

**METACOGNITIVE AWARENESS OF READING STRATEGIES IN STUDENTS OF  
FOURTH SEMESTER OF THE UNIVERSITY OF QUINDIO**

**Erick Mauricio Cárdenas Mejía**

**Sebastián Velandia Ríos**

**Yurany Fernanda Giraldo Rengifo**

**University of Quindío**

**Faculty of Education**

**Modern Languages Program**

**Armenia**

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**Erick Mauricio Cárdenas Mejía**

**Sebastián Velandia Ríos**

**Yurany Fernanda Giraldo Rengifo**

**Research Adviser**

**Mg. Paola Alzate Ortiz**

**University of Quindío**

**Faculty of Education**

**Modern Languages Program**

**Armenia**

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## **DEDICATION**

This research study is dedicated principally to God for giving us strength every day to make this project possible.

To our parents for their sacrifice, love, confidence in us and support through these years. For all these things that you have gave us, we are here at this point. You have made of us what we are today and the things that we have achieved.

To the people that was present in this process and to our research adviser for being our guide in this process and, for giving us advisory, for correcting us and for sharing her knowledge with us.

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Thanks to our parents for being our support, give us love to achieve our dreams; and for believing in our abilities, without you, this journey would not be possible.

To our research adviser for being our guide in this process and, for giving us advisory, for correcting us and for sharing her knowledge with us.

To the other professors and students that participated and did not have any problem to cooperate with the project.

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## **ABSTRACT**

The aim of this study is to analyze the influence of the metacognitive awareness in reading comprehension strategies of fourth semester students in a languages program. The most relevant concepts in this research are reading comprehension which is defined as one of the sources that highly contribute to the output in ESL. Furthermore, metacognition is most simply defined as thinking about thinking. In addition, the reading strategies are defined as a key tool to have a better reading comprehension. The research was applied to 10 students and a professor of the University of Quindío in the modern languages program which had to make a reading comprehension test and the MARSÍ test. Besides, 5 of the 10 students were interviewed in order to obtain some specific information. The results showed that the metacognitive awareness enhances students' performance when using reading strategies. Also, vocabulary is the most common problem when students read. Besides, students of the languages program improved reading through the use of the reading strategies. However, it was demonstrated that the professor has a partial knowledge of metacognition but he promotes critical thinking in students.

**KEY WORDS:** Reading comprehension - Reading strategies – Metacognition – Reading performance.

## RESUMEN

El objetivo de este estudio es analizar la influencia de la conciencia metacognitiva en las estrategias de comprensión lectora de los estudiantes de cuarto semestre en un programa de idiomas. Los conceptos más relevantes en esta investigación son la comprensión de lectura, que se define como una de las fuentes que más contribuyen a la producción de ESL. Además, la metacognición se define más simplemente como pensar sobre el pensamiento. Adicionalmente, las estrategias de lectura se definen como una herramienta clave para tener una mejor comprensión lectora. La investigación se aplicó a 10 estudiantes y un profesor de la Universidad del Quindío en el programa de lenguas modernas quienes debían realizar un test de comprensión lectora y el test MARSÍ. Además, 5 de los 10 estudiantes fueron entrevistados para obtener información específica. Los resultados mostraron que la conciencia metacognitiva mejora el rendimiento de los estudiantes cuando utilizan estrategias de lectura. También, el vocabulario es el problema más común cuando los estudiantes leen. Además, los estudiantes del programa de idiomas mejoraron la lectura a través del uso de las estrategias de lectura. Sin embargo, se demostró que el profesor tiene un conocimiento parcial de la metacognición pero promueve el pensamiento crítico en los estudiantes.

**PALABRAS CLAVE:** Comprensión lectora – Estrategias de lectura – Metacognición – Desempeño de lectura.

## CONTENT

<b>INTRODUCTION.....</b>	<b>1</b>
<b>1. PROBLEM STATEMENT.....</b>	<b>4</b>
<b>1.1 General Question.....</b>	<b>6</b>
<b>1.1.1 Specific Questions.....</b>	<b>7</b>
<b>1.2 General Objective.....</b>	<b>7</b>
<b>1.2.1 Specific Objectives.....</b>	<b>7</b>
<b>2. JUSTIFICATION.....</b>	<b>8</b>
<b>3. THEORETICAL FRAMEWORK.....</b>	<b>10</b>
<b>3.1 Reading Comprehension.....</b>	<b>10</b>
<b>3.1.1 Reading Skills.....</b>	<b>11</b>
<b>3.1.2 Reading Strategies.....</b>	<b>12</b>
<b>3.2 EFL Context.....</b>	<b>12</b>
<b>3.3 Metacognition.....</b>	<b>13</b>
<b>3.3.1 Metacognitive Abilities.....</b>	<b>14</b>
<b>4. STATE OF ART.....</b>	<b>16</b>
<b>4.1 International Researches.....</b>	<b>16</b>
<b>4.2 National Researches.....</b>	<b>19</b>
<b>4.3 Local Researches.....</b>	<b>21</b>

<b>5. METHODOLOGY.....</b>	<b>23</b>
<b>5.1 Approach.....</b>	<b>23</b>
<b>5.2 Design.....</b>	<b>23</b>
<b>5.3 Type of Research.....</b>	<b>24</b>
<b>5.4 Contextual Aspects.....</b>	<b>24</b>
<b>5.4.1 Context.....</b>	<b>24</b>
<b>5.4.2 Participants.....</b>	<b>26</b>
<b>5.4.3 Selection Criteria .....</b>	<b>26</b>
<b>5.5 Instruments and Techniques to Collect Data.....</b>	<b>27</b>
<b>5.5.1 Questionnaires.....</b>	<b>27</b>
<b>5.5.2 Interview.....</b>	<b>28</b>
<b>5.6 Research Ethics.....</b>	<b>29</b>
<b>5.7 Budget.....</b>	<b>30</b>
<b>5.8 Schedule.....</b>	<b>30</b>
<b>6. DATA ANALYSIS.....</b>	<b>31</b>
<b>6.1 Categories.....</b>	<b>31</b>
<b>6.1.2 Reading Strategies in Reading Comprehension.....</b>	<b>31</b>
<b>6.1.3 Difficulties While Reading.....</b>	<b>34</b>



<b>6.1.4 Metacognition in Learner’s Autonomy.....</b>	<b>36</b>
<b>7. CONCLUSION.....</b>	<b>42</b>
<b>8. LIMITATIONS.....</b>	<b>44</b>
<b>8.1 Projection.....</b>	<b>44</b>
<b>8.2 Recommendation.....</b>	<b>44</b>
<b>9. REFERENCES.....</b>	<b>45</b>

## **SPECIAL LIST**

### **List of annexes**

Annex 1 - Informed Consent. Pag. 51

Annex 2 - MARSII test. Pag. 54

Annex 3 – Interviews (professor and students interview). Pag. 56

Annex 4 – Reading comprehension test. 57

## List of figures

Figure # 1 Chart of students who approved and failed the reading comprehension test.

Pag. 32

Figure # 2 Overall chart about the use of the reading strategies taken from the MARSI

test. Pag. 33

Figure # 3 Chart of students' use of problem-solving strategies from the MARSI's scale.

Pag. 37

Figure # 4 Chart of students' use of support reading strategies from the MARSI's scale.

Pag. 38

Figure # 5 Chart of students' use of global reading strategies from the MARSI's scale.

Pag. 41

## Introduction

Reading can simply be defined as a complex ability to extract, or build, meaning from a text. However, this definition, by itself, is not very informative. As reported by Grabe (2017): “The most commonly accepted way for researchers to explain the above definition is to identify the key component abilities and skills that allow reading comprehension to emerge”. That is why reading is one of the most complex abilities to learn because it takes time and consistency to be competent in this area and especially when you are learning to read in a second language. Grabe also stated that: “Reading comprehension involves abilities to recognize words rapidly and efficiently, develop and use a very large recognition vocabulary, process sentences in order to build comprehension, engage a range of strategic processes and underlying cognitive skills”. For instance, a reader has to analyze and comprehend what the author is expressing in a text, book, or essay, in order to have a good lecture. Perfetti & Adlof (2017) said the ability to read English efficiently for academic purposes is widely recognized in EFL/ESL contexts as a critical skill in a wide range of secondary and university settings, and especially for more advanced students because in higher education is where reading is more required to be able to gain and expand the vocabulary list of the student and express himself or herself smoothly. Again, reading is the ability where foreign language students learn most of their vocabulary by the cause of exposure to a wide range of words that will allow the student later on to be competent in the other abilities such as writing, speaking and listening.

The ability to read fluently is, in fact, quite miraculous. Human brains were not designed to be reading brains. But humans have learned, from one generation to another, to take graphic forms on a page and mentally interpret them into a language, no matter what language. As fluent readers, humans can do this at a rate that is even faster than their fluent listening abilities. Nowadays people are able to learn multiple languages at the same time forcing their brain to develop more cognitive abilities to empower and enrich knowledge and reinforce communicative aspects like one of the most common one that is translation which consists on transmitting information from one language to another in a written form and this for obvious reasons requires reading abilities that will speed this arduous and finicky job.

For Flavell (1975, in Ismael 2015) Metacognition is defined most simply as “thinking about thinking.” Metacognition consists of two components: knowledge and regulation. Metacognitive knowledge includes knowledge about oneself as a learner and the factors that might impact performance, knowledge about strategies, and knowledge about when and why to use strategies. Metacognitive regulation is the monitoring of one’s cognition and includes planning activities, awareness of comprehension and task performance, and evaluation of the efficacy of monitoring processes and strategies. The metacognitive awareness of reading strategies are useful in the way that improves the abilities in the reading process of learning a second language; especially, in students of ESL. In order to be effective learners, students must not only use their memory and the language skills they have internalized, they must also develop their own way of learning. As stated by Perras (2014), Students who “learn to learn” gain control of their learning process and gradually develop the ability to master their mental processes more

effectively. A student's inner language is what enables him/her to develop the high-level cognitive skills associated with metacognition.

Therefore, Metacognition, as it was mentioned before, is related to the ability of thinking about thinking in the way that we measure and delimit our learning process to acquire, retain and transfer new information. As declared by Flavell (1977) "Metacognition is the ability to develop a heightened consciousness of their own, especially during the adolescent years". Furthermore, it is important to highlight that effective learning involves certain characteristics such as goal setting, continual monitoring which will help to improve what they are learning and also being aware what they need to get better at. In the same way, students will develop certain skills or strategies that they later use to improve and enhance their knowledge like self-questioning, it will serve as a guide to questioning yourself about what you have learned and what you probably do with that new information. Planning is another strategy in which the student will organize some goals that he knows that will help him to improve his weaknesses and become a better learner; also the monitoring and regulation part it is important for the learner, in order to know if the learning process is adequate and significant for him or not.

## 1. Problem statement

Reading is one of the most important skills to develop while learning a second language. Knowing that, it helps students be more competent at the time of writing, where students have to give an output of what they understood while reading. Aspects to take into account in the field of reading in high and middle education are the reading strategies, which are the ones that let students understand and analyze the text that they are reading. The importance of the inclusion of English across the whole academic context has been encouraged by some specific reading courses that help students know how to develop certain reading strategies that will help them later on with the comprehension of texts. Mikulecky (2008) indicated that if foreign language learners need reading in the foreign language for their specialist subject but do not need to speak it, reading becomes the most important skill. Therefore, reading is where students acquire and learn most of the vocabulary and also learn how to write in a foreign language because the input is extremely intense. Reading is a major source for comprehensible input (Krashen, 1983) and as stated before, effective comprehension of the text is not an unconscious process.

That is why metacognitive reading strategies help learners to establish a pattern where they will be conscious of the use and how to develop an active monitoring of their learning process (Robb & Susser, 1989). The term “metacognition” has become an important research area and its applications in education continue to grow. An old definition of the term by Flavell (1981) explains it as "the active monitoring and consequent regulation and orchestration of one's own cognitive processes in relation to the cognitive objects or data on which they bear, usually in

the service of some concrete goal or objective." Likewise, students need to be aware of what they are reading and the way they do it, in order to implement several reading strategies that will facilitate the job of reading complex texts.

It is pertinent to mention the academic situation in Colombian schools in terms of the use of reading strategies in the L1 and take it in consideration when students start to learn another language, in this case English, although the Ministry of Education has established some important reading programs in schools, these programs have not been implemented in the second language. Regarding the Plan Nacional de Lectura y Escritura, Delgado (2010) states that there is no integration in the L2; considering the excessive use of the L1 even in English classes which does not correspond to the objective of reinforcing and improving these abilities in L2. In short terms, students practice reading in their native language but not in the foreign language as it should be in an EFL context regarding (Oxford University Press ELT, 2011).

Besides, in the University of Quindío, more specifically the Modern Languages Program, it is seen that students are exposed to 5 hours of the reading and writing course (from first to fourth semester), hoping that they will learn how to read properly in L2 (English). It was mentioned before that it is meaningful for them to adopt the reading strategies in order to facilitate the process of understanding a text in a different language. This study is aimed at students of the Modern Languages program, the ones which are in fourth semester and have taken classes in reading and writing over more than 3 semesters strengthening their reading



abilities. In addition, it is important to clarify that most of these students are from different parts of the country and all of them are at different levels of language proficiency.

Additionally, some students who already use some of the reading strategies such as predicting or summarizing do not use them well and this leads to non-complete comprehension of some complex given texts in high reading courses. Jiuhan & Newbern (2012) indicate that more proficient readers use more complex metacognitive processing strategies in reading, more challenging texts to monitor their reading. In short, what this study pretends, is to analyze some of the problems that students have to comprehend what they are reading, and in the same way, analyze data in order to extract the most important information that are the reading strategies and their use by these students.

For all the above, the following research questions and objectives arise:

### **1.1 General question**

What is the influence of the metacognitive awareness in the reading comprehension strategies of fourth semester students in a languages program?

### **1.1.1 Specific questions.**

Which are the most common difficulties that students have at the time of reading?

How useful do students find the reading strategies?

How does the teacher enhance metacognitive awareness in the reading class?

### **1.2 General objective**

To analyze the influence of the metacognitive awareness in reading comprehension strategies of fourth semester students in a languages programs.

#### **1.2.1 Specific objectives.**

To identify which are the most common difficulties that students have at time of reading..

To describe the usefulness of the reading strategies for the students.

To analyze how teachers enhance metacognitive awareness in reading class.

## 2. Justification

This research is justified by the fact that being aware of the metacognitive reading strategies as students of EFL will help them a lot improving one of the three basic abilities which is reading and the comprehension of texts in general. It is to say, students will also be competent in the process of not only using one or two strategies, but also to expand their spectrum in the use of these strategies in and out of an academic field. This study is most likely addressed to students of the Modern Languages Program and it is extremely important for them, as future teachers, to know about these strategies in order to influence their pupils to investigate more about them, how they are used and why they are useful. In addition, undergraduates are supposed to increase their grades and level of reading with the strategies, in order to upgrade the level of reading proficiency in Colombia and be competent in all the areas worldwide.

Furthermore, this research will support or help, not only in the improvement of teaching the metacognitive strategies in reading comprehension in the Modern Languages Program, but the actual program of teaching English in Colombia: “Colombia Bilingüe” and their applicability regarding reading strategies. According to the experts mentioned in the introduction, reading is one of the main skills that a child needs to develop in his first encounters with the language and also the equal enrichment of his own language and the second one.

Taking into consideration the relationship between reading comprehension and metacognitive awareness of reading strategies, this research is aimed to analyze the influence of reading strategies in students of fourth semester of the Modern Languages Program of the University of Quindío and help them identify some problems related to reading, associated with their skills at the moment of doing so. And also how the students develop those strategies while they read and how much they really comprehend. Besides, the research aims to identify if the students are conscious of the reading strategies such as summarizing and predicting. This entire project is focused on the understanding of reading that students have when they are faced to a reading task in English.

To sum up, this research is important due to the use of these strategies by the professors of the Modern Languages Program and the need to teach them to their students in a correct way and to remark the awareness of these in both native and second language. The purpose begins with the necessity of good reading comprehension in order to learn and understand what texts really want to communicate, and to be able to identify main and secondary ideas at the moment of reading. Additionally, the fact that not many studies of the Modern Languages Program focus on these strategies and their use, brings the necessity to research a little bit more about the topic.

### **3. Theoretical framework**

In this chapter, the most relevant concepts for the study are presented in pursuance of supporting the ideas of the project. The research is subscribed to Reading Comprehension so this will be the first concept to be defined but it also embraces concepts like reading skills and strategies, EFL context. Metacognition and metacognitive abilities.

#### **3.1 Reading comprehension**

Reading is considered as an input which requires a number of skills, strategies and full disposition to comprehend and grasp the ideas that an author transmits through a piece of literature. For instance, this research takes into account important concepts and subconcepts that support the main goal of the investigation and add background in order to embrace the whole idea of the research. The understanding of a text is done through a process of reading consciously in order to comprehend the meaning and message. According to Krashen (1983), reading is defined as one of the sources which highly contributes to the input of an EFL student considering that the intensity and exposure to vocabulary is tremendous. In addition, when reading is done unconsciously the lecturer does not follow and master the text for the reason that he is not paying close attention to the input. Moreover, Handoko (2017), says that reading is meaningful because it is a way in which we get information and a manner of understanding a language. Equally, he states that it is also relevant for students to understand the text in order to comprehend the information of the text. In his article, he mentions that there has to be a relation

between the reader and the text for the sake of a reader response. The reader's response is what the lecturer figures out from the literature in order to use that knowledge and produce output.

On the other hand, as well as during the reading it is obtained a lot of vocabulary the lack of this also becomes a problem at the time of reading and comprehending a text. As Fresh (2008, in Glende 2013) asserts that "The main source of difficulty for students is knowing the meaning of words, if they are even able to pronounce them." Also, Glende (2013) states that when students face reading difficulties, they do not have the knowledge and the vocabulary needed to comprehend texts. Taking into account what the authors says, it is important to say that vocabulary is not only a source to create input but also is the most arduous factor that students find in lecturers in order to have reading comprehension. All the authors already mentioned grant some good and strong definitions which are useful to clarify and take into account in the moment of realizing the research.

### **3.1.1 Reading skills.**

According to Aratusa (n.d.), reading is one of the most significant skills while learning a foreign language such as English. Reading skills deal more with the human motor part which consists on doing things automatically without thinking and embracing routine habits. She also says that a reader can understand a text easily if the lecturer is skillful. On the contrary, as stated by Afflerbach, Pearson & Paris (2008), reading skills are abilities that a human has acquired in order to perform well, in this case reading, but as they mentioned skills and strategies

complement each other. These authors define well and share the same idea that skills deal more with human motor part and a person can become skillful by practicing and routines.

### **3.1.2 Reading strategies.**

Küçüköğlü (2012) says that: “Reading strategies are a key element in developing student comprehension”. These strategies consist on predicting, summarizing, skimming, and so on, but as the author states it all depends on the teacher, if he provides them and teaches their students on how to use them. Furthermore, Yüksel & Yüksel (2011) state that lecturers manage their interaction with the reading through the use of strategies in order to reveal and have a better understanding. These authors give a clear idea of what the strategies are and how useful they become to students and teachers.

Additionally, when people are learning a second language, the process itself is really important since there are many things that contribute to make a correct development; the teacher, the materials, the sources, the students, but the most relevant is of course the environment and the context which plays an essential role in the learning process.

### **3.2 EFL context**

Taking into account what was introduced before, it is determining to talk about a concept that is related to this and it is the EFL context. One definition of EFL context by Oxford University Press ELT (2011) states that in the classrooms or environments “English is not the

dominant language; the teacher may be the only native English speaker they have exposure to.” This means that in the case as students are learning English, they do not have much contact with the language because their native tongue is a different one. Thus, the experience they have with English is little and they can just do it by listening to music or watching T.V, something that helps them to learn about the culture, apart from the teacher, in order to be more involved with the foreign language.

Another definition that supports the previous one by Lake (2013) states that EFL environments are “typically in a foreign country, usually with students of the same country.” This means that any country, where English (as an example) is not the native language and it is been learnt then presents an EFL context. Both statements say something really important and it is that the learning process is more complex because people are not constantly in touch with the language; besides, it becomes an arduous job for the teacher because this author affirms that “teachers need to be prepared for different cultures and different linguistic mistakes along the way.” As the students have other cultures, their behavior will be unpleasant in some occasions and the act of learning that language will be harder for some of them because of their native tongue.

### **3.3 Metacognition**

Besides, there is no doubt that in any of the cases which refer to metacognitive, this certainly needs to deal with the concept of metacognition, which is according to Flavell (1979) “a monitoring process of their own memory, comprehension, and other cognitive enterprises” As



he defined in his study, it is imperative to make an allusion that metacognition is closely linked with the memory, comprehension and reasoning in order to understand how those factors help us as human beings to have the capability to self-regulating our mental operations. Actually, it is really important in any educational field where the students need to develop and learn certain concepts and knowledge in order to improve and become competent in any specific field. According to Ismael (2015), in his study of metacognitive knowledge in enhancing learners' autonomy, some researchers have found that it is almost impossible to learn without Metacognition and the strategies that the learner would use as stated by Garcia (2010, quoted in Ismael 2015) "Learning cannot be autonomous if there is no metacognition to supervise, organize and plan the process. Learning is part of everyone's life; whether they attend formal schooling, university, or not, people will learn". Even so, it is important to mention that metacognition, not only state that regulates our own learning process but also helps to improve and establish better conditions in our oral communication of information, oral comprehension, writing and reading etc.

### **3.3.1 Metacognitive abilities.**

Likewise regarding the metacognitive knowledge Flavell (1979) explained 3 main characteristics which affects the course and outcome of our cognitive enterprises. Which are the person, task and strategy, that basically helps us to know more about ourselves talking about our mentality, beliefs and how a person can make some distinctions in which would be the better way to resolve a task using a specific strategy, which is also stated by Ismael (2015) "Metacognitive knowledge has its own regulation which includes the monitoring of one's

cognition and planning activities, awareness of comprehension and task performance, and evaluation of the efficacy of monitoring processes and strategies” that marks a reference in order to study this phenomena in several fields of education and how to improve and motive this important aspect of self-regulation in learning a second language or any knowledge.

Therefore it is necessary to take into account the concept of metacognitive strategies and self- regulation which are very similar but not the same. According to some studies the self-regulation deals with a motivational part and the metacognitive with the concern of planning and monitoring the individual learning process (Cubukcu, 2009). Consequently, linked in some studies about self- regulation and metacognitive strategies, it is important to mention that so many studies have been working on the idea that maybe other factors such as academic achievement will improve the uses of metacognitive strategies or personal variables. “It was concluded that students’ levels of metacognitive skills differed in favor of the female students but not by students’ faculties, type of education, ages, and type of graduating high school” Özkaya, (2017). Those new concepts of personal variables such as age, type of education showed there is not any relation with the influence in the use of metacognitive strategies in order to aboard this topic and also there is a point really interesting to deal with. About female with high levels of awareness in our study or others related with metacognition.

## **4. State of the art**

### **4.1 International researches**

The study by Jiuhan & Newbern (2012) examined the effects of metacognitive reading strategy instruction on reading performance of adults ESL learners with limited English and literacy skills. The participants were two classes of basic Literacy III at an adult learning center. The objective of this study was to determine the effectiveness of explicit metacognitive reading strategy instruction on reading gains between the experimental group and the comparison group who took the course of four months where the experimental group was taught the metacognitive strategies explicitly and the other one not. Among the methodological resources this study used working reading tests, interviews and a pre- and post-Comprehensive Adult Student Assessment Systems (CASAS) Life. The results showed that the group who was taught the reading strategies explicitly were more awareness of the reading strategies and performed better than the comparison group. This research inspires us according to the results that students who applied the metacognitive strategies are better performers in what they want to learn or improve efficiently.

In addition, in the study by Boyraz & Altinsoy (2017) university students were studied in their metacognitive reading strategy awareness in academic context; the participants were 122 EFL student teachers of 5 different grades (prep, freshman, sophomore, junior, senior) who study at Aksaray University, with the objective of know which strategies were used the most in the academic field by the ELT students and if there is any significant different among the grades

in terms of uses of metacognitive reading strategies, the methodological resources used in this investigation were the MARSİ questionnaire, talking about the important findings, they found out that there was a significant difference between the fourth graders and the other grades. It was expected that higher levels will have higher uses of the metacognitive strategies, but the situation was nearly opposite because prep students have higher use of the strategies and increased in the senior level, also was concluded that the most commonly used metacognitive reading strategy was problem-solving regardless of the level. This study supports one of our main objectives which measure the uses of the reading strategies through this tool MARSİ and it is really interesting according to the findings that they do not only applied this questionnaire in just one group instead in 5 different grades in it is possible to understand if the awareness of the metacognitive reading strategies increased and they are performed better through the years or not.

Furthermore, the study by Beşkardeşler & Kocaman (2016) studied student's metacognitive awareness of reading strategies use and to determine what types of reading strategies are used by ELT students, the sampling for this study were 122 students from first to fourth grade at ELT department of Sakarya university, with the main objective to determine what types of reading strategies are used by the students of English Language Teaching, among the methodological resources this study also use the MARSİ questionnaire and the ANOVA analysis, related to the findings was very interesting to see that there was an important difference between male and female where females performed better the global and support strategies than males but there was no significant difference in the problem-solving strategy in both genders and also this study showed that fourth graders were more aware of using reading strategies overall,

while reading academic materials in comparison to rest of the participants at different grades. This research is very useful for us because it guides us in our investigation to consider the variable of gender in which probably will be a factor to take into account to measure the uses of the reading strategies and we can reference this study as the author did with others and compare it at the end with the results that we will have.

Likewise, the article by Heit (2011) studied the impact and the increase of performance in students of Language and Literature. The participants were two hundred and seven students of both sexes from different grades like seventh, eighth and ninth grade who were attending a Language and Literature subject in a private school. The objectives of this study were: 1 to identify the metacognitive strategies in reading comprehension. 2 To determine the relationship between the uses of these strategies and the final grades in Language and Literature subject. The author firmly believed that students with greater use of metacognitive strategies in reading comprehension show a better performance. The method used was a MARSİ questionnaire (that means Metacognitive Awareness of Reading Strategies Inventory) which was used to collect data regarding the reading strategies that these students normally use and this was previously explained to students of six different courses in their own classroom. As a result, the students who implemented the reading strategies were the ones who had higher scores in Language and Literature. In addition, he found out that the global metacognitive strategies showed that there was significant relation in the increase of the grades in the area of Language and Literature. This article seems really interesting for us since it served to identify important aspects such as their applicability in students in an EFL context with major abilities in the reading part and the use of the MARSİ questionnaire for the instrument part.

## 4.2 National researches

The article made by Muñoz & Ocaña (2017) had as a main objective to encourage the use of metacognitive strategies which were designed to stimulate reading comprehension skills, to apply mainly in expository texts at an inferential level. The participants were 94 students of eighth grade in a range of twelve to fourteen years old. In addition, the research was done in two different schools which were public and held students of both sexes. The method used was pre-experimental with a pre-test and post-test in order to know if the use of these strategies increased the comprehension of expository texts after they were exposed to some workshops with these reading strategies. The authors measured data with a T-student tool which facilitated this process. Finally, the authors concluded that these reading strategies helped in the comprehension of expository texts and for students to be more conscious of using them at the moment of reading. This article is useful to this investigation because it is aimed with the same purpose and also the investigators can level up the difficulty knowing that university students face a higher level regarding reading so they can be exposed to not only expository texts but to all kind of texts. In addition, the procedure of pre and post-test is useful for this investigation in order to see the change and the evolution that students have after they are exposed to something.

Another article made by Guerra & Forero (2015) is a quasi-experimental research about the use of cognitive and metacognitive reading strategies before, during and after reading in order to improve reading comprehension. The participants were two groups of first semester from the University of Sucre, one group of 42 students of the Mathematics Program which was the experimental group; the other group was formed by 42 scholars of Electronic Engineer which

was the control group. The methodology had two approaches, a qualitative and a quantitative approach, the qualitative part was centered on the observations and relations between student, teacher and knowledge in order to establish participation and collect information. On the other hand, the quantitative part was related to two variables, an independent one which was related to the cognitive and metacognitive strategies used before, during and after reading and a dependent one regarding reading comprehension. Data collection was made through a questionnaire which showed the use of the strategies by students. The researchers concluded that it had a positive impact because of the improvement of the understanding of academic texts due to the use of reading strategies shown evidently in the analysis of the results. This investigation finds this article useful considering that it illustrates a type of data collection which is a questionnaire to take into account for this part of the research. It also shows that the study can have two focuses a qualitative and a quantitative to embrace different aspects of the investigation.

In addition, an article by Suescún (2015) proposed as main objective to analyze the impact that EFL students would have towards some alternative reading strategies. The participants were English Literature and Culture students from the Luis Amigo University. It is important to clarify that this institution is a private university. In total there were 27 scholars in which there were 9 females and 18 males with varied ages. The methodology implemented was mixed including the qualitative and quantitative approach with a pre-experimental method which consists of pre and post-tests in order to see the change and transformation in students' reading comprehension. The investigator used two sets of the reading section FCE test which is able to measure different types of reading comprehension like: literal, interpretive and critical. For data collection the researcher also used interviews. As a conclusion to her study, the author found out

that her the participants consider useful these new and alternative reading strategies and feel motivated after they learnt the new strategies because they performed better. This study is advantageous for this research because it provides a new perspective to the reading strategies that are normally used, she proposes some new and very good reading strategies that gave positive results in her study and it will be attractive to try those strategies in our context with the same method and mixed approaches.

### **4.3 Local researches**

The study by García, Rico & Botero (2017) assessed the technical efficiency of the metacognition app to rate the English academic writing of third semester students of the modern languages program. The participants were 3 groups from the day, 2 from the night and professors of third semester; but it does not show a specific number of people. The methodology they followed was investigation- action which were divided into 3 parts such as diagnosis, strategy implementation and strategy evaluation in order to know student's writing level of academic texts, check the writings based on the application and observe the process of academic writing during the semester. As a result of this study, the investigators found out that the app worked well but it is necessary to make some changes to get better and that it was well accepted for professors and students since with it they can develop metacognitive strategies in the writing process. This project is useful for the present investigation since it provides information about the regulation of self-learning process and it helps to have a better understanding of some aspects as the one mentioned before.



On the other hand, the article made by Camargo, Uribe & Zambrano (2013) analyzed, described and interpreted the academic reading and writing practices in a Colombian university. The participants were students from seventeen universities which were public and private, including the University of Quindío. The authors stated the following hypothesis: “the way students write and read are the result of pedagogical and didactical conditions the university foment. The methodology used was a descriptive and interpretative investigation with quantitative and qualitative information that consisted of six phases which were validating the methodology, recollecting information, discussion groups, among others. Besides, they took into account different aspects such as the region, type and size of the universities according to the number of students and programs offered. Therefore, the product of the investigation was that students are not conscious that reading and writing in the university establish social practices thus it is necessary to expand cognitive strategies that allow students the interaction with different kind of texts and encourage metacognitive strategies in them to regulate their own reading and writing processes. The present research is very helpful for our investigation because it is focused in the University of Quindío and supports the idea that it is crucial to implement cognitive and metacognitive strategies to improve students’ reading and writing.

## **5. Methodology**

### **5.1 Approach**

According to Hernández-Sampieri et al. (2006), the qualitative approach focuses on the exploration and explanation of a particular problem or idea of investigation. One feature of this approach is that it goes from something specific to a more general point of view. Besides, there are different ways of applying or collecting data like: interviews, observations, speeches, open answers and so on. Furthermore, after collecting all the data, it is analyzed and interpreted by the researchers in order to come up to general conclusions. It is also meaningful to mention that this approach does not take into account statistic measurements like the quantitative approach does. The present study applies this approach because it implements data collection techniques like interviews, class observations and a standardized test.

### **5.2 Design**

Creswell (2005) states that the purpose of the micro-ethnographic design is to study a group of individuals in a specific environment using different strategies such as observations, taking notes and recordings. The ethnographic designs are qualitative procedures for describing, and understanding the themes or issues that develop over the time as the researcher interact with a specific group. There are some cultural aspects that are taken into account like language, social interaction, rules, etc. The present study has this design because it focuses on a specific group in an academic context in which the interaction between the teacher and the students happens as

part of a reading and writing course. In the same way, Hernández-Sampieri et al. (2006) define the descriptive type as the fact to describe with details different situations, events, contexts, among others; and how they are presented. This type of research is centered in specifying properties, characteristics, and profiles of people, communities, and other objects that can be analyzed. This design best fits the purpose of the study since the researchers want to describe the characteristics of the students while they use the metacognitive reading strategies. That is to say, how they behave, in terms of interpretation, in the reading process.

### **5.3 Type of research**

Based on the objectives of the study, the design applied is Case Study. Hernández-Sampieri et al. (2006) state that through this type, researchers can describe and evaluate in detail a specific reality of an individual, family, group, institution or community. The analysis of information in this study is done in detail based on the observations and interviews in order to get a general view of the problem to be researched.

### **5.4 Contextual aspects**

#### **5.4.1 Context.**

This research takes place in a public university in Armenia, Quindío and it is important to know that this is the only public one in the area. It was founded in 1960 and it started academic labor in 1962. There are 18714 students in different types of learning modalities like: presence

based modality and distance learning. This university counts with seven faculties and among these Education Faculty is one of the biggest regarding students due to the number of scholars studying Modern Languages, which is a program that started in 1967. Additionally, it has daytime and nighttime schedules and the most important thing is that the program is a high quality one certified by Ministry of Education. Regarding the physical part, this faculty possess various classrooms that in most of the cases are equipped with video beam, speakers and a big number of chairs. Moreover, it has 2 listening and speaking laboratories with almost 35 computers each, which have headphones and microphones in order to reinforce and practice the students' listening and speaking skills.

According to the Proyecto Educativo del Programa (PEP), the purpose of the Modern Languages Program is the teaching-learning of foreign languages, international communication, the investigation in the area of languages, the general translation, the training of professors and so on. Also, among the general objectives are: to form integral professionals in the foreign languages teaching with investigative skills and to perform investigation in the defined lines of the program. The pedagogical approach is a cognitive and social integrationist pattern and the teaching of foreign language approach is communicative. Focusing on the reading and writing course, the objective is to give the students linguistic and cognitive tools to make them manage their linguistic production until they reach to the spontaneous management in the foreign languages. Besides, the program established 160 credits to be developed during the 10 semesters. The students are set out to an English course which includes, Grammar, Listening and Speaking and Reading and Writing. All of these components sum up a number of 15 hours per week. Reading and Writing which is the one which better suits the ideas of this study is carried out

from first to fourth semester when students are exposed to the Michigan test to measure their abilities in all of these components mentioned before.

#### **5.4.2 Participants.**

The participants chosen for this research are fourth semester students from a public university located in Armenia, Quindío. They attend a Reading and Writing course from the Modern Languages Program for four hours weekly. The participants are varied between locals and people from different regions of Colombia. There are two types of schedules: daytime and nighttime schedules; this research studies the daytime students.

#### **5.4.3 Selection criteria.**

This study chose fourth semester students due to the exposure that they have had with reading strategies during the reading and writing courses and also because they have acquired knowledge and are competent in the foreign language that in this case would be English. Also, the students selected will have the capability to answer the questions proposed and provide us feedback of what they have learnt and know the real impact of the reading strategies while reading. On the other hand, it is worth to mention that these students are near to present the standardized test called “MICHIGAN” which not only evaluates the listening and speaking skills but also the reading and writing ones, which it is relevant for the study because the students will have the understanding of what they are proximate to apply during the course of this event.

## **5.5 Instruments and techniques to collect data**

### **5.5.1 Questionnaires.**

As stated by Hernández-Sampieri et al. (2006), questionnaires are the most common instruments used in qualitative research. It consists of a number of questions that will later on allow the researcher to measure the results in an easier way. This technique has two types of questions which are closed and open. The closed questions are specific ones which are used to frame and delimit the topic. On the contrary, the open questions can be more abstract and give the interviewed more opportunity to answer and even include opinion. This research uses the MARSİ (Metacognitive Awareness of Reading Strategies Inventory) questionnaire (Annex 2) which embraces: the global factor, problem-solving factor and the support factor. The global factor deals with the use of reading strategies in terms of the global analysis that one does to a text, the problem solving factor has to do with those strategies that are applied when a text is not understandable and the support factor which consists in the use of external sources like dictionaries and includes note taking. This questionnaire is aimed to measure the levels of use of the reading strategies in university students and to analyze the data in order to have some conclusions about how efficient are the students that use them. The questionnaire is applied before the interviews. On the other hand, the research also uses a reading comprehension test (Annex 4) as an instrument which main goal is to evaluate the performance of the students' in terms of reading. It contains only closed questions where they have to choose only the right answer among four statements, this type of test is most known as a multiple choice test. This test

is about “Cocoa” and the different questions evaluate: detail, inference and vocabulary which is information that can be extracted using the reading strategies.

### **5.5.2 Interview.**

As stated by Acevedo and López (1981) the interview is one of the most important techniques to collect data after the survey technique, this one differ from the survey in that interview is a qualitative technique. The interview is a communication process normally between two people and through this process the interviewer gets information of the interviewee of a direct way. On the other hand, the interview is not considered a normal conversation, instead a formal conversation with a specific purpose with an implicit objective in agreement with the interlocutor. The interview is divided in different types medical, press, and job and related with the structure and design by structured, semi-structured and non-structured. This research uses the interview (Annex 3) in order to identify students’ perception about metacognitive awareness and to understand this issue throw the direct interactions with the students and teachers. This interview is distinctly semi-structured because during the process of interviewing some questions may arise so in the semi-structured we can include questions that were not planned to be ask.

## **5.6 Research ethics.**

Related to this type of study which concerns the participation of students and teachers of a public university, it is necessary to mention that there are some imperative ethical conditions in which participants are engaged and need to know. Artal (2017, p.108) provides a historical issue where the participants of a research need to be informed of everything based on what they are going to be involved because so many atrocities were committed in the name of research, especially in medical research. Thus, from that moment ethics has shifted to the protection of the volunteer when enrolling as a research subject. In consequence, before conducting a study, researchers need to protect and inform the participants about their rights and options, in particular, their right of refusal. In the same way, Creswell (2005 p. 23) affirms that "individuals need to know the purpose and aims of the study, how the results will be used and the possible consequences the study will have on their lives". The researchers will ask for permission to the participants through an informed consent (Annex 1), but will also explain them about the research project and what the purpose of this study is. The names will be replaced by numbers in order to protect the identity of the participants. In addition, the collected information will be managed by the researchers only and will not be shared with others unless if it is for another research Project related to the aim of this one.





## 6. Data analysis

The main objective of this chapter is to present the categories that emerged from the quantitative and qualitative detailed analysis that was made to each of the instruments applied such as a reading comprehension test (Annex 4) to see students' performance in reading comprehension, interviews to ask about some specific and general information (Annex 3) and the MARSİ test (Annex 2) to see how much they know about their own learning.

### 6.1 Categories

#### 6.1.2 Reading strategies in reading comprehension.

This category emerges due to the evidence found in the MARSİ questionnaire (Annex 2), reading comprehension test (Annex 4) and interview (Annex 3). According to the interview (Annex 3) the questions two, three and four show that the reading strategies help the reading process as shown in extract 1 and 2.

#### **Extract 1 - (010) Student's interview**

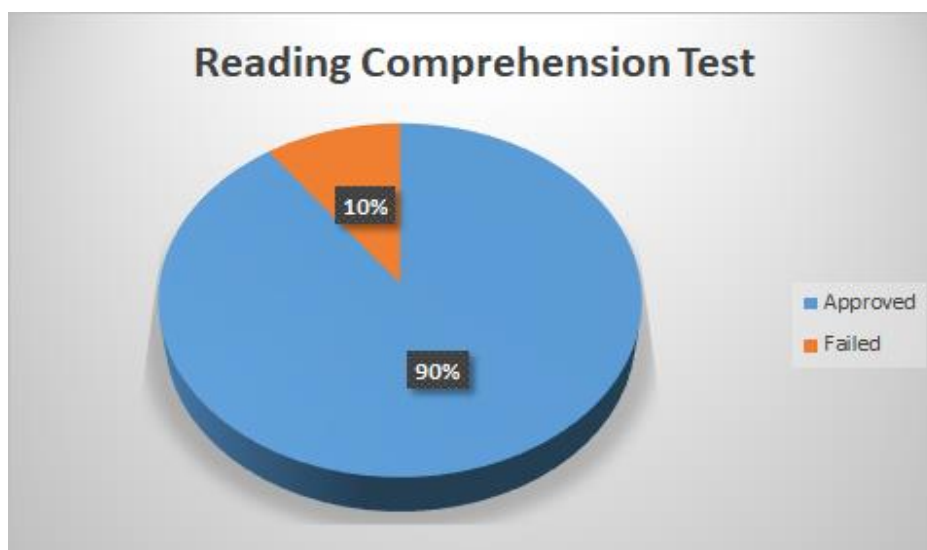
*“{eh} yes, it becomes easier because you take the main ideas you need to have in mind and it is easier because it is useful for you to study.”*

According to subject 001 it is evident that the reading strategies facilitate the process of reading so as stated by Yüksel & Yüksel (2011) who say that lecturers manage their interaction

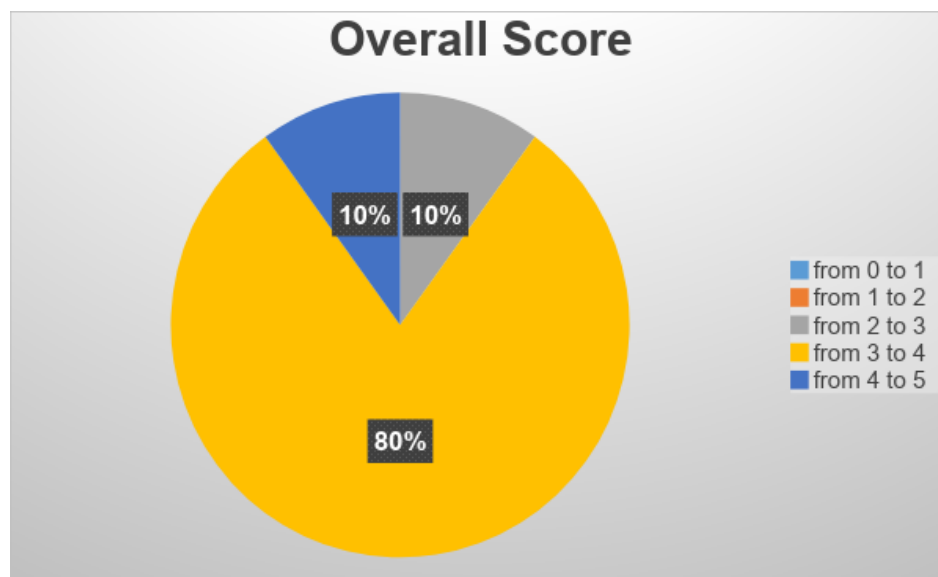
with the reading through the use of strategies in order to reveal and have a better understanding. Furthermore, taking into account, Handoko (2017) when he said that the process of reading is an arduous job due to the exposure of words students face and when they are able to form a connection with the lecture they are able to perform and create some output with the information given. It is clearly what subject 001 manifests because he expresses the easiness in which he is able to understand the text and the most meaningful ideas using the strategies in order to comprehend the lecture. In addition, he asserts it is effective for studying purposes and to review topics in the lecture for future activities.

#### **Extract 2 - (002) Student's interview**

*“{ehhh.} {Mmmm} in my opinion... in my case, first at all, it was difficult for me because I don't have a lot of vocabulary but after that I started to apply some strategies that I have learnt in my first degrees. {ehhh..sooo...ehhh..it..ehh become more..} It become easier for me {ehh} to understand {ehh..the} the readings.”*



**Fig. 1** Chart of students who approved and failed the reading comprehension test



**Fig. 2** Overall chart about the use of the reading strategies taken from the MARSI test

In consonance to what was mentioned before, in extract 2, the participant illustrates that the reading strategies have been useful to them considering that they do not know some words in the readings they have faced and by using the reading strategies they have been able to sort out the problem and understand the text. In addition, in the MARSI questionnaire (Figure 2) it is indisputable that eighty percent (80%) of the students answered that they use the reading strategies which matches with the information found in the results of the reading comprehension test (Figure 1) which shows that ninety percent (90%) passed the test with 3, 4 or 5 right answers and only ten percent (10%) failed.

### 6.1.3 Difficulties while reading.

The present category is developed taking into account the interviews (Annex 3) of the students where they give their point of view and show evidence of how their experience with reading has been, what problems they have faced and the impact it has on reading comprehension. The following extracts reveal the interaction students have had when they have to read a lecture.

#### **Extract 3 - (004) Student's interview**

*“[deep breath] in... the last... I am reading, actually I'm reading a book and some parts of the book are confusing because [ehh] the... the character uses a very strange language because the character is crazy so she misses time so is like trying to infer what... what she wants [laughing] to say and what she didn't say and those kind of things so I have to again reread and re-read to understand the whole thing, the whole idea.”*

In extract number three it is observed that one of the problems this student has to face with is the language people use to write different literary pieces, the subject manifests that it makes the reading more confusing and they waste time trying to infer or to get the idea of the reading. Additionally, the participant states that vocabulary affects the process of reading because they lose the idea of what they are reading when they do not know the meaning of some of the words.

**Extract 4 - (002) Student's interview**

*“{ehhh.} {Mmmm} In my opinion... in my case, first at all, it was difficult for me because I don't have a lot of vocabulary but after that I started to apply some strategies that I have learnt in my first degrees.*

In extract number four, the participant claims that he or she has had difficulties at the time of reading mainly when they do not understand words. Vocabulary is a huge problem for this student in order to comprehend the reading and to minimize this difficulty the student uses the reading strategies. In short, these are common difficulties that students have at the time of reading.

Taking into account both statements, is it truly remarkable the fact that students have this same problem when reading, which means that the reading comprehension is not the same. As Glende (2013) affirms that “if students experience reading difficulties, they are less likely to have the appropriate knowledge base and vocabulary necessary for comprehension of texts in content-area classes”. Thus, this problem affects the reading comprehension because reading difficulties such as vocabulary do not allow students to build comprehension. Besides, Flesch (2008 quoted in Glende 2013) mentions that the main problem for students is the meaning of words. This means that students who do not have a good lexicon will have troubles at the time of reading and therefore they will not understand as it is expected.

On the other hand, based on the results of the reading comprehension test and the MARSI test of the subject 001 where in the first one he/she failed and in the second one is evident that he/she uses the reading strategies when reading. For the above, it is deduced that the subject had some difficulties with vocabulary and concepts to comprehend the lecture.

#### **6.1.4 Metacognition in learner's autonomy.**

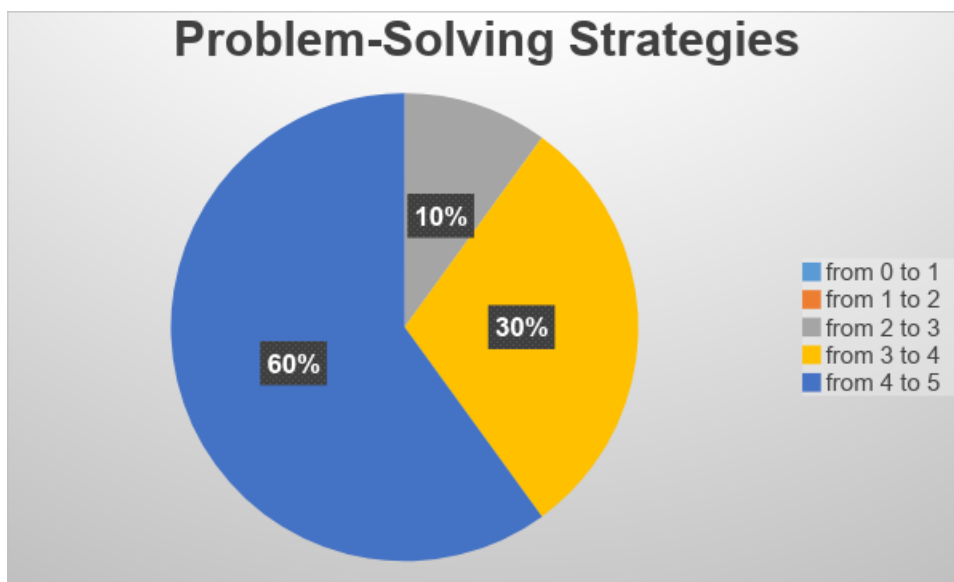
This category comes up mainly as a result of the analyzed data found in the answers collected from students and professor interviews (Annex 3) in the last question “Do you implement metacognition while reading?” in regard to self-regulation throughout the reading process and in the professor's case questions 5 and 6 (Annex 3) in reference to the development of metacognitive awareness during the reading class which supports this investigation according to the benefits of metacognition.

#### **Extract 8 - (005) Student's interview**

*“{ehh} yes {ehh} For instance, when I read a text and I do not understand I usually read the whole text again and again to in order to understand {Ehh} very [ehh] well, yeah very clear the text.”*

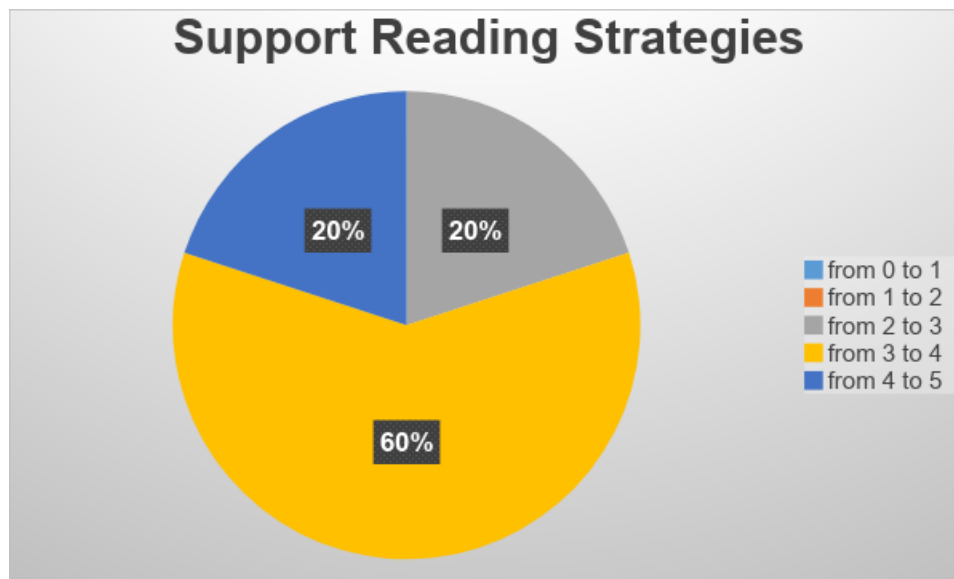
As reported in Extract 6 the subject 005 implements the metacognitive knowledge, because he is aware about the way he learns and when he had a difficulty he instantly solved it by applying a reading strategy which can be supported in what was stated by Flavell (1979) in which it is treated the 3 main characteristics (person, task, strategy) which affects the course and

outcome of our cognitive enterprises, where the subject 005 is clearly conscious about the difficulty that he had in order to understand what he is reading (person) also aware about why he needs to read that (task) and then implementing a solution by repeating in order to solve his problem while reading (strategy).



**Fig.3** Chart of students use of problem-solving strategies from the MARSI's scale





**Fig.4** Chart of students use of support reading strategies from the MARSI's scale

In concordance with what the student said, it is seen in the Fig.3 about the problem-solving strategy in the MARSI's scale, it was evident that the 60% of the students use it by responding affirmatively to the use of strategies such as “When the text becomes difficult, I re-read to increase my understanding” something that was reflected in the student's interview, as well as in the Fig.4 the use of support reading strategies where the same 60% of the students apply it and showed it that they implement methods like “I use reference materials such as dictionaries to help me understand what I read” very useful tools when learning a second language and especially when it comes to understanding a text.

In addition, the following extracts show the professor's answer to the questions related with the uses of metacognitive strategies to develop students' reading strategies skills. It is

pertinent to do the analysis to observe if they are aware about the uses of metacognition while implementing the reading strategies.

#### **Extract 9 - Professor's interview**

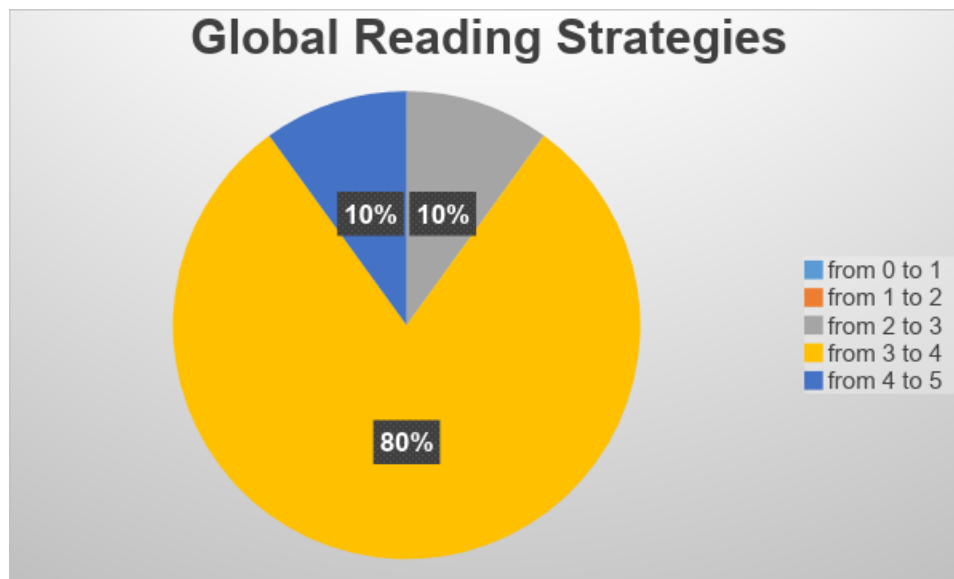
*“Well, actually, that’s what I’ve been telling you, inference, well, normally when we ask questions about a book or something we try to get in detail...uhm... that is not a very much extension of what metacognition might be. Nevertheless, when we infer we ask students to make...ahh... associations, say we try to make students relate...mmm... what they are reading with ... ahh... other tools of language, you see? And information in that way they are...uhmm...they are becoming critical thinkers in ways so that’s what metacognition might be I presume”*

As it is shown in extract 7, the head teacher has a partial notion about what metacognition is and how to implement it inside the class, not only promoting reading comprehension techniques but also promoting an active metacognitive awareness by teaching students to be critical thinkers by questioning, inferring about what they are reading. Which it is really interesting because even though the teacher did not have a specific procedure for teaching how to work metacognitively, he gave his students the tools to regulate and monitor their reading process, which it is stated by Flavell (1979) when he defines metacognition as “ A monitoring process of their own memory, comprehension, and other cognitive enterprises” in this case with reading, which is an important skill to develop while learning a second language and master it. Metacognition becomes a relevant tool to take into account in order to learn efficiently something which is also mentioned by Ismael (2015) in his findings about metacognition that it is hard to learn without metacognition and not using the strategies that the learner will have to use.

### Extract 10 - Professor's interview

*“uhm...I presume so, even when we... uhmm... teach students how to write we are telling them which ones to have in mind to bear in mind when reading and writing, you see? Ahh... to be critical... ahh... to be heavy thinkers, you see? I say I believe that with each of the stages that we teach how to develop this or that text they are actually inferring what to do when they are reading”*

As shown in the evidence the professor explains that through the teaching of reading and writing courses he assumed that all the strategies and methods explained in the different stages of these courses will make them skillful enough to think deeper about what strategies they need and how to proceed. At this point, students are acquiring metacognitive awareness to being critical and as he calls them "heavy thinkers" students develop their autonomy during the reading process, thinking about what they should know and how they should do it according to the stages that they have gone through these courses given by the teacher. In connection with Flavell (1979) it is coherent with what has been said in regarding to metacognition as “thinking about thinking” the students are using metacognition when putting into practice the reading strategies at the time of reading becoming critical and skillful thinkers in the English reading field.



**Fig.5** Chart of students use of global reading strategies from the MARSI scale

In congruence with what it was mentioned by the professor, it is clearly reflected in Fig 3 according with the MARSI's scale, that the 80% of the students used the global strategies which contain critical thinking components such as "I think about what I know to help me to understand what I read" or "I critically analyze and evaluate the information presented in the text" in that the students affirmed that they used the most when reading a text.

## 7. Conclusions

In summary, after carrying out a meticulous analysis to the metacognition findings, reading comprehension strategies and its benefits in the reading learning process already mention in the previous chapters. It is disposed to formulate the following conclusions.

According to the questions proposed in this paper, it should be noted that the results found through the data collected provided relevant and very useful results, in regarding to the influence of metacognitive awareness in the reading strategies. It is considered that the strengthening of reading strategies during the reading courses in fourth semester students, enhances metacognitive awareness when solving problems, specially while reading as it was shown in the students' interviews which explained that through the use of reading strategies and being aware of their difficulties at the time of reading, they got a better performance in the language finding a solution for each problem in relation with their reading learning process.

Regarding to the problems in the reading process it was considered to know which were the most common difficulties students faced to build up reading comprehension, the interviews indicates that vocabulary is the obstacle more evident when they interact with the lecture; but students also say that when they have this kind of problems, they apply the reading strategies such as inferring, what the word means and re-reading to get the general idea in order to manage this fact. Besides, it must highlight that students mentioned the obstacles when reading but the way they solve them too.

known reading strategies among students of fourth semester, it was found through the interviews that students considered 3 main strategies which were (Skimming, Scanning and inferring) but it was also mentioned conceptual maps and repetition by a few students, something that was reflected on the MARSII test results in which the 80% of the students use at least one type of reading strategy according with the MARSII scale (global, problem-solving and support strategies).

In regard to the last question that was posed as how does the teacher enhance metacognitive awareness in the reading class, the professor's answers in the interview showed that apparently the students were under constant metacognitive practice, where they were required to think critically about what they were reading and what strategies they were using, in what the professor replies that it helped them to become "heavy thinkers". It was also mentioned a question section every Friday which promoted not just reading but also inference, relationship and the detail which in his words enhance the process to become skillful readers by narrating and associating ideas with concepts.

## **8. Limitations**

In this research there were not limitations.

### **8.1 Projection**

The researchers recommend to implement the same research, but in students of 10<sup>th</sup> (Semester) in order to identify the impact that the reading strategies have in these students and to analyze if they still use them at the end of their career. In addition, test their output with a writing test linked to a reading one in order to analyze their performance.

### **8.2 Recommendations**

Teachers should focus on reading strategies that help students in terms of vocabulary in order to control this problem due to the exposure of words that students face at the time of reading.

In addition, teachers should expand the number of reading strategies they teach students, in order for them to increase the number of strategies they know, and be able to choose which strategy suits better depending on the text.

Finally, teachers should design classes to teach their students about metacognition and its benefits in the learning process, which will contribute especially in the reading part and the uses of the reading strategies as a useful tool to apply.

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# ANNEXES

## ANNEX 1 - INFORMED CONSENT

**CONSENTIMIENTO INFORMADO <sup>1</sup>PARA PARTICIPAR EN LA INVESTIGACIÓN****TÍTULO DEL PROYECTO: METACOGNITIVE AWARENESS OF READING STRATEGIES IN STUDENTS OF FOURTH SEMESTER OF THE UNIVERSITY OF QUINDIO**

Su institución educativa ha sido seleccionada para participar en este proyecto de investigación a realizar por los estudiantes Sebastian Velandia Rios, Yurany Fernanda Giraldo y Erick Mauricio Cardenas; y dirigido por la profesora Paola Alzate Ortiz, docente del Programa Licenciatura en Lenguas Modernas de la Universidad del Quindío.

Por favor lea la siguiente información y formule las preguntas que considere necesarias, antes de decidir si participa o no en el estudio. Su participación es **absolutamente voluntaria**.

**PROPÓSITO DEL ESTUDIO:** Identificar con que frecuencia y que tan importantes son las estrategias de lectura entre estudiantes de cuarto semestre de la Universidad del Quindío. Además de esto, queremos saber que opinion tienen estos estudiantes y profesores acerca de estas estrategias metacognitivas de lectura.

**TIEMPO DE DURACIÓN:** Un (1) semestre

**PROCEDIMIENTO:** Durante el tiempo que dure el estudio se llevarán a cabo las siguientes actividades:

**Cuestionarios:** Habrá un cuestionario estandarizado MARSÍ para el grupo focal de diez (10) estudiantes en el cual se le pedirá seleccionar las estrategias que emplea durante el proceso de lectura y que luego mediremos sus resultados según la misma escala de medición que nos proporciona el cuestionario. Este se hará después de aplicar una prueba de comprensión lectora acorde al nivel de los estudiantes para así constatar los datos obtenidos en las mismas.

**Entrevistas:** Las entrevistas serán estructuradas y semi-estructuradas. Se escogerá un grupo focal de cinco (5) estudiantes.

A través del desarrollo de la investigación, si es necesario, podrán ser incorporadas otras herramientas para la recolección de datos; una característica de los estudios cualitativos.

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<sup>1</sup> *Adaptado del original creado por Silvia Valencia Giraldo, Ph.D. (Directora de la Maestría y Doctorado en Ciencias de la Educación de la Universidad del Quindío)*

Todas estas actividades tendrán lugar en la institución. Conjuntamente con usted estableceremos un cronograma de trabajo según su conveniencia y la de los estudiantes, de tal manera que no se interfiera con las actividades académicas, culturales o recreativas de su institución.

**CONFIDENCIALIDAD:** Se utilizarán nombres ficticios de la institución (a menos que no sea inconveniente mencionar el nombre de la universidad), profesores y estudiantes para mantener su identidad en el anonimato. Habrá estricta confidencialidad con la información que se recolecte.

**DIVULGACIÓN DE RESULTADOS:** Contaremos con su autorización y la de la institución para la utilización de videos o grabaciones de audio.

**INCOMODIDADES Y RIESGOS:** Es natural que sienta incomodidad con la presencia de los estudiantes investigadores en su clase. Esto sin embargo, será pasajero pues estableceremos una relación de cordialidad y colaboración que hará que Usted se familiarice con esta situación. No pretendemos evaluar de ninguna manera su trabajo y desempeño, sino más bien ofrecerle herramientas que posibiliten el crecimiento profesional y personal. Las observaciones o los resultados del proyecto no tendrán incidencia alguna en las evaluaciones que realicen sus superiores, por cuanto existirá absoluta reserva de nuestra parte en este sentido.

Siéntase libre de pedir cualquier explicación o de manifestar cualquier inconveniente que surja en el proceso

**PARTICIPACIÓN:** Usted tiene todo el derecho de participar o no hacerlo. Si decide hacerlo, puede retirarse en el momento que usted lo considere, sin ninguna consecuencia. De la misma forma, puede negarse a contestar preguntas que no quiera responder.

**BENEFICIOS:** Los beneficios se verán reflejados en la comunidad académica (docentes y estudiantes) ya que los resultados de este análisis pueden servir como insumo para propuestas de metodología de la enseñanza del inglés, específicamente la habilidad de lectura.

Usted podrá verificar cualquier información en con la docente asesora del proyecto:

Paola Alzate Ortiz  
palzate@uniquindio.edu.co  
Programa Licenciatura en Lenguas Modernas  
Facultad de Educación  
Universidad del Quindío.  
Dirección: Avenida Bolivar Calle 12 Norte

Agradecemos su autorización para contar con usted como participante en este proyecto.

Fecha de la socialización del presente Consentimiento Informado:

Nombre: \_\_\_\_\_

Cargo: \_\_\_\_\_

Firma: \_\_\_\_\_



## ANNEX 2 - MARSİ TEST

**Metacognitive Awareness of Reading Strategies Inventory  
(MARSİ) Version 1.0**

Kouider Mokhtari and Carla Reichard © 2002

**DIRECTIONS:** Listed below are statements about what people do when they read academic or school-related materials such as textbooks, library books, etc. Five numbers follow each statement (1, 2, 3, 4, 5) and each number means the following:

- 1 means "I never or almost never do this."
- 2 means "I do this **only occasionally**."
- 3 means "I **sometimes** do this." (About 50% of the time.)
- 4 means "I **usually** do this."
- 5 means "I **always or almost always** do this."

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) that applies to you using the scale provided. Please note that there are **no right or wrong answers** to the statements in this inventory.

TYPE	STRATEGIES	SCALE				
GLOB	1. I have a purpose in mind when I read.	1	2	3	4	5
SUP	2. I take notes while reading to help me understand what I read.	1	2	3	4	5
GLOB	3. I think about what I know to help me understand what I read.	1	2	3	4	5
GLOB	4. I preview the text to see what it's about before reading it.	1	2	3	4	5
SUP	5. When text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
SUP	6. I summarize what I read to reflect on important information in the text.	1	2	3	4	5
GLOB	7. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
PROB	8. I read slowly but carefully to be sure I understand what I'm reading.	1	2	3	4	5
SUP	9. I discuss what I read with others to check my understanding.	1	2	3	4	5
GLOB	10. I skim the text first by noting characteristics like length and organization.	1	2	3	4	5
PROB	11. I try to get back on track when I lose concentration.	1	2	3	4	5
SUP	12. I underline or circle information in the text to help me remember it.	1	2	3	4	5
PROB	13. I adjust my reading speed according to what I'm reading.	1	2	3	4	5
GLOB	14. I decide what to read closely and what to ignore.	1	2	3	4	5
SUP	15. I use reference materials such as dictionaries to help me understand what I read.	1	2	3	4	5
PROB	16. When text becomes difficult, I pay closer attention to what I'm reading.	1	2	3	4	5
GLOB	17. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
PROB	18. I stop from time to time and think about what I'm reading.	1	2	3	4	5
GLOB	19. I use context clues to help me better understand what I'm reading.	1	2	3	4	5
SUP	20. I paraphrase (restate ideas in my own words) to better understand what I read.	1	2	3	4	5
PROB	21. I try to picture or visualize information to help remember what I read.	1	2	3	4	5
GLOB	22. I use typographical aids like bold face and italics to identify key information.	1	2	3	4	5
GLOB	23. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
SUP	24. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
GLOB	25. I check my understanding when I come across conflicting information.	1	2	3	4	5
GLOB	26. I try to guess what the material is about when I read.	1	2	3	4	5
PROB	27. When text becomes difficult, I re-read to increase my understanding.	1	2	3	4	5
SUP	28. I ask myself questions I like to have answered in the text.	1	2	3	4	5
GLOB	29. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5
PROB	30. I try to guess the meaning of unknown words or phrases.	1	2	3	4	5

**Reference:** Mokhtari, K., & Reichard, C. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94 (2), 249-259.

**Metacognitive Awareness of Reading Strategies Inventory**  
**SCORING RUBRIC**

Student Name: \_\_\_\_\_ Age: \_\_\_\_\_ Date: \_\_\_\_\_

Grade in School:       6<sup>th</sup>  7<sup>th</sup>     8<sup>th</sup>  9<sup>th</sup>     10<sup>th</sup>  11<sup>th</sup>  12<sup>th</sup>     College  Other

1. Write your response to each statement (i.e., 1, 2, 3, 4, or 5) in each of the blanks.
2. Add up the scores under each column. Place the result on the line under each column.
3. Divide the score by the number of statements in each column to get the average for each subscale.
4. Calculate the average for the inventory by adding up the subscale scores and dividing by 30.
5. Compare your results to those shown below.
6. Discuss your results with your teacher or tutor.

Global Reading Strategies (GLOB Subscale)	Problem-Solving Strategies (PROB Subscale)	Support Reading Strategies (SUP Subscale)	Overall Reading Strategies
1. _____	8. _____	2. _____	GLOB _____
3. _____	11. _____	5. _____	
4. _____	13. _____	6. _____	PROB _____
7. _____	16. _____	9. _____	
10. _____	18. _____	12. _____	SUP _____
14. _____	21. _____	15. _____	
17. _____	27. _____	20. _____	
19. _____	30. _____	24. _____	
22. _____		28. _____	
23. _____			
25. _____			
26. _____			
29. _____			
_____ GLOB Score	_____ PROB Score	_____ SUP Score	_____ Overall Score
_____ GLOB Mean	_____ PROB Mean	_____ SUP Mean	_____ Overall Mean

**KEY TO AVERAGES:** 3.5 or higher = High      2.5 – 3.4 = Medium      2.4 or lower = Low

**INTERPRETING YOUR SCORES:** The overall average indicates how often you use reading strategies when reading academic materials. The average for each subscale of the inventory shows which group of strategies (i.e., global, problem-solving, and support strategies) you use most when reading. With this information, you can tell if you are very high or very low in any of these strategy groups. It is important to note, however, that the best possible use of these strategies depends on your reading ability in English, the type of material read, and your purpose for reading it. A low score on any of the subscales or parts of the inventory indicates that there may be some strategies in these parts that you might want to learn about and consider using when reading (adapted from Oxford 1990: 297-300).

## ANNEX 3 - INTERVIEWS

### Professor's Interview

1. Which reading strategies do you teach your students the most?
2. How often do you reinforce these strategies during class? How?
3. Which is the most common reading strategy among your students?
4. What is metacognition?
5. Do you know the metacognitive strategies to develop reading skills? Which ones?
6. Do you develop metacognitive strategies in class to develop students' reading skills? How?
7. Do you have any workshop to make your students practice each reading strategy?
8. Do you think depending on the text one can apply certain reading strategy?

### Students' Interview

1. Which reading strategies do you know?
2. What reading strategy do you like the most? Why?
3. How often do you use the reading strategies?
4. Do you think that implementing them the reading process becomes easier and useful? Why?
5. Do you implement metacognition while reading? How?

## ANNEX 4 - READING COMPREHENSION TEST



READTHEORY

Name \_\_\_\_\_  
Date \_\_\_\_\_

## • Reading Comprehension 8 Level 4

**Directions:** Read the passage. Then answer the questions below.

Where does chocolate come from? Believe it or not, it grows on trees. Not as a sweet chocolate candy bar wrapped in foil, but as a cocoa bean.

These cocoa beans grow on a cacao tree, which is found in tropical areas such as Central and South America. The fruit of these trees are called pods, and they are long and hard. Inside the pods is a soft, white pulp that surrounds the thirty or so seeds. These seeds are what we call cocoa beans. They are very hard and bitter to the taste.

To make chocolate, people start by carefully taking the beans out of the pods, still covered in the white pulp, and leaving them in a bucket. The bucket is often covered with banana leaves and left for anywhere from a few days to a few weeks. This process is called fermenting. Then the beans are left to dry in the sun. Fermenting and drying the beans makes them less bitter. Then the beans are shipped to a factory to be turned into chocolate.

At the factory, beans are roasted in ovens to bring out their flavor. After roasting, the outer covering of the bean is removed. The inner bean is then crushed to form a paste known as chocolate liquor.

From this paste, people can either make cocoa powder or the chocolate we buy in stores. To make cocoa powder, the paste is crushed and pressed repeatedly to remove the fat, leaving behind only a dry, ground powder. To make chocolate, people need to add other ingredients to the paste such as milk, sugar, and cocoa butter. They then mix and heat the concoction several times to create a substance we would recognize as chocolate. It may even have fruit, nuts, or candy added to it before it is molded into a shape.

Considering all that must happen to turn a bitter cocoa bean into a chocolate bar, a dollar seems like a small price to pay for such a delicious sweet treat.

**Questions**

- 1) To make chocolate, what is the first thing people must do to the cocoa beans?
  - A. leave them in a bucket
  - B. roast them in an oven
  - C. dry them in the sun
  - D. ship them to the factory
  
- 2) After reading this passage, what can the reader conclude about chocolate?
  - A. Chocolate is only made in Central and South America.
  - B. People could make their own chocolate at home.
  - C. There are many steps involved in making chocolate.
  - D. It is too expensive to make chocolate.

- 3) According to the passage, which of these items is needed to make the chocolate that is available in stores?
- A. fruit
  - B. nuts
  - C. candy
  - D. sugar
- 4) As used in paragraph 5, which of the following best describes a **concoction**?
- A. To make the smoothie, Daryl blended strawberries, bananas, yogurt, and juice.
  - B. When Jenna left the room, the pot of milk boiled for twenty minutes before boiling over.
  - C. A sprinkle of powdered sugar on top makes everything sweeter.
  - D. Elaine heated the lasagna, froze it, and then heated it again before serving it two weeks later.
- 5) Based on information in the passage, it can be understood that the chocolate sold in stores is different from cocoa beans because chocolate is
- A. sweet and cocoa beans are bitter
  - B. cheap and cocoa beans are expensive
  - C. a dry powder and cocoa beans are not
  - D. uncooked and cocoa beans are cooked

## Answers and Explanations

1) **A**

To answer this detail question correctly, we need to find where the author discusses the first thing people must do to make chocolate in the passage. A good way to do this is to scan the topic sentence of each paragraph, since this sentence will likely tell us what information can be found in the rest of that paragraph. The topic sentence of paragraph 3 reads: "To make chocolate, people start by carefully taking the beans out of the pods, still covered in the white pulp, and leaving them in a bucket." This lets us know that the details we are looking for can likely be found in paragraph 3. In paragraph 3, the author writes, "To make chocolate, people start by carefully taking the beans out of the pods, still covered in the white pulp, and leaving them in a bucket. The bucket is often covered with banana leaves and left for anywhere from a few days to a few weeks." This tells us that the first thing people must do to the cocoa beans is to leave them in a bucket for a few days or even a few weeks. Therefore **(A)** is correct. The steps listed in choices **(B)**, **(C)**, and **(D)** all come after the first step. Therefore they are incorrect.

2) **C**

In this passage, the author describes how chocolate is made. He or she lists all the steps: fermenting the cocoa beans, drying them in the sun, shipping them to a factory, roasting them in an oven, crushing the inner bean into a paste, and finally adding ingredients to create the chocolate we can buy in stores. Furthermore, in the final paragraph, the author writes, "Considering all that must happen to turn a bitter cocoa bean into a chocolate bar, a dollar seems like a small price to pay for such a delicious sweet treat." The fact that all of these things "must happen" to make chocolate means that we can conclude there are many steps involved in making chocolate. Therefore **(C)** is correct. In paragraph 2, the author writes, "These cocoa beans grow on a cacao tree, which is found in tropical areas such as Central and South America." However, this does not mean that chocolate is only made in Central and South America. These places are only given as examples of where the cacao tree grows. Also, the passage tells us that the cocoa beans are shipped to a factory, so that means chocolate does not have to be made in the same place where the cacao tree grows. Therefore **(A)** is incorrect. The passage does not suggest that people could make their own chocolate at home. Instead it tells us how chocolate is made in a factory. This means **(B)** is incorrect. The passage does not discuss the cost of making chocolate. In the final paragraph, the author says "one dollar" is the price of a chocolate bar, but this does not tell us whether it is expensive to make chocolate. This eliminates **(D)**.

3) **D**

To answer this detail question correctly, we need to find where the author discusses the items needed to make the chocolate we buy in stores in the passage. A good way to do this is to scan the topic sentence of each paragraph, since this sentence will likely tell us what information can be found in the rest of that paragraph. The topic sentence of paragraph 5 reads: "From this paste, people can either make cocoa powder or the chocolate we buy in stores." This lets us know that the details we are looking for can likely be found in paragraph 5. In paragraph 5, the author writes, "To make chocolate, people need to add other ingredients to the paste such as milk, sugar, and cocoa butter." This tells us that sugar is needed to make the chocolate that is available in stores. This means **(D)** is correct. Although in paragraph 5, the author tells us that fruit, nuts, and candy can be added to chocolate, he or she does not suggest they are needed as basic ingredients in the same way sugar is. Therefore choices **(A)**, **(B)**, and **(C)** are incorrect.

4) **A**

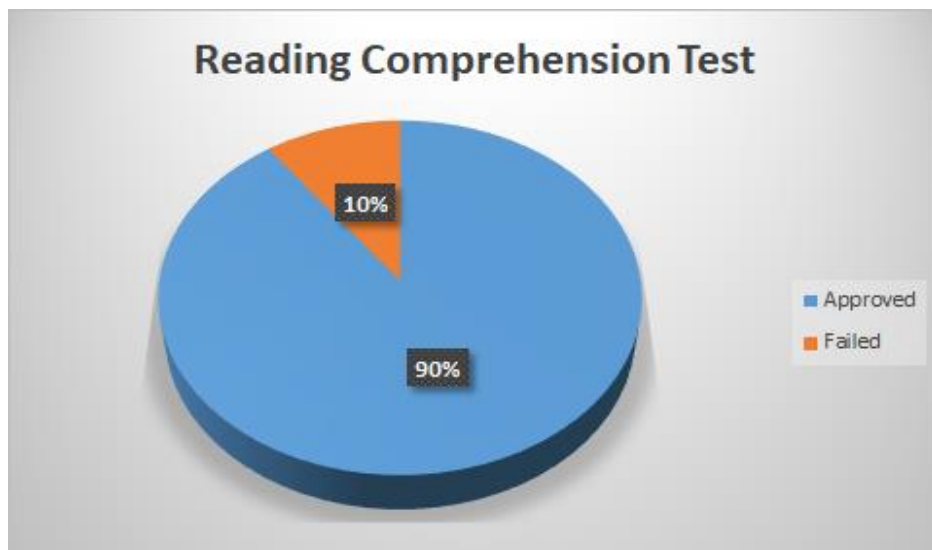
**concoction** (*noun*): something mixed or blended; mixture.

In paragraph 5, the author writes: "To make chocolate, people need to add other ingredients to the paste such as milk, sugar, and cocoa butter. They then mix and heat the concoction several times to create a substance we would recognize as chocolate." This tells us that the concoction is the mixture of the paste, milk, sugar, cocoa butter, and other ingredients, so a *concoction* must be a mixture. A smoothie made of strawberries, bananas, yogurt, and juice is also a mixture. Therefore **(A)** is correct. Choices **(B)**, **(C)**, and **(D)** do not describe a mixture. Therefore they are incorrect.

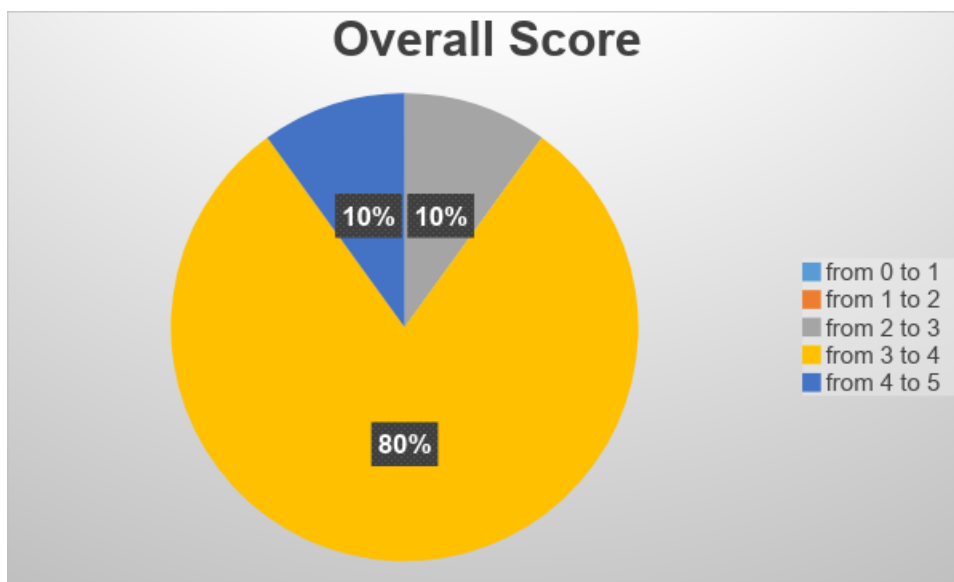
5) **A**

In the passage, the author mentions several times that chocolate is sweet. In paragraph 1, he or she writes that chocolate grows on trees "not as a sweet chocolate candy bar wrapped in foil, but as a cocoa bean." In the final paragraph, the author writes, "Considering all that must happen to turn a bitter cocoa bean into a chocolate bar, a dollar seems like a small price to pay for such a delicious sweet treat." This sentence tells us again that chocolate is sweet, but it also tells us that the cocoa bean is bitter. This means that the chocolate sold in stores is different from cocoa beans because chocolate is sweet and cocoa beans are bitter. Therefore **(A)** is correct. The author does not discuss the cost of cocoa beans, so even though the author suggests that a dollar is cheap for a chocolate bar, we do not know whether cocoa beans are expensive. This means **(B)** is not the best choice. The author tells us that the paste known as chocolate liquor can be ground into a dry powder, but this makes cocoa powder, not the chocolate we recognize as sold in stores. This makes **(C)** incorrect. The author tells us that chocolate is heated "several times," which means it is cooked. Therefore **(D)** is incorrect.

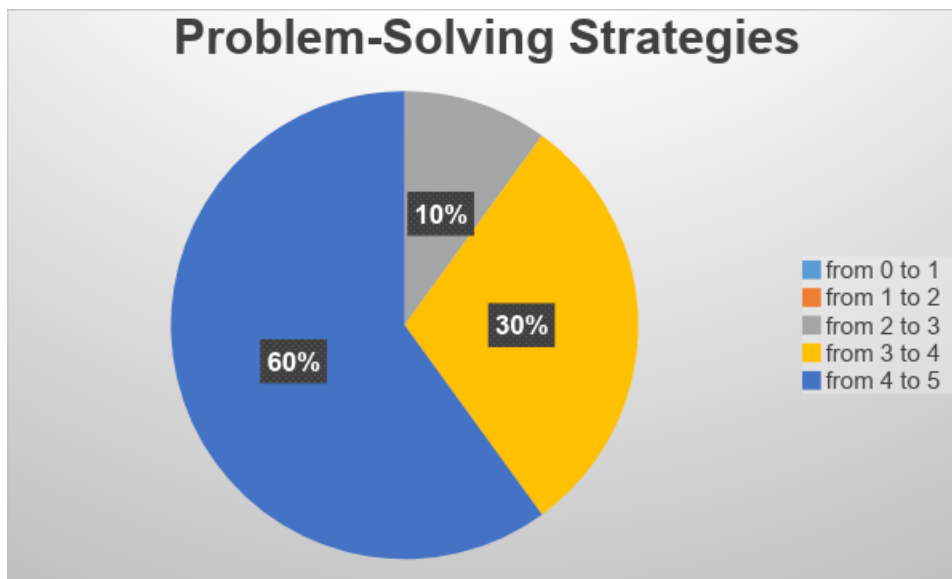
## Figures



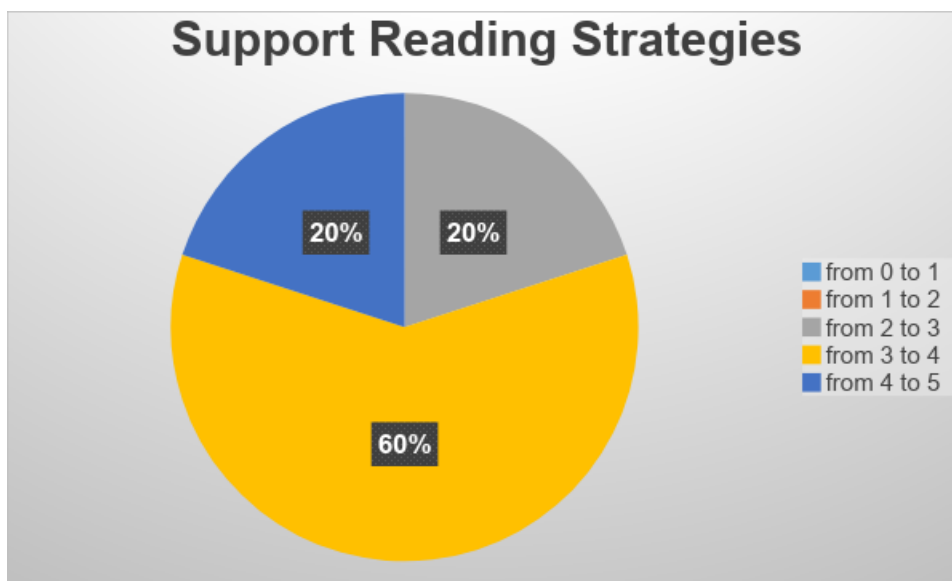
**Fig. 1** Chart of students who approved and failed the reading comprehension test



**Fig. 2** Overall chart about the use of the reading strategies taken from the MARSII test

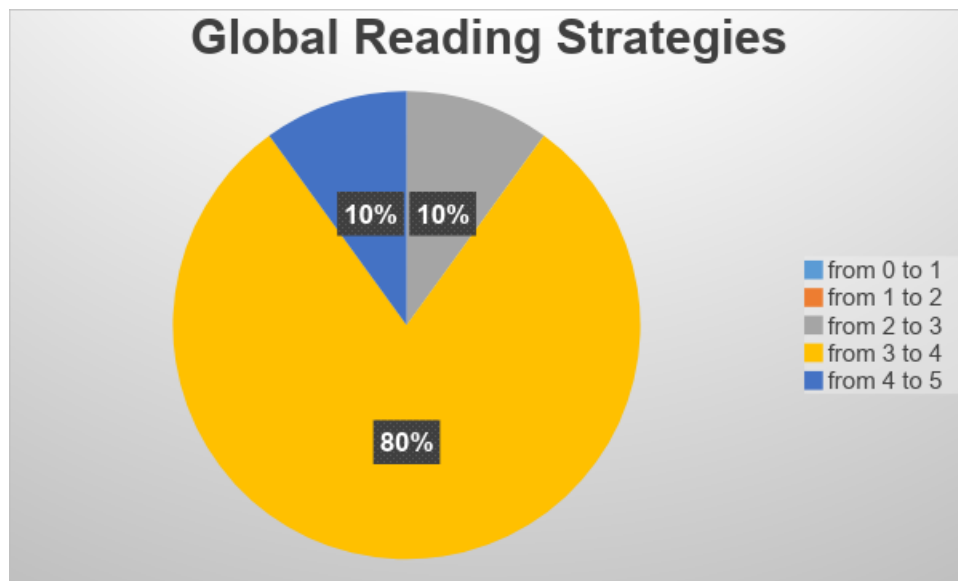


**Fig.3** Chart of students use of problem-solving strategies from the MARSI's scale



**Fig.4** Chart of students use of support reading strategies from the MARSI's scale





**Fig.5** Chart of students use of global reading strategies from the MARSI scale