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RESEARCH PROJECT:

IMPROVING READING COMPREHENSION THROUGH METACOGNITIVE STRATEGIES IN 5TH GRADE STUDENTS AT UNIDAD EDUCATIVA "LAS AMERICAS"

PREVIO A LA OBTENCION DEL TITULO DE:

LINCENCIADOS EN LENGUA INGLESA ESPECIALIZACIÓN LINGUISTICA Y LITERATURA

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Dedication

I dedicate this work to my parents and daughters for being an inspiration and support to me during these months.

Kristhina Verónica Blancas M.

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ABSTRACT

This comparative study aims to determine the effectiveness of metacognitive strategies on reading comprehension, with a number of thirty participants divided into two groups that could be quantitatively synthesized to compare the group performance of the experimental and control group. The students who participated in the study received specific reading strategy instruction to improve their comprehension. Teachers must incorporate more checks for understanding and provide more opportunities to develop metacognition skills and critical thinking skills in their students. As teachers, we have investigated how we can help students to improve reading comprehension through our practice in the classroom. One of the most frequent problems we found is the difficulty that our students have to develop higher-order cognitive processes, especially when these relate to processes such as comprehension. This final study shows that the comprehension of the less-skilled children can be improved by a series of short training sessions that stress making inferences and integrating information in text.

Key words:

Comprehension

cognition

metacognition

strategies reading

CHAPTER I

1. Introduction

This research is motivated by an interest in children education. Important, personal, cultural and social changes observed in this stage, increase the distance between educators and students. This requires us to be renewed, updated and with scientific rationale educational proposal. Today, technological advances allow us to access multiple information in seconds which, generally cannot be processed correctly.

In this situation, our knowledge can become shallow and fragmented. The reading activity stands out as one of the richest sources of access to knowledge. To highlight (sometimes recover) its value, is an implicit objective in this study.

We consider providing children with valuable tools to acquire appropriate education more significantly to develop effective and independent learning, allowing them to succeed not only during their elementary school years, but also throughout secondary and why not higher education.

1.1. Background of the problem

Education is a task that constantly raises new questions to all persons related to this area. The increasing number of students with low achievement in school and students who do not finish school challenges educators to broaden and enrich the look on these issues to avoid falling into simplistic and reductionist explanations.

This research did not do relevant theoretical contribution, if it is important to note, some difficulties were identified in the processes of student understanding of fifth year of education at Las Americas School, which served as a reference to consider in a new investigation. The most important thing to note is that difficulties in understanding processes originated from the first academic degrees, mainly because the pedagogical

proposal presented for these courses, in the particular case of reading and writing, seeking to secure rote repetition of concepts and processes. In the specific case of reading, it has the false belief that through the literal repetition of texts successful and comprehensive analytical processes can be reached; when actually what is proposed is the unconditional repetition of mistakes front face reading and comprehension. Reading is the basic medium for learning and teaching, its importance in the education is imposed naturally and much of the scientists see it as the key to difficulties in school learning.

The school where the study was conducted is located in a residential neighborhood of average economic level. The school for its location and access is a high demand for enrollment, not all children who attend live in the location. The school works on both Spanish and English areas, the courses range from kindergarten to seventh grade. Investigations into the domain of reading comprehension (Alexander & Jetton, 2000; Guthrie &Wigfield, 1999; Pressley, 2000; Pressley &Afflerbach, 1995) emphasize the role metacognitive strategies that meet and agree in saying that consciousness and monitoring (metacognition) of understanding the processes themselves are factors importance to reading skills (Mokhtari&Reichard, 2002).

We expected that students were located at the highest levels of reading comprehension of texts, where they can develop more complex inferences to build global interpretations of the texts, in addition to establishing arguments after the analysis of the texts. To develop this research we proposed several actions that will be guided by the following questions:

- a) What is the level of development of reading comprehension that has fifth-year students basic?
- b) What are the difficulties in relation to reading comprehension the students present?
- c) What are the strategies implemented by the teacher in the classroom, to develop reading comprehension? And finally,

d) What could be the achievements of fifth basic grade students, once the strategies of reading comprehension were implemented by the teacher in the classroom?

We have chosen the context of the elementary level for the development of these questions because it facilitates the access to the subjects with whom we expect to work. In addition, because the curriculum proposal of this educational unit has as its primary objective the development of reading comprehension, we took a sample of four teachers who teach any learning unit of the area of communication and language. The researchers did this with the purpose of knowing the strategies implemented by them at that time in the classroom. I worked most of the exercises with 30 students enrolled in the fifth basic year, children aged between 9 and 10 years old approximately, from Unidad Educativa Las Americas, morning schedule in the term from August to December 2014.

For Garcia Madruga (2006), it is a mistake to consider only reading from a social function. The author emphasizes that reading is one of the most important sources of pleasure. It also states that another erroneous reading vision is to reduce it becoming easier decoding letters and words, forgetting that understanding, construction of meaning is the natural order of reading.

"Knowing thinking involves being aware of the errors and pitfalls of thought itself and their expressions; Knowledge captures and corrects the flaws in the thinking to make it more fluent, coherent and efficient is one way to learn to reason about the reasoning". (Clamps, 2001). Because of this, several studies have emphasized the problem that the reader has to plan, monitor and evaluate their own cognitive processes, deficiency results in little use made of the strategies metacognitive. The most important difference between a bad and a good reader is the use of strategies. This added to the learning methodologies have urged memorization processes on the processes of understanding and reflection, which have resulted learn without understanding, literal repetition of a text. This research presents the difficulties in the course of learning processes and so obstructing significant acquisition and processing of information and knowledge. The difficulty in reading comprehension is a problem that has been detected in the levels of training and was negative in all levels of education Formal.

The importance of this study is to determine whether the use of metacognitive strategies influences the level of reading comprehension. As a starting point some reading comprehension tests conducted in other research, in which the level of understanding and analysis is determined in reading are analyzed. The second test evaluates the use metacognitive strategies; this evaluation is often a subjective test in which the investigated appraises the use of metacognitive strategies. What is proposed in this project is a third test check since it is likely to have a deficit in the use of strategies metacognitive is reflected in the difficulty of awareness of self-evaluation processes.

It is for this reason that this work begins with a review of some of the theories and proposals made within the framework of metacognitive literature from its origins to some conceptual theoretical applications where texts that analyze the processes and levels of development of the reading process were investigated. So that, when we observe and make an analysis of the understanding of texts(graphs, narratives, reports and documents) by fifth grade students (in this specific case in the Unidad Educativa Las Americas) is evident a deficiency in reading comprehension in the English area, causing these problems of learning in all areas of knowledge. It is a difficulty that worries both teachers and the institution, as it is understood that in these grades, students must have an almost total domination of cognitive processes such as the metacognitive aspect in all areas of reading comprehension.

1.2. Statement of the problem

To what extent are metacognitive strategies helpful for the development of reading comprehension of fifth year of education at Las Americas School?

1.3. Justification of the study

This research benefits the local scientific community and agents of education in general, allowing them to approach conceptualizations about metacognition and its impact on learning of children. The application of an instrument that allows us to get to know the use of metacognitive strategies improving reading comprehension is a contribution for educators to generate reflection on the teaching methodologies for their improvement.

In addition, the development of this research benefits students in general. They will have more resources to overcome difficulties, especially those in reading comprehension, allowing them to expand educational opportunities and labor, including social and leisure skills. Through this research, we expect to contribute to improve the deficiency in reading comprehension in Ecuador.

Currently, the form of teachers' work is the result of a process in which methodological strategies have changed as a result of their own educational needs or the needs of the education system. Reading as a cognitive activity involves a series of processes and strategies, a student in the development of cognitive and metacognitive skills are guided by their learning in order to understand and be aware of these strategies, the project will focus on understanding methodological, improving the level in reading comprehension and being able to investigate, analyze, relate and interpret what they read with prior knowledge. Giovanni (1996) believes that "understanding means incorporating new elements to already existing ones, and making a reasonable interpretation".

The development of this project was necessary because it was meant to improve the quality of the education for children of the fifth grade at Unidad Educativa Las Americas in how to read and understand where it is essential to develop interest in reading comprehension in students'. Research shows that children who come with reading problems have high chances of showing low performance that harms their learning process.

They need to learn and implement from the beginning, in this case, methodological strategies to develop reading comprehension skills, cognitive and metacognitive actively using their prior knowledge, reconstructing the meaning of the text interpreting what they read, and incorporating it into their own experiences. The Ecuadorian government in recent years has undertaken various educational policies seeking to foster reading comprehension and to improve the quality of reading; this, in primary benefit of children in the teaching-learning process.

According to Bulgeski (1974) "Reading is the crowning achievement of man, perhaps the most wonderful invention of the human mind and such a complex process that its interpretation would understand how the mind works". The practical utility of this work is that students develop cognitive and metacognitive skills to improve reading comprehension and are formed as readers to reflect on the meaning of what they read. They can value it and criticize it, they enjoy reading and form their own criteria that allow them to orient and make more efficient the processes of teaching and learning.

Increasing the pleasure for reading to reach the necessary reading comprehension abilities according to which it is a process where the reader is constructing meaning from their prior knowledge and this will serve as a means of clear and total social life and work participation. On the other hand, build knowledge of reading comprehension during their education experiences for children to be able to interpret the meaning of the text by using strategies of interest to the student.

Cognitive learning theory is framed in the constructivist orientation of Piaget (1990) and Vygotsky's (1993), whose theory opens up encouraging prospects in the process of learning of a child in terms of reading comprehension. Piaget (1990), argues that "knowledge is acquired not only by internalization of the social environment but predominant construction performed by the subject." At the present time the plans and programs of study are considered essential for the training of students, reading comprehension and reading habits allows us to awaken the students' interest and desire to learn.

1.4. Purpose of the study

By doing this research project, teachers can focus on effective metacognitive teaching strategies in English (reading comprehension) in fifth grade students, which could greatly assist English language learners in their journey of language acquisition and get success.

The results of this research provide a number of theoretical and practical benefits in order to apply the strategies learned before enhancing a student's learning experience in the areas of comprehension and language development.

Theoretical benefits involve the results of the experiment which may be useful for teachers. They will be able to understand and analyze every text (graphs, narratives, reports and documents) in reading comprehension classes in fifth year of education. Moreover, teachers may get informed on which techniques or strategies are suitable for their students in fifth year of education.

Practical benefits will help teachers to choose the best strategies for teaching reading comprehension in fifth grade and the results can be evaluated at the end of each class.

1.4.1. General objective

To determine how the use of metacognitive strategies in reading improve comprehension and efficiency in language arts.

1.4.2. Specific objectives

- a) To determine causes of their low performance in reading classes.
- b) To propose Metacognitive Strategies for Reading Comprehension.
- c) To elaborate lesson plans with fun activities and real life experience to develop metacognitive strategies.

1.5. Research Questions

In order to enhance the perspective of the difficulties in school performance, we need to introduce the concept of metacognition and its application approach the reading activity. We present the following questions as a key to our research.

- What are the metacognitive strategies used by students?
- Does the use of metacognitive strategies in reading, influences the effectiveness in the foreign language students?

The problem in this school was found through class observation, a teacher interview and a pre-test applied in fifth year of education.

1.6. Hypothesis

Students with greater use of metacognitive strategies improve their reading comprehension skills.

VARIABLES	INDICATORS
Improvement in Reading comprehension	✓ Exercises
Dependent variable	✓ Oral lessons
	✓ Witten lessons
Metacognitive Strategies	✓ Lesson plans
Independent variable	✓ Observation classes

1.7. Variables and Indicators

Table 1.1

CHAPTER II

2. Literature Review

2.1. Introduction

Metacognition refers to the understanding that people have about their own learning system. It studies primarily from the need to understand the mental processes performed by students when faced with their academic work.

Reading is to decode and to understand conventional, visual and permanent signs that transmit meaning. Metacognition is the ability of an individual to reflect, understand and control his learning. The reading activities are not the most exciting thing that students do in school, but if teachers use metacognitive strategies, they can get multiple benefits. Also, the students who learn to learn will get control in their learning process and will comprehend what they do, understanding the task clearly. In addition, students will be able to identify their difficulties, correcting their errors by themselves.

This research project has its most important precedent in the work called Reciprocal Teaching as Metacognitive Strategy in Reading Comprehension. In this research, González, Velandia (2007), performed an analysis and assessment of the level of reading comprehension of fourth grade. In this text, a diagnosis that results in the problem of low meta comprehension and reading comprehension in elementary levels, so is performed, after an analysis of possible interventions in the classroom, the study shows the importance of cooperative teaching methods, and within this framework, mutual learning and metacognitive strategy aims to improve reading comprehension skills as a possible way to develop the levels of comprehension, analysis, synthesis, and finally formulating hypotheses by the students.

In the doctoral thesis of Jiménez (2004), a thorough review of the relevant sections of metacognition and cognitive processes delves into the theories that led to the study of

the concept of metacognition. The Cognitive strategies used to develop and improve reading comprehension are analyzed and highlighted to regulate these processes; likewise, analyzing indicators to apply metacognitive processes such as planning, monitoring and evaluation. In relation to the understanding of texts, Jiménez research highlighting three important tasks: extracting meaning, the integration of that meaning in memory, and making inferences necessary for full understanding. The most important thing that sets the text mentioned is the use of scales as a tool to evaluate the use of metacognitive strategies and the degree of reading awareness.

According to Fountas and Pinnell (2000), Metacognition literally means "big thinking." You are thinking about thinking. During this process you are examining your brain's processing. Teachers work to guide students to become more strategic thinkers by helping them understand the way they are processing information. Questioning, visualizing, and synthesizing information are all ways that readers can examine their thinking process. Through reciprocal teaching, students are able to practice the skills that lead to these overt acts becoming automatic. Buron (1997), provides several essential elements in the process of reading comprehension, The first relates to know the objectives which can be achieved by the brain; that is, to achieve the intended purpose within the processes of comprehension is necessary to have clearly defined objectives; The second important role is performed by the self-observation of the process of developing knowledge, to check whether the chosen strategies are appropriate; and finally, an evaluation of the results is made to know which objectives have been achieved.

According to González (1991) reading comprehension is characterized as "a complex interactive process in which it is customary to distinguish multiple skills and strategies." It stands out, so that reading comprehension is a complete cognitive process that involves the construction of meaning.

The central objective in this research project is a descriptive research. This diagnosis can not only determine if reading comprehension is a problematic situation for students,

but also how the use of metacognitive strategies affects the development of reading comprehension skills.

Villalón (2004) indicates that "with the help of metacognition, we can find relations between what the person knows and how that knowledge can be used to solve a problem or task."

According to the Tercer Estudio Comparativo y Explicativo (TERCE), applied in 2013 to fifteen countries in Latin America, by the Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), Ecuador had a significant improvement in the results of all tested areas (language, math and science). It was among the countries with the most progress in education, occupying positions above average; compared with the latest evidence of the Segundo Estudio Comparativo y Explicativo (SERCE), which took place in 2006, where Ecuador was among the last places.

The performance of students in Reading of 3rd grade primary in the study mentioned above, shows a direct correlation with internal production in each country. In particular, a third of the national variability averages in reading; it can be explained by differences among countries. The major one is the inequality in the distribution of the revenue; the lower is the performance average in reading between the students of 3er degree of Primary Education. There is a 12,6% variation in the national averages in reading performance within countries.

Having done a study of the forms of education in relation to reading comprehension has made evident that in most cases in the school classrooms, emphasis is placed on learning by rote, passing the process of understanding and analysis to the background. That important point does not allow the student to extract information in the application of knowledge. Another mistake is the lack of teaching reading comprehension skills is assuming that the basis of this process is all the same; it means, a student who reads literally, he reads already, and no emphasis is on processes and higher levels of reading comprehension.

País	Debajo de I	I	п	III	IV
Argentina	6,26	22,01	39,73	23,63	8,37
Brasil	6,29	25,25	39,84	21,54	7,07
Chile	1,60	9,97	34,46	36,22	17,76
Colombia	4,94	23,61	41,78	21,16	8,52
Costa Rica	1,46	10,40	34,20	35,73	18,22
Cuba	0,56	6,48	21,09	27,61	44,27
Ecuador	14,62	37,47	34,20	11,61	2,10
El Salvador	5,34	29,05	41,05	19,15	5,40
Guatemala	14,37	43,18	32,04	8,51	1,91
México	3,65	19,64	37,09	27,52	12,09
Nicaragua	6,95	37,29	43,38	10,69	1,70
Panamá	11,21	37,24	35,29	12,35	3,91
Paraguay	11,47	37,85	32,27	12,92	5,49
Perú	9,24	36,18	35,79	15,13	3,65
R. Dominicana	31,38	46,73	18,04	3,29	0,56
Uruguay	4,69	19,96	39,02	24,94	11,39
Nuevo León	1,70	12,71	34,82	32,40	18,38
Total AL y C	6,71	25,51	37,74	21,63	8,41

Percentage of students in 3rd grade primary by reading performance level in each country

Table 2.1 Tercer Estudio Comparativo y Explicativo (TERCE), (applied in 2013).

This results in few reading skills to analyze, select and understand the information. In this way we understand that the first important element to search for a solution to this problem is to evaluate the type of specific weaknesses in students to confront a process of analysis and comprehension. This will determine the field specific in which the student is deficient.

2.2. Theoretical review

It is important to help students to increase intrinsic motivation and keep their attention. According to Jensen, (1998), students will be successful, independent learners if teachers provide opportunities for multisensory learning that combines auditory, visual, and tactile elements into a learning task.

Reading comprehension involves understanding the vocabulary through organizing ideas, seeing the relationships between words and concepts. According to Hancock, (1998), if students do not understand the meaning of a word, it will become difficult to understand the entire context. Although, vocabulary knowledge is essential in reading comprehension, it will help students in decoding, which is an important part of reading. According to Quian, (2002), students will be able to understand what they read and understanding a text will become easier.

Furthermore, according to Garcia, (1991), the lack of familiarity with vocabulary in the context is a powerful factor that affects the reading comprehension. Teachers need to focus using the appropriate strategies to avoid students misunderstand the meaning of the words.

The purpose of this research is to help teachers to use metacognitive techniques for teaching vocabulary in reading comprehension classes having communication with students, helping them to remember and generalize new concepts. Metacognitive strategies in reading comprehension will help students learn enough words to become better readers, and becoming a better reader can help students learn several vocabulary words. It is important to know that vocabulary instruction should include definitional and contextual information about a word, the use of a word in different contexts and encouragement of student's participation in their own learning of the words.

2.3. Conceptual framework

In society, reading comprehension is the most important mechanism of transmission of knowledge. This skill is essential in the educational system, whose basic objective is to obtain good command of it. To guide our reading of the theoretical foundations that support our research, we propose a development framework that synthetically tries to explain: What reading is, what metacognition is, and finally, what meta-comprehension is.

1. What is reading?

Reading is one of the most complex cognitive processes that takes place as a human being and learning to read is a difficult and crucial task. Further reading is the foundation for lifelong learning and it is an important distinction in social and cultural fields. Reading is an interactive process by which the reader constructs a mental representation of the meaning of the text, to relate their prior knowledge with the information presented by the text, this is the end product understanding depends both on the knowledge of different types, as the text features. According to PISA 2003 "The reading ability is the understanding, employment and personal reflection from written texts in order to achieve one's goals, develop knowledge and personal potential and to participate in society".

According Sanz Moreno, (2004), understanding a text is to actively penetrate the meaning and the meaning of the text, not stay on the surface of literalism. Reading is not a passive and receptive process that is limited to decoding. The reader is active subject of understanding, faces the text with some previous knowledge and schemes. Reading is to actively interact with text information; analyze, select, summarize, answer the previous hypotheses, etc.

According to the text of Dubois, (2005), there are three important theoretical concepts about reading, they are marked primarily by the way that includes the term and the

relationship established between text and reader; the first conception explains the reading as a set of skills and abilities that the reader must acquire to have a mastery of the process, within this conception reading can be fragmented into sub- elements and components which are organized by level of difficulty. The reading proficiency was given when there is a partial understanding of the fragments.

The role of the reader is only receptive and distant; its function is to discover the meaning and the meaning of written text message. In the second conception, reading is understood as an interactive process; this theory is supported by the psycholinguistic model and schema theory, according to this, reading is a process mediated by language concepts and methods which interacts both with thought and language.

Finally, the last design includes reading as a transactional process, where there is a reciprocal relationship between the reader and the text, being a dependent process and reciprocal interpretation. Thus, the text always contains the meaning in power, as the author tells, the reader constructs a parallel text. The text is an open system where interpretation may vary.

Stages in the development and acquisition of reading.

The theory developed by Uta Frith is one of the most popular explanations on reading acquisition. Frith, (1985, cited in García Madruga, 2006), identified three strategies for the acquisition of reading: logographic, alphabetic and spelling strategies. Each of these strategies corresponds to a step in the evolutionary development sequence of reading. All of these stages illustrated in the table below:

Logographic stage	Alphabetic stage	Orthographic stage
The word is visually perceived as a whole and it is read without phonological mediation. This logographic strategy is based on a purely visual recognition of graphic traits of each word and its partnership through repetition a familiar word in text.	Children from 7-8 years old, are now able to perform phonological decoding, having learned in rules school graphemes-phonemes in their own language. Alphabetic strategy calls associate some abstract signs	Acquire readers recognition strategies directly from the orthographic word, since the lexicon Internal has been equipping a large number of representations spelling shortcut. The spelling strategy involves utilizing morpheme (or word element) that can stand alone as a word. Contrast with bound morpheme

Stages of reading.

Table 2.2 from Frith, (1985, cited inn García Madruga, 2006)

2. What is Metacognition?

In agreement with Buron (1997):

Metacognition is defined in two ways, as knowledge of the system and cognitive processes, and self- regulatory function of these processes. Selfregulation, comprising all mental comprehension strategies, memorization and learning. The tasks depends on the control processes, such as planning (target), observation, evaluation and modification strategies undertaken.

According to Vygotsky, (cited by Rodríguez, 2004), the development of knowledge was analyzed in two distinct but complementary aspects: In the first case knowledge is automatically acquired and processed as information without intentionality. In the second case where intentionality exist, there is an awareness on the use of this knowledge and strategies with which this is achieved. This seems to indicate that as metacognition is already present in some theories, but only is named and studied in depth by Flavell.

The literature about metacognition and their study are constantly on research for more information. Revising various research projects on metacognition, we were able to see that most of them coincide in affirming that metacognition is knowledge on cognitive processes.

Flavell, (1981), gives us an important distinction between metacognitive experiences and metacognitive knowledge. "Metacognitive experiences" are conscious feelings during some cognitive activity that relate to the process - for example, during a communication task, feeling that you do or do not understand; or feeling hesitant about the choice you have made. "Metacognitive knowledge" on the other hand, is described by Flavell (1981, p.40) as "that part of your accumulated world knowledge that has to do with people as cognitive agents and their cognitive tasks, goals, actions and experiences". Some examples of this kind of metacognition are: when you are able to describe your understanding of what goes on, to explain and recognize feelings of uncertainty or confusion in some people, etc.

According to Rodríguez, (2004), cognitive strategies are used to make progress in knowledge and metacognitive strategies to monitor these developments. While that cognition involves having cognitive skills, metacognition refers to the awareness and conscious control over these cognitive processes. As indicated in the preceding paragraphs, cognition makes awareness about the processes used to know, such as understanding, perception, learning, thinking, attention, while metacognition relates to understanding how the task is performed, for which uses planning, monitoring, control and regulation. From the perspective of Piaget's theoretical cognition is defined as an automatic acquisition and unconscious knowledge, in this particular case proposes a second stage through which the active and aware control of that knowledge is appearing more strongly with the age of the individual (metacognition).

We could say that the acquisition of knowledge regarding understanding reading occurs in three stages, the first one it is related with the meaning of the words and how it is extracted from the text, the second one it is related with the integration and finally the interpretation of the meanings of the content and memory representation. Buron, (1997), affirms that:

The ability to monitor the understanding of a text depends on what a reader knows about their own processes of understanding. The metacognitive aspects of understanding encompasses knowing when one has understood what has been read, knowing what was not understood and can use this knowledge to monitor comprehension.

As Buron noted, (1997), metacognition is the tool that would detect failures in reading, because it is necessary to monitor the processes involved in the understanding. But what happens when this monitoring process does not exist in the process of reading, simply because there is probably no understanding, because the reading is understood as a mechanical repetition of words without meaningful relationships between them. It is at this point that Buron, (1997), takes a stand and says that there is a very important element in the metacognitive process that defines it as awareness. If a person in this case a student believes to be understanding a text but not really what is doing, because simply does not use metacognition to resolve and monitor the failed cognitive process.

Moreover, Montero, (2000), takes a fundamental concept that so far was not taken into account the mental model. What to do when a mental model does not have the resources to bring the subject of understanding, or as Rodríguez points:

"...and to plan appropriate cognitive activities cognitive skills, choose between several alternative activities, supervise the implementation of activities chosen and changed if necessary and finally assess whether they have achieved the objectives to begin the task as well as understanding itself."

What happens when these elements described as non- cognitive skills by Rodriguez exist or are not developed? and then you probably do not have any reference point of understanding that there is the ability to plan, monitor and evaluate processes.

The mental model as Montero states, (2000), did not allow developing any of the processes necessary to understand, analyze, use a textual content, in this case is very likely that the reader does not use control strategies of understanding. "The meta-comprehension involves setting objectives for reading; implement strategies to achieve these objectives, reflect on the process while carrying out, and evaluating the process to determine whether the objectives were achieved and, if not, take the necessary corrective actions." (Bridge, 1991).

In a more recent review Flavell (2000) divides metacognitive theory into two areas of study: knowledge and processes. Metacognitive knowledge includes understanding of how minds work in general and how your own mind works in particular. The processes of planning, monitoring, and regulating thoughts are generally known as executive processes, which involve the interaction of two levels: At one level is the creative, associative, wandering mind and above it is the executive, trying to keep it on task.

According to Jimenez, (2004), Flavell defined metacognition as the knowledge that has its own processes and cognitive products and everything related to them as metamemory, meta- learning, meta- care, etc.) The metacognition in this case would serve to organize one's own thinking. Flavell distinguishes cognitive goals of the use of strategies and experiences and meta-cognitive skills. Cognitive goals are goals that are involved in cognitive processes (its boot and control), while the metacognitive knowledge (essential component of metacognition) includes knowledge about itself, about the task and strategies. Ann Brown (1987) distinguishes between knowledge about cognition, and regulation of cognition. Knowledge about cognition can be "stable but fallible or late developing;" (p.67) information that human thinkers have about their own cognitive processes, which usually remains relatively consistent within individuals. Regulation, on the other hand, can be "relatively unstable, rarely stable, and age independent," (p.68). Regulation of cognition refers to the activities used to regulate and oversee learning. One may show self-regulatory behavior in one situation but not in another, and a child may show self-regulatory behavior where an adult does not. Regulation may be also affected by patterns of arousal (anxiety, fear, interest) and self-concept (self-esteem, self-efficacy). These processes include planning activities (predicting outcomes, scheduling strategies and various forms of vicarious trial and error, etc.) prior to undertaking a problem; monitoring activities (monitoring, testing, revising, and re-scheduling one's strategies for learning) during learning; and checking outcomes (evaluating the outcome of any strategic actions against criteria of efficiency and effectiveness) at the end (Brown et al 1983).

Main representative of metacognitive models

At the beginning of the study about metacognition we found two basic representatives of what we now understand as metacognition. John Flavell and Ann Brown, working separately, each in a different paradigm in psychology, -the structural cognitive psychology and the cognitive processing information, respectively- have provided the fundamental ideas of metacognition. Then synthetically expose the theoretical position of each.

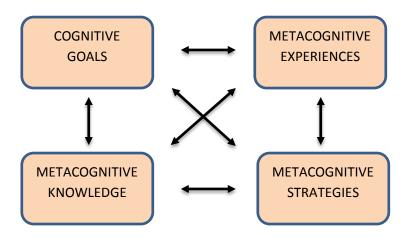
John Flavell

The early development of metacognition are found from 1971, Flavell investigations conducted on "meta-memory"; with this term the author made reference to the knowledge we acquire on the contents and memory processes. The same author concluded then that memory difficulties presented by children in smaller groups and individuals with learning difficulties can be attributed many cases to poor and

inappropriate use of memory strategies rather than differences inherent in the basic memory processes.

The same Flavell expands the concept of meta-memory, coining the term "metacognition". "Metacognition refers to the knowledge one has about cognitive processes and products themselves or any other matter related to them, for example, the properties of the relevant information for learning. In this way, metacognition can be practiced (meta-memory, meta-learning, meta-attention, meta-language, etc.)

Metacognition refers to active monitoring and consistent regulation and organization of these processes in relation to objects or cognitive data on which they act, usually serving some particular goal or objective. "(1976, cited in Mateos, 2001, pp21-22)". As we see, in this first definition of metacognition we can identify the two major aspects that characterize it: knowledge and control of cognitive activity. The model developed by Flavell in 1981, states that interactions metacognitive knowledge, metacognitive experiences, cognitive goals and strategies, condition the control that a person can exercise over their own cognitive activity (Mateos, 2001).



States of metacognitive knowledge

Fig 2.1 by Flavell (1981)

Metacognitive components as Flavell (1978):

Knowing about cognition: knowledge about cognition refers to the ability to reflect on our own cognitive processes.

It consists on:

- 1. The characteristics of the subjects of learning
- 2. The particulars of a cognitive task
- 3. The use of strategies to accomplish a task.

The regulation of cognition: Involves the use of strategies such as:

- 1. Planning our movements
- 2. Verification of results
- 3. Evaluation of the effectiveness
- 4. Validation and modification of our learning techniques.

Flavell, (1979), states that:

- There is no good reason to think that metacognitive knowledge is different otherwise qualitatively knowledge.

- One metacognitive knowledge, like other skills, are declarative, and other are procedural.

-Just like any other acquisition of knowledge, metacognitive knowledge grows slowly and gradually through years of experience in the "domain" of the cognitive activity.

-Could be automatically activated, like any other knowledge.

- The foundations of metacognitive knowledge may be defective, as the basis for any other kind of knowledge.

Thus Flavell emphasizes knowledge about the person, task and strategy. As Brown, (1978), emphasizes planning, monitoring and review.

According to Brown, (1984), metacognition involves the deliberate and conscious control of own cognitive activity. So that metacognitive activities are self-regulatory mechanisms which are operated when trying to perform a task. This requires being aware of one's ability, knowing what strategies they possess and how they are used, identifying the problem, planning and sequencing actions for resolution and evaluating the resolution. "A model of intelligence is to decide what is the nature of the problem to be solved, forming a representation mind to guide the implementation of strategies, focusing attention and other mental operations, observe the processes of solution" (Brown, 1980).

We could say that Brown proposes that metacognition has two important elements, the first one is related to the own knowledge of cognition and the second one talks about all the processes of self-regulation of cognition. The first element is related to the demands of the task and the learning objectives and resources in order to achieve them, while the second one relates to all regulatory mechanisms that are achieved, trying to identify a failure in cognitive learning process.

For Brown, (1984), metacognition comprises three dimensions:

1.- The stable and conscious knowledge that people have about cognition.

2.- Self-regulation, monitoring and sorting by people from their own cognitive skills. Says monitoring is a mechanism through which faults are detected and proposes strategies for resolving problems. (Brown, 1984). 3.- The ability to reflect both on their own knowledge as their management processes that knowledge. The term determines awareness the person has knowledge of its own resources and the use of according to the demand of the task. "When speaking of auto regulation is referring to the ability to learn by oneself, autonomy, the mental maturity to be achieved with teaching strategies. To teaching thinking and an individual can implement a strategy, you must have knowledge of specific strategies and know how, when and because they use" (Brown, 1984).

Metacognitive knowledge refers to knowledge about cognitive processes, organized into three categories: person, task and context. Metacognitive knowledge is also the relationship and interaction between these three elements:

a. Person:

Prior knowledge: Relates to the kind of knowledge the students have, and in the case of reading, enables relationships and connections of new knowledge; from the perspective of Piaget (quoted by Jiménez 2004), we could talk about the concept of schema, which refers to the shape and knowledge we have to support and interpret new knowledge.

Field of interest: The field of interest is related to the elements of motivation and determine the degree of importance of text for the reader, and directly affects the levels of attention and concentration that is available on the subject.

Age: Age is an important reference for determining the degree of knowledge and understanding of the reader because age is a variable that determines the level of cognitive development that a reader has. It is understood that not in all cases there is a scale that can request the expected age and ability. It is likely that in some cases people very young people have levels higher than older people understanding.

b. Task:

Knowledge of the process of the task: This variable depends on the purpose of why you are reading, for example if it is about a learning process or just to read.

Level of Complexity: Includes the level of difficulty and ambiguity of the text and contents.

Raised Purpose: The purpose permits to find the right strategy according to the level of attention and effort of the student.

c. Context:

The type of text: Depends on if it is a well-known author or not.

Complex organization of stimuli: refers to the physical and social, spatial and temporal environment.

Ann Brown

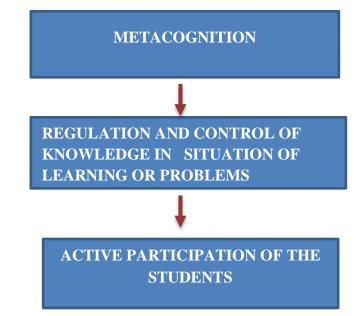
Ann Brown's contributions represent the second largest source of development for the current field of metacognition. Her research includes, as Flavell's, a strategic activity, but it distinguishes from this author's emphasis on the fact that Brown has a central role in cognitive activity. Brown, (1978), defines metacognition as deliberate and conscious control of our own cognitive activity (quoted in Mateos, 2001). Metacognitive activities are the self- regulatory mechanisms using a subject to solve problems.

Metacognitive activities according to Ann Brown (1978, quoted in Mateos, 2001)

- 1. Being aware of the limits of the capacity of the system itself. E.g. Evaluate the amount of material that can be remember or the time it can take completing a task.
- 2. Meet the variety of strategies that it owns and its appropriate use.
- 3. Identify and define problems
- 4. Plan and order actions necessary to resolve.
- 5. Supervise, check, review and evaluate the progress of the plans and their effectiveness.

Brown (1978, quoted in Mateos, 2001), notes that control processes are necessary to the student when facing new tasks. To illustrate: A reader faced with the task of

assimilating a familiar text will act quickly and easily. Now if the student experiences difficulty in reading comprehension, it will leave this procedure by itself, slowing the speed of reading to procure more attention to the problem consciously controlling cognitive activity.



Focused on control factors in metacognitive processes

Fig 2.2 from Flavell model (1981).

• Metacognitive processes:

- a. Be aware of the limitations of the own system capacity (estimate the amount of material that the student can remember or the time they will take to complete the task.
- b. Knows the correct use of their own strategies.
- c. Identify and define the problems
- d. Plan and take actions to resolve the problems.
- e. Monitor, check and assess the progress of the plans and their effectiveness
- Metacognition definition by brown: "the deliberate control and aware of own cognitive activity

Metacognitive activities are self- regulatory mechanisms using the person in active attempt to resolve problems.

• If a person is not aware of his strategies, these strategies will affect the development to find a flexible way to agree to the demands of the situation.

According to Coll, (1999), constructivism is organized around three key ideas:

- The student is responsible for his own learning process. It is who builds (or rather reconstructs) the knowledge of their cultural group and this is an active subject when handled, explores, discovers or invents, even when read or hear the exposure of other one.
- 2. The constructive mental activity of the student applies to content that already possess a considerable degree of processing. This means that the student does not have at all times to discover or invent, in a literal sense, the entire school knowledge. Because the knowledge that is taught in the schools is actually the result of a process of building a social level, students and teachers will find ready-made and defined much of the curriculum.
- 3. The teacher's role is to guide the construction process of the student with the collective wisdom originated culturally. This implies that the teacher's role is not limited to creating optimal conditions for the student to deploy a constructive mental activity but should guide and direct the activity explicitly and deliberately.

We can say that construction of school knowledge is actually an elaboration process, in the sense that the student selects, organizes and transforms the information that it receives from very diverse sources, establishing relationships between information and its prior knowledge.

What is meta-comprehension?

Meta-comprehension is a very important skill for readers, according to *mercercognitivepsychology*, (2014):

Metacomprehension is a relatively basic concept in metacognition. Metacognition is simply how one thinks about their own thinking. Due to the abstract nature of the concept, however, it was over-looked as a function in psychology for quite some time. Comprehension is what one understands and is a term that is often related to reading and learning but is also very involved in all applications of memory. Metacomprehension is an individual's own conscious knowledge of their level of comprehension. It is what a student knows about what they have learned and on a more convoluted level, what they know they know. By student, of course, I mean anyone. Humanity is on the constant hunt for knowledge and because of that men develop a conscious base of knowledge about their own knowledge. This is all very abstract and complex but at the same time it seems intuitive. We all understand that we are constantly learning but we often do not fixate on our knowledge, instead we just take it for granted.

Also Buron, (1997), considers that "meta-comprehension covers the evaluation processes and metacognitive self-regulation allow rework the information in progressively more complex levels, interpreting and making new inferences from prior knowledge; to construct a progressively richer and adequate mental model in order to understanding".

Meta-comprehension and reading comprehension.

Meta-comprehension and reading comprehension are concepts closely linked metacomprehension in a complementary relationship. Understanding a text is one of the goals of the reading, to achieve this, the cognitive activities involved in the reading process must focus on comprehension monitoring or meta-comprehension. (Anaya Nieto, 2005). To illustrate this relationship Brown (1980, cited in Jiménez Rodríguez, 2004) says that "to understand the content of a text is an example of reading comprehension and understanding you have done that, it's an example of metacomprehension".

Authors that use the term of meta-comprehension differ on its exact contents. In this research we take the definition proposed by Anaya Nieto, (2005), who considers meta-comprehension as "self-awareness level of comprehension during reading and cognitive ability to control actions in the course of this, through the use of strategies to facilitate the understanding of the text in relation to different purposes." (p. 281-294).

Metacomprehension reading strategies

A technique becomes strategy when we use it knowing when, how and where to apply it. Furthermore, the characteristics of the task which will depend on the strategy to be implemented. This fits between task and strategy since it develops as age.

It is important to distinguish between strategy and study technique. Students can have a broad technical package, but these only will turn strategies from being used in relation to the aims of the task and according to a schedule indicating how, when and where to run them. Mayor, Suengas & González (1995, cited in Jiménez Rodríguez, 2004) affirm that as the children are becoming experts in reading develop two types of strategies:

- **Repair:** When a mistake is demonstrated in the text that makes it incomprehensible it is necessary to decide what to do.
- **Memorial:** According to the purpose of the task, will be memorized or not.

Metacognition in relation to strategies involves not only being able to appreciate what is known and what is not known but also to know what to do to remedy the failures in the comprehension in order to increase the learning.

Collins & Smith, (1982 cited in Jiménez Rodríguez, 2004) offer us a classification of failures of comprehension and strategies to consider before these faults.

Failure to understand a word

- a) New words.
- b) Words that do not have sense in the context

Failure to understand a sentence

- a) Cannot find the interpretation.
- b) It is found only a vague or abstract interpretation.
- c) Several possible interpretations (ambiguous sentence).
- d) Interpretation in conflict with prior knowledge

Failure to understand how a sentence is related to another

- a) Interpretation of a sentence in conflict with another.
- b) No connection between sentences.
- c) Several possible connections between sentences are found

Failure to understand how it fits the full text

- a) Do not understand some points in the text or any part of it.
- b) Cannot understand why includes certain episodes or sections.
- c) No one can understand the motivations of certain character.

Strategies to consider against failure

- Ignore the failure and continue reading. If the word or paragraph is not essential to understand.
- Suspend reading momentarily, to see the strategy that should be applied, since the reader considers that the failure of understanding is going to solve then. The structure of the text should suggest the reader when it is likely that a concept will be clarified later.
- To form an alternative hypothesis. The reader tries to figure out what a word, phrase or paragraph mean, based on context.
- To read again the sentences. It is helpful if the reader perceives any contradiction or more possible interpretations; but it is a disruptive remedy.
- To read again the previous context. If there is any contradiction with some previous paragraph already read.
- Go to an external source. It is the most disruptive action but is the only one who can use if it appears for example, several times the same word and the reader cannot find its meaning.

Methodology of metacognitive strategies

After the theoretical framework, we believe it is important to expose a proposal of metacognitive strategies.

We agree with Mateos, (2001), that teaching metacognitive skills requires a teacher as a model and guide of cognitive and metacognitive activity for the student who gradually lead to greater capabilities, also gradually, let the student take control of the process (p. 103).

Following the proposal of Mateos, (2001), we briefly expose their teaching methodology of metacognitive strategies:

- I. **Explicit instruction:** consist of the information provided by the teacher to their students about strategies that will then be practiced. It is done in partly through direct explanation, giving explicit account of the strategies taught, of the steps required for use it, of the conditions for using them, of the potential benefits that can bring and the criteria to assess their effectiveness. Furthermore, it is used the cognitive modeling for the direct explanation that consisting of verbalize the cognitive actions carried out during the reading. For example, saying aloud comprehension difficulties formulated as questions. The goal here is not that the student reproduce what the teacher externalizes, if not to disclose the process of thought when a strategy is executed.
- II. **Guided Practice:** Is the collaboration teacher-student in order to the student find it is own way to self-adjustment. The support offered by the teacher should decrease gradually. It is important that the student demonstrate his thought aloud while solves the task so that the teacher can adjust your help.
- III. Collaborative Practice: It is an additional source of scaffolding learning individually. They are made in the context of interaction of a group of peers together to complete a task. The control activity is awarded to group. Cooperative activities are effective because they enable confrontation of alternative views, also requires the participants explain their thought processes to articulate with the others.
- IV. Individual practice: To generate more responsibilities for the student so they can implement the strategies, it is advisable to propose an individual activity. Still, the student may have external self-interrogation guidelines: What is the

goal of the task? What information and what strategy I need? Have I achieved the goal?

Metacognitive aspects according to Buron, (1997):

In most studies and found research on cognitive processes reading comprehension related to the importance of some elements are highlighted as attention, memory, perception, reading and writing among others, but when these processes are related to the concept of metacognition referring to self-control and self-regulation of such elements; So that the self-regulation of cognition such as attention, is performed by a process known as Meta attention.

Meta attention

This stage is associated with the understanding of the processes used in the understand action, and is related to the ability to remove mentally distracting elements.

It is common for children to express the difficulty of attention as unfocussed, having difficulty concentrating. Without distinguishing between insignificant and noisy and the centrality of a situation and a particular context.

Meta Memory

Is the knowledge of the capabilities and limitations of memory, and requires hierarchical distinction between what is to be considered more important and what is not, that's why the information that it is necessary is saved in your memory for long periods of time.

Meta Reading

It is knowledge about reading. This knowledge of reading begins with the process of making awareness of the deficiency in understanding, questioning about when reading understanding and when not. This element is related to have and determine objectives and purposes in the reading. Due to be a different reading will notice if this or not understanding the text process. It is clear that many readers do not even manage to visualize such a good resource and assume for compressing a text without go through the consciousness of the reader making process that allows self-regulation the same.

Meta Writing

It is the knowledge we have about writing and regulation of the processes involved. Meta writing is about the writing process, the purpose and the intent of the ideas that are expressed in the text.

Meta Understanding

It is the processes required to achieve understanding and understanding knowledge as such. The good reader identifies what to do and how to understand. The bad reader does not understand and see no difference between memorize and understand.

Meta Ignorance

Buron defined as ignorance of ignorance itself, argues that the Ignorance is not knowing, and that the Meta Ignorance is not knowing that you do not know. It is so when it ignores something you can search for strategies to solve such ignorance, but when ignored and no one knows that ignores not even suspected as the author says you have to do something to get out of this situation. It is so in the specific case of the reading comprehension metacognitive self-regulation process would not, because there is in the ability to understand that is not understood, and a bad reader in its "illusion of knowledge" does not recognize this deficiency and does not realize the limits of their understanding, that is not self- regulates its cognitive process and therefore does not use strategies metacognitive, because in his way of understanding already understood.

Meta Reading

From this perspective by relating metacognition in reading comprehension is defined as knowledge and regulation of cognition and own mental processes, as understood by Brown, (1984) knowledge of cognitions. This knowledge also linked operations such as perception, attention, memory, reading, writing, understanding and communication among others. This metacognitive knowledge of mental operations necessarily is related to the knowledge of these operations, they are, how they operate and when used.

Reading Development Goal

It is understood the reading as a process through which the reader appropriates a text, creating and recreating a representation of it, through the organization interrelating coherent content with the content and prior knowledge, in this process when a reader with cognitive resources needed for understanding provides that the representation of a text is inconsistent procedure self-regulation and awareness allows you to rebuild the process so that understand what not understood, and this process involves the use of strategies to resolve this difficulty. The good reader selects the appropriate cognitive process the failed strategy. The bad reader fails even by the use of self-regulation and less awareness of what makes probably will not use as a resource metacognitive strategies.

Development of Meta understanding

"If students cannot read to understand they risk devote little time to learn and develop the mechanical memory that intelligence, retaining much data they do not understand and thinking little about what". (Buron, 1997, p.45).

According to Buron, we can say that a student has understood an idea if you know how to perform at least some of the following:

- Explain in your own words.
- Find several examples that confirms it.
- Find examples or arguments againsts it.
- To recognized the idea under different circumstances.
- To recognized the idea even if expressed in different words.

According to Buron, (1997), metacognition is the body of knowledge we have on our own understanding which is necessary to handle the following the aspects:

- Know what is understood.
- Distinguish understanding of other mental operations such as memory, Imagination and reasoning.
- Know when understood.
- Know what to do mentally, and how to understand.
- Observe if the action being performed leads to the objective sought.
- Evaluate the outcome and check if it has been understood.

Self-regulation or self- reflective knowledge

"The Meta Ignorance is the inability to distinguish between knowing and not knowing, is the lack of awareness of non - understanding, feeling of not understanding. When a subject does not understand, and they do not realize you do not understand."(Buron, 1997).

This distinction between knowing when understood and when a text is not understood, It is most important to self-regulate and control the processes of reading element, the readers who do not understand and do not know they do not understand can hardly pass more complex as self- reflection processes are likely to have difficulties to identify and interpret what the author means the text. Which would mean an impossibility to argue own point of view with consistent and appropriate reading.

In the process of self-integrate both cognitive processes such as metacognitive, if any, is likely to use strategies never do metacognitive, which in this particular case seek to resolve the lack of understanding." The illusion of knowledge is expressed when students do not have metacomprehension sufficiently developed to realize the limits of their understanding, the degree of difficulty of the information, the effort required learning that are required and the strategies to be used to achieve." (Buron, 1997).

Skills of good and poor reader

According to Rodríguez, (2004), the most important difference between good and bad reader is related to the use of metacognitive strategies. It is highly likely that a good reader identifies the variables needed for the development of reading, between strategies which allow the regulation of the reading process. From the theory of Buron, we could specify that a good reader makes processes of self -regulation in their process of understanding, while the bad reader does not perform these processes because they simply do identified deficiencies in the process, and reading in this case is assumed to form reiteration where comprehensive process is not important.

Some of the strategies defined Rodríguez are:

- Knowing what to do when an unknown word appears.
- Know what to read and how to read.
- Know why it may be useful to examine the text superficially.
- Be aware that rereading can facilitate understanding.
- Understand how the characteristics of a paragraph impede or facilitate the understanding.
- Predict what will happen in the text.
- Take notes.
- Underline.

Students can improve their reading ability about reading.

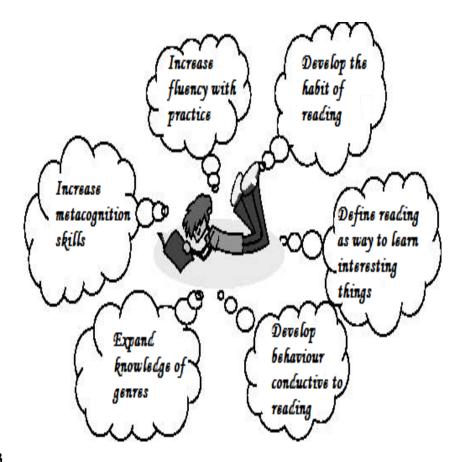


Figure 2.3

"The skills that guarantee a good reader are of two types: cognitive, allowing process information from the text, and metacognitive awareness that allow the process of understanding and control over activities planning, monitoring and evaluation". (Bridge, 1994). From this perspective it can be assumed that there is no reading comprehension if there an appropriate relationship between cognition and metacognitive process, so we say that since cognition can identify and extract meaning from a text, but only from metacognition can assess whether this meaning is consistent processes, it is necessary to use self-assessment processes and awareness that only established through metacognition.

Pressley (quoted by Jiménez, 2004) notes that there are a number of "trends" characterize good readers, such as:

- Tend to be aware of what they read, they seem to know why read.
- They have a set of alternative plans to solve those problems may arise.
- Strategies to monitor their understanding of the text information.

This concludes that poor readers are quite limited in their knowledge metacognitive about reading.

It is very likely that the poor reader has no present use of strategies in the process reader. It is usual not detect inconsistencies in the text, much less their own deficiencies before the comprehension. Reader the order determined in advance you have to read a particular text, and this allows you to set the objectives and strategies to be used in the process of reading. "Good readers, at any age, can use effective actions promoting a deeper understanding, but can also use them improperly." (Buron, 1997).

Metacognitive phases in Reading Comprehension

Metacognition Etymologically the word comes from "meta" beyond "Cognoscere" which means to know, from the Latin verb "cognoscere," which means going beyond knowledge.

Rivers, (1991), refers to metacognition and the ability to think about thinking itself, and includes developing an action plan, keep in mind, as needed, then reflect on it and evaluate it, once the task. If the child is able to reflect on their cognition, self-regulate their own learning and plan what strategies to use in every situation according to their will, meaning and intent manage to improve their reading comprehension.

We can summarize the idea of -metacognition- classifying it in the following simple components (Wikepedia, 2008 & Efklides 2002):

(1) Metacognitive Knowledge (also called metacognitive awareness) refers to what individuals know about themselves and others as cognitive processors.

(2) Metacognitive regulation is the regulation of cognition and learning experiences through a set of activities that help people control their learning.

(3) Metacognitive skills refer to conscious control processes such as planning, monitoring of the progress of processing, effort allocation, strategy use and regulation of cognition. (see p.15)

(4) Metacognitive experiences are those experiences that have something to do with the current, on-going cognitive endeavor.

2.4. Definition of Terms

"Gifted children and youth are students who demonstrate abilities that give evidence of high performance in academic and intellectual aptitude." (Louisiana Admin.Code title 28 § 901).

Metacognition

Metacognition is defined as "the knowledge and regulation of one's cognition" Schraw and Denison (1994). Schraw, Crippen, and Hartley (2006) elaborated upon this definition: "Knowledge of cognition includes the awareness of what one knows, how one learns, what strategies one knows, and when one implements strategies. Regulation of cognition includes planning, monitoring, and evaluation. Planning involves one's connection to previous knowledge, plan for using strategies, and use of time. Monitoring is one's self-checking at each stage of the task. Evaluation includes the learner's appraisal of the outcome and reflection on what new knowledge he or she gained". [Delvecchio, F. (2011)]

Metacognitive Skills

Metacognitive skills are "the regulatory activities associated with solving problems" (Brown, 1978). They involve planning, monitoring, and evaluation components of metacognition. It is also called as 'Regulation of cognition' which refers to the activities and actions undertaken by individuals to control their own cognition [Cooper, M., & Sandi-Urena, S. (2009)].

Problem Solving

"Problem solving is the process by which a student arrives at a solution to a problem. Integral to this are students' thinking, planning, reasoning, and executing of the plan as they progress from the initial problem state to the fulfillment of their goal" (Wilson, 2000), [Delvecchio, F. (2011)]

2.5. Summary

The implementation of this study is motivated by the fact observed in practice teaching learning situations that develop in reading comprehension, which are conducted almost routinely unproductive without educational objectives; there is a planning model that does not allow them to see teachers beyond what they really need and what are the expectations of student learning.

That is why this has an impact on the level of understanding of the texts that are presented to students who are not carefully prepared for observable educational attainment, students read to read and not understand what they read, do not enjoy reading and not have strategies for productive and profitable reading, the reader plan has become a mechanism to keep the students busy. This has been one of the reasons to propose a methodology that allows us to overcome and reverse this unfortunate reality. In this regard, research by responding to the following question: To what extent using metacognitive strategies help to the students to improve in reading comprehension? To answer this question the following general objective was proposed: Determine to what

extent the application of metacognitive strategies help students improve reading comprehension.

The research results are translated into the following main conclusion: The application of metacognitive strategies has effectively improved reading comprehension among students in fifth grade, after applying the planned, designed and executed program for this purpose.

CHAPTER III

3. Research Methodology

This research is based on a quantitative and qualitative study. It consists on the research of students who will be in a controlled measurement of data oriented to increase motivation and the interest of reading comprehension. This project will apply different fun activities to encourage students to participate with real life experiences to develop vocabulary in class through the use of metacognitive techniques. The aim of this study was to contribute with the process of reading comprehension learning. It highlighted the relationship between cognitive and metacognitive strategies and the textual structures throughout the reading process. This process was carried out in a private school where 30 students of the fifth basic year of primary participated. With the instructions received during this process, students develop cognitive and metacognitive strategies specific for reading, as well as knowledge of superstructure (narrative, expository) and macrostructure (main idea) of the text. The results revealed that the experimental group was benefited by this contribution to the process of reading comprehension, in regard to the rest of students of the variables investigated.

In the daily English class, there are situations in which pupils do not know the meaning of some words but they start to understand when the meaning of the key words is explained by the teachers. The educators explain this apparent inconsistency, the majority of the times, for the lack of motivation, laziness to think and the little effort of the pupils, without considering that the systems of reading/writing correspond to codes of the second order (Vega, Carreiras, Gutiérrez-bald man, and Alonso-Quecuty, 1990). This means that, the written language reflects the spoken language, the written language it is required more complex cognitive processes, which depend on the formal instruction in the school period, doing the written comprehension language more difficulty and

slower than the oral comprehension language with which every child must be acquainted.

3.1. Methods and Techniques

Participants

We worked on a sample of 30 students, boys and girls, from 5th grade from the Unidad Educativa "Las Americas", Guayaquil, Ecuador, with middle ages of 9 years old; 15 pupils formed a part of the experimental group and 15 of the control group. The experimental group participated in the intervention program, by reading selected texts, were placed on the chalkboard flashcard with the most important words of the text with their corresponding meaning, then continued with the reading receiving instructions from the teacher about how to read to understand and at the end they filled a series of questions with regard to the reading. The control group read the same texts that the experimental group and had no change in their regular classes. In the next week, the experimental group was asked to develop flash cards with the words from the selected texts and form sentences and questions with regard to the reading and the control group participated only in the post-test.

Intervention

The intervention was extended for two months with weekly meetings (45 minutes each) of English class. In total, there were 6 meetings. Each class was prepared beforehand by the researcher along with the teacher. This program was applied in the experimental group by direct instruction process. Three aspects that are part of the comprehensive reading: structures of text, cognitive strategies and metacognitive strategies. The macrostructure was worked by means of the identification of the phrases more and less important, the abstraction of the principal idea and the recognition of the paragraphs of introduction, of the body of the text and of the conclusion.

The superstructure was worn out by means of the identification of different types of texts. To practice the cognitive strategies, the pupils were instructed to underlining key words, enumerating the paragraphs, rereading, using the dictionary, trying to keep in

mind the idea and to focus the attention in the reading. With relation to the metacognitive strategies, the pupils were stimulated to guide and to evaluate his comprehension, simultaneously to the reading. In the first class, the teacher read with the pupils showing how to elaborate the main idea (what is about it). While the teacher was reading the text was explaining her own processes of reading, being a model for the pupils. Later the pupils were practicing and discussing the comprehension of the text.

In the following week, it was suggested to the students form small groups of 3, the teacher introduced the use of cognitive strategies for understanding, suggesting the students to renumber the paragraphs, to underline the most important words, to reread if they have any doubt, to identify the beginning, the middle and the end, noticing the characteristics of the introduction, of the outcome and of the conclusion. Also, the students were advised to use their metacognitive skills in order to make them use their own cognitive processes. The teacher encouraged to continually evaluate the attention level during the reading, to retain in memory the last ideas while reading the following, with the question of whether they were understanding what they read and to constantly keep in mind the goal of reading.

The content and sequence of the following classes were similar, always emphasizing the three aspects mentioned above: structure of text, cognitive strategy and metacognitive strategy. The post-test was applied in the month of December, before the end of the year, using the same activities implemented at the start of the intervention.

3.2. Research Population and Sample

Population

The population on this project is belonging to the fifth grade students at Unidad Educativa "Las Americas", academic year 2014-2015.

No.	Class Classification	Number of Students
1	5th	30 students

Table 3.1 Research population

This study was realized with 30 students of the fifth basic grade.

3.3. Research Instruments

This research used surveys, interviews, classroom observations, and post and pre-tests in order to collect information. A participant-form was used to register the participant's personal data, such as name, age, which was completed by students participating in the first meeting immediately prior to the implementation of the intelligence test, Raven's Progressive Matrices in an individual way in a period of two weeks in groups of 10 students per session. Beside this test were using games, riddles and puzzles to measure intelligence and mental quickness for children that stimulates and motivates the students, it was applied to check if there were differences between the participants in relation to iq.

As Corral-Verdugo and Catañeda Figueiras, Bazán Ramirez, Sanchez Hernández, (2006) affirm the reading comprehension cannot be not observed not quantified in a direct way, therefore, there must be designed activities that allow to obtain indicators of this skill. For this investigation there were used four types of measured for evaluation of the performance of the pupils before and after the intervention: (a) comprehension; (b) structure of text; (c) cognitive strategies; (d) metacognitive strategies. Reading comprehension was evaluated throughout two tasks of memory: recovery (RC) and recognition (Me). In the first the student read the text and wrote what he remembered and in the second, he answered multiple choice questions. The texts used were selected from books of 5th year by the teacher and the researcher. In the recognition task, the students answered 10 questions with three answer choices. Were counted the correct answers

The knowledge of the textual structure was evaluated by means of three tasks: indicate the most important phrases (PI), the main idea (MI) and the superstructure (SS). Each of the tasks was computed with 1 point for the correct answer and 0 for the incorrect. To evaluate cognitive strategies (CS), it is compiled a list of cognitive strategies for reading. Students marked the strategies used.

The tasks were placed in a set of three leaves that were distributed one by one respecting the work rate of every pupil. Before beginning, it was explained to the pupils how the tasks will be realized, showing each of the leaves and explaining the corresponding activity.

3.4. **Results and Analysis**

Analysis

To measure the indicators, we used questionnaires with opened and closed questions. The analysis of the results of this studies express clearly that metacognition constitutes an alternative solution, based on the control that the Subject has their own cognitive processes. The intention was to know the cognitive and metacognitive skills that the pupil uses. "Reading comprehension" develops information from the reading of a text and then it is used for different intentions.

The evaluated aspects were: Formulation, Refutation and check of hypothesis before and after the reading for the accomplishment of predictions and of inferences, to identify the aim of the reading, reconstruction of the information, and reflection about the well-read text. Results interpretation of the survey to children

1.- What type of texts do you like to read?

TEXTS	BOYS/GIRLS	%
NARRATIVE TEXT	16	53%
INFORMATION TEXT	8	27%
SCHOLAR TEXT	6	20%

Table 3.2 question 1

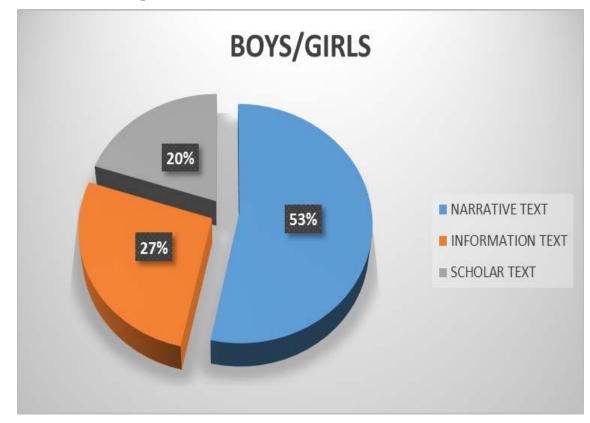


Figure 3.1*question* 1

A great part of the children 53% reads fundamentally narrative texts "stories". The informative text constitutes the second type of material more well-read that it comes to be 27% and thirdly the scholar texts 20% this last two are little read by the pupils.

2.- Where do you like to read?

PLACE	BOYS/GIRLS	%
CLASSROOM	20	67%
HOME	4	13%
INTERNET	4	13%
LIBRARY	2	7%

Table 3.3 question 2

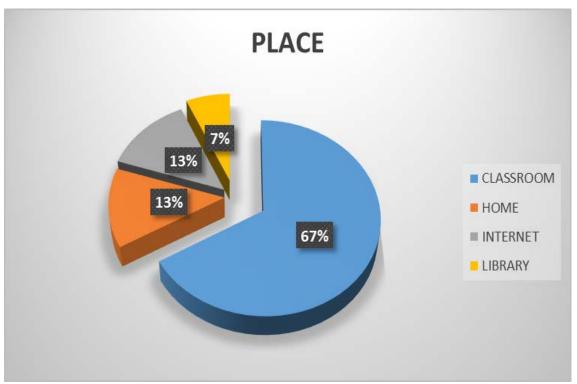


Figure 3.2 question 2

In the classroom is the place where most of the pupils read 67%, follows it by the 13% at home, 13% on the Internet and the smallest percentage 7% does it in the library.

3.- What happen when you read, do you feel emotions, does it generate opinions, or opens your imagination?

READING	BOYS/GIRLS	%
EMOTIONS	20	67%
OPINIONS	6	20%
IMAGINATION	4	13%

Table 3.4 question 3

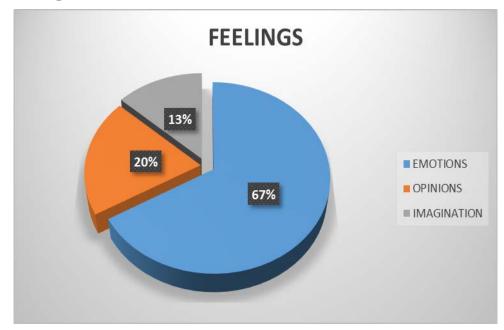


Figure 3.3 question 3

A high percentage of the pupils, the 67% demonstrate that reading creates emotions. Another group, the 20% said that reading generates different opinions to them, the 13% expresses that the reading creates imagination. This indicates that the student while reading is capable of feeling emotions, having opinions, and expand their imagination. Mathewson said that "The reading can define as a positive or Negative activity where the cognitive variables are important".

4.- Did you understand the reading?

READING COMPREHENSION	BOYS/GIRLS	%
COMPREHENSION OF THE TEXT	20	67%
COMPREHENSION OF THE AUTHOR	10	33%

Table 3.5 question 4

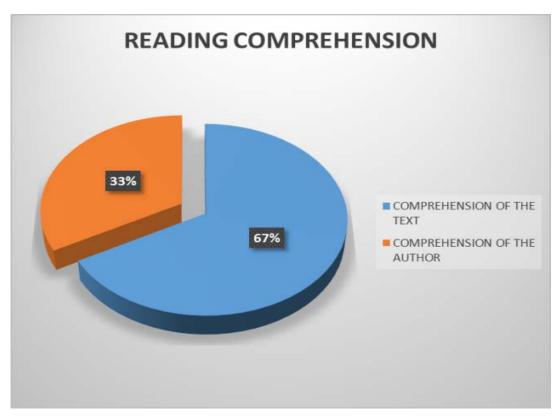


Figure 3.4 question 4

A high percentage of pupils 67% understood what the author was trying to explain in the text, the rest 37% did not understand the intention of the author.

5.- Do you usually write a summary about what you read?

WRITE A SUMMARY	BOYS/GIRLS	%
ALWAYS	6	20%
SOMETIMES	14	47%
NEVER	10	33%

 Table 3.6 question 5

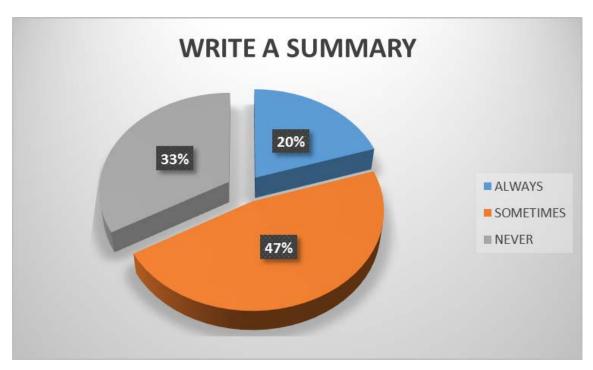


Figure 3.5 question 5

Few pupils 20% are able to reconstruct the information about the text, a great majority, 47% do not express the main idea and 33% are not capable of extracting the main idea because they have insufficient domination of the reading skills.

READING CONCLUSION	BOYS/GIRLS	%
NO CONCLUSION	20	67%
COPY THE SAME INFORMATION FROM THE TEXT	8	27%
DO NOT ANSWER	2	6%

6.- Did you understand the reading, in order to obtain a conclusion?

Table 3.7 question 6

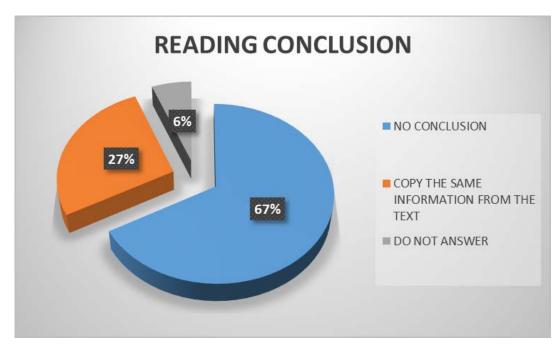


Figure 3.6 question 6

The majority of the pupils 67% did not understand and have problems to get a conclusion, 27% limits themself to copy the same information contained in the text in a literal form, and 6% did not answer. This problem shows that the students are not capable of having their own opinions.

7.- Do you use a dictionary when you cannot understand words.

USE A DICTIONARY	BOYS/GIRLS	%
Always	11	37%
Usually	6	20%
Sometimes	5	17%
Rarely	4	13%
Never	4	13%

Table 3.8 question 7

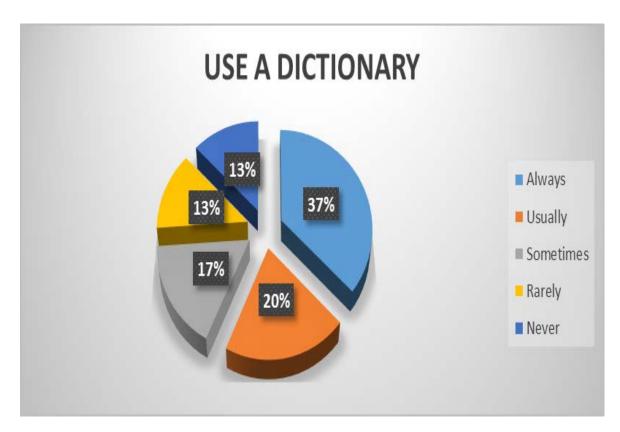


Figure 3.7 question 7

On question seven, a 37% of students expressed they always use a dictionary, the 20% usually, another 17% sometimes, 13% rarely and another 13% never use a dictionary when they do not understand a word.

MAIN IDEA OF THE TEST	BOYS/GIRLS	%
Always	9	30%
Usually	6	20%
Sometimes	6	20%
Rarely	5	17%
Never	4	13%

8.- Do you understand the main idea of the test?

Table 3.9 question 8

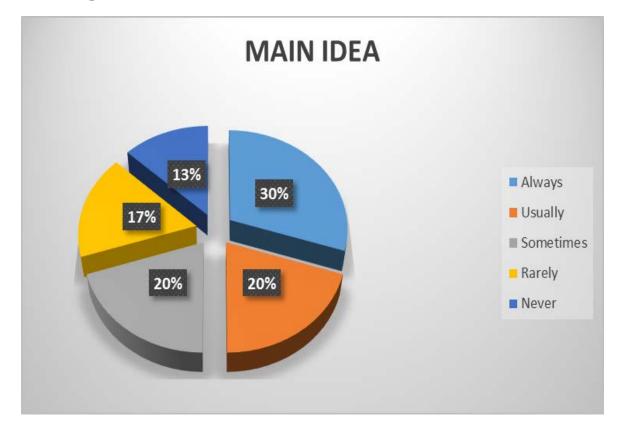


Figure 3.8 question 8

On this question we can see that a 30% always is able to understand the main idea of the test, 20% usually get the idea of the read test, beside a 20% sometimes, 17% rarely and a 13% never.

9.- According to your opinion, English a very important language? Yes or No

IS ENGLISH AN IMPORTANT LANGUAGE	BOYS/GIRLS	%
YES	27	90%
NO	3	10%

 Table 3.10 question 9

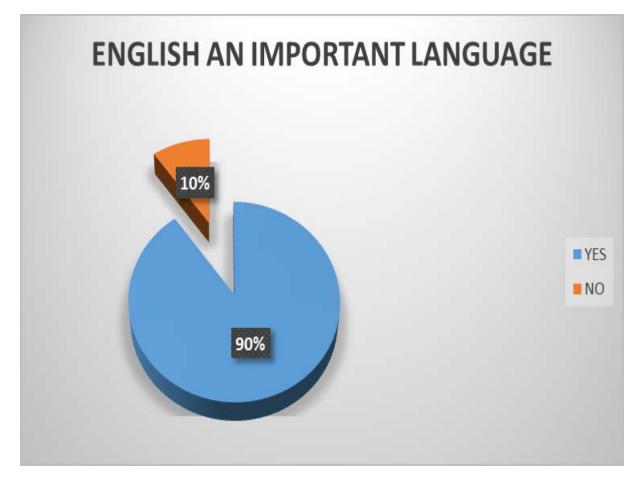


Figure 3.9 question 9

The 90% of the students think that to learn English as a foreign language is very important, in opposite a 10% of them do not think in the same way.

10.- When you read something difficult to understand, do you give up or do you use strategies to help you understand? (*I just give up*)/(*I use strategies*)

SOMETHING DIFFICULT TO UNDERSTAND	BOYS/GIRLS	%
GIVE UP	11	27%
USE STRATEGY	22	73%

 Table 3.11 question 10

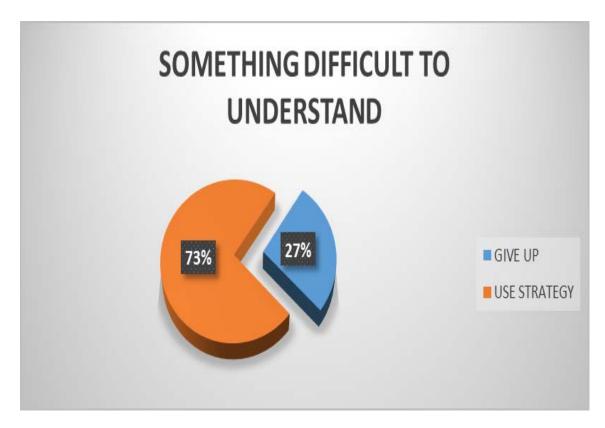
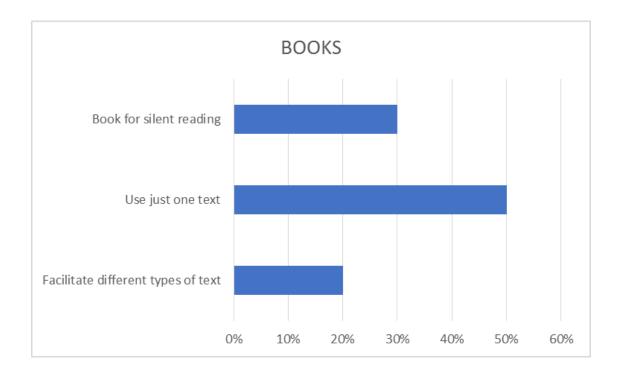


Figure 3.10 question 10

The majority of the students 73% affirm that use any type of strategies to understand at the moment of reading something difficult to comprehend, and a 27% give up.

Results of interview to 20 teachers

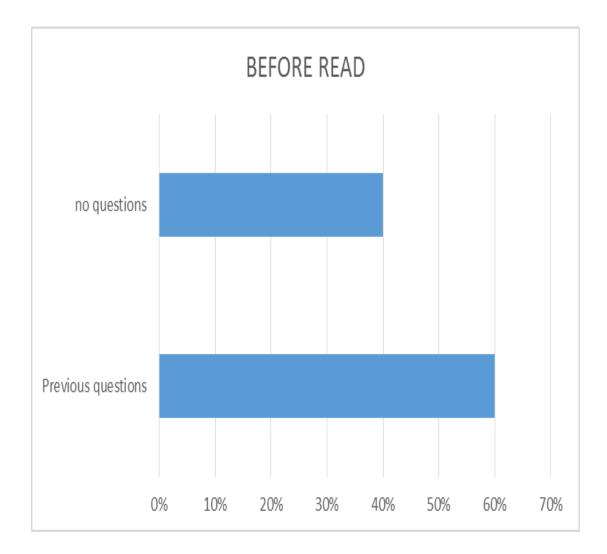
In the analysis unit of the teacher, we used the direct observation methodology, that according to Ortiz (2007), "It is a technic used frequently in an informal way, because it registers the information obtained in the moment to issue a judgment". In this sense Ortiz proposes that "The observation should be done in a systematic form.



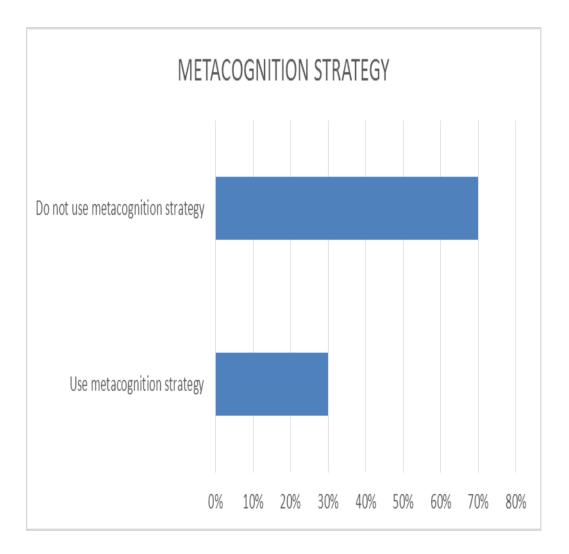
1.- Do you facilitate different types of texts to the students?

The teachers facilitated different types of texts in a 20%, it observes that they used just one text in 50%, and others delivered the text to the pupil for realizing silent readings. 30%.

2.- Do you realize previous questions to inquire the content of the text?



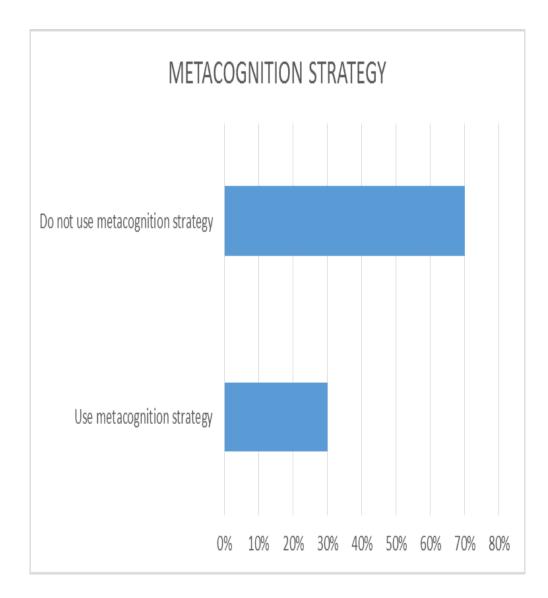
40% of the interviewed teachers, when they give a text to his pupils to be analyzed, are not capable of activating the student's prior knowledge, they go directly to the content, in the other hand the 60% is capable of activate the student's prior knowledge.



3.- Do you apply resources to develop the argumentation and opinions about the reading?

It is observed that 70% the teachers do not use the necessary resources in order to the pupils become capable of arguing and giving their opinion with regard to the topic and 30% compiles the information in order to accurate the main idea and avoid confusions.

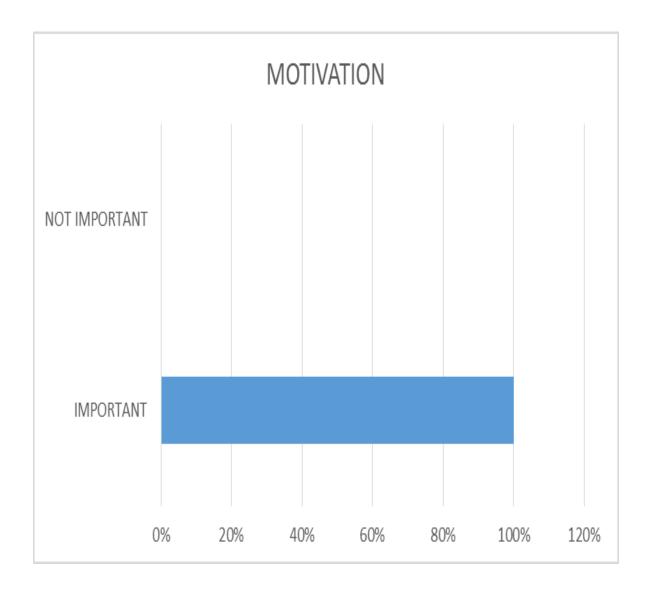
4.- Do you motivate the students to the metacognition of what is read?



Once finished the reading, 70% of the teachers are not capable of asking students what new information of the text was obtained and the 30% ask questions to know what the students obtained from the reading.

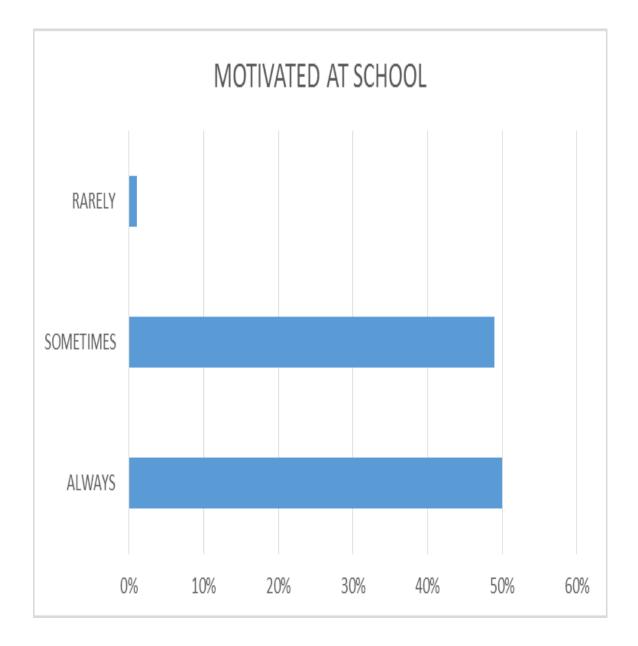
5.- What part does motivation plays in effective teaching?

(*Important*) / (not important)



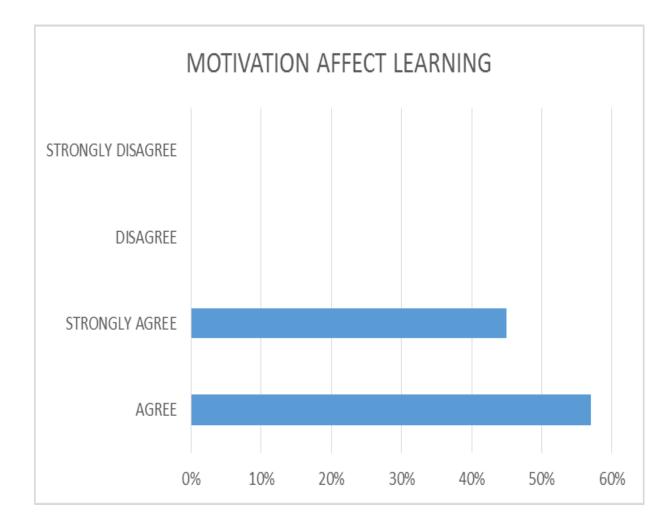
On this questions of the interview, we can observe that a hundred percent of the interviewee is totally agree with the importance of motivation in effective teaching.

6.- Do you feel motivated when you are at school?



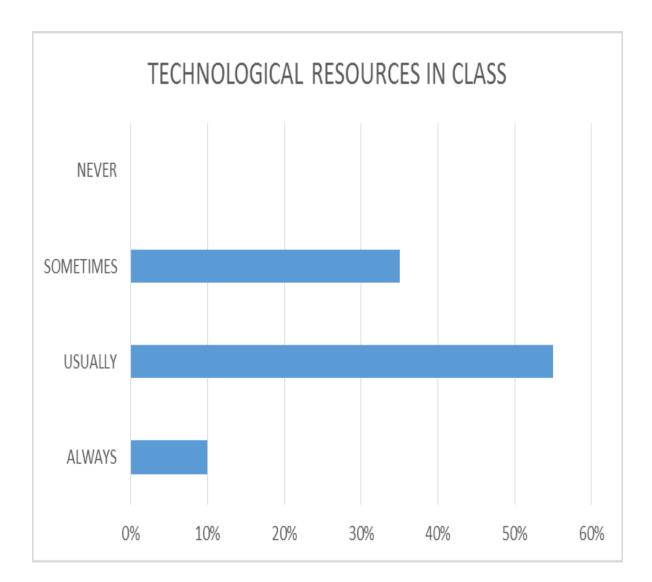
As well as graphic reflects a fifty percent always expressed to feel motivated at school, a forty nine percent sometimes fell motivation and one percent is rarely motivated at all.

7.- Do you think that motivation affect learning?



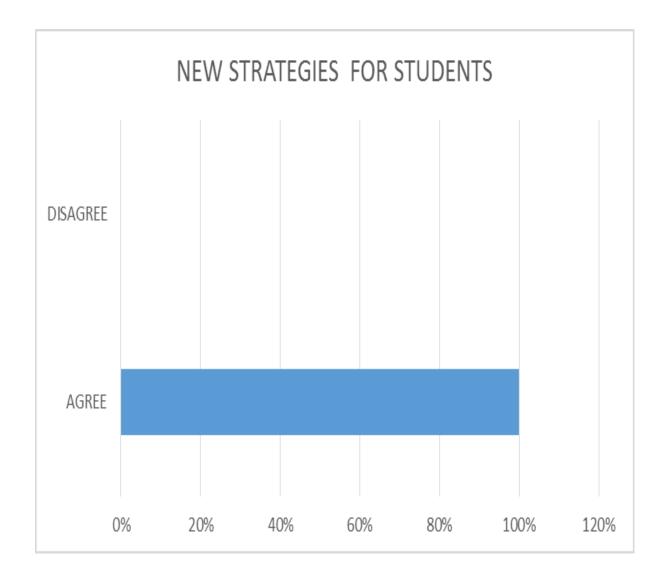
There is fifty seven percent that is agree to motivation affect learning, at the same time forty five percent is strongly agrre.

8.- Do you use technological resources in class?



The fifty five percent of the interviewee affirmed that they usually use technological resources in class, thirty five percent sometimes y a ten percent always.

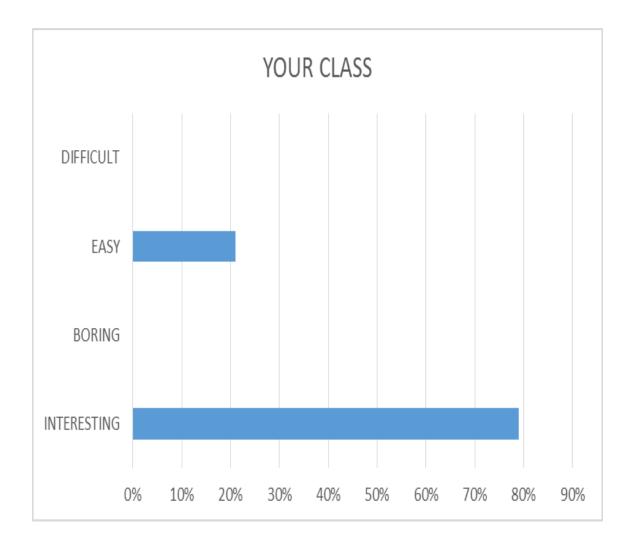
9.- Do you think that it is necessary the using of new strategies in order to help students to improve reading comprehension?



The one hundred percent is totally agree that it is necessary the using of new strategies in order to help students to improve reading comprehension

10.- How do you consider your class?

(*interesting*)/(*boring*)/(easy)/(*difficult*)



On this question the seventy nine percent consider that the class is interesting and twenty one percent it is easy.

Classroom observation analysis

Class Structure

Class Structure	could improve	acceptable	excellent	not observed
Reviews previous day's course content	X			
Gives overview of day's course content			X	
Summarizes course content covered		X		
Directs student preparation for next class	X			

In the initial observation of the class we found a very limited introduction of the new class, and also a limited review of the last class; however, it gave us a good vision of what the content is about; at the same time, it elaborates a good summary of the lesson, filling all the students' expectation and preparing them for the next class in a very subtle way.

The method

Methods	could improve	acceptable	excellent	not observed
Provides well-designed materials.		X		
Employs non-lecture learning activities ie. Small groups discussion, student-led activities	X			
Invites class discussion			X	
Employs other tools instructional aids. ie. Technology, computer, video, overheads	X			
Delivers well-planned lecture		X		

Analyzing the class and their method, we can see the use of a material directed to the students according to their academic level and we were able to see how the students shared their opinion during the class discussion; in this class they used an audio cd as a technology tool. In our point of view we think the class could be improve using additional strategies.

Teacher-Student Interaction

Teacher-Student Intereaction	could improve	acceptable	excellent	not observed
Solicits student input		X		
Involves a variety of students			X	
Demonstrates awareness of individual student learning needs.			X	

The interaction between the teacher and the students showed us a good environment during the class.

The Content

Content	could improve	acceptable	excellent	not observed
Appears knowledgeable	X			
Appears well organized			X	
Explains concepts clearly			X	
Relates concepts to students experience		X		
Selects learning experiences appropiate to level of learning			X	

During this observed class, the content of the lesson was very clear, with a good organization, the concepts were well explain and the students shared their opinion according to their prior knowledge and their learning level.

Analysis Pre Test and Post Test

Pre Test analysis

The Pre- test was made with the purpose to know what the students do understand about a text, including what they do not understand. The pre-test included exercises like write the missing letter, circle the correct word and read the brief story and answer the questions, through it we can notice who understand what they read or not. On the other hand, this pretest can help us to identify the student's strengths and weaknesses in order to be able to aid them to comprehend what they are reading.

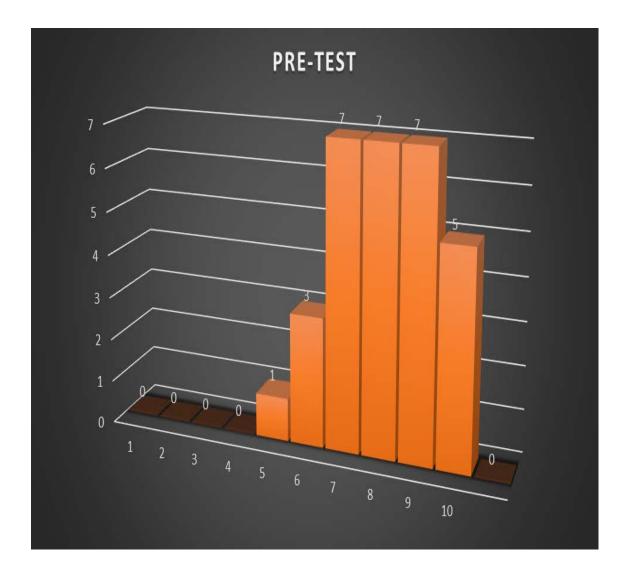
Additionally, we had an interview with the students in order to have information about the difficulties that they had in comprehend a text. The questions were done according to the students' level to identify their frustrations.



Figure 3.11 Analysis

(https://www.google.com.ec/search?q=resources&biw=1024&bih=677&tbm=isch&tb o=u&source=univ&sa=X&sqi=2&ved=0CDIQsARqFQoTCNrJ_OiiuMcCFUOQkAodf MUC6g#tbm=isch&q=analyis&imgrc=_mguBwLjqm154M%3A) The students score range was from 1 to 10, most of the students are in the upper range. In the upper range are 26 students, in the middle range are 3 students, and in the lower ranger there is only one student.

Range	Frequency
1	0
2	0
3	0
4	0
5	1
6	3
7	7
8	7
9	7
10	5



Post Test analysis

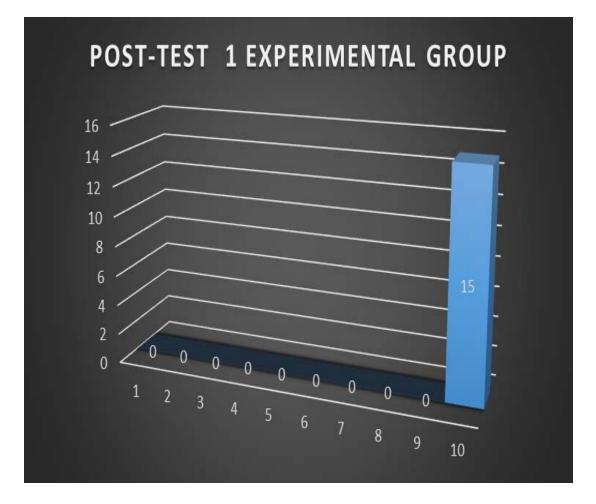
The post test was taken at the end of February to grade the achievement of students after the reading classes were given.

The post test was developed as follow:

First group

In the experimental group everybody got the highest grade that was 10, we were able to observe good results of the guided class; they used the metacognitive strategy, to improve their reading comprehension.

RANGE	FREQUENCY
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	15

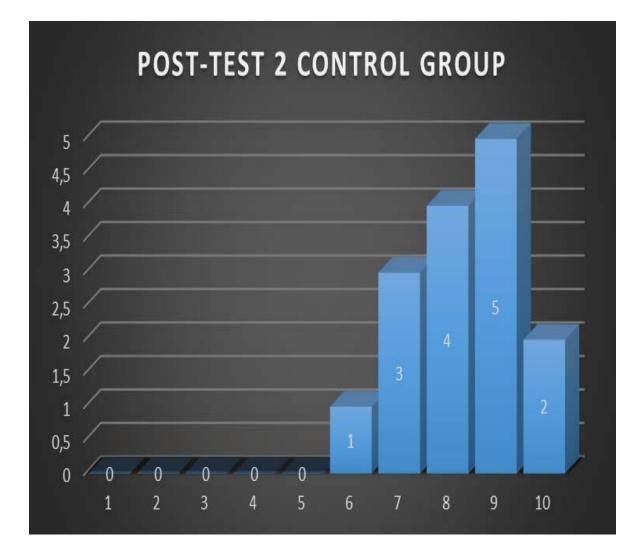


Second group

In the second group, the control group was also evaluated with the right instructions at the moment of taking the test; this group did not have any guided class.

The students score range was from 1 to 10, most of the students are in the upper range. In the upper range are 11 students, in the middle range are 3 students, and in the lower ranger there is only one student. In this way we are able to see that with the right instruction before taking the test the students were able to get a regular grade according to their level of knowledge.

RANGE	FREQUENCY
1	0
2	0
3	0
4	0
5	0
6	1
7	3
8	4
9	5
10	2



Results

The results obtained throughout the application of this instrument propose:

- That exist interest for reading, because the children interact with the texts, read stories, etc.
- The reading is promotes only in the classroom and parents do not interfere little or nothing, and obviously this process does not form a part of his daily activity.
- About reading compression we observe that the pupils use his previous knowledge to infer over of the content of the text.
- To recognize the intention of the author (to report), represents difficulties to identify the topic of the text, to reconstruct the information and to think about this, which indicates that cognitive strategies of reading are not using, basic

activities for the act of understanding them, for that reason is demonstrated a low level of reading compression.

In agreement with the observations realized to the teachers, it was evidenced that...

- The teachers continue using a traditional model of education.
- They do not consider the reality and the environment of the pupil.
- They use little or no strategy of reading comprehension, for that reason the pupils present a low level of comprehension.

3.5. Resources, Timeline, and Budget

Resources

There were many resources used in this project like laptop, worksheets, observations sheets, printer, flashcards, word cards, they are shown in the following chart.



Figure 3.12 Resources

(https://www.google.com.ec/search?q=resources&biw=1024&bih=677&tbm=isch &tbo=u&source=univ&sa=X&sqi=2&ved=0CDIQsARqFQoTCNrJ_OiiuMcCFUO QkAodfMUC6g#imgrc=QOC7BazQE75FiM%3A)

TYPE OF RESOURCES	RESOURCES
	Flashcards
	Picture cards
Teaching resources	Magazines
	Story Books
	Books
Bibliography Resources	Online Books
	Internet
	Laptop
Technological Resources	Printer
	Cd player
	Pamphlets
	Camera

 Table 3.12 Type of resources

Timeline

Activity	Janı	Jary	1		Febr	uar	y		Ma	rch			Ap	oril			М	ay		Ju	ne			Jı	ıly	. <u> </u>		Aug	gust	
Collection of primary data			х																											
Elaboration of a questionnaire			х																											
Interviews				х																										
Pre test				х																										
classroom observation			x	x	x	x	х	х																						
Finding the root of the problems						x	x																							
Post test								x																						
Data analysis										X	x																			
Result of the analysis											x	х																		
Outline of the final project															x	х	X	x	X											
Final writing of project report																				х	x	x	х	х	х					
Presentation of the project																											Х			

 Table 3.13 Timeline

Budget

<u>Project Title:</u> Improving Reading Comprehension Through Metacognitive Strategies in 5th Grade Students.

School Name: Unidad Educativa Las Americas.

Period of Time: 4 month

	Category	Sub - Total	Total
1.	Travel	\$ 50	\$ 50
A.	Gasoline		
2.	Equipment		
A.	Printer	\$ 140	\$ 640
B.	Laptop Computer	\$ 500	
3.	Material and Supplies		
A.	Paper	\$ 15	
В.	Toner	\$ 40	
C.	Cards	\$ 8	
D.	Markers	\$ 10	\$ 73
4.	Contrated Services		
A.	Internet	\$ 80	\$ 80
		TOTAL	\$ 843

 Table 3.14 Budget

CHAPTER IV

4. **Final Conclusions**

4.1. Conclusions

There is difficulty in reading comprehension among students, in fifth grade students mainly because:

1. Students have developed a mechanical process to only decode signs and letters and they do not interpret the meaning of words. It is very important to help students to understand how to interpret the context using outlines and notes when they read. We as teachers can make flashcards to keep the attention and improve the short term and long term memory of the students, so they can remember what has been taught. We suggest reading stories according to the level of understanding of the students.

1.. There is little support from parents because they show no interest in their children education. The family involving during the academic life of students is a very important point to upgrade the level of knowledge during the school life. The parents must stimulate the knowledge that their kids acquired, so they can feel supported and gain more self-confidence. It is important that parents do not try to become teachers at home, but they have to be aware of what their children are learning at school. When parents collaborate with the learning process of their children, they start to feel interest in gaining more knowledge, influencing in the emotional development of the student.

2. The practical application of skills and strategies to develop reading skills is acquired in the classroom. We can highlight five important reading strategies that will help students to become better readers. The first one is Visualize, visualizing the image; the students can understand and identify what the story is about. The second one is summarize. Summarization allows students to difference the main idea and the minor details. After finishing reading a chapter, they can write down a brief

summary, showing that the reading was understood. The third one is Predict. Predicting helps the students to stay engaged with the text. This can help pointing a misunderstanding of the text that needs revisiting. The fourth one is Ask questions. Through asking questions students can get clear ideas about the context, it could be asking the meaning of words to understand what the story is about. And the last one is finding connections; connecting the principal ideas, so they are able to understand the context.

3. Students, who obtained the highest score in the use of metacognitive strategies in reading, presented more effectively understanding in reading comprehension. Metacognition is often referred to as "thinking about thinking". We observed that students increase in self-confidence and their motivation.

4. The global type in metacognitive strategies had a significant influence on increasing efficiency in reading comprehension. Through metacognitive strategies students will develop higher learning and problem solving skills. With the use of the metacognitive strategies, students can control their own learning process, being able to understand the text and along the way they will improve their reading comprehension.

4.2. **Problems and Limitations**

Taking into consideration the capacity level of the students, the average group and the multiple numbers of strategies during the treatment, maybe, extended led practice, distributed in the time given for the investigation it might improve reading strategies and they might lead to better results in reading comprehension. Plenty of time can be needed for the students to experiment sufficient modeling led guided, using a variety of texts and feedback in order to develop metacognition and independent strategy use. Additional investigation is necessary to define clearly the time of instruction. The technical problems in this study appeared at the moment of applying a new reading comprehension strategy in which the participants are not accustomed and the teachers feel displaced or without update about their teaching methodology. With these results, the issues about the instructional time continue to be unresolved. Due to the diverse time for instruction, metacognitive components, educational procedures and types of measures, it is difficult to determine an ideal time to assign to the instruction. In the future, we could consider reducing the number of strategies or teaching just one strategy until the previous strategy is dominated always considering the conditions of the participants. Thinking about the limitations of time for the research and the number of strategies should be reduced. Another of the limitations was that the teachers do not evaluated the factors of knowledge of the student as the quantity and organization of the prior knowledge.

Knowledge is related to the academic performance of the student and possibly related to the use of the 'hypothesis generation strategies' as taught during the instruction. This strategy emphasized on the activation of previous knowledge or experience related to the topic. Lack of participant's knowledge could give place to difficulties of the use of some of the strategies during the training.

4.3. Recommendations

With the purpose of improving the development of skills and abilities in reading comprehension of students in the fifth grade students, we encourage the teaching of the following:

- 1. Integrate students reading understanding, to make a mental process, covering the four aspects basic, they are interpreted, retain, organize and evaluate what they read.
- 2. Present illustrative age-appropriate reading of the student and the degree to curse.

- 3. Make comparisons of previous knowledge of the students as well as your new knowledge.
- 4. Assign readings and texts to the learners about their experiences, so the reader develops a meaning in their interaction with the text.
- 5. Show students the usefulness of what they read, not by explaining, but of reflection and practice.
- 6. Ensure that students become autonomous and effective readers, so they are able to cope with any text intelligently.
- 7. Use the dictionary permanently in the development of reading text.
- 8. Physical and educational acclimate of the classroom.
- 9. Educate the pleasure of selecting reading texts according to the tastes and interests of students to generate in students a dialogic attitude serving this to reflect and debate.
- 10. Always implement new strategies to meet the requirement as dynamism, having affection to reading and avoid any barrier.

That is why; the limitations of this study with respect to the sample in terms of size and heterogeneity allow us to think further research to consider this point. It should be noted, that there were not taken into account many variables that could influence the problem. That is why we emphasize the importance of incorporating variables such as level sociocultural, access to instruction in metacognitive strategies, efficiency or performance general academic.

Currently new instruments are known that allow us to know the level of metacognitive students while doing a reading task. During our investigation we highlight the value of incorporating our metacognitive instruction as a teaching resource. It is a shared task between teachers and students. We must learn to read, and learn to teach how to read.

4.4. Proposed Lesson Plan

As a contribution to this research we recommend the following reading lesson plan, which is very useful at the time to apply metacognitive strategies. Worth clarifying this lesson plan is an adaptation of Lern NC from the web page (http://www.learnnc.org/search?phrase=metacognitive+strategies)

READING LESSON PLAN

Learning outcomes

Students will:

- Determine the function of wolves within the population of the ecosystem.
- Assess a variety of ecosystems.
- Use RUNNERS strategies to show comprehension of non-fiction text.

Teacher planning

TIME REQUIRED FOR LESSON

3-5 days

MATERIALS/RESOURCES

- (Any appropriate non-fiction informational book)
- Flash card/Picture dictionary (optional)
- Copy of RUNNERS strategies for each student.
 - KWHL chart for each student. E.g. (http://www.ncsu.edu/midlink/KWL.chart.html)

• Comprehension questions for each student. Or general questions for all the students

TECHNOLOGY RESOURCES

- Word processing software
- internet

Pre-activities

Students will complete KWHL chart showing what they KNOW and what they WANT TO KNOW and HOW they will learn more about (reading theme)

Activities

PRE-READING ACTIVITIES

- Students will complete KWHL chart as pre-reading strategy and after reading will come back to complete LEARN. Teacher may do this on overhead or make the chart for students and pass out for children to fill in. KWHL chart is simply a four column chart where the first column will be filled in with what the students already know about *"Tittle of the book" or text.* The second column is filled in with things they would like to know. The third column is optional but would include the resources where one could go to find out more information. The fourth column is what has been learned. This should be completed during the post reading phase of this lesson.
- 2. Complete a "concept web" with students of words that describe "*Tittle of the book*" or *text* or where they have learned about "*Tittle of the book*" or *text*.

DURING READING ACTIVITIES

- 1. Select 5-10 "Want to Know" (W) questions from the KWHL chart for students to find answers to.
- 2. Model the RUNNERS strategy for students for one section of the text, using a thinkaloud procedure:

RUNNERS strategy:

- **R**ead the title and make a prediction
- Underline key words in the questions
- Number the paragraphs
- Now read the entire passage
- Enclose key words/ideas in circles
- **R**eread the questions/passage
- Select the best answer
- 3. Have students use the RUNNERS strategy to answer the remaining questions in small groups or with a partner.

AFTER READING

Once students have completed reading and questions, the whole class will go back to KWHL chart and fill in the "Learn" section.

FOLLOW UP PROJECT

Students will be assigned the project of researching (books from library or internet) e.g. if reading is about wolves, they have to research a particular type of wolf, to learn more about its habitat, its behavior and how it interacts specifically with its ecosystem. Students will complete a KWHL chart and will use RUNNERS strategy to answer questions from the books or text and internet articles they find. Final assignment is to complete an expository writing piece about the reading topic.

Assessment

Students will:

- Complete KWHL charts for their reports.
- Use the RUNNERS strategy to comprehend the internet and print resources they use for their reports.
- Complete a report including information about the topic.

ENGLISH LANGUAGE ARTS (2010)

- Reading: Informational Text
- Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

ENGLISH LANGUAGE ARTS (2004)

Goal 1: The learner will apply enabling strategies and skills to read and write.

Objective 1.03: Increase reading and writing vocabulary through:

- wide reading.
- word study.
- word reference materials.
- content area study.
- writing process elements.
- writing as a tool.
- debate.
- discussions.
- seminars.
- examining the author's craft.

Goal 2: The learner will apply strategies and skills to comprehend text that is read, heard, and viewed.

Objective 2.01: Use metacognitive strategies independently and flexibly to monitor comprehension and extend vocabulary (e.g., skim, scan, question).

Objective 2.02: Interact with the text before, during, and after reading, listening, and viewing by:

- making predictions.
- formulating questions.
- supporting answers from textual information, previous experience, and/or other sources.
- drawing on personal, literary, and cultural understandings.
- seeking additional information.
- making connections with previous experiences, information, and ideas.

Objective 2.03: Read a variety of texts, such as:

- fiction (tall tales, myths).
- nonfiction (books of true experience, newspaper and magazine articles, schedules).
- poetry (narrative, lyric, and cinquains).
- drama (plays and skits).

Goal 4: The learner will apply strategies and skills to create oral, written, and visual texts.

Objective 4.10: Use technology as a tool to enhance and/or publish a product.

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UNIDAD EDUCATIVA PARTICULAR "LAS AMERICAS"





UNIDAD EDUCATIVA PARTICULAR "LAS AMERICAS" STUDENT 'S LIST

Cours	e: Fifth Grade
No.	ALUMNO
1	AIZAGA GONZÁLEZ GIANNI
2	ALAVA MEZA DAVID
3	AMADOR CORDOVA GENESIS
4	BASANTES GARCIA PAMELA
5	CARTAGENA IBARRA AMY
6	CORONEL MENDOZA NICOLÁS
7	CORONEL SANTANA ARIADNA
8	GARCIA LITUMA JORGE
9	GONZALEZ MONTÚFAR IBETH
10	HERONOLEZ CAELLO DANIEL
11	HERRERA NOLIVOS FRANK
12	JIMENÉZ MORA RICHARD
13	MARIN ROMERO GUSTAVO
14	MARTÍNEZ BARRE DIEGO
15	MARTÍNEZ CABELLO ASHLEY
16	MENDOZA CORRAL GUILLERMO
17	MONDAVI SALINAS HABIB
18	ORTIZ MOLINA LEONARDO
19	PONCE GORDILLO VALERIA
20	PONCE HUERTA MIGUEL
21	RAMÍREZ MEZA ADRIANA
22	SUAREZ CALDERÓN MARIO
23	SANCHEZ PEREZ RENATA
24	SOLEDISPA ROSALES MARIA
25	JIMENEZ VALDERRAMA PABLO
26	LOPEZ MACIAS MATEO
27	MOLINA SANCHEZ CRISTINA
28	VIZUETA JATIVA ALISSON
29	VILLAFUERTE RIVERA TERESA
30	ZAMBRANO VERARA ARIANA

Classroom observation checklist

Name	Date
Class observed	Time
Observer	Deparment

*All items Not Observed must be explained in Comments

	Could Improve	Acceptable	Excellent	Not Observed *
Class Structure	Improve	11		observed
Reviews previous day's course content Gives overview of day's course content Summarizes course content covered Directs student preparation for next class Comments				
Methods				
Provides well-designed materials				
Employs non-lecture learning activities				
(i.e. small group discussion, student-led activities)				
Invites class discussion				
Employs other tools/instructional aids (i.e. technology, computer, video, overheads)				
Delivers well-planned lecture				
Comments				
Teacher-Student Interaction				
Solicits student input				
Involves a variety of students Demonstrates awareness of individual student learning	n pood			
Comments				
Comments				
Content				
Appears knowledgeable				
Appears well organized				
Explains concepts clearly				
Relates concepts to students' experience				
Selects learning experiences appropriate to level of lea	arnıng			
Comments				

RAVEN'S PROGRESSIVE MATRICES TEST

A raven test was applied on line with the experimental and control group in a period of two weeks into small groups for about 30 minutes per student using the link below:

http://www.avlisad.com.ar/test/

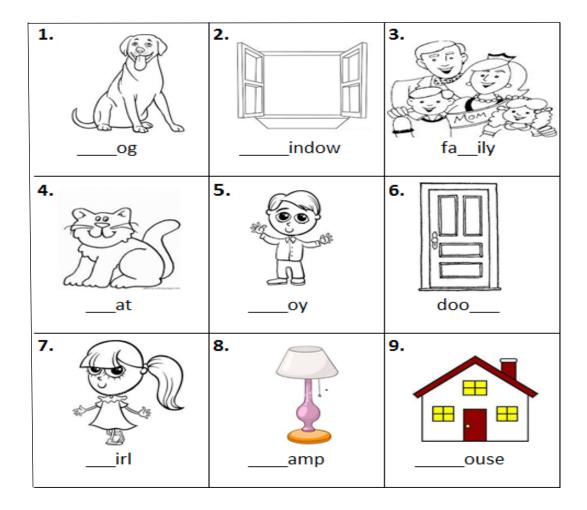
PRE-TEST

SCHOOL:	DATE:
NAME:	COURSE:

A. PHONIC ANALYSIS: CONSONANTS

Look at the picture.

Write the missing letter or letters on the blank line.



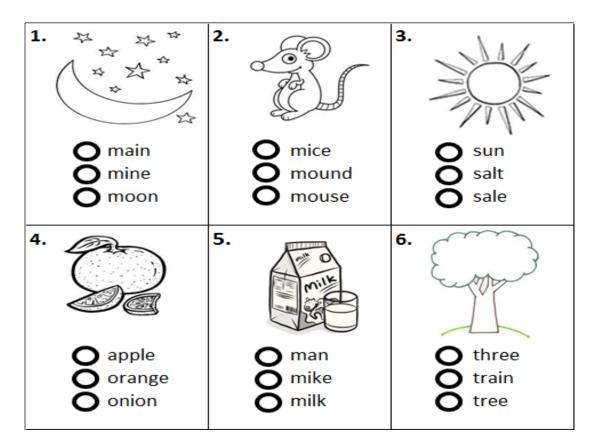
B. DICTATION

Write the word after your teacher says it.

1	3	
2	4	

C. VOCABULARY WORD: PICTURE-WORD MATCH

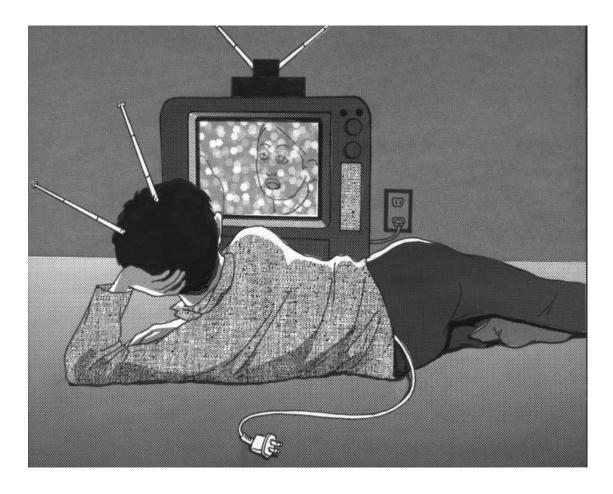
Fill in the bubble next to the word that names each picture.



D. STORY COMPREHENSION

Read the following story. Then answer each question.

TV BOY



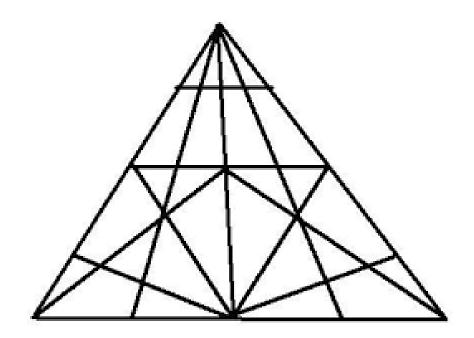
My name is Tim. I am ten years old. I live in a big house. I have a sister. I don't have a brother. I have a pet because I like animals. I like school. I like to play sports. I like to watch tv. I watch tv every day.

TV Boy Questions

- 1. What is his name?
- 2. How old is he?
- 3. Does he have a sister?
- 4. Does he like school?
- 5. Does he like to play sports?
- 6. Do you like to study?
- 7. Do you watch TV every day?

ACTIVITY 1

1.-How many triangles are there into the shape?



2.- Connect points in order to form the major quantity of triangles



ACTIVITY 2

WHAT'S THE STORY?

PURPOSE: The purpose of this metacognitive technique is to connect themes or ideas to a meaningful story that can help students remember (mnemonic technique).

DIRECTIONS: Have students create a story using the lesson content. Each student adds one sentence to the story adding an element or key term/concept. Write down or record the story for students to use as a study tool.

ACTIVITY 3

TRANSFER JOURNAL

PURPOSE: Students fill out the chart for basic concepts learned in class to apply/transfer those concepts to new ideas or areas.

DIRECTIONS: Have students fill out the following chart for a concept or multiple concepts.

IDEA	INTERPRETATION	CONNECTION	TRANSFER	INSIGHTS/ REFLECTION
What is the big idea? (copy phrases/ sentences exactly from text)	What does it mean? (write in own words)	How can you connect the idea to another subject?	How can you transfer or apply the idea to your life?	What reflection do you have from the idea?

POST-TEST

SCHOOL:	DATE:
NAME:	COURSE:

THE TREE

1. Read the summary of "The Tree". Then read the following statements and write TRUE or FALSE.

Poppleton planted a tree. He gave it water and food. The tree grew strong and pretty. But then it turned Brown.

The tree doctor came. He tapped the tree's trunk. He said the tree needed something. But what? Poppleton watched the tree all night.

Poppleton's friend told him to give the tree cheese or a bone. The tree did not get better.

Then Poppleton talked to Cherry Sue. She looked out the window. She tought. She said the tree needed birds.

Poppleton got a bird feeder. He saw a bird land on the tree. More birds came. The tree got better.

a.	The setting of the story "the tree" is a jungle.	
b.	Poppleton planted a new Little tree in his yard.	
c.	The tree was awful when Poppleton saw it.	
d.	Newhouse told Poppleton the tree needs a banana.	
e.	Poppleton put a bird feeder in his tree and birds came.	



- 2. Read and circle the correct option.
- a. Poppleton is a: llama pig mouse
- b. The Setting the story "The tree" is : The forest the sea the yard
- c. At the **beginning** of the story poppleton: planted a tree had lemonade went for help.
- d. When Poppleton saw his tree it was : beautiful awful small
- e. Newhouse told Poppleton the tree needs a: pizza sandwich bone
- 3. Choose the correct option to complete the statement.

Bird feeder - doctor - cheese - tree - sat

- a. Poppleton called the tree ______ to look at his tree.
- b. Poppleton _____ up with his tree all night, wondering what it needed.
- c. Hudson told Poppleton the tree needs a piece of ____
- d. Cherry Sue told Poppleton the tree needs a
- e. Poppleton put a bird feeder in the _
- 4. Match the character of the story with its correspondent name. Use different color pencils.

a.	Poppleton	raccoon
b.	Tree doctor	mouse
c.	Hudson	dog
d.	Newhouse	llama
e.	Cherry Sue	pig