# Reading Comprehension and Vocabulary Acquisition in the EFL Classroom

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**Reading Comprehension and Vocabulary Acquisition in the EFL Classroom**

# How Cognitive and Metacognitive Processes Help EFl Learners to Approach Reading Passages Found in Tests

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## Abstract

The purpose of this study is to identify different cognitive and meta-cognitive processes through which EFL learners tackle reading comprehension tests. In order to carry out this project, it was necessary to use a mixture of qualitative and quantitative methodologies to validate the results and the conclusions derived from this study. Therefore, it was necessary to apply an interview, a survey and some reading comprehension tests in order to collect reliable data that helped reach the objective stated in this project.

The results obtained showed that learners made more use of the cognitive strategies rather than the metacognitive ones. They also showed that learners tend to use more cognitive strategies such as guessing the meaning of the words based on the context, reading pictures to have an idea about what they are about to read, underlining words, taking notes, and visualizing information about the text.

Taking all this into consideration, teachers should engage learners more with reading extensively and intensively, teach them all the cognitive and metacognitive strategies they can use as they approach reading passages so that they can identify those strategies they feel more comfortable with. In that way, teachers can extrapolate their use in the EFL classrooms by

increasing their reading comprehension processes. Reading becomes an important language skill for learners to become more analytic, critical, and problem solvers.

### Key words

Cognitive and metacognitive strategies, reading comprehension and language learning strategies.

### Resumen

El propósito de este estudio es identificar los diferentes procesos cognitivos y metacognitivos a través de los cuales los estudiantes de una segunda lengua afrontan exámenes de comprensión de textos. Para llevar a cabo este proyecto fue necesario utilizar una mezcla de metodologías cualitativa y cuantitativa para validar los resultados y las conclusiones derivadas de este estudio. Por lo tanto, fue esencial aplicar una entrevista, una encuesta y algunos exámenes de comprensión lectora para recolectar información confiable que ayudo a alcanzar los objetivos propuestos en este proyecto.

Los resultados obtenidos mostraron que los estudiantes hicieron más uso de las estrategias cognitivas en relación con las metacognitivas. Los resultados también mostraron que los estudiantes tienden a utilizar más estrategias cognitivas tales como: adivinar el significado de las palabras por el contexto, leer imágenes para tener idea de lo que van a leer, subrayar palabras, tomar notas y visualizar información acerca del texto.

Tomando todo esto en cuenta, los maestros deberían motivar cada vez más a los estudiantes con lecturas extensivas e intensivas y enseñarles todas las estrategias cognitivas y metacognitivas que ellos pueden utilizar cuando aborden pasajes de lectura, para que ellos puedan identificar con las que más se sientan cómodos e incrementar también su proceso de comprensión lectora. La lectura se convierte en una importante habilidad lingüística para que los estudiantes sean más analíticos, críticos y más capaces de aportar soluciones.

### Palabras clave

Estrategias cognitivas y metacognitivas, comprensión lectora y estrategias de aprendizaje de un idioma.

# 1. Introduction

While learning something specific or non-specific, people use different kinds of mental processes without them even noticing it. These processes are vital since they can facilitate people's learning. These mental processes are metacognitive and cognitive. A metacognitive process is defined by Meichenbaum, (1985, p.1) as:

> *An awareness of one's own knowledge—what one does and doesn't know—and one's ability to understand, control, and manipulate one's cognitive processes.*

O'Malley and Chamot (1987) define cognitive strategies as

> *...the process in which the learner interacts with the material to be learned by manipulating it mentally (as in making mental images or relating new information to previously acquired concepts or skills) or physically (as in grouping items to be learned in meaningful categories or taking notes on or making summaries of important information to be remembered).*

Thus, the implementation of those strategies can help learners to increase their learning processes, which can lead them to perform better in the different everyday tasks that they face at school or outside. In the case of the learners selected for this study, the implementation of the different aforementioned cognitive strategies, may lead them to have a better performance in the English part of the PRO-SABER test, which measures learners' English reading comprehension levels in order to comply with the language exit requirement.

This research intends to present the different cognitive and metacognitive processes and strategies that help learners to tackle reading comprehension tests, how they influence the learners' reading comprehension performance, and to identify the most common cognitive and metacognitive strategies used by them when it comes to taking reading comprehension tests. In order to carry out this research, it was necessary to select a group of ten learners from the Financial Administration and International Business Program at Cordoba University. The data collection techniques that were used included the following:

a) Learners' interview
b) Learners' reading comprehension test.
c) Teacher interview

All the results and answers obtained from the different data collection techniques used were analysed in order to identify the most common cognitive and metacognitive strategies applied by the learners and how these influenced their reading comprehension test-taking performance.

The importance of this research lies on the identification of different mental processes used by learners, as well as the most common reading comprehension strategies through which EFL learners tackle reading comprehension tests. This research addresses English teachers, English learners and researches who are interested in knowing about the different cognitive and metacognitive processes, which may influence learners' reading comprehension performance. With this research, potential readers and researchers would understand how important it is for learners to apply the aforementioned strategies so that learners can do well on reading comprehension test-taking performance.

## 2. Justification

As everyone knows, learning or acquiring knowledge is something that depends on how people use their mental capacity to carry out a set of tasks in real-life interaction both in the classroom and outside of it, which in our case, has to do with reading comprehension test-taking performance. In order to support the role played by metacognitive processes, as it comes to learning, some researchers such as Nietfeld & Shraw (2002), Thiede, Anderson, & Therriault, (2003) mention the importance that they have on the acquisition of knowledge by stating that:

> *Metacognitive skills can be taught to students to improve their learning and when constructing understanding both cognitive and metacognitive elements are necessary.*

As it can be appreciated, language teachers are expected to lead learners to build their knowledge through the use of cognitive elements and

plan, guide, and evaluate it through the use of metacognitive strategies. Therefore, the more learners become skilful at performing metacognitive strategies, the more confident and independent they will become.

Having said that, this research aims to identify the different cognitive and metacognitive processes that learners have to go through when tackling reading comprehension tests, the influence they have on learners' performance and the most common reading comprehension strategies used by them when taking reading comprehension tests. This research sprang from the need to identify the reasons behind why senior learners from the Financial Administration and International Business Programs at Cordoba University showed poor English results in their last PRO-SABER test.

Learners are expected to comply with the language exit requirement, and on the other hand, to check the state of development of their competences in their academic program. The government also applies this test to gain some insights about:

a)  "Indicators of value added of high education regarding learners' competences"
b)  "The institutions and their methodologies so that the government can monitor their progress"
c)  "The quality of the different programs and institutions of high education."

For further interest, please refer to decree N° 3963–Article 189 of the Colombian Political Constitution and the law 1324 of 2009.

In this study, the researchers applied the following data collection techniques:

a)  Teacher's Interview
b)  Reading comprehension test
c)  Learners' survey

As for the data collection techniques, a mixed approach of qualitative and quantitative research methodologies was used in order to validate the results and the conclusions derived from this study.

## 2.1 Research Question

› How do cognitive and metacognitive processes help EFL learners to approach reading passages found in tests?

## 2.3 Context

This study was conducted at a public institution in Colombia, English has become more important nowadays among school, college, and university learners. In 2004, the Colombian government decided to implement the National Bilingual Program: 2004-2019: English as a foreign language: strategy for competitiveness" to learn a foreign language so that learners have access to new and better opportunities in this globalized world.

This research took place at Cordoba University, which is a public university. In this institution all the programs are required to take at least four levels of English. However, we decided to apply this research to 10 learners, whose age gap ranged between 20 and 24 years. Most of them came from a middle socio-economic income group and were enrolled in the Financial Administration and International Business Programs. They have to take nine levels of English due to the importance of this language for this program and because they have to be able to communicate in English to do business with foreigners. Also, another participant who was involved in this project was their English teacher whose age was 25 year.

The group of learners selected for this study took six levels of English. Their English performance is an average level which means that they still have some difficulties in terms of grammar rules and vocabulary. Their communicative competence is limited since for most of them the only opportunity to put into practice what they have learnt is in the English class.

## 2.4 Problem Statement

As English has become an international language, people use it for many purposes nowadays and one of them is to do business so that they can communicate and expand their business. So, it becomes an important need for any Financial Administrator and International

Business manager to learn how to communicate in English. For this reason, Cordoba University has implemented nine semesters of English for its learners to learn the language in their corresponding programs.

However, it is seen that learners still have some difficulties in their English learning process and it was reflected in the PRO-SABER test. The results were not as expected. So, an important question that came out was why is it that if learners have taken nine levels of English, the results were not as good as expected? That is why we decided to focus our research on these learners who took six levels of English and to find out what kinds of strategies they used and to see which ones were successful to them.

Table 1 English module analysis. 70% of learners are between very low, low and regular.

| #ESTUDIANTES | QUINTIL | NIVEL | PUNTAJE | RESULTADOS | % |
|---|---|---|---|---|---|
| 53 | I | A- a A1 | < 9 - 9,5 | Muy Bajo - Bajo | 31.3 |
| 67 | II | A1 a A2 | 9,6 -10,2 | Regular | 39.6 |
| 23 | III | A2 a B1 | 10,3 - 10,6 | Bueno | 13.6 |
| 6 | IV | B1 | 10,7 – 11 | Muy Bueno | 3.55 |
| 20 | V | B1 a B+ | > 11 | Excelente | 11.8 |
| 169 | | | | | 100% |

Taken from: http://limavirtual.unicordoba.edu.co/finanzas/documentos/saber_pro_genericas_2013_2.pdf

The results presented in table 1 show that there is a poor reading comprehension performance since the PRO-SABER test measures the learners' vocabulary and reading comprehension levels. It is also important to mention that most of the questions in that test belong to the literal reading comprehension level to see if the learners have difficulties in this regard. Therefore, they are more likely to exhibit difficulties in the other reading subcategories of the Inferential and Critical Levels.

## 2.5. Research Objectives

## 2.6. General objective

› To identify the different cognitive and metacognitive processes through which EFL learners tackle reading comprehension tests.

## 2.7. Specific objectives

› To find out the cognitive and metacognitive mechanisms used by EFL learners when it comes to taking reading comprehension tests.
› To recognize the most common reading strategies implemented by them when taking reading comprehension tests.

# 3. Theoretical Framework

## 3.1 Language learning strategies

Learning language strategies have been used for a long time ago in a conscious and unconscious way by people in order to have better language learning. Some studies carried out by authors such as; Chamot & O'Malley(1994) & Oxford (1990, 1993, 1996)have shown the significance of these strategies in making language more efficient and in producing a positive effect on learners' language use and so the language learners use them to develop communicative competence and to improve their English performance in the different tasks they carry out. Oxford (1990) divided these strategies into two groups or categories, which are classified as being **direct**, dealing with the new language directly and **indirect**, dealing with the general management of learning.

## 3.2 Direct and Indirect Strategies

According to Oxford (1990, p.37) *direct strategies* refer to:

> *Language learning strategies that directly involve the target language are called direct strategies*

On the other hand, Oxford (1990) points out that indirect strategy:

*Support and manage language learning without (in many instances) directly involving the target language... Indirect strategies are useful in virtually all language learning situations and are applicable to all four language skills: listening, reading, speaking, and writing.*

Weaver & Cohen, (2005) established that there are four different types of strategies such as: Cognitive, metacognitive, social and affective.

1. Cognitive strategies cover many of the processes or mental manipulations that learners go through in both learning the target language (e.g., identification, grouping, retention, and storage of language material) and in using it (e.g., retrieval of language material, rehearsal, and comprehension or production of words, phrases, and other elements of the target language)".
2. Meta-cognitive strategies allow learners to control their language learning by planning what they will do, checking how it is going, and then evaluating their performance on a given task. Metacognitive strategy use is not always observable, but from time to time you may notice your students engaged in planning strategies – talking out how they are going to say something or making planning notes".
3. Social strategies involve learners' choices to interact with other learners and native speakers, such as asking questions to clarify social roles and relationships, asking for an explanation or verification, and cooperating with others in order to complete tasks".
4. Affective strategies help students regulate their emotions, motivation, and attitudes and are often used to reduce anxiety and provide self-encouragement.

### 3.3 Cognitive and Metacognitive Strategies

Another important categorization of language learning strategies is that of O'Malley and Chamot (1987). These authors state that the processes in which learners interact with material mentally (as in making mental images or relating new information to previously acquired knowledge) or physically, take notes and make summaries are called *cognitive strategies*. On the other hand, the processes, which involve planning for learning, monitoring ones comprehension, and production, and

evaluating how well one has achieved a learning objective are called *metacognitive strategies*. The following cognitive strategies, were used in this research: association, relation, and repetition.

›   **Guessing through context**: According to Yu-Ling, (2005, p. 20) "some other important sources of information should also be taken into account when guessing, such as knowledge of the subject being read, or knowledge of the conceptual structure of the topic".

›   **Association:** Associating the new ideas and information with the prior knowledge is a good technique to learn new things.

›   **Scanning:** Roe. B, Kolodziej. J, Stoodt-Hill. D, Burns. C. (2013), suggest that: "Scanning means reading to find a specific bit of information...When scanning, readers run their eyes rapidly down the page, concentrating on the particular information they seek".

›   **Repetition:** Schmitt (1997) establishes that: "Although repetition as a learning strategy is not much praised by those supporting the depth of processing hypothesis, it is popular among learners and may help them achieve high levels of proficiency".

›   **Predicting:** Predicting is a process in which readers take the information available in a passage and their prior knowledge to guess what they are about to read. According to Robb (1996) "Predicting is a complex strategy that includes many other strategies. To predict, readers question and wonder, then read on to confirm or adjust and the process of confirming and adjusting involves finding support in the text.

›   **Global reading strategy:** According to Mokhtari, Kouider & Reichard (2002) this strategy is oriented toward a global analysis of a text. Examples include "I decide what to read closely and what to ignore;" "I think about what I know to help me understand what I read;" and "I have a purpose in mind when I read." These strategies can be thought of as generalized, intentional reading strategies aimed at setting the stage for the reading act (e.g., setting purpose for reading, making predictions).

›   **Problem solving:** According to Mokhtari, Kouider & Reichard (2002) this strategy appears to be oriented around strategies for solving problems when text becomes difficult to read. Examples of these strategies include "When the text becomes difficult, I reread to increase my understanding;" and "I adjust my reading speed

according to what I read." These strategies provide readers with action plans that allow them to navigate through text skillfully. Such strategies are localized, focused problem-solving or repair strategies used when problems develop in understanding textual information (e.g., checking one's understanding on encountering conflicting information or rereading for better understanding).

›   **Support reading strategy:** According to Mokhtari, Kouider & Reichard (2002) It primarily involves the use of outside reference materials, taking notes, and other practical strategies that might be described as functional or support strategies. Examples include "I take notes while reading;" "I underline or circle information in the text to help me remember it;" and "I summarize what I read to reflect on important information in the text." Strategies such as these serve a useful function for some of the students who seem to invoke them as needed. These strategies provide the support mechanisms aimed at sustaining responses to reading (e.g., use of reference materials such as dictionaries and other support systems).

## 3.4 Reading Comprehension Concept

According to Bouchard & Trabasso (2003), reading is a process by which readers construct meaning by interacting with text through the combination of prior knowledge and previous experiences, the information from the text and the opinion that the reader assumes regarding to the text.

## 3.5 Reading Comprehension as a Process

Reading is a complex process in which the reader interacts directly with the text in order to construct meaning. However, Grabe & Stoller (2002) consider that time, as well as enough training and dedication are not being given to develop reading comprehension skills in the mother tongue or second language. For example, according to a study carried out by (Durkin cited by Dreyer, 2003) in which he states that the time given for instructions in reading comprehension only reaches 2% and it seems that this percentage 20 years later has not changed despite of the success that this process might bring to these agents. Thus, to start changing the way in which reading comprehension is taught and assessed.

Nation & Angell (2006) suggest that: "Even though identifying what aspects, during the reading comprehension a student finds difficulties, it is necessary and it should conduct to an intervention that get students close to answer in a correct way to the requirements of the statements, questions or cognitive needs that required this reading comprehension process".

Thus, to join all these concepts together in our research, it was necessary to use a combination of qualitative and quantitative research methodology since both allow us to use their different characteristics to develop this work.

## 3.6 Learning Strategies

(Wenden cited in Lee Chien, 2010) establishes that "Learning strategies are the various operations that learners use in order to make sense of their learning". Besides, Williams & Burden (1997) indicates that when learners are involved in a learning task, they have several resources which they use in different ways to finish or solve the task, so this can be termed process of learning strategy. In addition, Oxford (1990) defines learning strategies as, "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations." It means that when a learner wants to learn something he/she has the capacity to look for the different strategies or methods to learn properly without fearing what the situation or school subject is.

## 3.7 Language Learning Strategies (LLS)

(Oxford cited in Lessard-Clouston Michael, 1997) defines language learning strategies as:

> *"Specific actions, behaviours, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability".*

Thus, it can be said then that LLS are any particular action that a learner decides to take while learning. As each person has his unique way of learning, so depending on what he/she is learning he/she seeks different ways to do so.

## 3.8 Metacognition

Flavell (1971) argues that metacognition is the notion of thinking about thinking. It means that a person is aware about what he is currently doing. It can be said that metacognition is something deliberate, planned and intentionally goal-oriented that can be used to achieve cognitive tasks. Thus, it can be assumed that metacognition deals with the monitoring of the cognitive processes to accomplish cognitive goals.

Brown (1989) and Alderson's (2000) studies show that poor readers lack effective metacognitive strategies which affect directly their reading comprehension performances. On the other hand, successful L2 readers show a better performance while reading since they are more aware of how to approach these metacognitive strategies.

## 3.9 Cognitive perspective on learning

Eggen & Kauchak (2003) state that cognitive learning theory assumes that learners are active in their attempts to understand the world. New understanding depends on prior learning. Learners construct understanding, and learning is a change in people's mental structures instead of changes in observable behaviour.

Cognitive theory focuses on an individual's thoughts as a crucial determinate of his or her emotions and behaviours. Our responses make sense within our own view of the world. Therefore, according to cognitive theory, it is important to change a person's thoughts and beliefs in order to change his or her behaviours.

According to cognitive theory, irrational responses are the result of automatic thoughts and erroneous beliefs. Cognitive reframing is a technique that is used to help the client examine his or beliefs and develop healthier ways of viewing the situation. Techniques such as the

STOP method are used to help the individual stop automatic thoughts and replace them with new thoughts.

# 4. Methodology

The research methodology that this study is going to implement is a mixture of quantitative and qualitative methodologies. Ten Participants did multiple-choice reading comprehension achievement test, followed by a cognitive–metacognitive questionnaire on how they thought while taking the test. Besides, a teacher's interview and a learners' survey were used in the subsequent analysis.

In this study we used a qualitative approach which is appropriate for a deep understanding of how cognitive and metacognitive processes help EFL learners approach reading passages found in tests. The purpose of qualitative approaches is to describe groups of people by interpreting and classifying what they do, like, need and believe within their social context. In addition, the quantitative approach used in this study helped us to narrow down possible directions for follow up research. Also, it is important to mention that this type of research seeks precise measurement and analysis of target concepts.

## 4.1 Data Collection Techniques

### Teacher's interview

For the sake of our project, as means to achieve effectively the goals we have set for the study, we consider necessary the use of techniques such as interviews which Duff (2007) defines as instruments to collect data about the insights or perspectives of research participants. In our research, for instance, the main use of the interview is to get information about teachers' perception with regard to learners' cognitive and metacognitive strategies.

In this study a structured interview was applied to a teacher. According to Mackey & Gass (2005) "In structured (also known as standardized) interviews, researchers usually ask an identical set of questions of all respondents. Structured interviews resemble verbal

questionnaires and allow researchers to compare answers from different participants."

## Survey

In Mackey & Gass (2005) words a survey is a one of the most common methods of collecting data on attitudes and opinions from a large group of participants; as such, it has been used to investigate a wide variety of questions in second language research. Also, as Dornyei (2003) notes, surveys provide a very efficient means for researchers to gather a good deal of information in a short time with little cost.

## Focus group

For the research team, we considered as an essential source of information in lights of the methodology and data collection techniques the use of a focus group. In the case of our target population, we required a focus group of ten learners, they were assessed in order to identify the different mental process through which EFL learners tackle reading comprehension tests. In order to understand the rationale of focus group in our research project within qualitative nature, it is relevant to be acquainted of what focus group is.

According to Asbury (1995) "focus groups are a data collection technique that capitalizes on the interaction within a group to elicit rich experiential data". This assertion shows interaction as a key element in the effective development of the generation of data, which are advantageous evidences for strengthening the expected outcomes in the study as well as guiding the contributions of the participants towards successful results.

In addition, it is important to assume the usefulness of focus groups in qualitative studies in terms of not only data generation and collection but also it is less time consuming and more in-depth analysis of the information presented through the interaction and involvement of the participants within the research field.

## 4.2 Participants

The group selected for this study consisted of 37 learners in the age group of 20 -24 years. Most of them came from a medium social economical background level and received public education during their high school.

However, to do this research Project only 10 were chosen. They had a blended learning style. It is important to mention that the group has been attending three hours of English classes on Saturdays since the beginning of their career at the university.

Due to the nature of the course they are studying, it is important for them to complete nine levels of English classes so that they are able to communicate and develop the skills to promote and generate business with foreigners.

Nevertheless, it is important to mention that despite the fact that these learners have taken several levels of English classes throughout the career, their English level is basic with poor management of basic structure of the English language. They also lack vocabulary which influences their reading comprehension performance in a negative way.

# 5. Data Analysis

## 5.1 Analysis

This part of the research consists of some graphs that identify different cognitive and metacognitive processes through which EFL learners tackle reading comprehension tests.

The graph 1 shows the learners' cognitive and metacognitive aware-ness of reading strategies. Taking into account each question, we can see that:

**Question number one (Q 1):** 50% of learners always take notes while reading to help them understand what they read while,30% only do so sometimes and the remaining and 20% do so occasionally.

Graph 1. Learners's survey
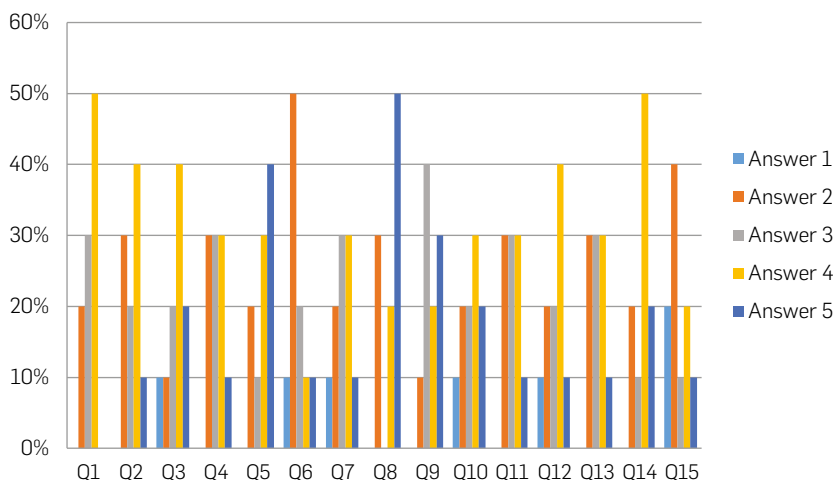
**Question number two (Q 2):** 40% of learners usually preview the text to see what it is about before reading, another 30% of them do this only occasionally, 20% preview the next sometimes and the remaining 10% always do so.

**Question number three (Q 3):** 40% of learners usually underline or circle information in the text to help them remember it, 20% always do this, another 20% sometimes do it, a 10% of them do this occasionally and the remaining 10% never do it.

**Question number four (Q4):** 30% of the learners usually used tables, figures and pictures in the text to increase their understanding, 30% do it sometimes, another 30% do this occasionally and finally only 10% of them always do it.

**Question number five (Q 5):** 40% of the learners always try to visualize information to help them remember what they read, 30% usually do it, another 20% do it occasionally and 10% of them do it sometimes.

**Question number six (Q 6):** 50% of learners occasionally check to see if their guesses about the text are right or wrong, 20% sometimes do it, a 10% always do it, another 10% usually do it and the other 10% never do it.

**Question number seven (Q 7):** 30% of the learners usually try to guess the meaning of unknown words or phrases, another 30% sometimes do it, 20% do this occasionally, 10% always do it and 10% never do it.

**Question number eight (Q 8):** 50% of learners always reread the text to increase their understanding when the text becomes difficult, 30% do it occasionally and the 20% usually do it.

**Question number nine (Q 9):** 40% of learners usually use dictionary to help understand what they read, 30% of them always use it, 20% usually use it and 10% only use it occasionally.

**Question number ten (Q 10):** 30% of learners sometimes try to get back on track when they get distracted or lose concentration, 20% of them always try to, another 20% sometimes ,20% do it occasionally and 10% never tried to get back.

**Question number eleven (Q 11):** 30% of learners sometimes read slowly but carefully to be sure they understand what they are reading, another 30% of them sometimes do it, another 30% do this occasionally and the last 10% always do it.

**Question number twelve (Q 12):** 40% of the learners usually adjust their reading speed according to what they are reading, 20% of them sometimes do it, another 20% do it occasionally, 10% always do it and 10% never do it.

**Question number thirteen (Q 13):** 30% of learners usually stop from time to time and think about what they are reading, 30% sometimes do it, another 30% do this occasionally and 10% never do it.

**Question number fourteen (Q 14):** 50% of learners usually think about what they know to help them understand what they read, 20% of them always do it, another 20% do it occasionally and 10% sometimes do it.

**Question number fifteen (Q 15):** 40% of learners occasionally use typographical features like bold face and italics to identify key features,

20% usually use this technique 20% never do it, 10% always do it and the remaining 10% only use it sometimes.

The graph 2 shows how accurate learners were at the moment of giving the most appropriate title that best summarizes each paragraph.

**Graph 2.** Reading comprehension test part A
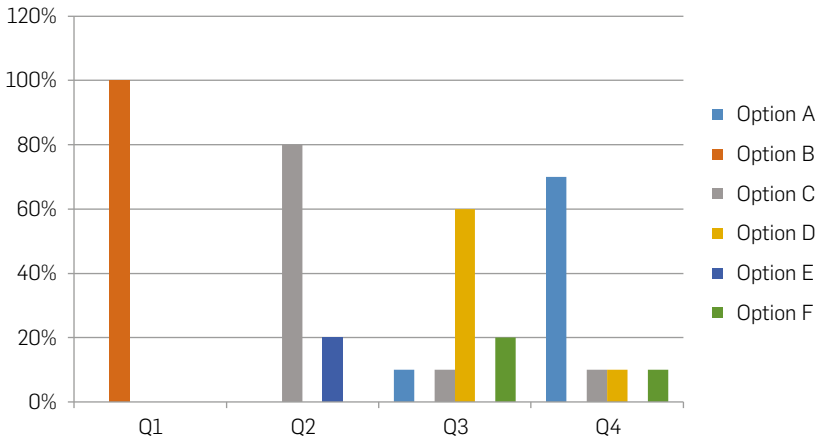


**Question number one (Q 1):** The correct answer for this question was option B, based on the graph 100% of learners answered correctly.
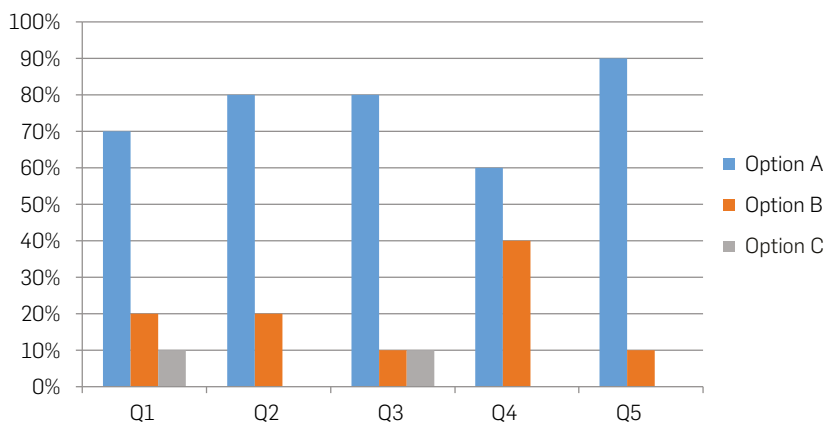
**Question number two (Q 2):** The correct answer for this question was option C, based on the graphic 80% of learners answered correctly and 20% of them chose option E.

**Question number three (Q 3):** The correct answer for this question was option D, based on the graphic 60% of learners answered correctly, 10% of them chose option C and the other 10% chose option E.

**Question number four (Q 4):** The correct answer for this question was option A, based on the graphic 70% of learners answered correctly, 10% of them chose option F, another 10% of them chose option D, and the last 10% chose option C.

The graph 3 shows how accurate learners were at the moment of remembering specific information from the text.

**Graph 3.** Reading comprehension test part B

**Question number one (Q 1):** The correct answer for this question was option A 70% of learners answered correctly, 20% of them chose option B and 10% chose option C.

**Question number two (Q 2):** The correct answer for this question was option A, 80% of learners answered correctly and the other 20% of them chose option B

**Question number three (Q 3):** The correct answer for this question was option A, and 80% answered correctly, while a 10% of them chose option B and 10% chose option B.
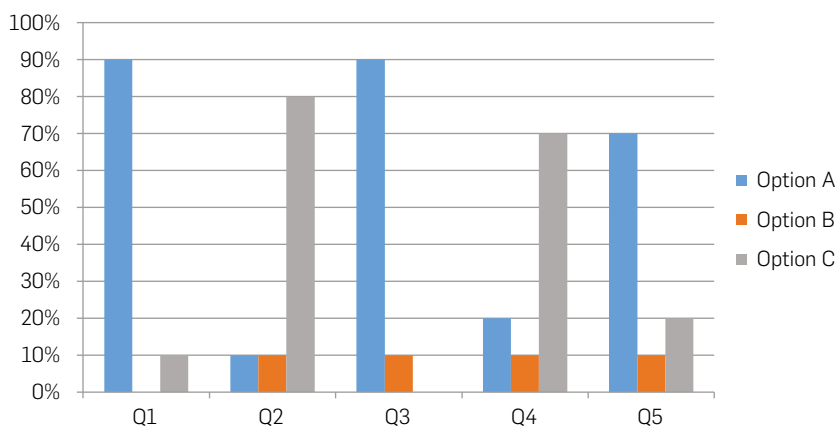
**Question number four (Q 4):** The correct answer for this question was option A, while the majority 80% answered correctly and the remaining 40% of chose option B.

**Question number five (Q 5):** The correct answer for this question was option A, 90% answered correctly and the other 10% of them chose option B.

The graph 4 shows how accurate learners were at the moment of choosing the correct reason or complement of the different situations given.

**Question number one (Q 1):** The correct answer for this situation was option A and 90% of learners gave the right answer and the remaining 10% chose option B.

Graph 4. Reading comprehension test part C

**Question number two (Q 2):** The correct answer for this situation was option C, for which 80% of learners answered correctly, and 10% chose option A and the other 10% option B.

**Question number three (Q 3):** The correct answer for this question was option A, the majority that is 90% and the other 10% chose option B.

**Question number four (Q 4):** The correct answer for this question was option C, here 70% of learners gave the correct answer, 20% chose option A and the other 10% chose option B.

**Question number five (Q 5):** The correct answer for this question was option A and 70% answered correctly. While 20% chose option C and the other 10% chose option B.

Taking into account the reading comprehension test, we could identify that the different cognitive and metacognitive strategies used by the learners while doing a reading test or exercise worked for them. However, about 10% to 20% of learners tended to choose a wrong answer in questions number two, three, and four. It means that learners did not use a unique cognitive or metacognitive strategy while reading, but a mixture of them since it could help them to tackle different reading comprehension tasks and achieve a better performance despite of the lack of vocabulary, time limitations, reading length, and previous knowledge about the different topics addressed in the texts.

According to the third graph in which learners had to remember specific information about the text in order for them to answer the four questions, we could identify that most of the learners answered them properly. However, in question number four it was kind of difficult for them to remember the information asked since 40% of them got it wrong. So, it reflects that learners made more use of their cognitive strategies in this type of questions to remember details and specific information about the text.

And, in the fourth graph in which learners had to be accurate at the moment of choosing the correct reason or complement of the different situations given, most of learners answered well, which means that learners understood the main ideas of the text but just about 20% of learners got some answers wrong.

Also, based on the teacher's interview, it can be noticed that the teacher favours the use of cognitive strategies during the teaching practice. That is why; most of the learners tend to use them more. However, the teacher is conscious about the minimal use of metacognitive strategies. Besides, the teacher has noticed the learners' improvement in their reading comprehension tests since he has taught the different cognitive and metacognitive strategies. In addition, the frequency with which he gives learners texts to practice these strategies has made learners more aware of the importance of them and how productive they can be at the moment of understanding and remembering information from a text.

## Teacher's interview

Based on the analysis of the teacher's interview we could say that from the teacher's perspective, learners have improved their reading comprehension (strategies or competence or performance) through the use of the different cognitive and metacognitive strategies taught during their university career. Also, the motivation he gives them is quite important for them to trust more in their abilities and understanding and the good grades they get from the reading comprehension tests is another high motivation for them too.

# 6. Conclusions

## 6.1 Conclusions and Pedagogical Implications

Reading is a kind of challenge for some people since they do not like reading or they have problems in understanding the main idea of the text or of the whole text as such. But, for others it is easier and enjoyable since they make use of some strategies to do so.

Our project took ten learners from the Financial Administration and International Business programs at Cordoba University. These learners have taken seven English levels during their career and one of the tasks they face during the levels is to read different financial and business articles. So, they have to read and to comprehend the text, but for them this process has become easier to do because they have been making use of some cognitive and metacognitive strategies that the teachers have taught them during their career.

As this research focused on these strategies and sought to know which of them the learners used the most, an interview, survey and some reading comprehension tests were applied to get the answers needed. The result obtained showed that the learners made more use of the cognitive strategies rather than the metacognitive ones since they guessed the meaning of the words through the context, read picture, underlined words, took notes, and visualized information about the text.

On the other hand, learners made use of the metacognitive strategies as well but they did not use them as much as the cognitive ones. One of the reasons for this is that the teacher focused more on the cognitive ones according to the results gathered from his interview. Thus, it is necessary that teachers pay a lot of attention to the use of metacognitive strategies in order to have a balance and at the same time help learners to improve and monitor their reading comprehension process. Therefore, achieving a better performance in different tasks that involve readings.

The strategies used by the learners helped them to answer correctly, however it was seen that for some learners the strategies used were not the correct ones since in certain questions, 20% to 40% of them got some wrong answers. This could be because of the learners did not

apply the cognitive and metacognitive strategies at all or they chose the wrong strategies for that type of text provided.

To conclude, it can be argued that this study provided legitimate insights into what kinds of cognitive and metacognitive strategies learners used the most when tackling reading comprehension tests; however, it is important to mention that no matter the strategies used in the reading comprehension tests, what really matters was to understand what is being read and learners' improvement as a result of the application of these strategies.

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