

Question 2.

How often do you read texts in English?
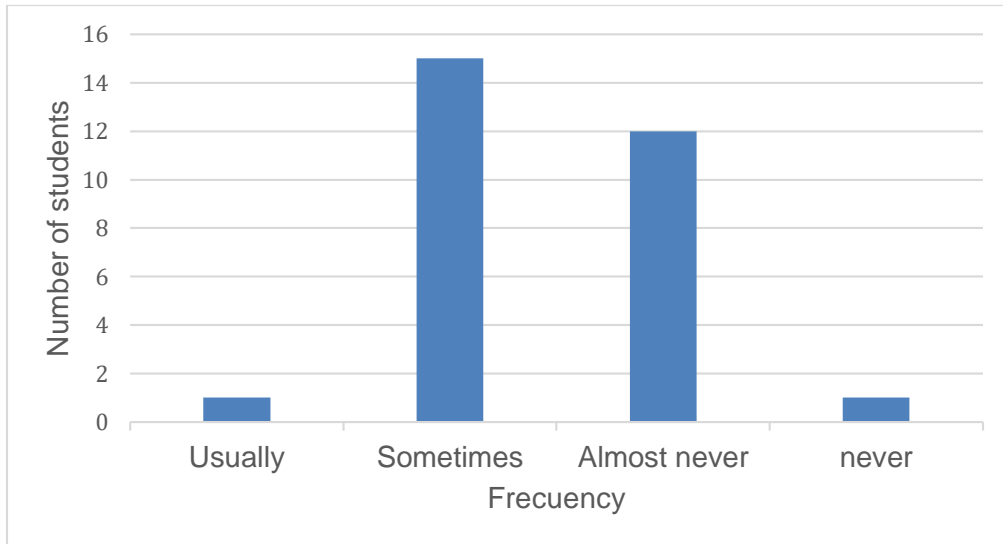
Figure 5 Illustrates how often students read texts in English.

51.7 % of students answered that they sometimes read text in English. In contrast, 41.4 % answered that almost never read text in English. 3.4 % of students never read texts in English and just 3.4 % of students usually read texts in English.

Questions three and four.

Do you know any strategy that helps you to comprehend texts?
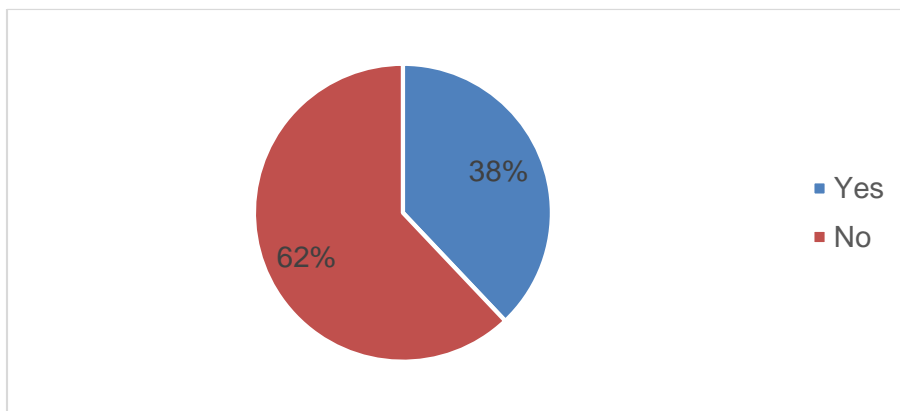
Figure 5. Shows the number of students who knew a strategy to comprehend text.

Figure 5 shows that 62% of them did not know any strategy for reading comprehension. Less than 38 % mentioned some strategies they implement to read and understand texts in English. For instance, looking for the unknown words in a dictionary, making sense of the text by interpreting the words they know. One student affirmed that he read and looked for keywords to understand the text. Finally, some of them mentioned transparent words. It seems that students were aware of the meaning of some words that are written in a similar way in Spanish, but they have a different meaning.

Question 7.

Which are the most common obstacles that you face when reading texts in English?
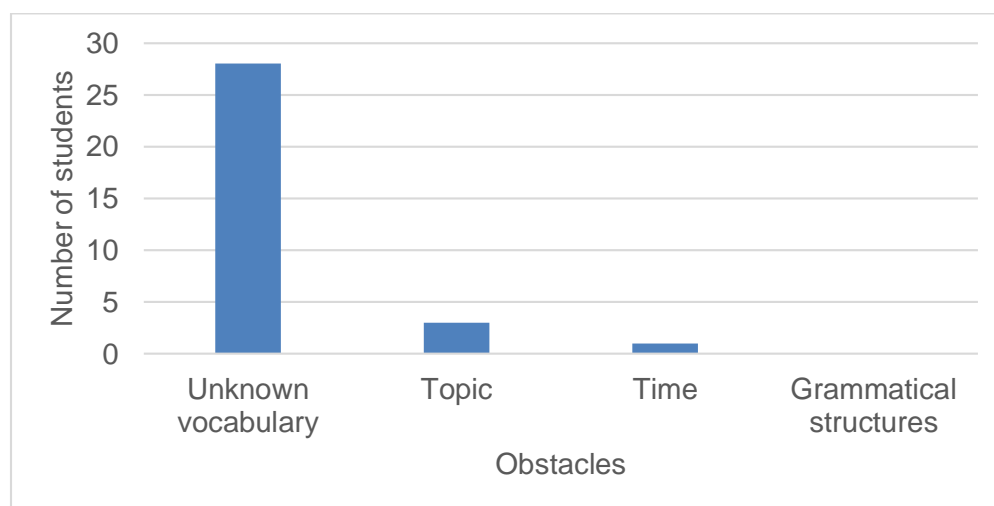
Figures 6. Illustrates the most common obstacles students face when reading

96.6 % of students agree that unknown vocabulary was the most common obstacles they face when reading texts in English. 10.3 % answered that the topic of the reading was an obstacle for them. In addition, 3.4 % of students answered that the time to develop the task was a difficulty for them.

Teacher Interview. During an unstructured interview with the teacher, he claimed that reading was a difficult task for students. In addition, the teacher mentioned the importance of developing the reading comprehension skill. As it is the main skill necessary for the Prueba Saber. He also highlighted students` lack of vocabulary and motivation. One of the main constraints teachers emphasized was the few numbers of English classes per week. He argued that with just three hours a week the teacher has to decide which skill is more useful for their students and work on some of them. However, the results of Prueba Saber are taken into account to measure students' overall proficiency. He tends to focus his classes on grammar and reading, and listening and speaking are practiced fewer times.

Instructional Design

The information gathered during the diagnosis gave me a clear idea of the current panorama in the classroom during the reading tasks. It reflected the lack of strategies and motivation students have when reading texts in English. For that reason, I decided to implement a pedagogical intervention to address students´ low level of reading comprehension. Initially, I designed one cycle of an action research. But, after the implementation of the first cycle, I planned and designed a second cycle to address some of the difficulties found during the first cycle. Hence, the first cycle was designed with four practical reading tasks. The second cycle was designed with four reading tasks. But, with emphasis on the implementation of the G-map strategy and the implementation of an app "SpanishDict", which allowed students to look for the meaning of unknown words.

First Cycle

This section begins by laying out the plan for the first cycle, the lesson plans designed for that first cycle and the reading tasks developed.

Plan. Based on the above mentioned and the data collected with the diagnosis, I

designed and planned a class to guide students when using metacognitive strategies while

reading texts in English. All the classes were carried out in a classroom called "interactive room

"which had better conditions for teaching and learning than their normal classroom. The

classroom has air- conditioning, 60 tablets with the app "English Reading" a board, a projector,

and desks with chairs.

Pedagogical Intervention

This section presents a summary of the content taught with the lesson plans implemented

in the first cycle. Also, some instructions, teacher talks, and questions that were given during the

classes. Since the primary concern of my study is students` lack of strategies to read and

understand a text in English. I designed four lesson plans to teach students three different reading

strategies.

Lesson plan 1. I designed this lesson plan for a 55 minutes' class; the goal was to guide students

to implement the skim, scan and guide map (G-map) strategies. Besides, to take advantage of the

video recording, students will be able to share, reflect and make comments about their own

learning process, during the development of the reading tasks. Since there is a substantial body

of literature that supports teaching metacognitive strategies through explicit instruction; I taught

all the strategies in an explicit way. Hence, I talked about each strategy and told students the goal

and advantage of each strategy. Then, I gave students the possibility to explore the application of

English reading.

After that, I introduced the first reading task and gave students instructions to access to

the task on the application. First, I ask students to go through the questions, because that would

help to carry the skim and scan strategies faster. Besides, I pointed out that question one and two

were the kinds of questions that could be answered using those strategies. Then, I guided student to answer question one and two and move to question three. I made a teacher talk explaining that question three and four required the reader to use textual information to predict outcomes and guess meanings in the text. After that I showed students how to carry out the G-map strategy to answer the last questions. This first reading was carried out using modeling to teach students how to develop the three strategies. Also, I discussed all the questions and answers with the students.

Lesson plan 2. During this lesson plan the role of the teacher was more as a guide, I reminded students of the strategies and helped them to identify which questions they could answer using the strategies. Besides, I pointed out the questions that ask them to infer information, and they would have to implement the G-map to answer it. The idea was to walk around the classroom solving students' doubts or questions about the reading, and once they finished I discussed all the questions and answers.

Lesson plan 3 and 4. During this lesson plan the role of the teacher was more as a guide, I reminded students of the strategies and helped them to identify which questions they could answer using the strategies. Besides, I pointed out the questions that ask them to infer information, and they would have to implement the G-map to answer it. The idea was to walk around the classroom solving students doubts or questions about the reading, and once they finish I discussed all the questions answers.

After finishing the first two reading tasks, I asked students to share their ideas about the first two readings. I decided to do that thinking about the future focus group interview they would have to take part. These last lesson plans were student-centered. I asked students to read and answer the two reading tasks. Once they finished them. I asked them how they answered

each question, what information led them to decide or select the answer. Besides, I asked them if

the strategies were useful or not to answer the questions and what difficulties did the face during

the reading process.

To offer an overall view of the first cycle, during the first two lesson plans, I guided,

explained and carried out all the reading tasks. In other words, students learn by modeling. After

that instruction I became more like an instructor and the classes were student-centered. (See

appendix D)

Next, I present the 4 reading ask and questions on the tablet, implemented in the classes.

First reading task.
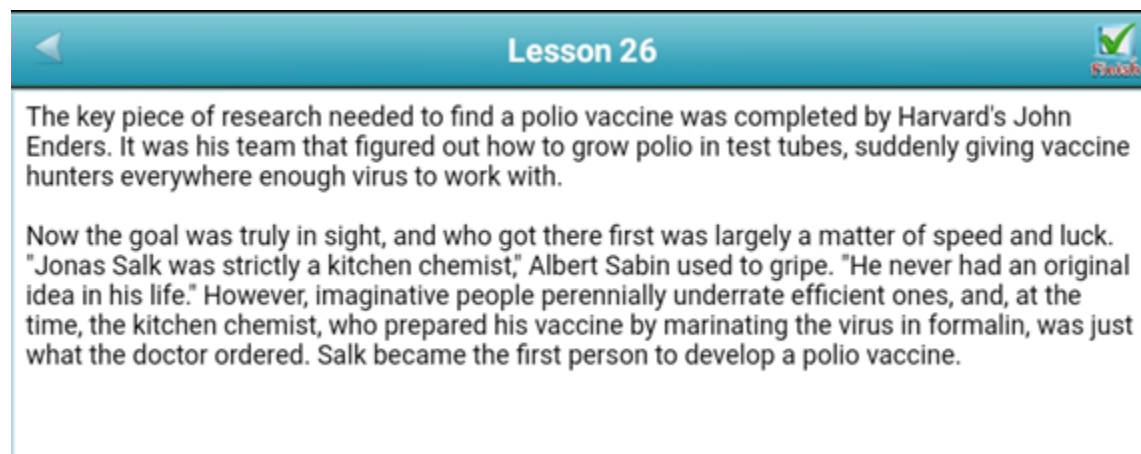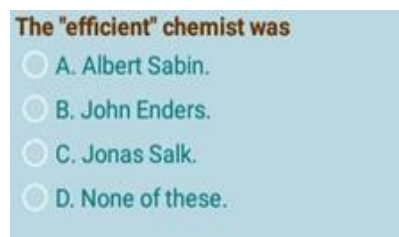
Figure 7. A picture (screenshot) of the first reading task.
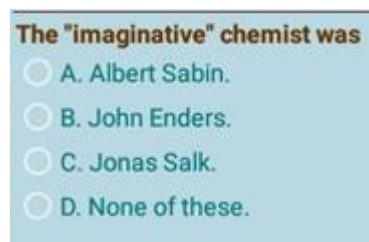
Question 1   Question 2

The hero of this article is
- A. Albert Sabin.
- B. John Enders.
- C. Jonas Salk.
- D. None of these.

Question 3

Formalin is
- A. a formal preparation.
- B. a solution of formaldehyde in water.
- C. a relative of insulin.
- D. a solution of spice.

Question 4

Second reading task.

Lesson 5

The uses of magic and religion to cure illnesses were widespread in ancient Egypt. Their effectiveness was most likely due to the placebo effect - that is, people felt better just because they believed that incantations and magical ingredients were effective.

Ingredients were sometimes selected because the ingredient had a characteristic that in some way corresponded to a symptom of the patient. An ostrich egg, for example, was included in the treatment of a broken skull.

Amulets were often worn for magical purposes. One amulet, representing the girdle of Isis, was intended to stem the flow of blood at miscarriage.

Figure 8. A picture (screenshot) of second reading task.

The "placebo effect"
- A. is a pill that makes a person feel better.
- B. treats the symptoms of the patient.
- C. treats a broken skull.
- D. helps a patient feel better because of the patient's belief.

Question 1

An incantation is
- A. a ritual recitation of words or sounds believed to have a magical effect.
- B. a religious song.
- C. words of a priest.
- D. magic.

Question 2

Amulets are
- A. stones to cure illnesses.
- B. jewelry depicting animals.
- C. a depiction of an ostrich egg.
- D. a trinket thought to protect against evil.

Question 3

Isis was
- A. an Egyptian god/goddess.
- B. a flower.
- C. a girdle.
- D. an Egyptian woman.

Question 4

Third reading task.

Lesson 2

Enrico Fermi's theory of the "weak force" introduced the last of the four basic forces known in nature - gravity, electromagnetism, and (operating within the nucleus of the atom) the strong force and the "weak force."

In the mid-1930's Fermi made the most important discovery of his life: passing neutrons through a "moderator" such as paraffin increased their effectiveness. This finding would allow releasing nuclear energy in a reactor.

In 1939, Fermi and collaborator Leo Szilard co-invented the nuclear reactor at Columbia University. The work moved to the University of Chicago, culminating in the assembly of the first full-scale nuclear reactor in a squash court in late 1942. He had proved the science of a chain reaction. From then on, building a bomb was mere engineering.

The discovery of how to release nuclear energy had long-term beneficial results: the development of an essentially unlimited new source of energy.

Figure 9. A picture (screenshot) of the third reading task.

Leo Szilard co-invented
- A. passing neutrons through paraffin.
- B. the nuclear bomb.
- C. the nuclear reactor.
- D. the weak force.

The "weak force" is
- A. part of a nuclear reactor.
- B. a force of gravity.
- C. one of the four basic forces in nature.
- D. a chain reaction.

Question 1   Question 2

Electromagnetism is
- A. magnetism produced by an electric current.
- B. a property of atoms.
- C. a magnetic field.
- D. an aspect of gravity.

Fermi's contributions to physics led to
- A. an understanding of gravity.
- B. the building of the atom bomb.
- C. an understanding of electromagnetism.
- D. the "weak force."

Question 3   Question 4

Fourth reading task.

Lesson 4

Light has weight. Space has curves. And coiled within a pound of matter, any matter, is the explosive power of 14 million tons of TNT. We know all this because of Albert Einstein.

In 1905 the 26-year-old Einstein sent three papers to a physics journal to be published "if there is room." All three were published in the same issue, and they changed the world. One was an update of Max Planck's quantum theory of radiation. Light, declared Einstein, travels as both a wave and as particles called quanta. Another paper concerned Brownian motion, an until-then unexplained phenomenon involving bouncing molecules. The third, wrote Einstein in a letter to a friend, "modifies the theory of space and time."

In 1916, he reasoned that light had mass and that space and time were actually space-time.

Figure 10. A picture (screenshot) of the fourth reading task.

Question 1   Question 2

This article is mostly about
- A. Einstein's contributions to knowledge.
- B. the early life of Einstein.
- C. the beginnings of the atom bomb.
- D. physics.

14 million tons of TNT are the explosive power of
- A. a single atom.
- B. a pound of any matter.
- C. a pound of uranium.
- D. a pound of TNT.

1905 was the year that
- A. Einstein began to study quanta.
- B. Einstein learned of the space-time continuum.
- C. Einstein sent three papers to be published.
- D. Einstein changed the world.

Question 3

Brownian motion is a kind of motion of
- A. atoms.
- B. TNT.
- C. quanta.
- D. molecules.

Question 4

Action. In this section, I offered a description of I carried out the first cycle. It explains the process of implementing the four reading tasks and the metacognitive reading strategies implemented to complete them. Besides, it mentions some instructions and directions given during the classes. Also, it shows some student´s comments and answers during the development of the reading tasks. It looks like a seemingly incomplete sentence.

At the beginning of the first intervention, I advised students that our main purpose was the process of reading. Because it seemed that students were focused on knowing the correct answers and the total score rather than in the process of reading and understanding of the texts. At first, I gave them a general report of their results in the pre-test; some of the students were aware of their poor level of reading comprehension and positioned themselves in the lowest scores. After that, I asked students to double tap on the app English reading and let them explore the app for some minutes.

The four readings were selecting for practicing and giving students opportunities to express their ideas and thoughts while reading and answering the questions. Initially, they went through the questions. Later, they read the text and answered the questions. After that, I read each question, and they answered and gave support to their answers with the information that led

them to select their answer. The process of answering and supporting their answer allowed some students to self-evaluate their reading process, defend their reasons to select A, B, C, or D and check if their answers were correct or not.

The first intervention was carried out the last week in October. That day the teacher in charge of the classroom had a medical appointment, and he had requested his students to stay in the classroom and participate in the first intervention. However, just over seven students were in the classroom. Hence, I decided to take advantage of and develop two readings with those students. After that, I had to plan the classes again and implement two more reading activities (Lesson five, nine) with the other students. As a result, reading task one and two were carried out with seven students, and two more reading activities were added to the plan to complete the four reading activities with all the students.

First Reading Task. I started by setting up the camera. It was a smartphone video recording with the front camera. Then students were able to see themselves on the screen of the smartphone. Initially, the made faces, did their hair but, with time they focused on the activity. After that, I started talking about the type of questions. The first question was literal because you can find the exact answer in the text. But, for the third question I am going explain a strategy to answer that question. Hence, I asked the students: what is the author doing in this paragraph? It is informing, telling, persuading. What do you think?

Later, we focused on the structure of the text, number of paragraphs, and what is the intention of each paragraph. I asked students to find a word that could help them define the topic of each paragraph. During this activity all the students were scanning the text to find that word. Students suggested some ideas about each paragraph. However, it was difficult for them to find the idea of the second paragraph. Just two students offered and idea of the second paragraph,

using their own words in Spanish. To answer one of the questions I asked students to relate what they knew about the world with the reading. Hence, I read the fragment "The key piece of this research need to find a polio vaccine…" and asked students about the meaning of the word "key."

Most of the students answered: "llave," which is one of the possible meanings of the word in Spanish. But, it was not related to the reading. I explained to them the possible meaning of the word "key" in the context of the text. Later, I asked them to relate some of the words of the reading with what they already knew. It was difficult at the beginning for them to link those words. Then, we addressed the questions: "the hero of this article is." When we talk about a hero, the hero is the person who? Student: the one who saves the people. Then, we continue reading the text and the words "figured out" were unknown to them. I explained the meaning of the words to continue with the reading.

As the meaning of some words were interrupting the reading, I asked students to try to negotiate what the possible meaning of the word could be or skip the word if it was not necessary to answer a question. I suggested to them that there were some words that have a similar written form in English and Spanish with similar meaning. But, in the text the word "gripe" was mentioned, and students linked that word with "flu" and in the text was not related to that. Once again the word "marinating" was unknown to them. Hence, I decided to explain the words and negotiated the meaning with the students. In the context of the reading, it was a chemical solution. Just one student could convey the meaning of that word according to the reading.

After reading the text we addressed question by question. Student answered correctly the first and second question. However, the reasons why they suggested to select the answer were not accurate regarding the information in the text. Third and fourth questions were answered

correctly by the students and they offered clear reasons to select those answers. At the end of this intervention one student claimed: Teacher, for instance, all of us would have answered wrong if you had not told us the meaning of the word marinating. Hence, how does one do? You answered it because you already knew the meaning.

Second reading task. I reminded students the three strategies we have implemented, then I asked them to go through each one of the questions. The way they understand the questions was by trying to translate them. After that I encouraged students to relate the words in the text with their knowledge. The text was about Magic. One of the main obstacles in students` understanding of the text was the unknown words. Once they found an unknown word their translation and understanding process stopped there. Hence, I encouraged them to try to offer a possible meaning for the unknown word in the context of the reading.

During the process of reading and understanding the text, some students started to relate their knowledge with the text to understand it. However, it was difficult for them to infer information even having one piece of information clear. For instance, one of the choices to answer one question was: A. stones to cure illnesses; they translated the three words correctly but the last word was unknown to them. Hence, I asked them: what does one heal? Then, they answered "enfermedades" Which was one accurate translation for illnesses.

We went through all the questions and offered possible meaning for the questions and the choices to answer them. One student decided to use her phone to look for the meaning of the unknown words. To answer the questions, I asked students to skim and scan some words such as priest and magic. After this process, a student suggested: teacher: we can do this by elimination, can we? I agree that it was a useful strategy. But, to answer the third question students had

serious difficulties, there were many unknown words that made difficult for them not only to understand the text but also to answer the questions.

We discussed together each of the choices giving reasons and inferring about the text with the information we already knew. I decided to look for the meaning of some to understand the text. But, it was not accurate the dictionary they used. In order to collect students` score and to analyze that information I decided to implement a written test. They were a little bit worried when I mentioned the written test. I gave them a chocolate bar to lower their anxiety due to the test.

During the written test they were focused and concentrate on their readings. I asked about the questions. Some students affirmed that the first thing they did was skim and scan the text to look for literal questions and answers.

I asked students to read the questions first, then skim and scan the text and after that, I asked them to implement the G- map strategy, with each paragraph and answer the questions - what is the paragraph about? and How does the paragraph present that information? During this question, there was a difficulty in one of the questions.

Question # 4 was "Physiology is:" However the reading did not explain or define the term, this statement can be completed with common sense or logic, some students claimed that the answer was not in the text and that they needed knowledge about it to answer it. This first reading task was carried out by eight students and the group median scores they obtain in the reading task was 4.

First reading task. I started by reviewing the strategies and making examples with different texts and paragraphs. After that I addressed the questions of the text. I asked students about what

they thought each paragraph was about and what words were important in each paragraph. Initially, few students participated and answered the questions. I explained that if they read the questions first and look for the information in the text, that would be useful and faster; after that, I explained the G- map strategy.

I asked students to skim and scan the text and if they found and unknown word skip that word and continue with the reading. When they skimmed and scanned the text, they found the answer to the first question. Some of them claimed that they had already answered the question. After that I addressed each question and explained the difficulty of the questions. In addition, I asked students the reasons why they select one choice or another. Students already understood the strategies and implemented each strategy to answer the questions. Once students finished their activity, they shared their score and made comments like: I made a mistake in the third question, I got three out of four or I got one out of four. 22 students participated in this reading task, I collected their scores by asking and looking at the score on their tablets. The median was four.

Second Reading Task. I asked some students about the questions and what they thought the question was about. We discussed each question and translated them. After that we read each paragraph and implemented the G-map strategy. For instance: what does the first paragraph tell us?
Students: introduce the topic and give us the answer to the second question.

We read the text line by line; it was about the light. Students looked puzzled while reading and answering this text; the word pound was unknown to them. Also, question number one was "This article is mostly about?" and the word mostly was unknown to them. One student said that it was similar to important. Some students started to negotiate the meaning of the words.

However, they always asked me about the exact meaning of the words. During this task, some students looked tired and unmotivated.

We answered each question, some students discussed their reasons to support their answers. Some students commented: "*the answer is between B o C*" or "*the answer is the C*". I asked students why was not possible a different answer and some of them supported their answers. Although, 23 students participated in this reading task, the median was three.

Third Reading task. I told students that the score of the reading would be collected and that they will obtain a grade. After that I introduced the topic of the reading; it was about the use of magic. The first thing you are going to do is to go through the questions. I gave students some time to read the questions. Some students finished the task first, hence I asked them to collect and check their partners` score. Bearing in mind that the app shows them the answer as soon as they finish but keeps their score for a short time. As soon as I told about keeping their score they looked worried and quiet.

Having in mind that the app does not keep the score for a long time I decided to implement the post test in a written form. Some students were focused on the tablets, some other were talking. I collect their score by asking each student which score they have obtained. Some students took more time to complete this task. Moreover, 21 students participated in this reading task and the median of their scores was three.

Fourth reading task. I told them about the text and its difficulty. After that I asked some students to read the questions. Later, I explained each question and their choices. During the explanation one student explained that the text was talking about proteins present in the DNA.

The word "narrow" was unknown to them. I made them doubt about the possible answer. Some students offered possible answers such as: perfect, cut and complete.

We continue reading the second paragraph. But some students were talking and distracting their peers. However, we continue reading the text. After that we read and found each answer. First, I asked if the found the answer in the text by scanning or skimming. Then, we answered the questions that required students to infer the possible answer. 22 students participated in this reading task and the median of their score was three. After this activity, students completed a written test I decided to implement, this test was taken from a reading in the app to collect and check students' scores. I considered this written test as a post test for the first cycle.

Observation

In order to have a full view of the situation, I collected all the data to see what similarities in terms of definitions, concepts or meanings I could find. This observation was carried out from an inductive coding. According to Burns (2010), we scan the data carefully, usually several times over, to see what categories suggest themselves, or 'emerge', from the data. The research term for this is an *emic* approach, which is sometimes also called an "insider" approach. All this process is carried out from an insider approach, which means that the data give us the categories. (p.107).

The first and main instrument I will go through is the post-test, students' scores offered me an idea of how helpful the metacognitive reading strategies regarding had been students reading comprehension. In this stage, I show the first cycle results obtained from the post-test, focus group interview and the video recording during the instructional classes.

Post-test. Since students worked with four reading tasks, that allowed them to implement the three different metacognitive strategies. I asked to complete a printed reading text; extracted from the app "English Reading". It was printed, because I can easily collect, check and analyzed them. It was difficult to collect all the tablets and check the score. Because, I had to collect all the tablets and check one by one. Hence this process was time consuming and some students changed their score on the test by doing again the test once they knew the answers. Furthermore, the app did not allow to save or keep the score for a long time. That post-test had four questions and the topic was familiar for them. In addition, in the printed test, I could identify which questions were more difficult for them to answer. Besides, to increase students' interest towards the test, they will get a grade for the English subject. 25 students took the post-test; the following chart shows the results according to students' scores.

Number of correct answers vs. Number of Students

Number of correct answers

7 18

Number of Students
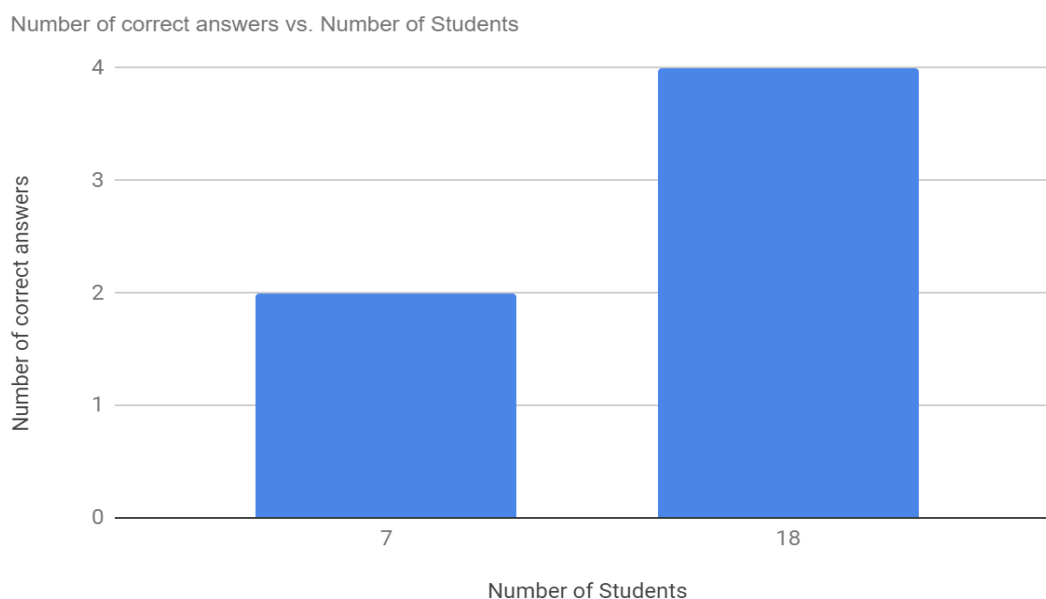
18 students obtained four correct answers, which means that they answered all the questions correctly. However, seven students obtained two correct answers. But, all those seven students failed to answer the first and second question.

The first question was:

1- Morita was among the first to take his business
a. throughout his country
b. Into many other countries.
c. Beyond his country's borders
d. Into competition with other products

Seven students answer incorrectly this question. I analyzed every student's answers and they were as follows.

Student 1: answered C - Student 2 answered C - Student 3 answered C - Student 4 answered   C
Student 5 answered C Student 6 answered C Student 7 Answered C

All the students selected the same incorrect answer. Which, means that there was any common factor that made students think it was the correct answer, I think if they just scanned and skimmed the text paying little attention to the meaning that could have led them to select that answer because it has similar words in the text and in the answer.

Another fact can be that they just copied their partner answer. However, they were sitting in different places in the classroom. The correct answer was B, which is somehow similar in meaning to the answer C. Answer B implies that it was a global corporation and answer C implies beyond his country's borders. Which means somehow out of the country. But, in the reading, there is a statement that says:

He created one of the first global corporation. Long before his contemporaries, he saw that a shrinking world could present enormous opportunities for a company that could think beyond its own borders.

Global implies into many other countries. But, maybe after skimming and scanning the

text, students identified the words and they thought it was related.

Second question which students answer incorrectly was related to meaning:

2- Relentless means:
a. Tireless
b. Stubborn
c. Not to be placated or appeased
d. Annoying.
This question was difficult for the students, it was based on meaning and students had to

infer about the reading.

Student 1: answered D - Student 2 answered A -Student 3 answered A -Student 4 answered   D

Student 5 answered D -Student 6 answered D - Student 7 Answered D

Students who answered option A, probably did not know the meaning of the word.

Although, during the diagnosis, students recognized that vocabulary was one of the difficulties

they face when reading texts in English.

Video- recording. During the reading tasks, I asked students the reasons that led them to select

their answer; some students participated more than others. But, significant information brought

up from their reports when doing the tasks. That information was useful as a basis for the

questions proposed in the focus group. The video- recording allowed me to grasp some of their

thoughts from them and to observe their behavior while using the tablets.

At the beginning of the intervention the camera called students´ attention; some students

looked at the camera and made faces, movements, and comments about the camera. As soon as

students obtained their tablets, they focused their attention on it. Almost, all the students were

looking at their tablets.

A second aspect that I could observe in the video recording was students' participation and motivation in the class.

The video- recording allowed me to notice students´ participation in the activities

Some students participated many times, usually the ones that were known as good at English participate more actively than others. Then, I asked different students about the questions and the different activities. Some students did not answer the questions and did not pay attention to the activities.

During the classes, students demonstrated that they were really good at skimming and scanning information. I could notice that in their answers and comments.

Student H: *Teacher, the answer is in the first paragraph.*
Student C: *Teacher, the answer is A.*
Student B: *I think the answer is "B" because that information is in the parenthesis.*
Student G: *teacher the answer is between B or C.*

Student C*: No teacher, is the C because the text mentioned the word "molecules"*

Then, the implementation of the G-map strategy. Since this strategy was more demanding

for them in terms of understanding the text and proposing a topic for each paragraph, few

students participated and implemented it.

Teacher: What is the first paragraph about?

Several Students: *four natural forces.*

After answering the questions of the guide map (what and how) several students knew
where the information of the first question was.

Several Students: that information is in the third paragraph.
Student K: *that paragraph gives us the answer to the second question*
Student M: *and they changed the world.*
Student K: *Yes, that answer is there.*
Few students participated during the implementation of the G-map. After listening to

their comments in the video recording this strategy was useful for many of them. To be more

specific, this strategy helped students to answer questions about the main ideas in the reading.

An aspect that was involved in the reading and that was mentioned by some students was

that some readings and questions demand their previous knowledge to answer them correctly.

How do you generate electromagnetism?

Student C: *then, electro and magnetism, you need to know or understand the term to answer this question. In the text, there was no information about it, but if you read the choices you can answer it.*

Student H: *The answer is B because the nuclear reactor is related to the atom bomb.*

Student G: *the joins of the proteins are not circular; they are like a spiral (this student relied most of the time on his background knowledge.*

Student C*: Mainly, it was related to her knowledge to be able to answer the questions.*

Students H & C*: we think the answer is A, I do not know. It is taking into account what we already know. But, the information is not in the text.*

Student M*: Teacher, for example, if you do not tell us we do not know, how does one do?*

you answered it because you knew it. I have never heard about that.

In all these comments, students affirmed and concluded that they needed to know about

the topic to be able to answer those questions. Another aspect was students´ lack of vocabulary, I

can affirm that it was the main difficulty I could observe during the classes.

Student C: *Teacher, what is a pill?*
Student H: *pildora*
Student G: *what is a priest?*
Student M: *what are illnesses*
Student H: *You can find the word in the text. But, it does not say the meaning.*
Student P: *Shouted what is pound?*
Some students looked puzzled when they were trying to comprehend the reading
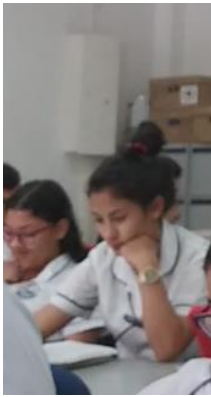
Student P: *what is led? led like the led light?*

Student C*: the article is mostly about?*

Student C: *The article is more important*

Student H*:   No, no is not important, is about.*

Nobody answered that question.

What is the meaning of the issue?

Student K: *I have no idea what is that teacher: what is the meaning of figure out?*

None of the students showed or expressed strategies to get the meaning of the words.

However, two students looked for the meaning of the word on an app on their phones, but the

meaning was not very accurate according to the context of the reading.

Student M suggested and strategy to answer the questions she said teacher we can "eliminate" the wrong answers and select the remaining. Some students try to get the meaning by looking for possible meaning or similar words to the unknown one. Some other link the word in English to the similar in written form in Spanish, for example, figure out, one student mentioned: "figured".

The use of the tablet was another aspect that I could notice with the video recording.

During the shift from the tablet to the written test, they started to talk, stand up, scream. Their attention changed. However, after working for more than one hour with the tablets, they changed their positions, laid down, stretched, hold their heads with their hands, scratched their eyes.

Focus group Interview. The aim of the focus group was to discuss with the students some of the aspects I noticed during the instructional classes. Hence, through this discussion, I gathered the data that it produced. In addition, some students did not like to participate in their own, during the focus group students felt more comfortable to participate and share their ideas. Bearing in mind the aspects I notice in the video-recording, I started some initial questions to discuss in the focus group. The first issue related to the use of the tablet.

Do you prefer to read in a paper or on a tablet?

Student M: *I think that I got less bored with the tablet. Because, I do not know, when I see the text on the paper I fall asleep. In addition, this classroom is cooler and relaxing.*

Student C: *It is the same for me, it is similar. If you have a tablet but you cannot understand the text. It will not be helpful. The only difference I see is that I feel more comfortable using the tablet.*

Some students agreed with the second comment. However, they affirmed that they prefer and feel more comfortable reading using the tablet.

The second issue was the implementation of metacognitive strategies.

Do you think the skim and scan strategy was useful?

Many students affirmed "*yes*", Student A: confirmed that when the answer was in the text, skim and scan strategies were useful. However, sometimes the meaning was unknown.

Do you think the G-map strategy was useful?

Student C: *Both are useful, it depends on meaning if you read many words and phrases. But, you do not know what they mean. Sometimes, it is better to look at what the questions ask and look for the information in the reading.*

Student V: *The context helps you a lot and I read a lot about many things.*

What do you do, when you find an unknown word?

Some students mentioned that they try to understand the meaning of the word in the context of the reading, understand a little part of the text I tried to get the meaning of the word, jumped or skipped the word. However, some others mentioned that when they do not know the word, the answered randomly.

Another aspect was the speed when reading on the tablets, several students affirmed that it was the same. However, it depends on many factors such as the interest, the length of the reading, difficulty of the questions among others.

Second Cycle

Plan

During the second cycle, four reading tasks were selected according to students ́ likes. Then, having in mind that one of the most notable difficulties during the first cycle was students' poor vocabulary and with the idea of offering students a possibility to overcome that difficulty. I decide to give they the chance to look up the meaning of unknown words in the app named " SpanishDict". This app works without an internet connection and it was previously installed on the tablets. Equally important is the fact that more emphasis on the G- map strategy was given.

Furthermore, students have already read and practiced with the three strategies. Then, this second cycle was more student-centered. Students had the same instructions as in the first cycle. However, they had access to the dictionary app to look for unknown words in the reading. Below, I present the four readings, I selected for the second cycle.

Readings	Topic
1 - Lesson 13	Leo Baekeland
2 - Lesson 14	Nelson Mandela
3 - Lesson 3	Louis B. Mayer
4 - Lesson 6	Leonard Lauder
Post-test	(similar pre-test)

Action

Bearing in mind that the main difficulties students had in the first cycle were their lack of vocabulary, difficulty to answer inferential questions and that those issues affected their reading

comprehension skill, I told them that they could look for the meaning of the unknown words on the app. Initially, they did not understand the reason why I have allowed them to look for the meaning of the words. However, after some minutes they started to look for the meaning of the words and made sense of the text. In the beginning, I show students the app (the dictionary), and I taught them how to look for the meaning of unknown words. Something they realized was the fact that to look for the meaning of the word, they need to close the reading app and then tap on the dictionary app and write the word. The tablet did not allow them to open both apps at the same time. This may be possible with newer software and apps.

The virtual classroom was not available for this intervention session, because there were students from sixth grade utilizing the tablets and the classroom for their English class. Hence, we stayed in the classroom and worked with the tablets in it. Due to the number of tablets available, students were asked to work in pairs and shared the tablet to use the dictionary. In addition, the readings were printed.

First Reading task. I began by explaining to the students how to use the app. Later, I reviewed the strategies and asked students to complete the first task. Initially, it was difficult to set the camera to obtain a full view of the classroom. Hence, I video- recorded them with two cameras. But, the camera was still a distraction. Some students asked me to move the camera and focused it towards a different angle because they felt that they were not good looking on the video.

Some students started to read the questions first and looked for the meaning of the words on the tablets, while they were translating everything into Spanish. Although the application offered various meanings, some students adjusted the meaning of the word according to the reading. Some students tried to use the dictionary application as a translator and wrote full sentences in the search bar of the dictionary. I explained to them that the idea was to make use of

the dictionary for unknown words and that they had to use the strategies to comprehend the full

text.

The dictionary seemed to help students better comprehend the text. Several students

commented or expressed sounds like: "mmm ya ya ya", showing in this way understanding of a

segment of the reading. This was the main objective that led me to implement the dictionary app.

I gave students the time to complete the first task. That was written because it would be easier to

collect and check it. Some students asked about the reading and about the meanings the app

offered. As those activities were more student-centered, I decided to walk around the classroom

paying attention to students while they were using the app. Sometimes they could not find the

meaning of a word, but it was because they typed the word with incorrect spelling.

Second Reading task. As this is the second cycle and the student already knew the strategies,

most of them were focused on their tablets working individually; some students showed their

happiness when they answered the questions and found the meaning of the words on the app. In

addition, during the tasks, some students forgot the meaning of the words they had previously

looked for and they had to do the process of searching again. Since students did not have a

strategy to keep or retain their new vocabulary.

I decided to approach each student and ask if they had any question or doubt about the

reading, some of them asked me about their conclusions and self-evaluation of their reading

process using the meaning offered by the dictionary to support their answers. I can affirm that

their level of motivation and participation raised. In the class, students were more engaged

during the activity and I noticed them working with enthusiasm. This could be a result of the

implementation of the dictionary and the extra grade they will get for their English subject.

However, some students at the back of the classroom were not working properly, they were using other apps on the tablet and paying little attention to the reading.

Third and fourth reading task. As students already knew the strategies and how to use the dictionary app, the instructions and procedures for these last tasks were the same. These two reading tasks were more student-centered and they helped as practice for the students to take the post-test. These two tasks were carried out in the same classroom. Students worked in the same way as in the first two readings tasks. After these tasks students took the post-test.

Observation

During the second cycle, I obtained the following findings from the video-recording, focus group interview and post-test.

Video- Recording. In the video- recording I could observe that the implementation of the dictionary was remarkable; most of the students used it to look for unknown words in the text and make sense of it. Some students wanted to translate full sentences with the app. But, the app did not translate, it just offered the meaning of one word. Hence, some students used their own phones with internet access to look for the meaning of some words that they could not find with the app. Although they found most of the meanings on the app, some students struggled to make sense of the ideas in the texts.

Even if they knew the meaning of the words, some students found difficult to answer questions in which they have to infer information. That was the most striking observation that emerged from the class. Even though the dictionary showed them the meaning of the word, it

was challenging for them to get the meaning of the whole sentence or idea. Some students asked

me to help them to understand or translate the questions. For instance:

Student C*: teacher, in this questions what does "fits" means? "best fits" what does it*

mean?

That student had already looked for the meaning of the words, but it was difficult to him

to understand the words "best fits". The dictionary offered several definitions and examples of

those two words, though. The student found it complicated to understand or translate that

question. In my opinion, a similar issue happens when students have to infer information about

the text. Some students found it complex to infer information.

A common situation among some students was the fact that they looked up for a word in

the dictionary but it did not find the meaning. In one of the cases, it was the last name of one of

the actors in the reading. "Baekeland". Another case was the fact that students wrote the word

incorrectly and the app could not find it. Equally important, is the fact that some students

implemented other strategies to help them translate and make sense of the text. Few students

wrote the meaning of the unknown words in the text. Some others made a list of the words they

have looked for. Although the tablet allowed students the words; it took them more time than

before to complete the task. One reason may be because students looked for every unknown

word they found in the text.

One student claimed:

Student G: *No, teacher. In that way, this task will be more time-consuming (longer).*

An unexpected situation was the fact that although some students' level of interest

and commitment with the tasks was high. In contrast, some others seemed not to be

engaged with the tasks. For instance, during an activity in a group of 12 students, 9

students were working enthusiastically and the others were just talking, playing and

paying attention to other things. Although students had a tablet that helped them as a

dictionary and all the required tools to achieve the tasks, they were not focused on the

class.

Focus Group Interview. At the end of the second cycle, I carried out a focus group interview

with the students. Two groups of 15 students participated in the focus interview, which had three

main topics: the implementation of the dictionary, inferential questions, and strategies to acquire

vocabulary. Students agreed that the implementation of the dictionary was useful. It helped them

to look for the meaning of the words and understand the readings.

Regarding inferential questions, although they could use the dictionary, these inferential

questions were beyond some students' comprehension.

Student V: *teacher, I did not get this question.*

Student C: *teacher, question 32, what can we know about the writer's attitude towards life?*

Initially, I think the guy hates the rain, because at the beginning...

Student G: *But, that is not a reflection about life. it is not related. I selected that money because*

it is the only thing he mentions about life.

I concluded that inferential questions represent a significant difficulty to students.

Ironically, students could understand the text using the metacognitive reading strategies and

translating the text into Spanish. They could not answer inferential questions correctly. It seems

that even with the information in Spanish they could not understand what the writer implies or suggest. Some students just took the literal meaning of the reading and did not infer other possible facts about the reading.

Strategies to learn vocabulary. I asked students about what strategies they have to learn vocabulary; some students were puzzled after that question and move their heads to negate that.

One student pronounces the words many times, another student just looks for them on his phone. Student L: mentioned the word apartheid, it is the same in Spanish and English. So, one knows is racial segregation. This was all the information I obtained about strategies to learn vocabulary from 15 students. It seems that the one main issue regarding reading comprehension is students´ lack of strategies to acquire and learn vocabulary in English.

Focus group interview 2. I started this focus group interview by addressing the same topics as in the first group. Students agreed that the implementation of the dictionary was significant. I proposed the second topic as follows: **"Even though you know the meaning of the words,** inferential questions are still difficult to answer". Most students agreed and made some comments regarding the question 32, what can we know about the writer's attitude towards life? Student V: *To be honest I did not understand that question.*

Student G: *I answer randomly*.

Those comments showed that inferential questions are demanding for students to answer.

On the other hand, other students supported their answers and explained why they had selected those answers.

Student H: *Because it says other things are more important than money.*

Student H: *people enjoy the gold, but when they passed away, what are they going to take with them, the gold?*

Teacher*: Is that answer literal?*

Student V: *yes, and no, because it says…*

Student H: *it gives the idea.*

One strategy they suggested was to dismiss the answers that are far away from the possible answer and select the answer that best fits.

Student H: *I will go for answer D because he says about the food and museum.*

All the information students used to support and to answer the questions is the same information we need to develop the G-map. It seems that what is difficult for them is to identify specifically what the text is talking about and link that information with the possible answers. In other words, it is possible to affirm that some students do not analyze the information in the text to answer a question. Even if the know the meaning or the translation of the text ; students do not infer the information and look beyond the lines to find information that the writer hints at and none of the students have a strategy to learn new words.

They suggested a reading activity, in which the students read the text on their own first and after that the teacher shows students how to answer the questions correctly, using the information to support his or her answers.

Vocabulary

Student H*: has a word bank (it was a strategy suggested by the teacher).*

Post – test. I used descriptive statistics to compare the pre-test and the post-test after the second cycle.

Pre-test

Number of students vs. Number of correct answers
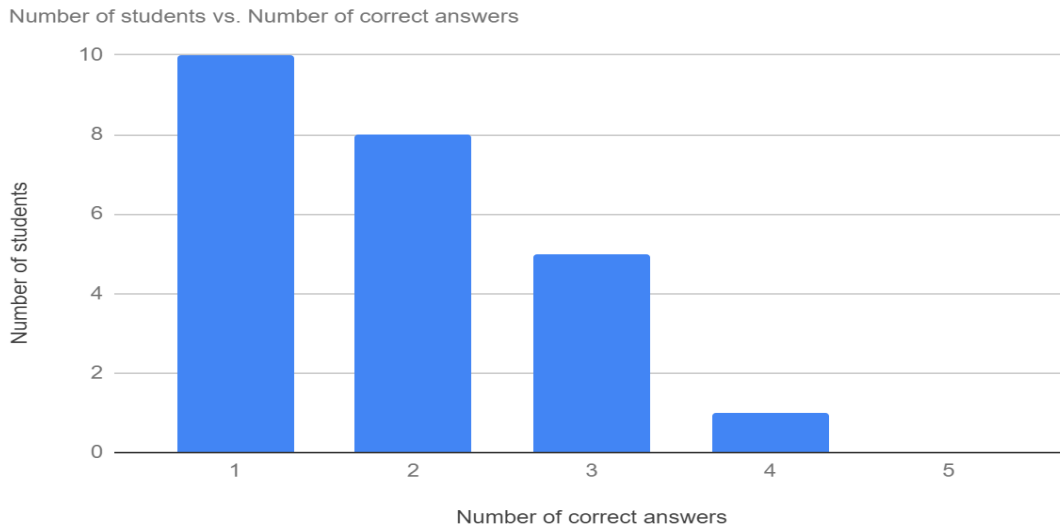
This chart shows the correct answer students obtained in the pre-test.

Number of students vs. Number of correct answers
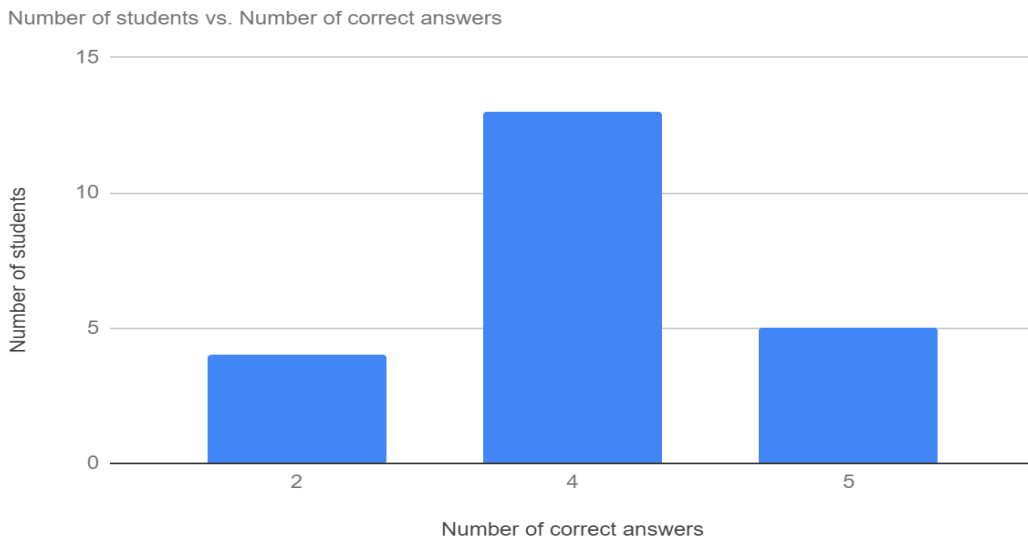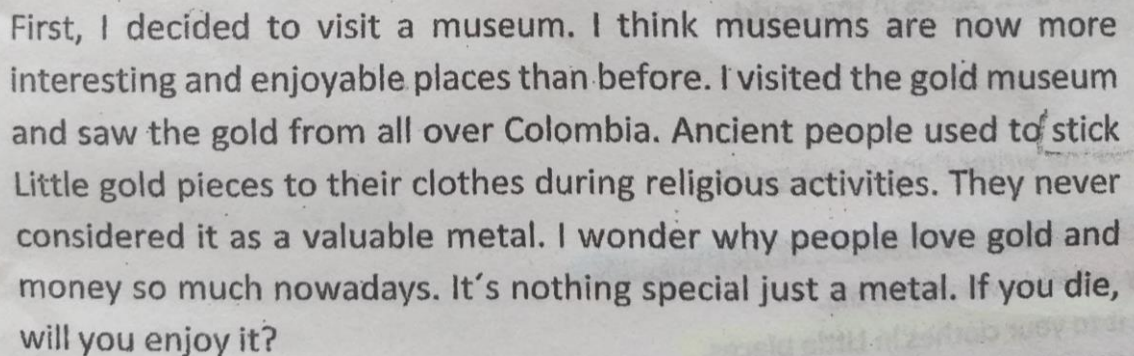
This figure shows the number of correct answer students obtained in the post-test after the second cycle.

After the first and second cycle, students` reading skill has improved positively. It can be reflected in their scores and comments. In addition, the number of students with less than two correct answers decreased and the number of students with just one answer was reduced completely.

However, the question that most of the students failed to answer was: What does the writer think about gold?

A. ancient cultures used it a lot because of their customs
B. It will be very valuable when you die
C. you can stick it to your clothes in little pieces
D. people should not consider it important

All the students selected answer A, just one student selected C

First, I decided to visit a museum. I think museums are now more interesting and enjoyable places than before. I visited the gold museum and saw the gold from all over Colombia. Ancient people used to stick Little gold pieces to their clothes during religious activities. They never considered it as a valuable metal. I wonder why people love gold and money so much nowadays. It's nothing special just a metal. If you die, will you enjoy it?

Answer A may correspond to the information found in the text about ancient people. But, the author added his opinion when he wrote: "I wonder why people love gold and money so much nowadays". Initially, it seems that students just skim and scan the text without analyzing the text. In other words, students did analyze the text by asking questions about it, which is the idea of the g- map strategy.

The second question in which student failed was: What is the writer's purpose in the article?

    A. describe Bogota in a detailed manner.
    B. Talk about Chìa`s food and people.
    C. Tell the reason about his trip to Bogota and Chìa
    D. Recommend Colombian Museums and food

Students answers were divided between answer C or D. This shows that students' level of reading has increased. They range between the two more possible answers. However, when determining the purpose of a text, it is difficult for them to determine what the intention of the writer or author is; for instance: if the writer is giving reasons or recommending. Students hardly identified the purpose of the author.

Chapter IV

Data Analysis and Findings

Cycle 1

This section describes the reflection process carried out with the analysis of the first cycle. As mentioned previously, this research study was carried out in two cycles following the stages of action research.

Reflection. The results of the first cycle showed the main issues students faced when reading texts in English and some aspects they highlighted when using the tablets while reading. I started by analyzing with color coding each instrument.

Implementation of Skim and Scan Strategies. These strategies were very significant for the students as I could realize during the instructional classes. During the implementation of those strategies, students could easily identify where the answers to the questions were. Although, some students claimed that these strategies were useful just when the answer to the questions were in the text (literal level), their scores on the post-test increased assertively when answering these questions. Also, these strategies helped students identify specific information about the different readings. For instance:

Student B: *I think the answer is "B" because that information is in the parenthesis.*
While using the strategies some students started to support their answers by pointing information that they found on the reading. This could be noticed in the observation stage through students´ comments about their answers. Before these intervention students do not self-

evaluate their answers; this process of self- evaluation of their answers was possible through the interaction in the instructional classes of metacognitive reading strategies.

> Student G: *teacher the answer is between B or C.*
> Student C*: No teacher, is the C because the text mentioned the word "molecules"*
> Besides, the model SIRCA from which this research study adapted and took the

strategies, makes an emphasis on making students aware of their development through practice and self- evaluation. Although the students implemented the two strategies, this process was simple and it was not very demanding for students in terms of analyzing information. Hence, I think that due to the ease of these strategies, students recognized this strategy as useful for their reading process. Next, you will find some students comments that show and support the above mentioned. Student H: *Teacher, the answer is in the first paragraph. -* Student C: *Teacher, the answer is A.*

Implementation of G-map. Although this strategy was demanding because it required students understanding of the general ideas in the text and proposing a topic about it, some of the students implemented it and demonstrated that it was effective for the development of their reading skills. A probable explanation for the fact that G-map was more demanding for students could be the conclusion of Rios and Valcárcel (2005) who highlighted that students in public schools tend to have low levels of English, and that makes the reading comprehension challenging. However, after analyzing the results on their post-test, less than 28% of students answer incorrectly. This strategy helped students to answer questions related to the main ideas in the text. For instance:

> This article is mostly about:
> Fermi's contribution to physics led to:
> In the text the reader can find :

These questions involve an understanding of the whole text and the ability to comprehend the proposals presented as possible answers. During the class, some students affirmed that:

Student C: *Both are useful, it depends on MEANING if you read many words and phrases. But, you do not know what they mean. Sometimes, it is better to look at what the questions ask and look for the information in the reading.*

Student V: *The context helps you a lot and I read a lot about many things.*

After this comment, many students agreed with him. It is almost certain that for students the meaning of the words in Spanish is the main tool that helps them understand texts in English. In other words, students' ability to comprehend text relies on how rich is their vocabulary in English. Finally, some students' comments that shows the usefulness of the G-map:

After answering the questions of the guide map (what and how) several students knew where the information of the first question was.

Several Students: that information is in the third paragraph.

Student K: *that paragraph gives us the answer to the second question*

Student M: *and they changed the world.*

Student K: *Yes, that answer is there.*

Students preference for reading on tablets. After watching the video and asking students about the use of tablets while reading, it seems that tablets result more appealing for reading than the traditional paper. In addition, tablets draw more students' interest than the paper. During the instructional classes, students were focused on their tablets most of the time. Once, I told students to change from tablets to paper they turned more talkative and focused less on the tasks. This could be evidenced on the video. This last finding about tablets drawing more students´

interest than paper was also found by Alpañez (2014) who affirmed that students' motivation increased with the use of tablets; this statement was supported by 90 % of the teachers that were involved in that study. Next you will find some students´ comments about use of tablets:

Student M: *I think that I got less bored with the tablet. Because, I do not know, when I see the text on the paper I fall asleep. In addition, this classroom is cooler and relaxing.*

Student C: *It is the same for me, it is similar. If you have a tablet but you cannot understand the text. It will not be helpful. The only difference I see is that I feel more comfortable using the tablet.*

In addition, a similar finding was stated by Hamodi and Bermejo (2014) who conclude that a tablet is a tool that works to motivate students to practice reading and most of them prefer to read on this kind of device. Hence, the implementation of tablets to encourage students´motivation towards reading is positive and helps students to focus more on the reading tasks.

Students' Application of their Background Knowledge to Comprehend Texts. Although, this aspect may not be implicated in the research questions or objectives of this study, this may represent a factor that affects students' ability to comprehend texts.

How do you generate electromagnetism?

Student C: *Then, electro and magnetism, you need to know or understand the term to answer this question. In the text, there was no information about it, but if you read the choices you can answer it.*

Student H: *The answer is B because the nuclear reactor is related to the atom bomb*.

Student G: *the joins of the proteins are not circular; they are like a spiral (this student relied most of the time on her background knowledge).*

Student C: *Mainly, it was related to her knowledge to be able to answer the questions*.

Students H & C: *I think the answer is A, I do not know. It is taken into account what we already know. But, the information is not in the text.*

Those are the comments and ideas of some students during the instructional classes. Some students linked their knowledge with the information they found on the readings to get a better idea of the reading context. This could be evidenced in their comments. However, some students´ conclusion was that if they do not know about the topic they are reading it would be impossible for them to answer the questions correctly. This idea was also discussed during the focus group interview and some students claimed about that. How can we answer questions about something we have no idea?

Student M: *Teacher, for example, if you do not tell us about that, we do not know, how does one do? you answered it because you knew it. I have never heard about that.*

In all these comments, students affirmed and concluded that they needed to know about the topic to be able to answer some of the questions.

I noticed that just few students who had a good level of English, were able to relate their background knowledge with the information they found in the text. Besides, those students made comments and connections about the questions and information during the instructional classes. Thus, it seems that what Rios & Valcárcel (2005) claim about students in public schools who tend to have low levels of English and that makes the reading comprehension challenging is quite true. I could evidence that in my research study. Hence, this finding opens the windows to carry out research about how students´ level of English affects the reading comprehension skill.

Students Lack of Vocabulary. A notable difficulty for students through this research study was their poor vocabulary. This lack of vocabulary was evident in all the stages of this first cycle. Since the very beginning of the study in the questionnaire students identified that one of their main difficulties when reading a text was vocabulary. Besides, during the class, students asked and claimed for the meaning of several words to understand the readings. Moreover, during the focus group, this was a common difficulty expressed by the students.

Hence, I reflected upon the results obtained from the post-test, 72 % of the students answered the test correctly. But 28% could not answer 2 out of 4 questions correctly. The questions those students could not answer correctly were related to understanding the meaning of different statements. In addition, in the first question students answered incorrectly but all of them selected the same incorrect answer, that had a similar meaning with the correct answer. The correct answer to the statement: Morita was the first among to take his business; it was: Into many other countries. But students select the answer: Beyond his country's borders. Both statements have a similar meaning.

In regard to the second question, this one was mainly based on meaning. The question was "Relentless means? Five students answered with an option that was not related to the word "annoying". They did not know the meaning of the word. The other two students choose an option that was similar to the correct answer "tireless; the correct answer was "placated or appeased". Hence, students' lack of vocabulary affected their final score.

Almost all the students tend to ask the teacher about the meaning of any word, they do not have any strategy to enrich their vocabulary. During the classes, I heard many students asking for the meaning of a variety of words.

Student C: *Teacher, what is a pill?*

Student G*: what is a priest?*

Student M: *what are illnesses*

Student H: *You can find the word in the text. But, it does not say the meaning.*

Student : P: *Shouted what is pound?*

Just two students looked for the meaning of the unknown words on an app on their phones. During the focus group interview, one of the questions was: What do you do when you find an unknown word. Some students' responses were positive, they mentioned that they tried to understand the meaning of the word by reading the full sentence in the text and tried to get the meaning using the context of it. However, other students affirmed that when they did not know the meaning of the words they answered randomly. I could confirm this information with the post-test since some students' response was not even close to the meaning of the word.

Course of action for the second cycle. Using tablets to read texts in English showed to be more appealing for tenth -grade students. Most students affirmed that they prefer to read on the tablet than on paper. Also, tablets increased students' interest and attention on the reading tasks. Hence, no changes will be done regarding the use of them. Next you will find some students´ comments about the use of tablets.

 Student M: *I think that I got less bored with the tablet. Because, I do not know, when I see the text on the paper I fall asleep. In addition, this classroom is cooler and relaxing.*

Student C: *It is the same for me, it is similar. If you have a tablet but you cannot understand the text. It will not be helpful. The only difference I see is that I feel more comfortable using the tablet.*

Some students agreed with the second comment. However, they affirmed that they prefer and feel more comfortable reading using the tablet.

Students' comments during the reading tasks, the post-tests and the focus interview showed that the implementation of metacognitive strategies (skim and scan, G-map) contributed positively to the development of their reading comprehension skills. In addition, students' awareness and self-evaluation of their reading process have grown. I noticed this when they supported their answers and identified the main ideas in the readings. However, the G-map strategy seemed to be more difficult for students to accomplish. This statement was evidenced by the result of the post-test in which 28 % answered incorrectly a question that could have been answered more accurately after implementing the G-map. Hence, more emphasis will be given to the development of this strategy in the second cycle.

Furthermore, it is likely that students' lack of vocabulary affects their reading comprehension skill and reduces student possibility to fully develop the G-map. It was reflected in the results of the questions that required meaning of words, through the instructional classes, where students were asking the meaning of several words and the results of the focus group, in which students recognized that the meaning of the words was a crucial factor that affected their understanding of the readings.

Bearing in mind the results of the first cycle and with the aim to overcome what may be the main difficulty that affects student's reading skill (poor vocabulary), it is necessary for the implementation of an app, a dictionary that works without the internet connection. The lack of internet connection while implementing tablets is a contradictory limitation in the school. But, there are some apps that allow you to work with them without an internet connection. In addition, students will get a grade for their English subject after participating in the instructional classes.

To conclude, emphasizes on the implementation of the G-map strategy will be given in the second cycle and the implementation of the app "SpanishDict" to help students understand the unknown words

Cycle 2

Reflection.

Implementation of the App "SpanishDict" to Help Students with the Unknown Words. The implementation of the dictionary was helpful, students used the dictionary as many times as they need it. It helped students to better comprehend the questions and answer more effectively. But, it took students more time to complete the reading task. Hence, vocabulary learning represents a significant aspect involved in students' reading skill. I noticed that few students had their own strategies to learn vocabulary, even some minutes before using the dictionary they could not remember the meaning of the words they had looked for.

Therefore, based on Gooden, Regina & Carreker, Suzanne & Thornhill, Ann & Joshi, R Malt. (2007) the instruction of metacognitive strategies can be more useful for students if vocabulary instruction is also provided to the students. Similarly, in a study conducted by Diaz (2015) the author emphasizes that learning strategies gave participants different opportunities to use several tools as well as the ability to increase vocabulary learning during the class. (p. 100). Hence, the implementation of MS helps students gain vocabulary, still is necessary to provide them with vocabulary instruction to made students aware of their learning process.

Inferential questions. Although students could use the dictionary it was difficult for them to answer and comprehend inferential questions. For instance: Student V: Teacher, I did not get this question.

Student G: *I answered randomly.*

Student C: *teacher, question 32, what can we know about writer's attitude?*
Initially, I think the guy hates the rain.

With these comments, students show their lack of ability to understand and answer the questions that ask them to infer information. Even though the dictionary was useful, there is a need to provide students with vocabulary instruction. Moreover, emphasizes on reading texts that ask inferential questions is a need. Students must practice with that kind of questions to enhance their reading comprehension skill.

Strategies Implemented by some students. Some students suggested the implementation of a strategy they know as "elimination". It consists of testing all the possible answers and dismissing the ones are not mentioned in the reading. Also, one student mentioned a strategy to teach them how to answer inferential questions. He suggested that students complete the task by themselves. After that, the teacher shows them how to do it and how to support their answers.

This section below describes the categories that came up from the analysis of the two cycles implemented in this research study. Students´ lack of strategies to learn vocabulary was one of the main obstacles for students when reading and comprehending texts was the fact that they do not rely on useful strategies to acquire vocabulary. I noticed this lack in both cycles and even when they could use the dictionary they forgot the meaning of the words they have just looked up for. Second, Students difficulty to answer inferential questions, this category was more evident during the second cycle. Although, students could understand the meaning of words, sentences, and paragraphs, they did not make inferences or judgment with the information found in the text to answer the questions.

Third, Students´ competence in their native language, I introduce this category as a possible origin of the previous category. Fabian Padilla de la Cerda (2016) affirms that most of the difficulties faced by students regarding comprehension originate because of students' lack competence in their mother tongue. Once, students could use the dictionary to look up to the unknown words and get the information from the texts; they were not very competence to make conclusion or inferences with the information in Spanish. Fourth, the implementation of the G-map; it was not as useful as I was expecting. Due to students´ low level of English and poor vocabulary, it was difficult for them to identify the main idea in a paragraph. As a result, most of students did not carry out this strategy. Fifth, student's preference for reading on tablets, they result more appealing for reading than paper. After watching some of the video- recordings tablets capture student's attention easily and that feature resulted useful to focus them during the development of different activities

Chapter V

Conclusions and Pedagogical Implications

As the main objective of this research study was to answer the question how do instructional classes based on metacognitive reading comprehension strategies develop students´ reading skills by using tablets? I classified the conclusions regarding the results obtained with the pre-test and post-test, strategies, use of tablets, use of dictionary and vocabulary learning.

Pre-test and Post- test

The application of the pre-test and post-test was helpful to prove that the instruction of reading comprehension strategies was positive to the development of reading skill. Before the implementation of the strategies, in the pre-test, the number of students who obtained three or more correct answers in the test was just above five students and most students just obtained one or two correct answers. However, after the instructional classes and the application of the post-test, the number of students who obtained four correct answers was above thirteen and students with five correct answers was five. Also, the number of students with two correct answers was below four. This information led me to conclude that metacognitive reading comprehension strategies enhanced students reading comprehension skill.

In addition, I noticed that inferential questions were difficult for students to answer, although some students could understand the meaning of words, sentences, and paragraphs. They did not make any inferences or judgment with the information found in the text to answer the questions.

Regarding the skim and scan strategies. Conversely, the implementation of these strategies showed that students enhanced their reading comprehension skill. This strategy was helpful for students to answer questions in a literal level. They could easily implement these strategies and they helped students identify specific information in the readings. The process of struggle to make sense of the text does not occur when answering these questions; they just need to scan or skim the text and find the words to answer the questions.

Regarding the G-map. The implementation of this strategy was helpful for some students. However, it was difficult to some others to implement it. This strategy required a higher level of English to answer the questions what and how about each paragraph and propose a topic for it. It was difficult for students to recognize what the significant information was and what was not significant information. As it is affirmed by Rios and Valcárcel (2005), students in public schools tend to have low levels of English and that makes the reading comprehension challenging. Also, in the statement low levels of English, the poor vocabulary students have is embedded. Hence, teaching students how to learn vocabulary is a need for students at the school level in our country.

Regarding the implementation of tablets. The use of tablets for reading in the classroom results more appealing than reading on paper. Students' motivation increased and the tablet became a valuable tool for students in terms of learning. Furthermore, students were more focused when using the tablets during the reading activities. This conclusion was also found by Hamodi and Bermejo (2014) who affirmed that the implementation of tablets to encourage students' motivation towards reading is positive and help students to focus more on the reading tasks.

Regarding the implementation of dictionary. The use of the dictionary was satisfactory; many of the students made use of it during the reading tasks. They read and translated the text while using the dictionary. Students recognized that it was helpful for them not only for understanding unknown vocabulary of the texts but also for understanding the questions. However, despite students could look for the meaning of the words, it was difficult for them to answer inferential questions and they do not have a useful strategy to learn vocabulary.

Regarding vocabulary learning. During the development of this study I could realize that students in 11th grade enrolled in of a public school in the city did not have an effective strategy to learn vocabulary. Even some minutes after looking for the words on the app, they could not recall the meaning of the words. Hence, it is mandatory to research upon vocabulary learning and implement some strategies to help students learn vocabulary in our schools. I think this is the one main obstacle for students when reading and comprehending texts. The fact that they did not have any appropriate strategy to acquire vocabulary results in student scare vocabulary and as a consequence a low level of English.

Implications

I want to highlight the fact that this research exercise helped me to learn a lot in several aspects. As teacher-researcher, person, and student. Thus, once I started my research study and collected the first cycle, at first glance, I could not identify the main problems that affected students reading comprehension skill. Therefore, during the development of this research study I became more aware of how the literature review and the data you collect in your study help you as a researcher to make some connections and find similarities in your target setting. Hence, that process gives you a clearer panorama of what may be the real or main issue of you research problem.

Besides, exploring the development of the reading skill helped me to understand that sometimes as teachers we reach conclusions about students' reading difficulties in a premature way. When I started my research study I thought the main problem was students' vocabulary. However, once students had the chance to use the dictionary to get the meaning of the unknown words, my premature though about the problem changed. According to the literature and my observation and conclusion in the research study; Students´ level of reading comprehension is affected by some aspects in the reader's knowledge. Such as students´ level of English, background knowledge, level of competence in the mother tongue among others. Thus, I recommend teachers to implement vocabulary activities, reading activities using different metacognitive strategies and work collaboratively with Spanish teachers to help your students become competent in their native tongue.

After carrying out this research study. During the focus group interview some students assess the strategies they implemented and become more aware of their reading process. This was one of the implication that most impact tenth grade students. In addition, students proposed ways that according to them would be useful to teach reading. Finally, they recognized the use of tablets as a motivating aspect to encourage student to learn English.

Limitations

Few English class hours per week; this limitation was highlighted by the teacher and I could evidence it during the implementation of this study. Three hours a week for teaching the English subject made it difficult to carry out this intervention. It is difficult to focus on one or two skills with this limited number of hours a week. Sometimes, the English class was taken to carry out other activities such as role plays, shows, or even strikes, among others. In addition,

during the implementation of the second cycle, for a couple of weeks the virtual classroom and the tablets were not available because some students were working with them as well.

Focus group interview. This instrument was useful to collect information in a collective way. However, few students participated and expressed their ideas and conclusions about his or her reading process. Hence that data collected from this instrument was reduced. But, during the focus group interview most students agreed with their classmates´ideas and added more information or gave a different view mate's answers. Conversely, the data collected from this instrument was smaller with regard the others instruments.

Further Research

It is necessary to carry out more studies that implement tablets and apps to teach English to students in the country, especially at the school level. I such a way we can contribute to the ELT community in the country regarding the use of tablets to teach English. Besides, regarding reading in English, it is necessary to implement strategies that allows students to learn and acquire vocabulary. Hence, it is important to carry out research about the implementation of metacognitive reading skills in public schools in the country. Bearing the above in mind, I would propose the following questions for further studies:

How do students´ competence in their native language affect their reading comprehension skill in their foreign language?

References

Alao, S., Anderson, E., Guthrie, J., Hancock, G. R., McCann, A. y Van Meter, P. (1998). Does

Concept-Oriented Reading Instruction Increase Strategy Use and Conceptual Learning

From Text*? Journal of Educational Psychology*, 90, 2, 261-278.

Alpañez, S, S (2014) El uso de tabletas para la enseñanza de aspectos gramaticales de la
asignatura de inglés en educación secundaria
obligatoria.   https://reunir.unir.net/handle/123456789/2688

Aragón, L. & Caicedo, A. M. (2009). La enseñanza de estrategias metacognitivas para el

mejoramiento de la comprensión lectora. Estado de la cuestión. *Pensamiento Psicológico,*

5 (12), 125-138.

Bastidas, J. A. (2002). Techniques to Conduct Research in Metacognition and Reading. HOW

Journal, 9(2),7-15.Retrieved from

https://www.howjournalcolombia.org/index.php/how/article/view/186

Berg, B. L. (2001). Qualitative research methods for the social sciences. Boston: Allyn and

Bacon.

Biancarosa, G. & Griffiths, G. (2012). Technology Tools to Support Reading in the Digital Age.

The Future of children / Center for the Future of Children, the David and Lucile Packard

Foundation. 22. 139-60. 10.2307/23317415.

Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more

    mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), Metacognition,

    motivation, and understanding (pp. 65-116). Hillsdale, New Jersey: Lawrence Erlbaum

    Associates.

Brown, D. (1994). *Teaching by Principles: an interactive approach to language pedagogy*. Tina

    Carver.

Burns, Anna. *Doing Action Research in English Language Teaching: a Guide for Practitioners*.

    Routledge, 2010.

Chamot, A. U., Barnhardt, S., El-Dinary, P. B., & Robbins, J. (1999). *The learning strategies*

    handbook. White Plains, us: Addison Wesley Longman

Chamot, A. U. (2004). Issues in language learning strategy research and teaching. *Electronic*

    *Journal of Foreign Language Teachin*g, 1(1), 14-26.

Cohen, L., Manion, L., & Morrison, K. R. (2007). *Research methods in education (Sixth ed.).*

    London: Routledge. doi:ISBN 0-203-02905-4

Colombia Aprende: La red del conocimiento.(n.d). Retrived from

    http://aprende.colombiaaprende.edu.co/es/colombiabilingue/86689

Creswell, J. (2012). *Educational research: planning, conducting, and evaluating quantitative and*

    qualitative research / (4th ed., p. 603). Boston, MA: Pearson Education

Creswell, J. W. (2014). *Research design: qualitative & quantitative approaches. Thousand Oaks,*

    Calif. : Sage Publications.

Cross, D. R. y Paris, S. G. (1998). Developmental and Instructional Analyses of Children's

Metacognition and Reading Comprensión. *Journal of Education Psychology*, 80, 2, 131-

142.

Diaz, I. (2015). Training in Metacognitive Strategies for Students' Vocabulary Improvement by

Using Learning Journals. *Profile Issues in Teachers` Professional Development*, *17*(1),

87-102. https://dx.doi.org/10.15446/profile.v17n1.41632

Domingo, M y Marqués, P. (2011). Aulas 2.0 y uso de las TOC en la práctica docente. *Revista*

Científica de Educomunicación. Recuperado el 26/08/14 de: www.revistacomunicar.com

Echeverri, L, M, y McNulty M. (2010). Reading Strategies to Develop Higher Thinking Skills for

Reading Comprehension. *Profile Issues in Teachers` Professional Development*, *12*(1),

107-123. Retrieved October 01, 2018, from

http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-

07902010000100008&lng=en&tlng=en.

Ezell, H. K., Hunsicker, S. A. y Quinque, M. M. (1997). Comparison of two strategies for

teaching reading comprehension skills. *Education and Treatment of Children,* 20,4, 365-

382.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of

cognitive-developmental inquiry. *American Psychologist*, 34, 906-911.

Garner, R. (1987*). Metacognition and Reading Comprehension. Norwood, NJ:* Ablex Publishing.

Gómez, E., Jiménez, S. Cortes, M. & Marín, M. (1993*). COFE working document No.3.*

Evaluation, testing and action research. London: Thames Valley University.

Gómez, N. & Ávila, J. (2009). Improving Reading Comprehension Skills through Reading

Strategies Used by a Group of Foreign Language Learners. *HOW* Journal, 16(1), 55-70.

Retrieved from *https://www.howjournalcolombia.org/index.php/how/article/view/76/75*

Gómez, J. (2017). A Model for the Strategic Use of Metacognitive Reading Comprehension

Strategies. *Profile Issues in Teachers` Professional Development*, *19*(2), 187-

201. https://dx.doi.org/10.15446/profile.v19n2.58826

Graham, S., & Harris, K. R. (2000). The role of self-regulation and transcription skills in writing

and writing development. *Educational Psychologist, 35(1), 3-12.*

http:// doi.org/10.1207/S15326985EP3501_2.

Guthrie, J. T., van Meter, P., McCann, A. D., Wigfield, A., Bennett, L., Poundstone, C.C., Rice,

M. E., Faibisch, F. M., Hunt, B. y Mitchell, A. M. (1996). Growth of literacy

engagement: changes in motivations and strategies during concept-oriented reading

instruction. *Reading Research Quarterly,31*, 3, 306-332.

Guthrie, J. T., Van Meter, P., Hancock, G. R., Alao, S., Anderson, E. y McCann, A. (1998). Does

Concept-Oriented Reading Instruction Increase Strategy Use and Conceptual Learning

From Text? *Journal of Educational Psychology,* 90, 2, 261-278.

Gutiérrez, E. M. A. (2016) Tablets y aplicaciones para la enseñanza del Inglés en Educación

Primaria http://uvadoc.uva.es/handle/10324/17776

Hamodi, Carolina & Inmaculada Bermejo de Gracia, María. (2014). Impacto educativo de las

tabletas digitales: estudio de caso de una experiencia innovadora. *Actualidades

Pedagógicas.* 157. 10.19052/ap.2897.

Hedge, T. (2000). *Teaching and learning in the language classroom*. Oxford: Oxford University Press.

Hernandez, R., Fernandez, C.,Baptista, L. (1997) *Metodología de la investigación. México: McGraw-Hill.*

Izquierdo Castillo, Alexander, & Jiménez Bonilla, Sonia. (2014). Building up Autonomy Through Reading Strategies. *Profile Issues in Teachers` Professional Development*, *16*(2), 67-85. https://dx.doi.org/10.15446/profile.v16n2.39904

Karbalaei, A. (2011). METACOGNITION AND READING COMPREHENSION. *Íkala, Revista de Lenguaje y Cultura*, *16*(28), 5-14. Retrieved October 01, 2018, from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-34322011000200001&lng=en&tlng=en.

Kemmis, S., & McTaggart, R. (1988). The action research planner. Victoria, AU: Deakin University Press.wil

Kligner, J. K., Vaughn, S., Arguelles, M. E., Hughes, M. T. y Leftwich, S. A. (2004). Collaborative Strategic Reading: "Realworld" Lessons From Classroom Teachers. Remedial and Special Education, 25, 5, 291-302.

Livingston,J.A (2003) *Metacognition : An Overview. Doi:* https://eric.ed.gov/?q=Metacognition%3a+An+Overview.&id=ED474273

lo, L. H., Snyder, K. H., Sukhram, D. P. y Kedem, Y. (2006). TWA + PLANS strategies for expository reading and writing: effects for nine fourth-grade students. Excepcional Children, 73,1, 69-86.

López, G. y Arciniegas E. (2003). El uso de estrategias metacognitivas en la comprensión de

    textos escritos. *Revista Lenguaje,* 31, 118- 141.

Mahecha, Rocío, Urrego, Stella, & Lozano, Erika. (2011). Improving Eleventh Graders' Reading

    Comprehension Through Text Coding and Double Entry Organizer Reading

    Strategies. *Profile Issues in Teachers` Professional Development*, *13*(2), 181-199.

    Retrieved October 01, 2018, from

    http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-

    07902011000200013&lng=en&tlng=en.

Martino, N. L., Norris, J. A. y Hoffman, P. R. (2001). Reading comprehension instruction: effects

    of two types. Journal of Developmental Education, 25, 1, 2-12

Mason, L. H., Snyder, K. H., Sukhram, D. P. y Kedem, Y. (2006). TWA + PLANS strategies

    for expository reading and writing: effects for nine fourth-grade students. *Excepcional*

    Children, *73*,1, 69-86.

Mateos, M. (2001). Metacognición y Educación. Buenos Aires: Aique.

McDougald, Jermaine S. (2013). The use of new technologies among in-service Colombian ELT

    teachers. *Colombian Applied Linguistics Journal*, *15*(2), 247-264. Retrieved September

    02, 2019, from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-

    46412013000200008&lng=en&tlng=en.

Mikhailova, T. (2008). Improving Students' Reading Skills through the Use of the WFR

    Activities. HOW Journal, 15(1), 49-62. Retrieved from

    https://www.howjournalcolombia.org/index.php/how/article/view/87/85

Osman, H. (2004). Genre-based instruction for esp. *The English Teacher, 33*, 13-29.

Padilla De La Cerda, F. (2016). The Design of a Theme-Based and Genre-Oriented Strategic

     Reading Course to Improve Students' Reading Comprehension Skills at a Public School

     in Colombia. HOW Journal, 23(1), 49-67. doi:http://dx.doi.org/10.19183/how.23.1.143

Ríos, S. R., & Valcárcel, A. M. (2005). Reading: A meaningful way to promote learning English

     in high school. PROFILE, Issues in Teachers' Professional Development, 6, 59-72.

Roberts, M. J., & Erdos, G. (1993). Strategy selection and metacognition. Educational

     Psychology, 13, 259-266.

Robles, Heidy. (2016). *MOBILE LEARNING TO IMPROVE WRITING IN ESL TEACHING.*

     TEFLIN. 27. 182. 10.15639/teflinjournal.v27i1/182-202.

Rodríguez Sánchez, A. (2017). Reading Comprehension Course Through a Genre-Oriented

     Approach at a School in Colombia. *HOW Journal,* 24(2), 35-62.

     doi:http://dx.doi.org/10.19183/how.24.2.331

Shen, H. J. (2003). The role of explicit instruction in ESL/EFL reading. Foreign Language

     Annals, 36(3), 424-433. http:// doi.org/10.1111/j.1944-9720.2003.tb02124.x.

Stevens, R. J. (2003). Student team reading and writing: a cooperative learning approach to

     middle school literacy instruction. Educational Research and Evaluation, 9, 2, 137-160.

Williams, J. P. (2005). Instruction in reading comprehension for primary-grade students: A focus

     on text structure. *The Journal of Special Education, 39(1), 6-18.*

     http://doi.org/10.1177/00224 669050390010201.

Appendix

Appendix A

> ## Swift Pizza and Sandwich House
>
> Today we have the pleassure of showing you the best letter written by our costumer Mark. He wins £25 for writing about us this week. He is so happy with the orders at Swift Pizza and Sandwich House that he wants to declare a holiday to celebrate his experience here: "Happy burgerday and Merry Sandwichmas to everyone!" he wrote.
>
> *Wednesday May 18, 2011.*
>
> *One typical day I was too tired after working all day long to cook for myself, and I was very hungry. I really wanted something to eat, so I decided to find a Burger.*
>
> *I ordered a half-pound Burger and a lamb and chicken sándwich, I also had some special requests about extra cheese and vegetables.*
>
> *Food arrived very fast (less tan twenty minutes) and was hot and fresh. The burger was delicious, and left me wanting more – fortunately I had the sándwich left. I felt as if it was cut just a minute before I opened ir-juicy, fresh, and great.*
>
> *Every single special request I made was completely satisfied, 100%!*
>
> *And the best thing was that all of the above and some drinks cost me only 10 dollars! If that doesn't say value for money, I don't know what it does.*
>
> *It certainly feels great to find new excellent food delivery companies for whenever you don't feel like cooking yourself. I recently had a sad experience with my usual take away restaurant, so I decided to change to something else –and on my first try I got what I wanted!*
> *Order now from Swift Pizza and Sandwich House.*
>
> *Mark*

110. What is the writer trying to do in this text?

    A. explain how to order main dishes.
    B. suggest a restaurant to try.
    C. express his feelings about food.
    D. advise to buy a £25 meal

111. In the text the reader can find

    A. recipes to prepare delicious and fresh food
    B. all the menus that are offered at this restaurant
    C. that there are discounts on special drinks
    D. that really good food can be delivered to your home.

112. According to the text, the costumer

    A. left a £25 tip to the waiters who work there.
    B. celebrated Christmas and New Year at this restaurant.
    C. found this great restaurant after many attempts.
    D. poste dan excellent review about this restaurant

113. It can be inferred from the text that Mark

    A. does not like cooking food for himself
    B. almost always eats hamburgers
    C. enjoys eating fast food sometimes
    D. is tired of going to restaurants

114. Mark would write at the end of the text:

    A. "The fantastic chefs here prepare the tastiest food I have ever tried!"
    B. "If you buy a sandwich, you will get some free cold soda. Just order here!"
    C. "I will keep ordering from these guys because you can taste food before paying fo it!"
    D. "Come and enjoy our comfortable restaurants to eat with your family and Friends!"

Appendix B

Uso de estrategias metacognitivas para desarrollar la comprension lectora en estudiantes del grado 10° ⟳

El objetivo de esta encuesta es conocer los actitudes,hábitos y las estrategias de lectura que utilizan los estudiantes del grado 10° en el colegio Técnico Superior .

Nombre y apellidos *

Short answer text

¿Cómo te sientes cuando trabajas en una actividad de compresion de lectura en la clase * de inglés?

☐ Confiado

☐ Neutral

☐ Con dudas

☐ Nada confiado

¿ Con qué frecuencia lee usted textos en inglés ? *

¿Cómo te sientes cuando trabajas en una actividad de compresion de lectura en la clase *
de inglés?

☐ Confiado

☐ Neutral

☐ Con dudas

☐ Nada confiado

¿ Con qué frecuencia lee usted textos en inglés ? *

☐ Usualmente

☐ Algunas Veces

☐ Casi nunca

☐ Nunca

¿ Conoce usted alguna estrategia que le ayude a comprender textos ? *

○ Si

○ No

Si la respuesta anterior fue Si, mencione o explique cuál estrategia conoce y/o utiliza.

Long answer text

En una escala de 1 a 10 qué tanto te gusta leer textos en inglés?   *

	1	2	3	4	5	6	7	8	9	10	
No	○	○	○	○	○	○	○	○	○	○	Yes

¿Cuáles temas te gustan o te interesan leer ? *

Long answer text

¿En qué tipo de formato prefiere leer textos en inglés ? *

○ Formato digital (en computador, tableta, celular...)

○ Formato impreso (libros, revistas, guías de trabajo...)

¿Cuáles son los obstáculos más comunes que tiene al momento de leer en inglés? *

¿En qué tipo de formato prefiere leer textos en inglés ? *

○ Formato digital (en computador, tableta, celular...)

○ Formato impreso (libros, revistas, guías de trabajo...)

¿Cuáles son los obstáculos más comunes que tiene al momento de leer en inglés? *

☐ Tema

☐ Tiempo

☐ Vocabulario desconocido

☐ Estructuras gramaticales

¿ Cree que una clase sobre estrategias de lectura le ayudaría a mejorar su habilidad de comprensión lectora?

○ Sí

○ No

○ Tal vez

Appendix C

Lesson plan 1.

Date: 30th October 2018	Instructor: Oscar Penagos
Time: 55 minutes	Topic: Reading metacognitive strategies

Goals: This class seeks to guide students to implement the skim, scan, and the guide map (G-map) strategy to help them comprehend texts and answer questions about them.
Besides, they will be able to reflect upon their own learning process during the reading tasks.

Segment	Activity	Time
Welcome	Meet and greet students- Attendance Write on the board: Day – Class – Purpose Introduce the lesson goals. Today, we are going to introduce three metacognitive strategies that will be useful for you to understand texts.	10 min
Ice breaker	Talk about the strategies they mentioned in the questionnaire; after that, introduce the skim and scan strategy, telling them what the goals of these strategies are.	7 min
Presentation	**Instructions about the app English reading** 1-Ask students to open the app "English Reading Comprehension." 2 -Allow students to explore the app, go through the lessons and packages.	10 min.

While	**First reading task** (lesson 26 on the app English reading)
	Ask students to open the app " English Reading" on their tablets.
	Then, tap on *Lesson Package #*
	a) Ask students to read the questions first, explain each question, help students with the unknown vocabulary. (This will help them to implement the skim and scan strategy).
	b) Questions 1 and 2 are questions you can answer by skimming and scanning the test.
	Questions
	1- The "efficient" chemist was:
	2- The "imaginative" chemist was:
	1 Teacher talk
	Skimming and scanning help you to read more quickly. In addition, it is less time consuming if you go through the questions first to give you a general idea of what information you are looking for.
	Talk about the difficulty of the questions According to Barrett (1986) *Taxonomy of the cognitive and affective dimensions of reading comprehension.*
	1- Literal comprehension - 2 Reorganization -3 Inferential comprehension - 4 Evaluation - 5 Appreciation
	The questions in the app English reading cover from the 1 to 4 category, this will help them better understand the type of test and questions they will have to answer during the activities.
	c) Ask students to skim and scan the text to find the answers to the questions in the categories 1 and 2 and select the answer in the app.
	d) In order to answer questions 3 - 4 those questions require the reader to use the textual information to predict outcomes or guess meanings (inferencing).
	Questions
	3 - The hero of this article is:
	4 - Formalin is:
	2 Teacher talk
	The G-map is the strategy that allows the reader to infer ideas from the text, by organizing the text into topics according to the paragraph. So, in that way determine the author's intention. Also, another strategy that we consider useful to help students better comprehend the test was using previous knowledge or skills to assist comprehension (induction). This strategy was suggested by Gomez, (2017).
	e) Ask students to read the text, then to find out the general idea of each paragraph. After that, compare the words they found in the text with their previous knowledge. (what and how)
	3 Teacher Talk

The first paragraph is about key piece and the second paragraph is about Jonas Salk and Albert Sabin and how he prepared his vaccine.

Words related to their previous knowledge:

crucial, polio, vaccine, team, virus, kitchen, chemist, gripe, marinating.

Try to link these words with their previous knowledge,

Marinating

Questions

3- The hero of this article is: (What is a hero?)

4- Formalin is: (what do you think is Formalin ?)

The hero will be related to a key piece

Formalin can be linked to the verb marinating, that gives students the idea about formalin as a liquid or solution.

f - Ask students to answer the questions.

Discussion

Make a small discussion to ask students what information in the reading led them to select their answers.

Lesson plan 2.

Date: 30th October 2018	Instructor: Oscar Penagos
Time: 55 minutes	Topic: Reading metacognitive strategies

Goals: Learning to read, is a crucial skill student need to develop. Thus, this class seeks to guide students to implement the skim and scan and the guide map strategy to help them understand and comprehend shorts texts and answer questions about it. Also, they will be able to reflect upon their own learning process during the reading task.

Segment	Activity	Time
Welcome	Introduce the lesson goals. Today, we are going to introduce three metacognitive strategies that will be useful for you to understand texts.	5-10
Presentation	**Second Reading Task** (lesson 5 on the app) **1 Teacher talk** It is about the uses of magic and religion to cure illnesse,s questions 1, 2 and 4 ask for specific information that you can skim and scan from the text. Question number 3 is one of the hardest, you have to infer information to answer it. **Questions** 1. The " placebo effect." 2. An incantation is 3. Amulets are 4. Isis was **Instructions** a) Go through the questions. b) Skim and scan the text to find the literal questions. c) answer the questions what and how about each paragraph.	20-30
Closing	Once students finish this lesson, ask questions about what information they took into account to select the answers.	10-20

Lesson plan 3.

Date: 1st November 2018	Instructor: Oscar Penagos
Time: 55 minutes	Topic: Reading metacognitive strategies

Goals: Learning to read, is a crucial skill students need to develop. Thus, this class seeks to guide students to implement the skim and scan and the guide map strategy to help them understand and comprehend shorts texts and answer questions about it. Also, they will be able to reflect upon their own learning process.

Segment	Activity	Time
Welcome and overview	Thoughts about the last activity and questions Food for thought (Share your ideas) Ask students for their scores, (highest - lowest)	5 -7

while	**Third reading task** (Lesson 2 on the app)
	It will be a student- centered reading activity
	    a) Go through the questions.
	    b) Skim and scan the text to look for the literal questions
	    c) G-map activity (what - how about each paragraph)
	    d) Answer the questions
	Question four was not taken into account, the answer of this question required knowledge about sciences.
	Note: during these classes, students were allowed to express their thoughts and ideas about the reading process. (*This was an ongoing methodological decision, the researcher noticed that students ideas were significant to obtain data about their own learning and reading process)*
		15-20
		
		15-20

Closing	**Short talk about their answers** Ask students for their scores, (highest – lowest)	5-10

Lesson plan 4.

<table>
<tr><td></td><td>**Date:** 6th November 2018</td><td>**Instructor:** Oscar Penagos</td></tr>
<tr><td></td><td>**Time:** 55 minutes</td><td>**Topic:** Reading metacognitive strategies</td></tr>
</table>

Goals: Guide students to implement the skim and scan and the guide map strategy to help them understand and comprehend shorts texts and answer questions about it. Also, they will be able to reflect upon their own learning process.

Segment	Activity		Time
Welcome and overview	Thoughts about the last activity and questions Food for thought (Share your ideas) Ask students for their scores, (highest - lowest)		5-10
Ice breaker	Package 1 **Four reading task** (Lesson 4) It will be a student-centered reading activity. Ask students for their scores, (highest - lowest) - Go through the questions first - Scan, skim the test - G- map		20
While	- Answer the questions 1 The article is mostly about : 2 14 millions tons of TNT are the explosive power of : 3 1905 was the year that: 4 Brownian motion is a kind of motion of :		20
Closing	Ask and answer the questions with the students.		

Appendix D

Focus group interview (use of the tablet)

Student mentioned that it was difficult to cheat when using the tablets.

Student M: I think that I got bored less with the tablet because I do know not. I see the text on the paper, and I fall asleep.

Student: Besides, in an environment where we are, it is more refreshing and relaxing.

Student C: it is the same for me. But it is similar. If you have a tablet but, you cannot understand the text, it will not be helpful. (tablet must help student to understand the text) (interact with the text). The only difference is that you feel more comfortable.

What do you do when you find an unknown word?

It depends because If it is ABC, I answer randomly (al pinochazo)

Student H: I related the word (with the text)

Student C: I translate I small piece of the text; you can realize what the word may mean.

Student J: I jump or skip the word. I look If the word is in the answer and

Speed of reading

Several students affirm that it is the same, (they took 4 to 5 min to answer in a tablet and 7 to 8 min to answer in the paper)

Student H: I think it is in our mind if one uses a tablet, you feel more comfortable, but, IF I used a tablet, one feels sleepy.

Most of the student agree that read the questions first and skim and scan the text to answer the questions was useful for them when the answer is found in the text (literal).

G map

Both are useful, it depends on MEANING if you read many words and phrases, but you do not know what they mean… It is better to look at what the text says and look for the information in the text.

 Do you use any of those strategies when you read in Spanish?

The context helps you a lot, and I read a lot about it. (background information).

Changes in the app

It should not show the correct answer; that is the teacher's job to tell us what the right answer is… (15:57)

SECOND CYCLE

I set the context for the focus group.Then, I asked them the first question

Was the use of the dictionary useful?

Several students at the same time: yes, it was.

Inferential questions

The questions in which you have to infer information as Student C said: "These questions confused me."

were those questions difficult for you?

Student V: To be honest, I did not understand that question.

Student G: yes

Teacher: even if you used the dictionary?

Student C: "this question confused me."

Student C: Question 32, it says that what can we know about the author`s attitude?

Student c: Because.. in the first part it talks about ..I mean .. I would think that the author hates the rain because at the beginning it started to rain, then he got bored and he went out later. It said that he arrived, and he never thought that in Bogota rained more than in Wale, or something like that.

Student G: But, that would not be a reflection. Then, in general, what it is asked there is like a reflection or an opinion about his life. The other answers are not related at all.

Teacher: from the answers, you have that:

 the place is too boring because it rains, Students G: " that is not related at all."

there are other things more important than gold, and the food must be more prepared, the museums are the best places in the world.

Student G: there, I put the answer about the money, because it was the only reflection that the author took about his life.

Teacher talk: Hence, all the questions were difficult even if you knew the translation or the meaning of the words. Can we conclude the common problem the reading comprehension itself no about vocabulary.

Vocabulary learning strategy

What strategy do you use to learn vocabulary?

Most of the students were quiet.

Student C: I hide phone, and then I look for the meaning of some words.

Teacher: then you do not learn the words, you look up the meaning of the words.

inaudible 3:16

Teacher: How many words for the reading did you learn?

cross conversation 3:20-3:22

Use of your background knowledge

Did anyone use their previous knowledge to relate it with the reading?

Students G: amm that happened with the previous text about Mandela, when they talk about the

" apartheid". That word is the same in Spanish and English. Then we know the meaning of

that word and know that is segregation racial.

Strategies to improve your reading process.

Student C: learn the words

Student G: The difficult ones are the one you have to infer information

Student x: we had to learn the words to answer the questions.

FOCUS GROUP INTERVIEW

Second group

inaudible 0:00 - 0:45

Teacher: I want to know if, with a dictionary, you could answer the question correctly.

The first text I provide you had literal questions. Then, you could answer the question by looking

for the information in the text. But, this text did not have literal questions, to

conclude… **inaudible 1:15.**

Set the context.

Teacher talk: how did you answer the question about the author´s attitude about life?

Student C: I answer the A inaudible 1:50. 1:55.

Cross conversation

Student H: I put the A because it says there are other things more important than the money.

It says there right there. It means that people enjoy, for example, just with gold. Then, when they died, what will you take with you? cross conversation 2:27

Did anyone select a different answer?

Student x: I answered randomly.

Teacher: Question number 33 what does the author think about the gold?

Student C & H: speaking at the same time: It should not be considered important

Cross conversation Student H: No, I mean.

Student C: yes, and no.

Inaudible 2:51

Cross conversation Student H it gives the idea.

Student H: inaudible 3:00, do not give importance to the gold.

Teacher: questions thirty- four What is your opinion about the families´ houses in Chia?

Student H: to me is the A; these are made disorganized but in a beautiful way.

TEACHER: why do you say that?

Student H: because in the text said that the houses were like bad built, disorganized. But, it was a colonial feature.

Teacher: The last one which of this best describes the author´s opinion?

Cross conversation: student H & C: the B.

Student H: Colombian people are nicer. And they like to live together with their family. Opposite to Chia´s example, that is a big farm divide in parts to live near each other.

Cross conversation

 Teacher: and the first question.

Did the author recommend the food?

Student H: he said good things about them. I am between D and B.

Student C: He talks about the food and the people. But, he does not focus too much on that but,... inaudible

Cross conversation 4:19-4:24

Student H: the Colombian food is wonderful, and the museums are nicer. Then, He makes an invitation.

Teacher: Hence, answer A is dismissed, answer C?

Student H: I will go for B.

Vocabulary Learning

Teacher: from the words you look up for in the dictionary. Did you learn any?

Student H: if we learn any? amm for example: Currently: actual

Student C: actualmente because of **inaudible.**

Student H: used to stick, which means that they used it.

Strategies to improve your reading process

Teacher: do you guys prefer that the reading activities must be guided, step by step, and translated.

Studnet C: I think it is better if we carry out this process by ourselves.

Student H: I would like in both ways. First, do ti by ourselves after that we listen to the teacher to know how he does.

Strategies to learn vocabulary

Student H: bank of words, in the back part of my notebook, I write the word in English and Spanish...

Student C: I underline the word and with the meaning of it, and it stays in my head.