



## AWAKENING STUDENTS' PERCEPTIONS THROUGH THE USE OF THREE COGNITIVE STRATEGIES FOR READING

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### Abstract

This article describes the implementation of the Cognitive Academic Language Learning Approach (CALLA) with students from four different settings in Boyacá. The implementation of the model was carried out during some reading sessions in order to make students active participants of their learning and to be conscious of the strategies use, such as, activating prior knowledge, making predictions about the text and checking guesses and predictions. Those strategies are used to facilitate students' understanding of a text through the implementation of the instructional model.

**Key words:** CALLA, reading, learning strategies, instructional model.

### Resumen

El presente artículo describe la implementación del enfoque llamado Cognitive Academic Language Learning Approach (CALLA), con estudiantes de cuatro instituciones educativas de Boyacá. El modelo se implementó por medio de ejercicios de lectura desarrollados con los estudiantes, con el fin de hacerlos conscientes de que la utilización de estrategias como la activación del conocimiento previo, hacer predicciones y la verificación de las mismas facilitan la comprensión de un texto

**Palabras clave:** CALLA, lectura, estrategias de aprendizaje, modelo de instrucción.

## INTRODUCTION

Since the late 1970s, there has been widespread research interest in the strategies that learners use when learning and using second languages (Macaro, 2006). However, after theoretical analyses of reading comprehension and problem solving from novices and experts, O'Malley and Chamot (1990) classified the learning strategies in three categories: cognitive, meta-cognitive and affective or social strategies.

According to Oxford (1990), Cognitive strategies are typically found to be the most popular strategies with language learners. We verified this assertion through the observation we carried out in one of our classes in which we noticed that most of the strategies students used were cognitive, i.e. highlighting and underlining.

Considering the students' strategies used for reading mentioned previously, the implementation of the Cognitive Academic Language Learning Approach (which we will refer as CALLA) in four different settings in Boyacá, emerges from the necessity of instructing students on the practice of cognitive strategies for reading such as the activation of the prior knowledge, making predictions and checking guesses and predictions. As stated in the National Reading Panel, 2002, Implicit or formal instruction in the application of comprehension strategies has been shown to be highly effective in enhancing understanding. Therefore, we expect the participants to make visible the strategies they use when reading and become conscious of how they help them to make sense of a text. Besides, expansion, which refers to the possibility of transferring

the strategies implemented in one area to other different subjects, is another interesting aspect to examine.

This paper first revises theoretical constructs about learning strategies when reading. Then we describe the setting where the CALLA model was implemented including a detailed description of the activities developed during three sessions. Besides, it will be presented the students' perceptions of the three strategies used for reading a text, the findings and analysis of the collected data; finally we will present some conclusions about future applications of the CALLA model.

## REVISION OF CORE CONSTRUCTS: STRATEGY, LEARNING STRATEGIES AND READING

In this section we will discuss core concepts and research experiences in relation to strategies, strategy training, learning strategies and reading, which frame this study.

### Strategy

The literature reveals a further problem with strategy definition and the interchangeability of many of the terms used, Macaro E (2006). Authors such as Oxford (1990) suggested that strategy implies planning, competition, conscious manipulation and movement toward a goal. On the other hand, Wenden & Rubin (1987) defines strategies in terms of language learning behaviors that learners engage in, the knowledge they have of their behaviors and the knowledge they have of themselves as learners and the language they are learning. It is true that learner's behaviors reveal about the strategies students use when reading a text. Look up the meaning of a word

in the dictionary or underlying words are examples of those, even when students did not set goals or plan to use them. Most college or university readers use the underlining (or highlighting) strategy often even though they are not usually aware of how and when to use the strategy, Karbalaie (2011), regarding this fact, it is to promote learning strategy training by Chamot & O'Malley, (1987).

### Strategy Instruction

Learning strategies instruction is based on the idea that students are more effective when they take control of their own learning, (Chamot 1994). This term, as Oxford (1990) stated, is used because it is descriptive and general enough to explain in a whole the process involved in this study: learning, training, methodological initiation for learners and expansion of knowledge. Bearing in mind the previous characteristics, strategy instruction is not only about the use of a set of strategies, but also dealing with beliefs, emotions and feelings of the learners' cultural backgrounds.

As learning is a long process it is necessary that both teachers and learners know how to help to learn and how to learn. Sometimes learners are conscious about the strategies they use to achieve a learning goal. Even though they do not name those activities they continue using them without being aware that they might have positive results if they set a plan before starting a reading activity.

However, sometimes learners do not have a repertoire of strategies which could be applied according to the proposed goal. Therefore, teachers must instruct explicitly about the use of strategies showing them why, when, and how to use suitable strategies in a reading

activity. Teachers need to make it clear that instruction in strategies can help students reach long-term goals in all type of learning, not just a specific, immediate goal in the language classroom (Chamot, A.,1999).

### Reading Strategies

According to Cohen (1990), reading strategies are "those mental processes that readers consciously choose to use in accomplishing reading tasks". Hudson (2007) regarded these strategies as a series of actions that a reader utilizes in order to construct meaning in the reading process. Furthermore, Mokhtari and Reichard believe that "increasing students' awareness of their comprehension processes while reading is an important first step toward their becoming constructively responsive, strategic and thoughtful readers" (2002).

One of the main purposes of the present study is thus to investigate the applicability of the CALLA model in four different settings, focusing on three cognitive strategies: activating prior knowledge, prediction, checking guesses and predictions, in relation to the effect of using explicit instruction on reading comprehension activities.

Activating prior knowledge is visible when you relate what you read to something you know establishing connections between the prior and new knowledge. This strategy is important if you want to "use" prediction and checking guesses strategies because you ought to have a background to evaluate what you guess.

Prediction is a strategy that helps learners to say how the story will develop, based on their prior knowledge.

Checking guesses and predictions is carried out during the reading process to review the use of the two previous strategies, activating prior knowledge and prediction. For the application of the CALLA model looking for learning students improvement, it is worthy to say that here in Colombia there has been conducted some researches on the field of reading comprehension and strategies used. Echeverri & McNulty (2010) report a research experience that aims at examining the foreign language reading comprehension of eight graders who experienced a directed reading-thinking approach with strategies for comprehension and application. The strategies they used were prediction, prior knowledge, graphic organizers, and questions. Findings showed that participants thought that the strategies and an interactive reading task improved reading comprehension and it is relevant for our study because one of our goals aims to that point.

Quiroga Carrillo (2010), accounts for an action research project conducted in a public school in Bogotá, Colombia, with tenth grade students. This study wanted to improve reading comprehension. The project focused on the implementation of four lesson plans in which five reading strategies were applied. They were reading speed, non-text information, word attack skills, text attack and discursive strategies. The main contribution of this study to ours is mainly the way of analysis of data from instruments like questionnaires and observation.

Bearing in mind those investigations, we can say that the authors also used some strategies for reading comprehension. Besides, we included checking guesses and predictions because we consider important

to awake our students' awareness about the strategies they use in their English learning process.

## **OVERALL DESIGN OF THE STUDY**

In this section we will present the design and type of the study. This is a qualitative study where we explore the effect of the CALLA model application on the reading comprehension level of four different groups of students and we analyze how and why this implementation could determine a change in the reading behavior of the participants.

This study has three phases; the first one was the application of a survey on Language Strategy Use, to elicit information about the most common strategies employed by the participants when reading a text. The second phase was an observation based on a protocol, in which the researchers checked the students' use of some specific reading strategies with two different texts in English and, the third phase was the analysis of the gathered information related to reading comprehension level.

The study was carried out in four different settings in Boyacá. Universidad Pedagógica y Tecnológica de Colombia in Tunja, Institución Educativa Hector Julio Rangel Quintero in the town of Floresta, Colegio Guillermo León Valencia located in Duitama and Institución Educativa Técnica Honorio Ángel y Olarte in the town of Pachavita, places where we are currently working.

The three schools population, males and females are between the ages 13 to 17, which English level is very low since they have been studying English just from high school. They

have three hours of English class per week and they are in groups between 28 to 33 students per classroom. The other population group from the University is quite different from the others in terms of age (between 18 to 21), English level (pre-intermediate level) and they devote one hour more to learn the language.

For achieving the purpose of this study, we use three instruments to gather information about the way that the population use strategies, to analyze the results of the implementation of the CALLA model. The first instrument (the survey); was designed to find the presence of language learning strategies used by the participants. This instrument was an adaptation of the Language Strategy Use Inventory suggested by Andres D. Cohen, Rebecca L. Oxford and Julie C. Chi (2005), it was applied in Spanish in order to get more valid information and avoid misunderstandings. Through this instrument students were asked about the what, when, how and why they use strategies to accomplish a reading task. (See annex 1).

The second instrument was a protocol of observation (See Annex 2) adapted from "Strategy Applications Listed According to Each of the Four Language Skills" suggested by Oxford (1990) in which 25 statements were chosen regarding the information the participants delivered in the first instrument. The main objective of this instrument was to check the information provided by the participants with the behavior they performed in a reading activity.

The KWL diagram (See Annex 3) is an instrument used to develop the CALLA model instruction; in K column the participants wrote

down the predictions they did about the topic of the reading; in W column it was registered what they wanted to know and, in the L Column what they learnt from the text. The information was obtained from three sessions in a normal classroom routine, during a month, in order to help the learners to discover strategies that could help to master different learning strategies.

Now we are going to present the process we follow to apply the CALLA Model Instruction during this study giving report on the stages used in it.

### **Observation**

As it was stated previously, to carry out the observation we designed a protocol that includes an inventory of strategies we focused on. During this stage we noticed that when reading a text, our students mainly used underlining and the dictionary. In addition, they were not conscious that some actions they used were actually learning strategies, for example their use of laughter or making positive statements encouraged them to lower anxiety and develop the cognitive process. Besides, we perceived that when students underlined, this strategy was not enough to recall information from the text and participate in discussions. Every single time the teacher asked some questions about the reading, their replies were mostly literal information.

As a way to present the process we conducted to apply the CALLA Model of instruction, we carried out four steps with several activities in each one of them. First, we did a PREPARATION in which we told the students the importance of employing

strategies to perform any task and we focused on three specific ones: Activation of prior knowledge, Making predictions and Checking guesses and predictions.

We started by mentioning the strategies they used based on the observation and tried to motivate them to reflect on such usage they did. Then, we explained to the students that we were going to model the use of the three strategies. We remarked on the fact that when we activate prior knowledge (schemata), we learn new information by connecting it to what we already know and, in that way, we are able to create new meanings

Then, we explained how “Predicting” helps readers hypothesize about what a text may be about, based on their own experiences. It also encourages the reader to set a goal for reading. When predicting, students were advised to use key words, heads, subheads and pictures from the reading. Finally “Checking guesses and predictions” was presented as a strategy that confirms and evaluates the predictions we did before approaching the contents of the reading.

In the second step, we made a PRESENTATION of the model where , we gave the students the reading “The little duckling”, we drew the KWL diagram (see annex N°2) on the board, in which we recorded the brainstormed information as follows: In the “K” column, the prior knowledge about ducks, peacocks, eagles and cocks; in the “W” column, what they expected to learn or find in the reading and, in the “L” what they finally learnt from the text.

Thirdly, the PRACTICE phase was applied. There, the students were given the reading

“Mice” in order to put into practice the three previous learnt strategies. In this stage, we used another reading to prove that the strategies can be applied with any topic.

The activity was carried out in groups to promote cooperative learning and clarify their understanding of the information previously presented. Also, it is important to add that predicting was part of a pre-reading stage and checking guessing and predictions was part of while and post reading stages.

At the end, we applied a survey, as an EVALUATION, for students to self-evaluate their learning strategy use and the applicability of those in other tasks and areas. (See Annex 4).

Bellow, you will know the findings we got from the development of our strategy instruction and the perceptions of our students during and after the process.

## **FINDINGS AND CONCLUSIONS**

This work of strategies instruction allowed us to discover a change of attitude in our learners. Our classes were more enjoyable and full of a positive energy that brought us the opportunity to know our students a little bit deeper and provide a renewed environment open to a variety of ideas taken from texts on different topics.

Through the observation, we could perceive that most of our learners did not use strategies effectively in order to become familiar with a reading. We could perceive that they mainly used translation, underlining and affective strategies like lowering anxiety and making positive statements. However,

students were not aware about what they do with any text is a use of strategies.

During the teachers' intervention, students showed confidence in the manipulation of the texts. When they were asked to talk about their previous knowledge, they were willing to brainstorm ideas no matter if they used the target language in a wrong way or if they had to "make up" words combining Spanish and English languages. Also, they were risks takers when talking about their own perceptions (for instance, when there was a peacock and they called it rooster or even male hen).

In the second stage, when they had to make predictions, students showed a more relaxed attitude maybe because everything they said was acceptable, nothing could be wrong as the teacher just listened and approved all ideas. The main objective of this stage was to provide a space where learners expressed themselves in a free way. It was a room for creativity as in content as in language terms because they could brainstorm whatever they thought about the reading and making use of the language as they felt comfortable with. This depended on the students' level. Some of them tried to use the target language and some others preferred their native tongue in order to communicate what they were predicting but we perceived that the level of participation and attention in our classes increased in a considerable way.

In the third stage, when they had to check their predictions, they were very attentive to the development of the reading because they wanted to confirm what they had predicted

before. Therefore, this stage allowed them to gain more concentration and interest to follow the reading and giving them the chance to compare what they and their classmates had predicted before.

After the strategies instruction, the students were asked to answer some questions about the use they had done of the three strategies. The participants expressed, they had enjoyed the use of the strategies because they realized they were useful for the understanding of any text and they felt they completed the assigned task having solved the doubts or answered the questions the teacher asked during or after the reading. Also, and following the expansion stage from the CALLA model, students realized that they could use these three strategies again not only in the English class but in any other subject like science, religion or social studies.

Another important factor related to the CALLA model's principles, is that the participants became familiar with the strategies to the extent that they referred to them by the correct name (e.g. Activating prior knowledge), which helps us to fulfill the objective of making the students aware of strategy use.

Finally, we as the developers of this work, are also aware of the importance of transmitting our students the different techniques we apply to make our learning process better. We as learners had to employ different strategies that we could prove and discover during our long process and now, it is time to share them in order to facilitate our teaching practice and our learners' learning process.

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ANNEX1

INITIAL SURVEY  
ENCUESTA

Institución: \_\_\_\_\_  
 Grado: \_\_\_\_\_ Edad: \_\_\_\_\_ Sexo: M \_\_\_\_\_ F \_\_\_\_\_

Lee cuidadosamente cada enunciado y marca con una equis (X) la categoría que identifique el uso que haces de cada estrategia.

ESTRATEGIAS PARA MEJORAR MI HABILIDAD LECTORA EN INGLÉS

ESTRATEGIA	USO LA ESTRATEGIA Y ME GUSTA	HE PRACTICADO LA ESTRATEGIA Y LA USARÍA DE NUEVO	NUNCA HE USADO LA ESTRATEGIA PERO ME GUSTARÍA APLICARLA	ESTA ESTRATEGIA NO SE ADAPTA A MI ESTILO DE APRENDIZAJE
1. Leo tanto como me sea posible en inglés 2. Trato de leer textos en inglés que me parecen agradables 3. Busco material de lectura que esté de acuerdo con mi nivel de lengua 4. Hago un plan de lectura que incluya cómo voy a leer, cómo voy a supervisar lo que estoy leyendo y cómo evalúo lo que entendí del texto 5. Primero hago una lectura rápida de un texto académico para extraer la idea principal y luego lo leo cuidadosamente 6. Leo varias veces historias o diálogos hasta que los entienda 7. Pongo atención a la organización del texto, especialmente a los títulos y subtítulos 8. Realizo resúmenes de la lectura constantemente en mi mente o en las márgenes del texto 9. Hago predicciones acerca de lo que estoy leyendo				

Estrategias usadas para cuando no entiendo palabras y estructuras gramaticales

ESTRATEGIA	USO LA ESTRATEGIA Y ME GUSTA	HE PRACTICADO LA ESTRATEGIA Y LA USARÍA DE NUEVO	NUNCA HE USADO LA ESTRATEGIA PERO ME GUSTARÍA APLICARLA	ESTA ESTRATEGIA NO SE ADAPTA A MI ESTILO DE APRENDIZAJE
1. Hago conjeturas acerca del significado aproximado de palabras usando pistas del contexto de la lectura 2. Uso el diccionario para obtener el significado preciso de las palabras				

Responde:

¿Qué otras estrategias de lectura usas?

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## ANNEX 2

## OBSERVATION PROTOCOL

STRATEGY GROUP	STRATEGY SET	STRATEGY	YES	NO
Memory	Creating mental linkages	Placing new words into a context		X
Memory	Applying images and sounds	Using Keywords	X	
Memory	Employing action	Using physical response or sensation	X	
Memory	Applying images and sounds	Semantic mapping		X
Cognitive	Practicing	Repeating		X
Cognitive	Receiving and sending messages	Getting the idea quickly	X	
Cognitive	Analyzing and reasoning	Reasoning deductively		X
Cognitive	Analyzing and reasoning	Analyzing expressions	X	
Cognitive	Analyzing and reasoning	Translating	X	
Cognitive	Creating structure for input and output	Taking notes		X
Cognitive	Creating structure for input and output	Summarizing		X
Cognitive	Creating structure for input and output	Highlighting		X
Compensation	Guessing intelligently	Using linguistic clues		X
Compensation	Guessing intelligently	Using other clues	X	
Metacognitive	Centering your learning	Overviewing and linking with already known material		X
Metacognitive	Centering your learning	Paying attention		X
Metacognitive	Arranging and planning your learning	Setting goals and objectives		X
Metacognitive	Arranging and planning your learning	Identifying the purpose of a language task	X	
Metacognitive	Arranging and planning your learning	Planning for a language task		X
Affective	Lowering your anxiety	Using laughter	X	
Affective	Encouraging yourself	Making positive statements	X	
Affective	Encouraging yourself	Taking risks wisely		X
Social	Asking questions	Asking for clarification and verification	X	
Social	Cooperating with others	Cooperating with peers	X	
Social	Cooperating with others	Cooperating with proficient users of the foreign language	X	

ANNEX 3

KWL DIAGRAM

K WHAT I KNOW	W WHAT I WANT TO LEARN	L WHAT I LEARNED