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A QUANTITATIVE STUDY OF THE EFFECT OF METACOGNITIVE READING
STRATEGY INSTRUCTION ON THE READING COMPREHENSION AND
READING ANXIETY OF NINTH GRADE LEARNERS OF ENGLISH AS A
FOREIGN LANGUAGE

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ABSTRACT

The aim of this research is to explore the effects of explicit metacognitive strategy instruction on learners' reading comprehension proficiency and on their reading anxiety levels. The investigation was carried out at one state school from Santiago, Chile (San Mateo School). The work was carried out with a group of twenty-nine students who were enrolled in ninth grade. The present study has a theoretical-descriptive framework constituted by three aspects present in the process of learning a foreign language. The first is the model of learning strategies proposed by O'Malley and Chamot (1990). The second framework is the conception of the reading language skill that we have considered for the study; and the third refers to the construct of foreign language reading anxiety adopted in the investigation. The data were collected from three sources. One was the scores that the participants of the experimental and control groups got on their reading comprehension pre-test and post-test. The third source was the experimental and control students' answers to the Foreign Language Reading Anxiety Scale (FLRAS). Between these processes, there was an intervention phase in which strategies were taught using The Cognitive Academic Language Learning Approach (CALLA).

The results showed that there is a fair amount of FL reading anxiety among Chilean EFL learners. Although it seems at first glance that reading in a FL is not anxiety

provoking, the results indicated that it could arouse anxiety in some learners. In addition, the final analysis of the data demonstrated that students' reading comprehension proficiency improved considerably after the intervention phase.

INTRODUCTION

In the last two decades, a growing body of research has described how learning strategies can help students improve the acquisition of a second/foreign language. Teachers and students alike can easily find useful references that describe these numerous learning strategies and suggest how to apply them to each of the four skills. Concerning the development of the reading comprehension skill, research has highlighted the importance of the use of metacognitive reading strategies. In addition, research on the acquisition of the reading comprehension skill has revealed the negative effects that foreign language reading anxiety may have on the learners' reading proficiency. Consequently, this quasi-experimental study intends to identify the possible effects of explicit strategy instruction on the learners' reading comprehension proficiency and on their levels of reading anxiety.

Strategy training can be defined as any intervention which focuses on the strategies to be adopted and used by language learners to develop their proficiency, and/or to improve specific task performance. The assumptions of the present study are that explicit metacognitive reading instruction improves the learners' reading comprehension proficiency and lowers their levels of reading anxiety. Thus, it may be possible to help students gain greater control over their anxiety levels and reading

efforts; consequently, they can take responsibility for their language learning out of the classroom.

On the one hand, in this study, we have adopted the conception of strategy and the strategy taxonomy proposed by O'Malley and Chamot (1990). According to these researchers, learning strategies are the conscious thoughts that learners have and the actions that they take in order to achieve a learning goal. Their taxonomy, grounded within the Adaptive Control of Thought Model, the information processing model of learning developed by Anderson (1983, 1995), distinguishes three major types of strategy, metacognitive strategies, cognitive and social affective. Metacognitive strategies make use of knowledge about cognitive processes and constitute an attempt to regulate language learning by means of planning, monitoring, and evaluating. They have an executive function. Cognitive strategies, in turn, refer to operations used in problem solving that require direct analysis, transformation, and synthesis of learning materials. They have an operative or cognitive-processing function. Finally, social affective strategies concern the ways in which learners choose to interact with other learners and native speakers, examples of these being cooperation and questions for clarification (O'Malley and Chamot, 1990).

On the other hand, the concept of reading comprehension adopted in the study is the one proposed by Grabe and Stoller (2013), who describe reading as a “cognitive activity involving skills, strategies, attentional resources, knowledge resources, and their integration” (p.9). Reading comprehension is a complex metacognitive process

that involves a set of unconscious decisions – in the case of fluent readers- that are taken depending on their purpose for reading. According to Grabe and Stoller (2013), the purposes for reading are the following: reading to search for simple information, reading to skim, reading to learn from text, reading to integrate information, and reading for general comprehension.

The third construct adopted in the research was Anxiety, which can be defined from two perspectives. On the one hand, the characteristics of behavior which act as introspective feelings; and, on the other hand, the psychological perspective, which defines anxiety as “subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the automatic nervous system” (Spielberg, 1983, p. 1, in Horwitz, 2001). Finally, the conception of foreign language reading anxiety adopted in the study is defined as “a mediating variable that intervenes at some point between the decoding of a text and the actual processing of textual meaning” (Saito, Horwitz and Garza, 1999, p. 215). In addition, the Foreign Language Reading Anxiety Scale designed by Saito et al. (1999) was used in order to measure the students’ levels of anxiety.

Concerning the organization of this research report, Chapter One, addressing the Theoretical and Descriptive Framework, will discuss each topic of the research, i.e., learning strategies, reading comprehension, and anxiety. In Chapter Two, Methodological Framework, each topic is described in depth, such as hypotheses and variables, objectives, subjects, the research procedure and instruments used during the

intervention. In addition, the section on the data collection procedure includes the intervention, statistical analysis results and their discussions. Finally, Chapter Three focuses on the conclusions, limitations, pedagogical implications of the study, and suggestions for future research.

CHAPTER I

THEORETICAL AND DESCRIPTIVE FRAMEWORK

The present study has a theoretical-descriptive framework constituted by three aspects present in the process of learning a foreign language. The first is the model of learning strategies proposed by O'Malley and Chamot (1990). The second is the conception of the reading comprehension skill held by Grabe and Stoller (2013); and the third refers to Saito, Horwitz, and Garza's (1999) construct of foreign language reading anxiety. In this section, we will describe the frameworks in detail.

1.1 Language learning strategies

As mentioned above, O'Malley and Chamot's proposals (1990) concerning the concept of learning strategies have been applied in this research work. They suggest that learning strategies are "Complex procedures that individuals apply to tasks; consequently, they may be represented as procedural knowledge which may be acquired through cognitive, associative, and autonomous stages of learning" (O'Malley and Chamot, 1990, p. 52). In other words, strategies are the conscious thoughts that learners have and the actions that they take in order to reach a given learning objective.

Other applied linguists have also been concerned with the study of learning strategies. For instance, Oxford (1990) defines learning strategies as "operations employed by the learner to aid the acquisition, storage, retrieval, and use of information." This

definition of learning strategies is further expanded to include the following information: “specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations.” (Oxford, 1990, p.8). Another view is that of Weinstein and Mayer (1986), who propose that learning strategies have learning facilitation as a goal; and that they are intentional on the part of the learner. The goal of strategy use, they suggest, is to “affect the learner's motivational or affective state, or the way in which the learner selects, acquires, organizes, or integrates new knowledge” (Weinstein and Mayer, 1986, p. 315).

O'Malley and Chamot's (1990) model of learning strategies is grounded in the Adaptive Control of Thought Model developed by Anderson (1983, 1985), which is an information processing model of learning. In this model, rooted in cognitive psychology, Anderson proposed a distinction between declarative and procedural knowledge. Declarative knowledge refers to what we know about or to “static” information in memory. In contrast, procedural knowledge refers what we know how to do, or to dynamic information in memory (Anderson, 1983, 1985, in O' Malley and Chamot, 1990). While declarative knowledge or factual information may be acquired quickly, procedural knowledge, such as language acquisition or learning, is acquired gradually and only with extensive opportunities for practice.

Anderson explains the process of acquiring a cognitive skill as an instance of a transition from declarative to procedural knowledge. This transition involves three

stages, the declarative, the associative, and the autonomous stages. During the first stage, learners are taught how to do a task. This involves conscious activity on the learners' part and this stage is characteristically declarative. The information at this stage is stored as facts. In the associative stage, errors in the declarative information are detected by the learner and gradually corrected. In fact, at this stage, the declarative knowledge turns into its procedural form. However, performance may still be slow and errors may occur. Finally, during the autonomous stage, the performance of the skill becomes increasingly automatic (Anderson, 1983, 1985, in O'Malley and Chamot, 1990, pp. 25, 26). In this way, it is possible to explain the acquisition of a second or foreign language as a complex cognitive skill and the acquisition of learning strategies as complex cognitive procedures. O'Malley and Chamot (1990) based their conception of learning strategies on Anderson's proposals; thus, they stated that, "strategies begin as declarative knowledge that can become proceduralized with practice" (p. 85).

1.1.1 O'Malley and Chamot's Taxonomy of Learning Strategies

O'Malley and Chamot (1990) classify strategies into three categories, metacognitive, cognitive, and social affective. Metacognitive strategies make use of knowledge about cognitive processes and they are an attempt to regulate language learning; they have an executive function. In turn, cognitive skills refer to operations involved in problem solving. Problem solving requires analysis, and transformation and synthesis of learning materials. Cognitive strategies have an operative or cognitive-processing function. Finally, social affective strategies refer to the ways in which learners may interact with other learners and teachers.

1.1.2 Metacognitive Strategies

According to O'Malley and Chamot (1990), "metacognitive strategies involve thinking about the learning process, planning for learning, monitoring the learning task, and evaluating how well one has learned" (p. 137). Other applied linguists have proposed similar descriptions of these strategies. For instance, Brown, Bransford, Ferrara and Campione (1983) define metacognitive strategies as "higher order executive skills that may entail planning for, monitoring or evaluating the success of

a learning activity”. In addition, it has been pointed out that metacognitive strategies are “applicable to a variety of learning tasks” (Nisbet and Shucksmith, 1986).

Based on their own research and that of other applied linguists, O’Malley and Chamot (1990) proposed the following categories of metacognitive strategies used to perform receptive or productive learning tasks:

a) Planning: Previewing the organizing concept or principle of an anticipated learning task (advance organization); proposing strategies for handling an upcoming task; generating a plan for the parts, sequence, main ideas, or language functions to be used in handling a task (organizational planning).

b) Directed attention: Deciding in advance to attend in general to a learning task and to ignore irrelevant distractors; maintaining attention during task execution.

c) Selective attention: Deciding in advance to attend to specific aspects of language input or situational details that assist in performance of a task; attending to specific aspects of language input during task execution.

d) Self-management: Understanding the conditions that help one successfully accomplish language tasks and arranging for the presence of those conditions; controlling one’s language performance to maximize use of what is already known.

e) Self-monitoring: Checking, verifying, or correcting one's comprehension or performance in the course of a language task. This has been coded in the think-alouds in the following ways:

1. Comprehension monitoring: Checking, verifying, or correcting one's understanding.
2. Production monitoring: Checking, verifying, or correcting one's language production.
3. Auditory monitoring: Using one's "ear" for the language (how something sounds) to make decisions.
4. Visual monitoring: Using one's "eye" for the language (how something looks) to make decisions.
5. Style monitoring: Checking, verifying, or correcting based upon an internal stylistic register.
6. Strategy monitoring: Tracking use of how well a strategy is working.
7. Plan monitoring: Tracking how well a plan is working.
8. Double-check monitoring: Tracking, across the task, previously undertaken acts or possibilities considered.

- f) Problem Identification: Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.
- g) Self-evaluation: Checking the outcomes of one's own language performance against an internal measure of completeness and accuracy; checking one's language repertoire, strategy use, or ability to perform the task at hand. This has been coded in the think-alouds as:
- h) Production evaluation: Checking one's work when the task is finished.
- i) Performance evaluation: Judging one's overall execution of the task.
- j) Ability evaluation: Judging one's ability to perform the task.
- k) Strategy evaluation: Judging one's strategy use when the task is completed.
- l) Language repertoire evaluation: Judging how much one knows of the L2, at the word, phrase, sentence, or concept level. (O'Malley and Chamot, 1990, pp. 137, 138).

1.1.3 Cognitive Strategies

As mentioned above, O'Malley and Chamot (1990) state that cognitive strategies involve interacting with the learning materials, manipulating them mentally and physically, or using specific techniques to perform a learning task.

In turn, Weinstein and Mayer (1986) suggest that these strategies can be subsumed under three broad groupings: rehearsal, organization, and elaboration processes, which may include other strategies that rely at least in part upon knowledge in long term memory such as inferencing, summarizing, deduction, imagery, and transfer). Cognitive strategies may be limited in application to the specific type of task in the learning activity.

O'Malley and Chamot's (1990, p. 138) classification of cognitive strategies includes the following categories:

- a) Repetition: Repeating a chunk of language (a word or phrase) in the course of performing a language task.
- b) Resourcing: Using available reference sources of information about the target language, including dictionaries, textbooks, and prior work.
- c) Grouping: Ordering, classifying, or labeling material used in a language task based on common attributes; recalling information based on grouping previously done.
- d) Note taking: Writing down key words and concepts in abbreviated verbal, graphic, or numerical form to assist performance of a language task.
- e) Deduction/Induction: Consciously applying learned or self-developed rules to produce or understand the target language.

f) Substitution: Selecting alternative approaches, revised plans, or different words or phrases to accomplish a language task.

g) Elaboration: Relating new information to prior knowledge; relating different parts of new information to each other; making meaningful personal associations to information presented. This has been coded in the think-aloud data in the following ways:

1. Personal elaboration: Making judgments about or reacting personally to the material presented.
2. World elaboration: Using knowledge gained from experience in the world.
3. Academic elaboration: Using knowledge gained in academic situations.
4. Between parts elaboration: Relating parts of the task to each other.
5. Questioning elaboration: Using a combination of questions and world knowledge to brainstorm logical solutions to a task.
6. Self-evaluative elaboration: Judging self in relation to materials.
7. Creative elaboration: Making up a story line, or adopting a clever perspective.

8. Imagery: Using mental or actual pictures or visuals to represent information; coded as a separate category, but viewed as a form of elaboration.

h) Summarization: Making a mental or written summary of language and information presented in a task.

i) Translation: Rendering ideas from one language to another in a relatively verbatim manner.

j) Transfer: Using previously acquired linguistic knowledge to facilitate a language task.

k) Inferencing: Using available information to guess the meaning or usage of unfamiliar language items associated with a language task, to predict outcomes, or to fill in missing information.

1.1.4 Social Affective Strategies

O'Malley and Chamot (1990, p. 139) assert that social affective strategies represent a broad grouping that involves either interaction with another person or ideational control over affect. Generally, they are considered applicable to a wide variety of tasks.

The social affective strategies categories proposed are the following:

a) Questioning for clarification: Asking for explanation, verification, rephrasing, or examples about the material; asking for clarification or verification about the task; posing questions to the self.

b) Cooperation: Working together with peers to solve a problem, pool information, check a learning task, model a language activity, or get feedback on oral or written performance.

c) Self-talk: Reducing anxiety by using mental techniques that make one feel competent to do the learning task.

d) Self-reinforcement: Providing personal motivation by arranging rewards for oneself when a language learning activity has been successfully completed. (O'Malley and Chamot, 1990, p. 139)

1.1.5 Some Issues in Learning Strategies Research

Concerning research on language learning strategies, various researchers such as Anderson (2002), Rubin (2001), and Wenden (2002), have pointed out the importance of students' metacognition in improving their capacities to comprehend and control their own thinking and learning. It should be added that, "metacognition

is believed to involve both declarative (self-knowledge, world knowledge, task knowledge, strategy knowledge) and procedural knowledge (planning for learning, monitoring a learning task while it is in progress, and evaluating learning once a task has been completed (Chamot, 1994)” (in Chamot, 2005, p. 123).

Another important area is that of learning strategy instruction through intervention. “Learning strategy intervention is the process that begins with helping students to become aware of what strategies are and which strategies they are already using (Cohen, 1998; Chamot, Barnhardt, El-Dinary and Robbins, 1999; Grenfell and Harris, 1999; Macaro, 2001; Chamot, 2004)” (Rubin, Chamot, Harris, and Anderson, Chapter 7, in Cohen and Macaro, 2007). This consciousness-raising instruction helps students begin to think about their own learning processes. Teachers first may evoke students’ knowledge about strategies and then help them identify their use of learning strategies for different tasks. Later, the teacher explains how to use learning strategies and then models their use. Subsequently, students practice the learning strategies that have been taught. Finally, strategy instruction may be explicit or integrated. Explicit instruction includes the development of students’ awareness of their strategies, providing opportunities for practice and self-evaluation. This type of strategy instruction is considered far more effective than just asking students to use one or more strategies; besides, it promotes metacognition, that is, students’ capacity to understand their own thinking and learning processes.

On the contrary, integrated learning strategy instructions is carried out as part of the regular language class. It has been argued that integrated strategy instruction may not be effective because strategies taught in class are less likely to be used in other language tasks.

1.2 Reading Comprehension

The second theoretical framework applied in the present study refers to the reading comprehension skill. This language skill can be defined as “the ability to draw meaning from the printed page and interpret this information appropriately” (Grabe and Stoller, 2013, p.3). However, they assert that this basic definition is insufficient; consequently, they provide five reasons for this inadequacy. First, it does not convey the idea that there is a number of ways to engage in reading. A reader has several possible purposes for reading, and each purpose emphasizes a somewhat different combination of skills and strategies. Second, it does not either emphasize the various criteria that define the nature of fluent reading abilities, or reveal the many skills, processes and knowledge bases that act in combination, and often in parallel, to create the overall reading comprehension abilities that we commonly think of as reading. Third, in this basic definition there is no explanation about how reading is carried out as a cognitive process that operates under intense time constraints. Yet, these very

fast time-processing constraints are essential to reaching an understanding of how reading comprehension works for the fluent reader. Fourth, it does not highlight how the ability to draw and then interpret meaning from a text varies with the second language (L2) proficiency of the reader. Fifth, it does not address the social context in which reading takes place nor the reasons why texts will be interpreted and used in differing ways. (Grabe and Stoller, 2013, pp.3, 4).

Concerning the term ‘reading processes’, it has been defined as “cognitive activity involving skills, strategies, attentional resources, knowledge resources, and their integration” (Grabe and Stoller, 2013, p.9).

1.2.1 Purposes for reading

When a reader starts to read, he has to make several decisions and he does so, probably unconsciously. The purposes for reading are based on all these decisions he takes. According to Grabe and Stoller (2013), reading purposes can be classified under seven categories that define the purposes in different contexts. These purposes are described below.

1.2.1.1 Reading to search for simple information and reading to skim

Reading to search for information is a common reading ability. It is so frequent that it is best regarded as a type of reading ability. Grabe and Stoller (2013) suggest that two strategies are involved in reading to search information in a text. First, the reader typically scans the reading text for specific information. Second, he skims the passage, which is related to finding parts of the text for general understanding. Skimming is frequently used in reading tasks and it is also a useful ability; here, there is a combination of strategies that help readers find important information in the text to identify general ideas.

1.2.1.2 Reading to learn from text

Reading to learn from texts occurs in professional and academic contexts in which the reader needs to learn a vast amount of information from a text. Grabe and Stoller (2013, p. 7) state that this purpose for reading requires abilities to:

1. Remember main ideas as well as a number of details that elaborate the main and supporting ideas in the text.
2. Recognize and build the rhetorical frames that organize the information in the text.

3. Connect the text to the reader's background knowledge.

This category, reading to learn, is accomplished at a reading rate somewhat slower than general reading comprehension. Furthermore, it makes stronger inferencing demands than general comprehension to link text information with the reader's background knowledge.

1.2.1.3 Reading to integrate information, write and critique texts

Reading to integrate information, write and critique texts is a complex process of selecting the useful information that is going to be included or integrated. These skills need critical evaluation of the information. It has to be added that reading to write and reading to critique texts may be viewed as task variants of reading to integrate information. Both purposes need abilities to select, critique and compose information from a text.

1.2.1.4 Reading for general comprehension

Reading for general comprehension is described as the most basic purpose of reading and as the support of the rest of the purposes as well. In addition, Grabe and Stoller (2013) claim that it is a more complex process than we might think; thus, the term ‘general’ does not mean ‘easy’. Besides, it involves a series of strategies that occur automatically when the reading is done by a skilled reader. Thus, Grabe and Stoller (2013) emphasize the complexity of reading for general comprehension as they suggest that it “requires very rapid and automatic processing of words, strong skills in forming a general meaning representation of main ideas, and efficient coordination of many processes under very limited time constraints” (p. 8). In the learning of a foreign or second language, the difficulties that students face in becoming fluent readers in the target language reveal the complexity of reading for general comprehension.

Grabe and Stoller (2013) state that the term ‘reading processes’ refers to “cognitive activity involving skills, strategies, attentional resources, and their integration (p. 9). In relation to the term ‘skills’, they are defined as linguistic processing abilities that are automatic when used and combined. In turn, the term ‘strategies’ is understood as a set of abilities which are open to conscious reflection by the reader. Then, they point out that the distinction between skills and strategies is not entirely clear.

Therefore, they prefer to use the term ‘abilities’ as a global expression to cover the learner’s skills, strategies, and knowledge resources.

1.2.2 Definition of fluent reading comprehension

To define fluent reading comprehension it is necessary to consider a set of processes. None of these processes defines fluent reading comprehension by itself, “but together they provide a fairly accurate account of the processes required for fluent reading” (Grabe and Stoller, 2013, p.11). The processes that are involved in and define fluent reading comprehension are described below. Fluent reading is:

- a) A fast process that must occur rapidly in almost any purposeful context, and the more rapidly a text is read, the better the various processing components are likely to operate. In this way, a good L1 reader will read almost all texts at rates somewhere between 200 and 300 words per minute, depending on the reading purpose.
- b) An efficient process. Specific processes involved in comprehension have to be coordinated and certain processes need to be carried out automatically.
- c) An interactive process. All the processes involved in reading are carried out virtually simultaneously. Thus, while a fluent reader is recognizing words quickly and keeps them in his working or short-term memory, he is analyzing the sentence

structures to identify meaning; he is constructing a main-idea model of text comprehension; he is monitoring comprehension, etc. (p. 11). Fluent reading is also interactive because linguistic information from the text interacts with the reader's background knowledge stored in the long-term memory.

d) A strategic process. The fluent reader has to be strategic because he needs to recognize processing difficulties to take decisions for monitoring comprehension and for changing the objectives for reading.

e) A flexible process. Being a strategic reader involves flexibility, i.e., being able to switch purpose and monitor comprehension.

f) An evaluating process. The reader must decide if the information read is coherent and suitable for the purpose for reading.

g) A purposeful process. Thus, reading is always purposeful not only in the sense that readers read in different ways based on different reading purposes, but also in the sense that any motivation to read a given text is related to some task or to an individual goal.

h) A comprehending process. It has to do with the idea that understanding a text is the obvious purpose for reading.

i) A learning process. This goal is clear to anyone who belongs to an academic context where the common way to learn new information is through reading.

j) A linguistic process. It does not make sense to discuss or interpret a text without connecting with it linguistically. The importance of linguistic processes for reading comprehension should be highlighted.

1.2.3 Components of reading abilities

It is necessary to be aware of the processes that the reader goes through. There are different processes for reading; nevertheless, a set of common underlying processes are activated as we read. Grabe and Stoller describe the way these processes occur when a reader intends to read for general comprehension of a long text. They divide the processes into two categories, lower-level and higher-level processes. The lower-level processes represent the more automatic linguistic processes and are more typically viewed as more skills-oriented. (p. 13). The higher-level processes represent comprehension processes that make more use of the reader's knowledge and inferencing capacity.

Grabe and Stoller deal with the working memory processes for reading. The term 'working memory' or 'short-term memory' refers to the information that is activated or given mental stimulation, for immediate storage and processing (p.12). In other words, it is the network of information and related processes that are being used at a

given moment. The working memory processes involving lower-level and higher-level processes are described below.

1.2.3.1 Lower-level processes

As mentioned above, the lower-level processes represent the more automatic linguistic processes and are considered as more skills-oriented. These processes are subdivided into:

a) Lexical access. It is a quick and automatic word recognition process in which the reader recognizes and understands words. Fast processing and automaticity in word recognition require many hours of reading practice in the case of foreign language learners.

b) Syntactic parsing. It is a process in which the reader is able to recognize the grammatical information in order to identify meaning in clauses. In addition, it helps to identify the meaning of words according to the contexts. Similar to lexical access, parsing is done rapidly without effort. Foreign language learners need practice to develop automaticity in using information from grammatical structures to help them with the development of their reading skill.

c) Semantic proposition formation. It is a basic process that involves the combination of word meaning and structural information into meaning units.

The three lower-level processes just described occur automatically in the case of the fluent reader. Finally, Grabe and Stoller (2013) point out that they do not assume lower-level processes to be in any way easier than higher-level processes (p.13).

1.2.3.2 Higher level processes

The higher-level processes represent comprehension processes in which fluent readers build a summary model of what a text means. In addition, such readers build an interpretation of how we understand the meaning of the text. Therefore, in higher-level processes, there is much more use of the reader's background knowledge and inferencing abilities. These processes are composed by two models of reading that are described below.

a) Text model of reading comprehension. This is the most fundamental higher-level comprehension process, which is the coordination of ideas from a text that represent the main points and supporting ideas to form a meaning representation of the text. This process has two main features. The first one is the formation of clause-level meaning units that are added to an increasing network of ideas from the text. Second,

some ideas that are used frequently and form connections to other information start to be considered as the main ideas of the text. Those ideas that are not relevant are deleted from the network and only the important ones remain active. The set of main ideas that the reader has chosen becomes the text model of comprehension. In fact, the text model is an internal summary of the main ideas in the text.

b) Situational model of reader interpretation. This process has to do with the reader interpretation of the information in the text according to his/her own goals, feelings and background expectations. This interpretation is built on and around the emerging text model. In 1998, Kintsch suggested that the situation model integrates text information with a well-developed network of ideas from the reader's background, and it interprets new information based on reader background knowledge, attitudes, motivations, goals and task purposes. The situation model of reader interpretation accounts for how a reader can understand what an author is trying to say (as the text model) and how the reader can interpret the information for his/her own purposes (the situation model) (Grabe and Stoller, 2013). The reader's assessment of how efficient he has been to understand the text depends on an executive control processor. Executive control processing requires the abilities of overseeing, or monitoring comprehension, the use of strategies, adjusting the set of goals and fixing comprehension problems.

1.2.4 General Models of Reading: Metaphorical Models of Reading

General models of reading are attempts to have a global understanding of the reading comprehension process. These general models are useful to researchers and teachers because they provide a metaphorical interpretation of the processes that are part of the reading comprehension skill that have been identified in research (Grabe and Stoller, 2013). Three models represent metaphorical generalizations derived from research on reading, the bottom-up, the top-down and the interactive models. They are described below.

a) Bottom-up models. Bottom-up models suggest that, “reading follows a mechanical pattern in which the reader creates a piece-by-piece mental translation of the information in the text” (Grabe and Stoller, 2013, p. 25). In this process, the reader does not include his/her background knowledge. This model represents an extreme view of reading that is not quite accurate.

b) Top-down models. These models claim that reading is led by the reader’s goals and expectations. These expectations have to do with the reader’s view of the information in the text. Thus, unlike bottom-up models, in the top-down models, the reader exclusively looks for useful information in the text and compares it to what he expected. Important features of top-down models are inferencing and the reader’s background knowledge.

c) Interactive models. These models have been proposed to strike a balance between bottom-up and top-down models. Thus, interactive models constitute a combination of the other two types of reading models. In this way, for example, word recognition needs to be rapid and efficient; and background knowledge plays an important role in text understanding.

1.3 Anxiety

1.3.1 Anxiety as psychological construct

Anxiety is a thoroughly studied phenomenon in psychology. Definitions of anxiety include descriptions of overt characteristics of behavior that can be investigated and of introspective feelings that are “epistemologically inaccessible” (Casado and Dereshiwsky, 2001, in Ying Zheng, 2008). From the perspective of psychology, anxiety can be defined as the “subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the automatic nervous system” (Spielberg, 1983, p. 1, in Horwitz, 2001).

Psychologists have traditionally proposed three categories to explain the nature of anxiety: trait anxiety, state anxiety, and situational or situation-specific anxiety. Trait anxiety is a permanent state of mind or even an aspect of personality as it involves a

predisposition to be anxious in any situation and moment. In turn, state anxiety is a transient state of mind that is experienced at a particular moment in time as a response to an anxiety-provoking situation. Finally, the term ‘situational anxiety’ refers to the kind of anxiety that arises in particular situations. (Horwitz, 2001). The distinctions between these categories are not clearly stated but their differences can be identified on a continuum from a stable state to a transient one. (Ying Zheng, 2008).

1.3.2 Anxiety and language learning

The study of anxiety in language learning arose from research on affective variables that may play a role in learning a second or foreign language. The role of anxiety in this acquisition or learning process has been a research topic within applied linguistics for about forty years now. In the 1970s, when acquisition or learning research focused on the learner, anxiety began to be studied as a possible source of interference with language learning and performance. In other words, researchers have focused on language anxiety and achievement.

In 1978, Scovel wrote an article in which he reviewed the studies on anxiety and language learning. He reported conflicting results of research at the time. Some studies found some negative relationships between anxiety and achievement; others found no relationship; and, on the other hand, positive relationships were identified. Therefore, Scovel (1978) suggested that the different types of relationships were probably due to the fact that researchers had used different anxiety measures such as text anxiety and facilitating anxiety. Therefore, he suggested that it was perhaps premature to find relationships between anxiety and the global task of language learning (p. 132).

Scovel (1978, p. 138) quotes Alpert and Haber (1960) highlighting their proposal to make a distinction between two types of anxiety, debilitating and facilitating anxiety. Debilitating anxiety refers to a state of mind in which the students are not able to use problem-solving strategies properly, while performing a learning task. This type of anxiety “motivates the learner to “flee” the learning task”; so it stimulates the individual emotionally to adopt avoidance behavior (Scovel, 1978, p. 139). Therefore, stress levels increase and achievement of learning goals may be insufficient. On the contrary, facilitating anxiety is positive because it “motivates the learner to “fight” the new learning task” (p. 139). Therefore, stress levels decrease when learners experience this kind of anxiety.

1.3.3 A model of foreign language anxiety

Horwitz, Horwitz and Cope (1986) proposed a model of situation-specific anxiety in response to foreign language learning. They suggested that this kind of anxiety is largely independent of other types. This suggestion has been proved in various studies which have been conducted since they published their proposals. They defined foreign language anxiety as “a distinct complex of self- perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process” (Horwitz et al., 1986, p. 128).

Horwitz et al. (1986) state that as foreign language anxiety concerns performance evaluation, it is useful to draw parallels between this anxiety and three related performance anxieties: communication apprehension, test anxiety, and fear of negative evaluation. In fact, their model of general foreign language anxiety underlies these three interrelated performance anxieties. The first, communication apprehension, can be defined as a state of fear that a learner experiences when facing communicative situations. This type of anxiety frequently occurs in learners’ oral production and in listening comprehension; and it derives from their awareness that they are likely to have problems when trying to produce spoken language and to understand other speakers. The second type, test anxiety, refers to a type of performance anxiety arising from a fear of failure that a learner feels when faced with

an evaluation situation. The third, fear of negative evaluation, is described as the fear that the learner may feel of being evaluated by others, because he thinks that he will be assessed negatively. This fear may result in the avoidance of evaluative situations. These three types of anxiety have been considered as conceptual 'building blocks' of the general anxiety construct. (Horwitz et al., 1986).

Finally, it should be mentioned that apart from the model of foreign language anxiety, Horwitz et al. (1986) designed the Foreign Language Classroom Anxiety Scale (FLCAS) to measure this construct. This instrument has contributed to the development of various research studies on the topic. The research results of these studies have shown that there is a negative relationship between language anxiety and achievement or performance in a foreign language.

1.3.4 Foreign language reading anxiety

At the beginning of research on anxiety, applied linguists and teachers were interested in measuring the levels of foreign language classroom anxiety, and general achievement in the target language. Since then, researchers have tried to identify specific language anxiety with relation to the four language skills. This research trend has motivated the present study, which focuses on foreign language reading anxiety and reading comprehension.

It should be pointed out that research on learners' oral production anxiety has been predominant in this field of study. Compared to speaking, perhaps reading is perceived to be less stressful. However, various studies have shown that reading anxiety is present in learners when they perform reading comprehension tasks. With relation to reading anxiety, we can mention the studies of the following researchers: Zarei (2014), Zhang (2003), Matsuda and Gobel (2001), Brantmeier (2005), Tsai and Li (2012), and Lien (2011).

Based on previous proposals of general foreign language anxiety and an exploratory study that intended to find evidence for the existence of a specific reading anxiety, Saito, Horwitz and Garza (1999) proposed the construct of reading anxiety. Consequently, they suggested that reading anxiety “would seem to be a mediating variable that intervenes at some point between the decoding of a text and the actual processing of textual meaning” (Saito et al., 1999, p. 215). Thus, reading anxiety is a distinct type of anxiety. Therefore, it can be claimed that it is different from the general types of foreign language anxiety which have been measured by the Foreign Language Classroom Anxiety Scale.

In order to measure reading anxiety, Saito et al. (1999) developed the Foreign Language Reading Anxiety Scale (FLRAS). This instrument has been used in the present study to measure the subjects' level of reading anxiety. This scale also intends

to identify various aspects of reading which cause anxiety based on learners' self-reports. Among these aspects, we can mention perceptions of reading difficulties in the target language and of the relative difficulty of reading compared to those of other language skills (Saito et al., 1999).

CHAPTER II

METHODOLOGICAL FRAMEWORK

2.1 Objectives

2.1.1 General Objective

The aim of this research is to explore the effects of explicit metacognitive strategy instruction on learners' reading comprehension proficiency and on their reading anxiety levels.

2.1.2 Specific Objectives

1. To assess the learners' proficiency in the reading comprehension skill before and after a strategy instruction intervention.
2. To measure the learners' levels of reading anxiety before and after a strategy instruction intervention.
3. To design and implement an explicit instruction intervention on the use of metacognitive reading comprehension strategies.
4. To compare the learners' proficiency in the reading comprehension skill before and after a strategy instruction intervention.

5. To compare the learners' levels of reading anxiety before and after a strategy instruction intervention.
6. To identify the relationships between the learners' proficiency in the reading comprehension skill and their reading anxiety levels before and after a strategy instruction intervention.

2.2 Statement of the problem

There are many aspects related to English teaching that have called our attention as students and also as teaching interns. Some of them might be considered as positive and encouraging instances such as the amount of material available for the development of activities in the classroom and the commitment of new teachers to promote its use at any moment. On the other hand, we have also witnessed how students seem to fail to reach the expected results. Therefore, it is possible to observe that when students have to read a text in English, most of them fail to synthesize or compare ideas; besides, they do not analyze the text content; and, in many cases, they do not have the ability to re-use the knowledge acquired in class.

We have realized that the problem in reading comprehension proficiency does not only happen in English classes, but also in some other subjects which are taught in the mother tongue such as language and history.

It is important to highlight the importance of the English SIMCE test, because it evaluates reading comprehension proficiency. Students' low performance levels in reading comprehension may cause insufficient results in the English SIMCE test.

2.3 Research questions

The study addresses the following research questions:

- a) Does explicit metacognitive reading instruction improve ninth-grade students' reading comprehension proficiency?
- b) Does explicit metacognitive reading instruction lower ninth-grade students' levels of reading anxiety?

2.4 Hypotheses and variables

In this study, the following correlational hypotheses were proposed:

- a) Explicit metacognitive reading instruction improves the learners' reading comprehension proficiency.

Hypothesis variables:

- i) Dependent variable: The reading comprehension skill
- ii) Independent variable: Explicit metacognitive reading strategy instruction

- b) Explicit metacognitive reading instruction lowers the learners' levels of reading anxiety.

Hypothesis variables:

- i) Dependent variable: Reading anxiety levels
- ii) Independent variable: Explicit metacognitive reading strategy instruction

2.5 Type of Study

The design of the present research is based on a positivist paradigm since the study can be characterized as quasi-experimental and the results have been processed by applying a quantitative approach. A quantitative approach enables an enquiry into an identified situation. Besides, the information is analyzed in order to achieve measurable results. It has to be pointed out that the positivist paradigm suggests a reality obtained from an empirical study.

The subjects or active agents of the study, ninth-grade students, are involved in a social construction of meaning, that is to say, in meaningful learning in the form, use, and acquisition of metacognitive reading strategies with the purpose of improving their reading comprehension skill and of lowering their reading anxiety levels.

2.6 Subjects of the Study

The subjects of the study were 52 ninth-grade students from Colegio San Mateo, located in Puente Alto. The age of the subjects ranged from fourteen to fifteen. This school is financed by the Chilean Government and students' parents. It is a mixed school with 980 students, from kindergarten to twelfth grade. The school presents a

low socio-economic level; therefore, it has been characterized as ‘vulnerable’ by The Ministry of Education. In fact, 70% of the school students have this characteristic, which affects their personal motivations and interests.

The 52 subjects of the study belonged to two different ninth-grade classes. Therefore, one class composed by 23 students became the “Control Group”. This group did not receive any strategy instruction; thus, students continued with the regular English classes. On the other hand, another ninth-grade class, composed by 29 students, became the “Experimental Group” of the study. This group had ten lessons of explicit strategy instruction. Both groups of students were given the same instruments applied to collect the relevant data.

2.7 Data Collection

The data were collected by means of the following instruments:

- 1) Reading comprehension pre-test
- 2) Reading comprehension post-test
- 3) Foreign Language Reading Anxiety Scale (FLRAS)

2.7.1 Reading Comprehension Pre-test

The reading comprehension test was designed to measure reading comprehension proficiency. As a pre-test, it was applied to the subjects in both the experimental and control groups before the metacognitive learning strategy intervention period took place.

The reading comprehension test was composed by four main items. First, there was a reading comprehension text; extracted from Teens Club book (Alvarado, 2010). The first item was composed by three multiple choice questions which were designed to assess the learners' ability to identify the main idea, the theme and the topic of the reading passage. The second item consisted of five controlled questions whose purposes were to evaluate the learners' capacity to select specific information in the text. A true or false activity was the third item of the test, composed by five statements in which the students had to find specific information from the text to decide which were true and which were false. In the case of the false statements, students were asked to provide the correct information. In the last item, the students had to complete a sentence with a specific concept.

According to the difficulty of the items, the researchers gave a specific score for each item; therefore, the first item was scored with two points for each of the three questions, making up a total score of six points. Concerning the scores of the second item, they decided to rate each question with three points; thus, the total score for this

item was fifteen points. In the third item, a true or false activity was scored in a different way. In the case of true statements, two points were given if the answer was correct. In the case of false statements, two points were given if the answer and justification were correct; however, if only the answer was correct, one point was given. The total score for the third item was ten points. The last item, a completion task, was scored with one point per concept with a total of five points. The total score of the test was thirty-six points. (See Appendix A).

2.7.2 Reading Comprehension Post-test

The post-test was designed to measure the student's reading comprehension proficiency after the intervention lessons, with the purpose of identifying the effects of the strategy instruction on the learners' reading comprehension skill. The post-test had the same design, structure, level of difficulty and scores as those of the pre-test, except for the source of the reading text, which was "Reading Keys" (Miles Craven, 2004. Macmillan). (See Appendix A).

2.7.3 Foreign Language Reading Anxiety Scale (FLRAS)

The FLRAS was created and developed by Saito, Horwitz and Garza (1999) with the purpose of measuring foreign language learners' levels of reading anxiety. In the present study, the scale was adapted to suit the research objectives. Thus, the researchers decided to omit two of the statements, because they were irrelevant for the study. These two statements were related to some aspects of other languages, such as symbols of letters, which were strictly linked to Russian and Japanese.

This scale was originally written in English and the research group decided to translate it into Spanish so that learners could easily understand the statements in the scale. This instrument was used to determine whether anxiety, fear, nervousness and the learners' reading interests affect the reading comprehension skill. This scale consists of students' self-reports of anxiety over various aspects of the process, and their perceptions of the difficulties in reading in the target language. For example, questions one, four, and eight are related to the way they feel about the process; questions two, three, and fifteen are related to the difficulties in reading in the target language. In turn, questions ten, eleven, twelve, and sixteen have a positive connotation; this means that the response denotes a positive feeling from the students in relation to reading in the target language. In opposition, all the other statements have a negative connotation or denote displeasure or difficulty.

The Foreign Language Reading Scale has eighteen statements and uses a five-point Likert scale ranging from 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, to 1 = strongly disagree. (See Appendix B).

2.8 Data Collection Procedure

The data collection procedure was composed by the administrations of the reading comprehension pre-test, the reading comprehension post-test, and the foreign language reading anxiety scale (FLRAS). They were given to both the control and the experimental groups in four class periods. The first two periods were held before the intervention phase. In the first one, the reading comprehension pre-test was given, and, in the second one, the first Foreign Language Reading Anxiety Scale (FLRAS) was applied. These two periods can be considered as a pre-intervention phase.

After the intervention phase, the reading comprehension post-test was given, and in the following period, the second Foreign Language Reading Anxiety Scale (FLRAS) was applied. These two final lessons can be regarded as a post-intervention phase.

It is important to highlight that the FLRAS, the pre reading comprehension test, and the post reading comprehension test were applied at the same time in the

experimental group as well as in the control group. Each test or scale administration took 45 minutes.

2.9 Intervention

2.9.1 The Cognitive Academic Language Learning Approach (CALLA)

The instructional model that the researchers followed to implement the intervention lessons was The Cognitive Academic Language Learning Approach (CALLA), which is an instructional model that integrates current educational trends in standards, content-based language instruction, learning strategies, and portfolio assessment. This instructional model, proposed by O'Malley and Chamot (1990), provides explicit instruction on learning strategies that will help students in meeting national curriculum standards and becoming independent learners who can evaluate their own learning. "The theoretical framework of CALLA is a social-cognitive learning model that emphasizes the role of students' prior knowledge, the importance of collaborative learning, and the development of metacognitive awareness and self-reflection" (Chamot et al, 1999, p. 7).

The CALLA instructional model is task-based and has five phases in which the teacher combines the three components of content, language, and learning strategies.

These phases are:

1. Preparation: Teachers focus on finding out what previous knowledge students have about the content topic to be taught.
2. Presentation: Teachers use a variety of techniques to make new information and skills accessible and comprehensible to students. In this stage, it is important to highlight the demonstrations, modeling and visual support.
3. Practice: In this stage, students use the new information and skills, including learning strategies, in activities that involve collaboration, problem solving, inquiry, and hands-on experiences.
4. Evaluation: Students self-evaluate their understanding and proficiency with the content, language, and learning strategies.
5. Expansions: In the last stage of the CALLA model, students engage in activities to apply what they have learned to their own lives, including other classes at school, their community, and their linguistic background.

It is important to mention that these five phases are recursive, thereby allowing for flexibility in lesson planning and implementation.

As far as this study is concerned, the intervention implementation was carried out in six 45-minute lessons focusing on teaching metacognitive reading strategies as the explicit content of the lessons. The lesson plans were created on the basis of the pedagogical Presentation, Practice, and Production Model (PPP), because the objective for each lesson was to present a different metacognitive reading strategy as explicit content. Therefore, the teaching of the strategy was not directly meant to develop a language skill.

2.9.2 Intervention Schedule

The intervention was carried out during six sessions. Each lesson focused on one metacognitive reading strategy as follows:

1st Intervention Lesson: Planning

2nd Intervention Lesson: Directed Attention

3rd Intervention Lesson: Planning

4th Intervention Lesson: Selective Attention

5th Intervention Lesson: Monitoring

6th Intervention Lesson: This lesson was a review of all the Metacognitive Learning Strategies taught in the previous intervention lessons.

Each lesson was held in the regular English Class and in the grade counseling period.

2.9.3 Lesson plan sample

This lesson plan sample corresponds to the first intervention lesson: Planning.

Main Objective: Students will be able to understand, apply and practice the ‘planning’ learning strategy.			
Subsidiary aims: To infer information about texts. To predict information about texts.			
Key Activities: Making predictions. Inferring information.			
Contents			
Skills/procedures: Writing / Speaking	Lexis	Grammar	Function Planning activities.
Stages	Interaction		Materials-Timing
Presentation	Introduction: Teacher explains to students what the class is about, putting the class into context. Also he tells students about what planning is and its functions. Students take notes about what the teacher explains. Examples: Teacher provides some examples about planning and shows students how put in practice the strategy taught. Students pay attention to the examples.		Power point presentation. Notebooks.

Practice	<p>Practice – Making predictions.</p> <p>Teacher shows students some titles and images related to some texts.</p> <p>Students have to answer some questions related to the texts and share their opinions with their classmates.</p> <p>Example:</p> <p>What do you think the text is about?</p> <p>What do you think the main idea is?</p>	Power point presentation.
Production	<p>Teacher shows three images related with a text and a text's title and asks students to infer information about the text.</p> <p>Students have to infer the topic of the text, the main idea and write down the answer in their notebooks.</p> <p>Teacher asks students for their answers.</p> <p>Students have to share their answers and opinions.</p>	<p>Power point presentation.</p> <p>Notebooks.</p>

2.10 Data processing

2.10.1 Processing of the pre- and post- reading comprehension test data

The following steps were taken to process the data:

1. Each item of the reading comprehension tests was scored depending on its difficulty.
2. The tests were checked three times by two researchers.
3. The data obtained from the reading comprehension tests was organized in Excel tables.
4. The data statistical analysis was done to obtain the standard deviation and the media of the scores.
5. The scores of the pre- and post-reading comprehension tests were compared.
6. The results obtained in the pre- and post-test were correlated with the FLRAS.

2.10.2 Foreign language reading anxiety scale data processing

The following steps were taken to process the data:

1. The total scores of the foreign language reading anxiety scale were calculated giving a numerical value to each of the items in the FLRAS.
2. For the negative statements, such as item one, “I get upset when I’m not sure if I understand what I am reading in English”, the scoring was assigned according to the following rules: strongly agree= 5 points, agree= 4 points, neither agree nor disagree= 3 points, disagree= 2 points, and strongly disagree= 1 point. For the positive statements, such as item twelve, “I enjoy reading English”, the scoring rule was reversed: strongly agree= 1 point, agree= 2 points, neither agree nor disagree= 3 points, disagree= 4 points, and strongly disagree= 5 points.
3. For each student, the scores obtained from the FLRAS were added.
4. The data was organized in Excel tables.
5. The data was used to compute descriptive statistics information, including measures of central tendency: mean; measures of variation, that is, standard deviation and the Pearson product-moment correlation coefficient.
6. Subjects were classified into three categories: low anxiety, mid anxiety, and high anxiety, according to their scores and the corresponding standard deviation values.

Participants whose mean score on FLRAS was one or more standard deviation(s) above the mean were classified as high anxiety, and those whose mean score was one or more standard deviation(s) below the mean were classified as low anxiety. The rest of the participants was considered as mid anxiety.

2.11 Discussion of results

The results of the present study are shown in two sections: the first section addresses the experimental group results, and the second section, those of the control group. On the basis of these results, the two research questions will be addressed.

2.11.1 Experimental group results

The experimental group was constituted by 29 subjects. This group was divided into three sub-groups according to the students' levels of anxiety, high, mid, and low.

As stated in the section on Data Processing, the subjects whose score on FLRAS was 1 or more standard deviation(s) above the mean were classified as high anxiety, and

those whose mean score was 1 or more standard deviation(s) below the mean were classified as low anxiety. The rest of the participants were considered as mid anxiety.

The following table shows the results obtained in the first administration of the Foreign Language Reading Anxiety Scale (FLRAS).

	No. Subjects	%	Mean	SD	Pearson
High Anxiety	5	17,24%	68,8	2,48	-0,57750646
Mid Anxiety	19	65,52%	52,79	6,11	-0,46865613
Low Anxiety	5	17,24%	32,2	5,19	-0,35133512
Total	29	100,00%	52	12,12	-0,42312672

Table 1. Experimental sub-groups results of the first administration of FLRAS.

As observed in Table 1, the mid anxiety sub-group is the largest of the three sub-groups, composed by 19 subjects (n= 19, 65.52%). On the contrary, the high anxiety sub-group (n= 5, 17.24%) and low anxiety sub-group (n= 5, 17.24%) are constituted by a small number of subjects, 5 in each.

Concerning the standard deviation results, the mid anxiety sub-group has the highest standard deviation of the sub-groups; thus, the subjects' scores have a greater dispersion than those of the other sub-groups. This can be expected since the mid anxiety sub-group is constituted by a larger number of subjects compared to those belonging to the other sub-groups.

The high anxiety standard deviation value is close to that belonging to the low anxiety sub-group. Finally, the high anxiety sub-group obtained the lowest standard deviation value.

The sub-groups' Pearson correlation coefficients of -0.35, -0.46, -0.57, irrespective of sign, are interpreted as small, medium and large coefficients, respectively. In addition, a positive sign indicates a positive relationship while a negative sign indicates a negative relationship. The Pearson correlation results can be interpreted as follows. On the one hand, the high anxiety sub-group coefficient indicates a strong relationship between the variables, anxiety and reading proficiency, with -0.57; on the other hand, the coefficient demonstrates a negative relationship between the variables. In the mid anxiety sub-group, the coefficient shows a moderate correlation between the variables, with a coefficient of -0.46. Finally, the low anxiety sub-group presents a moderate, with a weak tendency, correlation between the variables. Thus, the higher anxiety level has the least satisfactory reading comprehension proficiency.

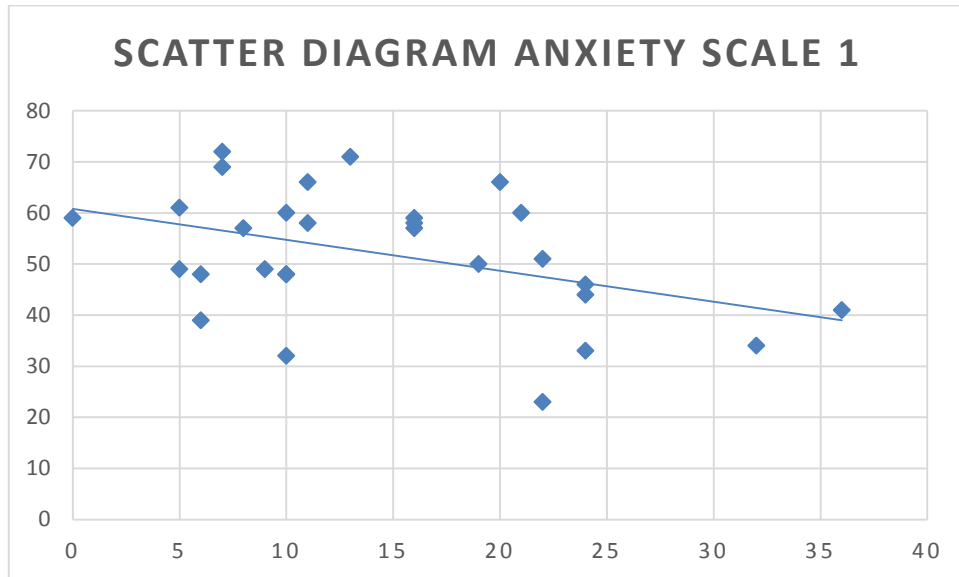


Figure 1. Scatter diagram of the first administration of the FLRAS.

In Figure 1, the vertical axis corresponds to the anxiety independent variable, while the horizontal axis shows the reading proficiency dependent variable. The line indicates a negative relationship between the variables. Each point in the scatter gram represents the intersection of a subject’s score on two variables. As Figure 1 shows, in the experimental group, scores are dispersed.

The following table shows the results obtained in the second administration of the Foreign Language Reading Anxiety Scale (FLRAS).

	No. Subjects	%	Mean	SD	Pearson
High Anxiety	2	7%	66,5	1,5	1
Mid Anxiety	23	79%	53,96	6,71	-0,38275748
Low Anxiety	4	14%	34	1,22	-0,31426968
Total	29	100%	52,07	9,91	-0,448594

Table 2. Experimental sub-groups results of the second administration of FLRAS.

As observed in Table 2, the mid anxiety sub-group is the largest of the three sub-groups, composed by 23 subjects (n= 23, 79%). This shows that the largest sub-group is still the mid anxiety one. Nevertheless, the mid anxiety sub-group increases in the number of subjects, from 19 to 23. On the contrary, the high anxiety and the low anxiety sub-groups decreased in the number of subjects, n= 2, 7% and n= 4, 14%, respectively.

Concerning the standard deviation results, the mid anxiety sub-group has the highest standard deviation of the sub-groups; thus, the subjects' scores have a greater dispersion than those of the other sub-groups. This can be expected since the mid anxiety sub-group is constituted by a larger number of subjects compared to those belonging to the other sub-groups. There exists a variation of the standard deviation values, from 6.11 to 6.71.

The mid anxiety standard deviation value is close to the low anxiety sub-group. In the high anxiety sub-group, in comparison with the first administration of FLRAS, the score decreased from 2.48 to 1.5; and in the low anxiety sub-group, the score

decreased from 5.19 to 1.22. Finally, the high anxiety sub-group obtained the lowest standard deviation value.

The Pearson correlation results can be interpreted as follows: on the one hand, the high anxiety sub-group coefficient indicates a strong relationship between the variables, anxiety and reading proficiency, with -1; on the other hand, this coefficient indicates a negative relationship between the variables. In the mid anxiety sub-group, the results show a moderate correlation between the variables with a coefficient of -0.38. Finally, the low anxiety sub-group presents a moderate, with a weak tendency, correlation between the variables, with a coefficient of -0.31. The correlation coefficient for the whole group of subjects is -0.44, which shows a moderate relationship between the two variables.

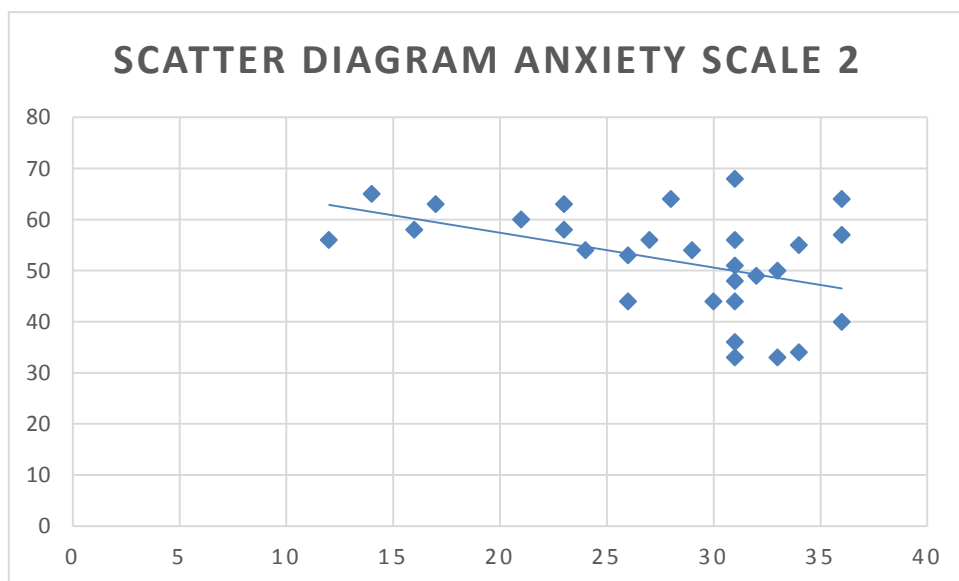


Figure 2. Scatter diagram of the second administration of FLRAS.

In Figure 2, the line indicates a negative relationship between the variables. The scores in the experimental group are dispersed mostly on the right.

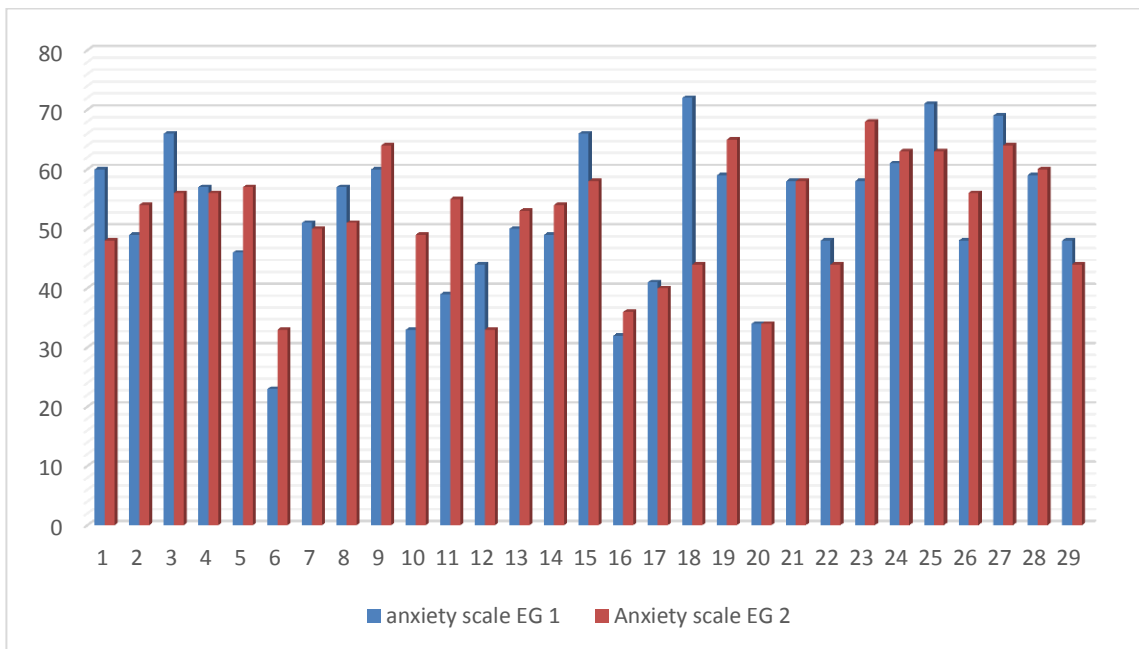


Figure 3. Comparison between the first and second administration of the FLRAS in the experimental group.

As shown in Figure 3, 13 of the students in the experimental group lowered their anxiety levels after the intervention. 13 subjects represent 44.8% of the total number of subjects. 14 subjects increased their levels of anxiety, which represent 48.2% of the total number of subjects; meanwhile 2 subjects maintained their anxiety after the intervention, representing 6.8% of the total of number of subjects.

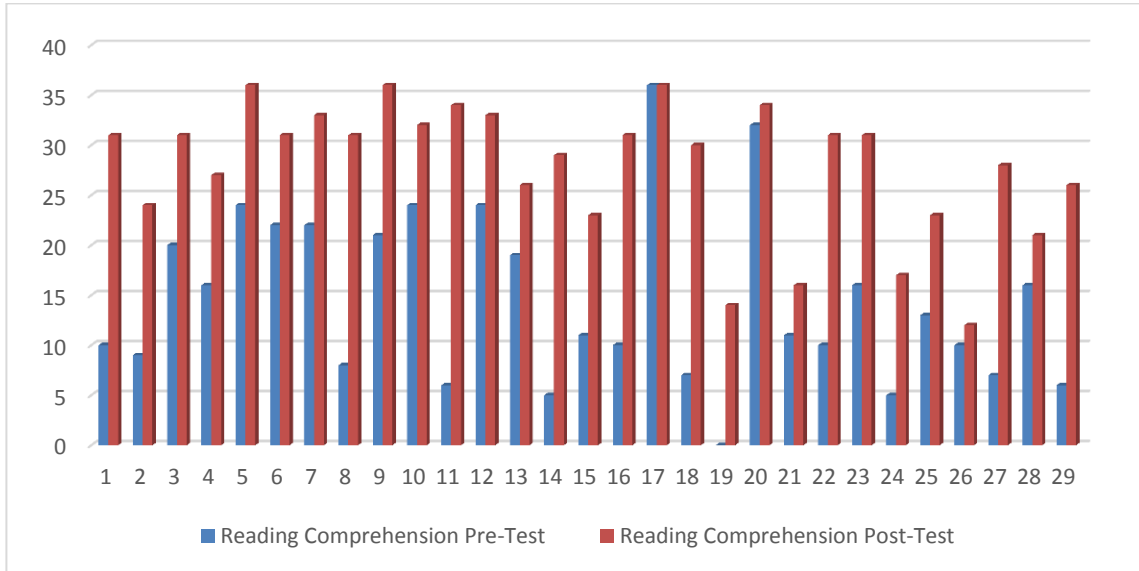


Figure 4. Comparison of Pre- and Post- reading comprehension test results.

As seen in Figure 4, 28 of the participants in the experimental group increased their score considerably, representing 96.5%. This reveals that just one of the students maintained his score in both tests, which represents 3.4%.

2.11.2 Control group results

The control group was constituted by 23 subjects, who were divided into three sub-groups, as in the experimental group.

The following table shows the results obtained in the first administration of the Foreign Language Reading Anxiety Scale (FLRAS).

	No. Subjects	%	Mean	SD	Pearson
High Anxiety	5	21,74%	72	1,41	-0,4984464
Mid Anxiety	13	56,52%	54,62	6,17	-0,68432803
Low Anxiety	5	21,74%	31,2	5,23	-0,56968844
Total	23	100,00%	53,30	14,53	-0,68068154

Table 3. Control sub-groups' results of the first administration of FLRAS.

As observed in Table 3, the mid anxiety sub-group is the largest of the three sub-groups, composed by 13 subjects (n= 13, 56. 52%). On the contrary, the high anxiety sub-group (n=5, 21.74%) and the low anxiety sub-group (n=5, 21.74%) are constituted by a small number of subjects, 5 in each.

In relation to the standard deviation results, the mid anxiety sub-group has the highest standard deviation of the sub-groups. Thus, the variability between the subjects' values has a greater dispersion than the sub-groups. This can be expected because the mid anxiety sub-group is constituted by a larger number of subjects compared to those belonging to the other sub-groups.

The mid anxiety standard deviation value is close to that belonging to the low anxiety sub-group. Finally, the high anxiety sub-group obtained the lowest standard deviation value.

The sub-groups' Pearson correlation coefficients of -0.49, -0.56, -0.68, irrespective of sign, are interpreted as small, medium and large coefficients, respectively. A positive sign indicates a positive relationship while a negative sign indicates a negative relationship. These Pearson correlation results can be interpreted as follows. The high anxiety sub-group coefficient indicates a moderate relationship between the variables, anxiety and reading proficiency, with -0.49; on the other hand, the coefficient shows a negative relationship between the variables. Besides, this correlation is significant; so, it shows that the correlation coefficient value has an increasing tendency. In the mid anxiety sub-group, the coefficient shows a moderate to strong tendency correlation between the variables, with a value of -0.68. Finally, the low anxiety sub-group presents a negative moderate tendency correlation between the variables, with a value of -0.56.

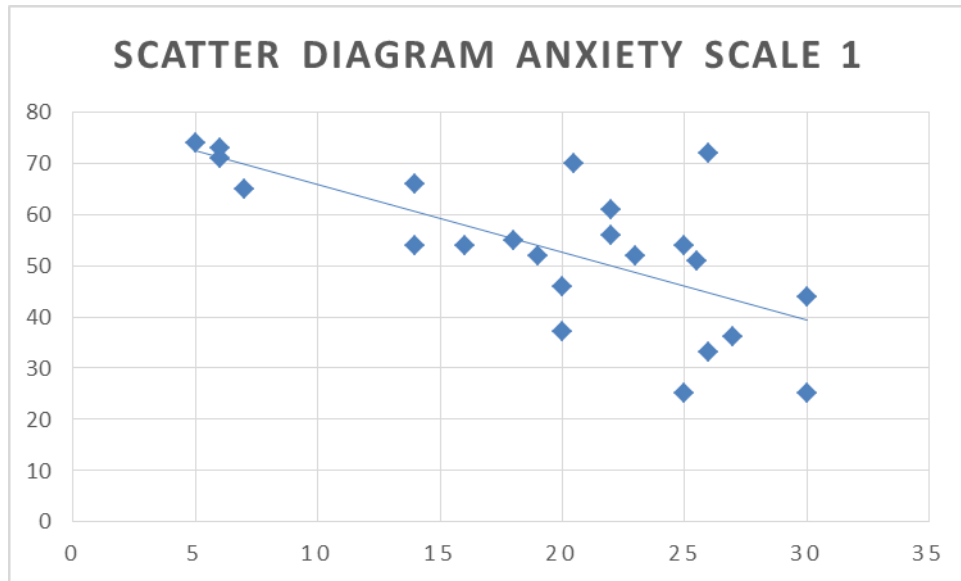


Figure 5. Scatter diagram of the first administration of FLRAS.

As seen in Figure 5, the line indicates a negative relation between the variables. This Figure also shows that, in the control group, scores are dispersed.

	No. Subjects	%	Mean	SD	Pearson
High Anxiety	2	8,70%	77,5	4,5	-1
Mid Anxiety	15	65,22%	58,53	5,70	-0,66846253
Low Anxiety	6	26,09%	27,83	6,04	-0,09050967
Total	23	100,00%	52,173913	16,41	-0,70972027

Table 4. Control sub-groups' results of the second administration of FLRAS.

Table 4 shows that the mid anxiety sub-group is the largest of the three, composed by 15 subjects (n= 15, 65.22%). This percentage shows that the mid anxiety sub-group is still the largest group of the three. In addition, the mid anxiety sub-group increases in the number of subjects, from 13 to 15; also, the low anxiety sub-group increases their number of subjects, from 5 to 6. In contrast, the high anxiety sub-group decreases in the number of subjects, from 5 to 2.

The standard deviation indicates that the low anxiety sub-group has the highest standard deviation of the sub-groups. Consequently, the variability between the low anxiety sub-group subjects' scores has a greater dispersion than the other sub-groups.

The mid anxiety standard deviation value is close to that belonging to the low anxiety sub-group. When the high anxiety subgroup's standard deviation values of the first and second administration of the FLRAS are compared, it can be seen that the values increased from 1.41 to 4.5; and in the low anxiety subgroup's, values increased from 5.23 to 6.04. Finally, the high anxiety sub-group obtained the lowest standard deviation value.

The Pearson correlation results can be interpreted as follows. It is important to highlight that the high anxiety sub-group obtained the strongest relationship between the variables, anxiety and reading proficiency, with -1 ; besides, the correlation coefficient indicates a negative relationship between the variables. In the mid anxiety sub-group, the coefficient shows a strong correlation between the variables, with a coefficient value of -0.66 . Finally, the low anxiety sub-group presents the weakest correlation between the variables, with a score of -0.09 . The correlation coefficient for the whole group of subjects is -0.70 , which shows a strong relationship between the two variables.

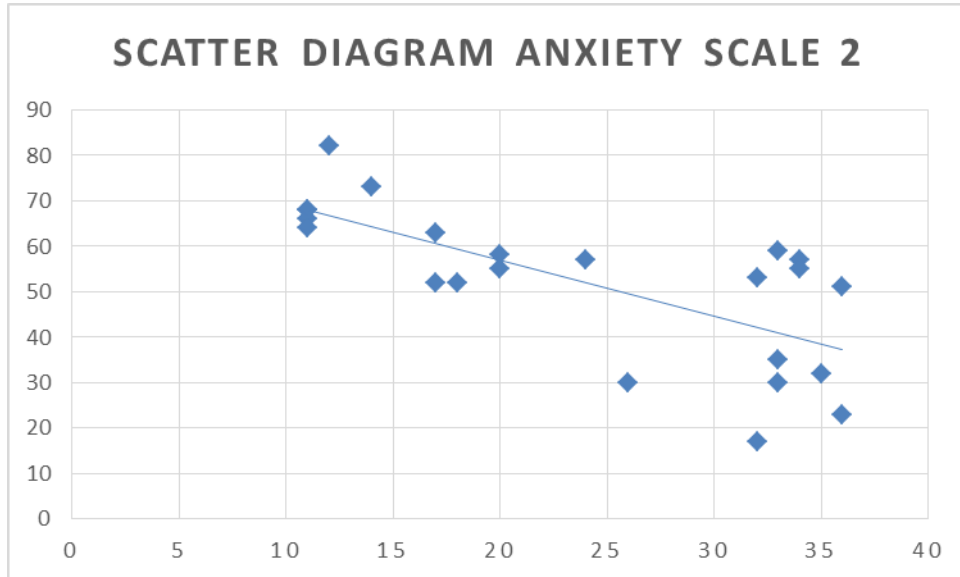


Figure 6. Scatter diagram of the second administration of FLRAS.

In Figure 6, the line indicates a negative relationship between the variables. The scores in the control group are dispersed mostly on the right.

The Figure below shows the comparison results between the first administration of the FLRAS and the second administration of this scale.

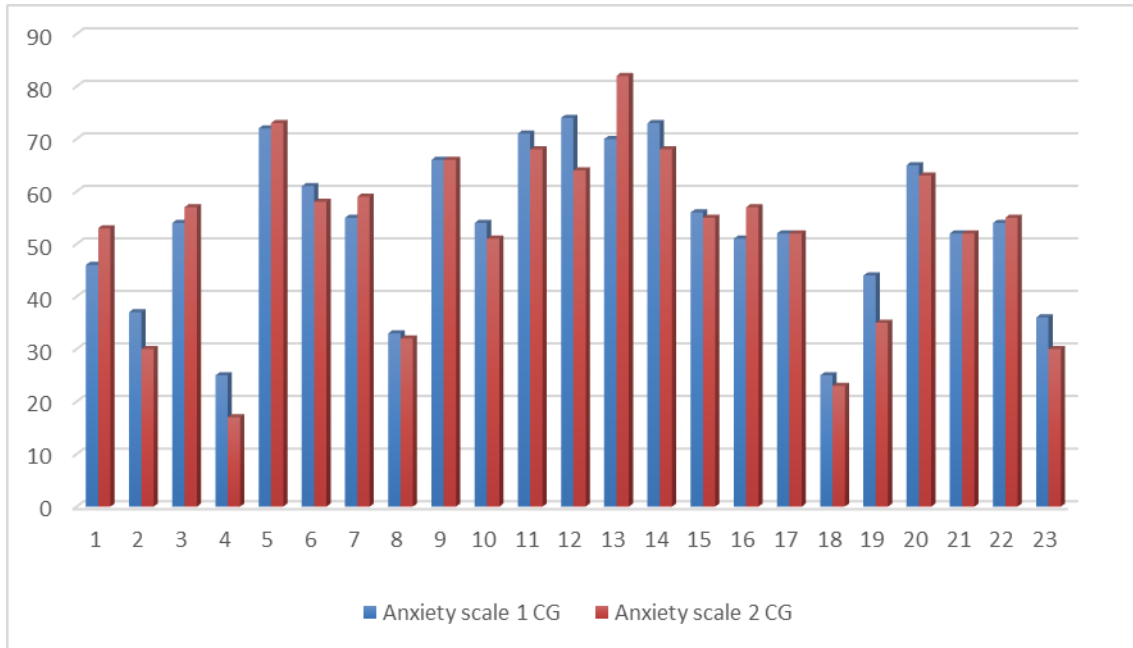


Figure 7. Comparison between first and second administration of FLRAS in the control group.

As seen in Figure 7 above, 13 subjects of the control group lowered their anxiety levels, who represent 56.50% of the total number of subjects. Secondly, 7 subjects increased their anxiety levels, who are 30.5% of the total number of subjects; and 3 subjects, that is, 13% of the total number of subjects, maintained their anxiety level.

Figure 8 below shows the comparison of the pre- and post-reading comprehension tests results.

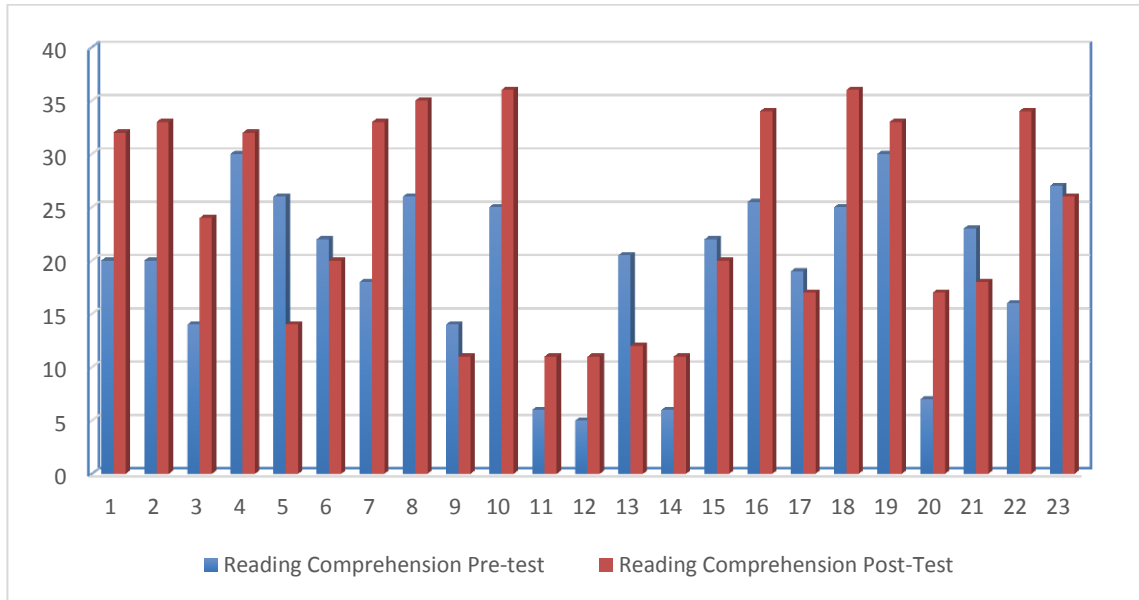


Figure 8. Comparison of pre- and post-reading comprehension test results.

The graph indicates that 15 participants increased their scores. This number of participants corresponds to 65.21% of the total number. On the contrary, 8 participants decreased their scores.

CHAPTER III

CONCLUSIONS

3.1 Conclusions

The present study was designed to explore Chilean English as a Foreign Language (EFL) learners' reading anxiety and its influence on reading comprehension proficiency. Specifically, it attempted to enquire into the effects of explicit metacognitive reading strategy instruction on the students' anxiety levels and their reading performance.

The research group, as future English Teachers, believes that reading comprehension is an important skill in the learning or acquisition of a foreign/second language at school. The concern for educational matters motivated the group to explore some variables involved in the reading comprehension process, namely, anxiety and reading comprehension performance.

It can be stated that the general objective of the present study was met. This statement is based on the research design of the investigation, its planning, including the intervention phase, the execution of every research stage; and, finally, on the results obtained. Every phase was planned and carried out with the aim of achieving each specific objective set for the research.

In relation to the research hypotheses, at the time of examining and interpreting the statistical analyses of the data, the research team became aware that the results supported the first hypothesis proposed, "Explicit metacognitive reading instruction improves the learners' reading comprehension proficiency". According to the data

analysis, the second hypothesis, “Explicit metacognitive reading instruction lowers the learners’ level of reading anxiety”, was refuted. This hypothesis was disproved on the basis of the results obtained in the first and second administration of the Foreign Language Reading Anxiety Scale.

At this point, the research questions will be addressed. The first one is related to metacognitive reading instruction and reading comprehension proficiency in EFL learners and the second research question is concerned with metacognitive reading instruction and learners’ foreign language reading anxiety.

The first question was formulated as “Does explicit metacognitive reading instruction improve ninth grade students’ reading comprehension proficiency?” According to the results of this study, the metacognitive reading instruction was effective in the improvement on the students’ reading proficiency. The experimental group results of the pre-reading comprehension test indicated that 27% of the total number of subjects obtained a satisfactory score while unsatisfactory scores reached 73%. Nevertheless, after the pedagogical intervention, there was an improvement of the students’ post-test scores. Thus, the subjects whose scores were satisfactory represent 86% of the total participants; and only 14% of the subjects obtained unsatisfactory marks. Therefore, the percentage increase in the scores of the post-test reading comprehension test can be described as considerable.

The second research question asked, “Does explicit metacognitive reading instruction lower ninth grade students’ levels of reading anxiety?” Considering the analysis of the results, it can be stated that the effect of the explicit metacognitive strategy intervention was moderate. Indeed, subjects who moved from the high anxiety to the mid anxiety sub-group were only 3 (out of 5). On the other hand, 1 subject of the low anxiety sub-group moved to the mid anxiety sub-group. To sum up, in this study, the metacognitive reading instruction intervention did not lower the students’ anxiety levels as expected. The research group proposes that the only moderate effect of the intervention on the decrease of students’ anxiety levels may be attributed to the students’ awareness of the complexity of the reading comprehension process that may have occurred during the intervention lessons. Consequently, this awareness may have prevented students from decreasing their original anxiety levels.

It is important to mention that the intervention design, including the contextualization by the researchers, and the creation of specific materials such as lesson plans, reading comprehension tests, worksheets and power point presentations, suitable for the students’ proficiency level, context, and background, was enriching to the research group; besides, it was fundamental for the implementation of the Metacognitive Reading Strategy Instruction phase of the study.

3.2 Limitations

Throughout the investigation process, the researchers faced several limitations that are important to mention. The first limitation faced in the study was the rather small number of subjects who participated in the research study. Another limitation that affected our investigation was the short duration of the research study.

3.3 Pedagogical Implications

The findings give rise to several pedagogical implications for reading instruction, which will be described below. Once the reading comprehension pre-test was given, the researchers became aware of the students' insufficient vocabulary knowledge; hence, the research group suggests that vocabulary teaching should be given greater importance from the first years of studies. Based on the results of the study, the group proposes the integration of the metacognitive reading strategies into the syllabus contents, and an implicit teaching instruction of these strategies along the years of studies at school. To conclude, it may be suggested that metacognitive strategies may be useful to students in other school subjects such as History and Language.

3.4 Suggestions for future research

Based on the investigation process, some suggestions for an adequate context for future research studies will be made. First, the time devoted to the development of the investigation should be longer so that it could be possible to enquire into the lasting effects of the metacognitive reading strategy instruction. The second one, the amount of participants should be larger in order to obtain reliable results; thus, the results could be generalizable. Finally, it would be important to carry out research on the same topic with subjects belonging to different levels of proficiency, in order to obtain greater insight into metacognitive strategy instruction.

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APPENDIX A

Reading Comprehension Pre-Test

Name: _____ Grade: _____ Date: _____

LIVING IN SPACE

- I. Some day people will live in space. By the end of the century there will be permanent settlements that will allow people to lead a normal life in space. Hundreds of astronauts are going to work and live in the space station, which will take ten years to build.
- II. In some ways, living on the Moon will be easier than living on a space station. And it will be cheaper because people won't bring everything from the Earth by rockets. The space city will be like a gigantic glass wheel that will contain buildings, farms, factories and special meeting-places. Inside it, people won't live very differently from small towns on Earth. It will have air so that inhabitants can breathe, and they won't need to wear special space-suits inside the buildings.
- III. Scientists also believe that they will obtain water from a large ice lake on the Moon. People won't have to do housework because robots will do that for them. Food won't be a problem as settlers won't need to eat. Instead, they will take a pill three times a day!
- IV. The first group of astronauts will live on the Moon for six months and then they will return to Earth and another group will travel. This will be repeated until the first settlers can establish permanently in the new city. Life on the Moon will only be the beginning. We hope they will use the knowledge we get there to plan expeditions to Mars, Mercury and even Pluto.



I. Choose the correct alternative.

1. The main idea of the text is:

- a) Describe the actual benefits in space.
- b) A future possibility of living in space.
- c) The way of living of the astronauts in the moon.
- d) How to obtain water and food on the space station.

2. How is it supposed that the cities will be in space?

- a) Different from ours cities.
- b) As large as similar terrestrial big city.
- c) Similar to our small towns.
- d) There will be no space cities.

3. The main idea of the IV paragraph is:

- a) There won't be expeditions to Mars, Mercury and Pluto.
- b) In another 6 months we will live on another planet.
- c) The work that astronauts are doing in the space station.
- d) The work that astronauts will do for living in space.

II. Read the text and answer these questions.

1. How will people live on the moon?

2. How long will each group stay in the space city?

3. When will people live permanently on the moon?

4. Where will people take water from?

5. What is life on the Moon going to be like?

III. True or false. Justify the false one

1. Nowadays, it is possible for people to live on the Moon.

2. On the Moon, people will have to wear special clothes.

3. Astronauts will take water from the Earth.

4. Robots will do the work of humans.

5. On the Moon life is going to be different as in the Earth.

IV. Complete the sentences using the words in the box.

1. Glass	2. 10	3. Mars, Mercury and Pluto.	4. Rockets.	5. Pills	6. Moon
----------	-------	-----------------------------	-------------	----------	---------

- a) _____ Years it will take to build the space station.
b) _____ Means of transport that could take things from the Earth.
c) _____ Material the space station will made of.
d) _____ Food that people will take.
e) _____ Places for future expeditions.

Reading Comprehension Post-Test

Student's name: _____ Date: _____ Grade: _____

Science in Sports

Science is a very important part of sports today. In fact, science controls almost everything in an athlete's life. Scientists decide what athletes should eat and when they should eat. They decide what exercises athletes should do and for how long. Other scientists design better clothing and equipment, these "sports scientists" are everywhere in modern sports. You can even study sports science at university!

Modern science examines every part of an athlete's performance. Scientists use cameras and advanced equipment to collect lots of information. They use this information in many ways. First they make an exercise program to match each athlete's body. They show each athlete the best way to use their energy. Second, scientists use the information to help athletes improve their skill... and win.

Clearly, food is important for athletes. The food they eat gives them the energy they need to compete. Athletes have to eat special food. Sports scientists decide exactly what food each athlete needs to help them do their best at their particular sport.

More and more athletes are starting to use sports psychologists, too. These sports scientists help the athletes train to be mentally healthy. They show athletes how to think like a winner. In many cases, thinking in a positive way can be the difference between winning and losing. Sports psychologists are now an important part of the large group of people that help each athlete to do their very best.

- I. Circle the correct alternative.
- II.
 1. What is the main idea of the text?
 - a) Description of the food that athletes need to eat.
 - b) The clothes and equipment that athletes wear.
 - c) The importance of the sports science in athletes' life.
 - d) How to think in a positive way.

2. What is the topic of the text?
 - a) The information about athletes.
 - b) Sports.
 - c) Science in sports.
 - d) Science at university.

3. Why is food important to athletes?
 - a) Because food avoids psychologist therapy.
 - b) Because food gives them the energy they need.
 - c) Because food helps athletes to concentrate at university.
 - d) Because food helps to lose weight.

III. Read the text and answer the following questions.

1. Who helps athletes with their mentally training?

2. Why is food important for athletes?

3. What do scientist use to collect information?

4. Where can you study to be a sport scientist?

5. Why do sports scientist help athletes? Give one reason.

IV. True or False. Justify the false ones.

1. _____ In the present, sports psychologists are not important for athletes.

2. _____ Athletes should eat special food.

3. _____ Thinking in a negative way is important to be a winner.

4. _____ Scientists show athletes the best way to use their energy.

5. _____ Athletes design their own clothes and equipment

V. Complete the sentences using the words in the box.

INFORMATION	SCIENTISTS	ATHLETES
SCIENCE		FOOD

- a) _____ decide what athletes should do and for how long.
- b) _____ are starting to use sports psychologists.
- c) _____ gives athletes the energy they need to compete.
- d) _____ is collected by using cameras and advanced equipment.
- e) _____ controls almost everything in an athlete's life.

APPENDIX B

Foreign Language Reading Anxiety Scale

Nombre: _____ Curso: _____

Fecha: _____

Instrucciones: Las afirmaciones 1 a la 18 hacen referencia a cómo te sientes respecto a leer en inglés. Para cada afirmación, indica si (1) estás completamente de acuerdo, (2) estás de acuerdo, (3) no estás ni de acuerdo ni en desacuerdo, (4) estás en desacuerdo, o (5) estás completamente en desacuerdo.

Nota: CA=completamente de acuerdo, A=de acuerdo, N=ni de acuerdo ni en desacuerdo, D=en desacuerdo, CD= completamente en desacuerdo.

	(1)completamente de acuerdo	(2)de acuerdo	(3)ni de acuerdo ni en desacuerdo	(4)en desacuerdo	(5)completamente en desacuerdo
1. Me molesto cuando no estoy seguro(a) si entiendo lo que leo en inglés.					
2. Al leer en inglés, suelo entender las palabras pero sigo sin entender completamente lo que dice el autor.					
3. Cuando leo en inglés, me confundo tanto que no puedo recordar lo que leo.					
4. Me siento intimidado(a) cada vez que me enfrento a una página completa en inglés.					
5. Me siento nervioso(a) cuando leo un fragmento en inglés y no estoy familiarizado(a) con el tema.					
6. Me molesto cada vez que me encuentro con gramática desconocida al leer en inglés.					
7. Al leer en inglés, me pongo nervioso(a) y me confundo cuando no entiendo todas las palabras.					
8. Me molesta encontrarme con					

palabras que no puedo pronunciar mientras leo en inglés.					
9. Suelo terminar traduciendo palabra por palabra cuando leo en inglés.					
10. Disfruto leer en inglés.					
11. Me siento confiado(a) cuando leo en inglés.					
12. Una vez que uno se acostumbra, leer en inglés no es tan difícil.					
13. Lo más difícil de aprender inglés es aprender a leer.					
14. Me encantaría solamente aprender a hablar inglés en vez de tener también que aprender a leer.					
15. No me molesta leer para mí mismo(a), pero me siento muy incómodo(a) cuando tengo que leer en inglés en voz alta.					
16. Estoy satisfecho(a) con el nivel de habilidad lectora en inglés que he alcanzado hasta ahora.					
17. La cultura y las ideas de los países donde se habla inglés me parecen sumamente extrañas					
18. Hay que saber demasiado acerca de la historia y cultura inglesa para leer en inglés.					

APPENDIX C

Lesson Plan I

<p>Main Objective: <u>Students will be able to understand, apply and practice the ‘planning’ learning strategy.</u></p>			
<p>Subsidiary aims: To infer information about texts. To predict information about texts.</p>			
<p>Key Activities: Making predictions. Inferring information.</p>			
<p>Contents</p>			
<p>Skills/procedures: Writing / Speaking</p>	<p>Lexis</p>	<p>Grammar</p>	<p>Function Planning activities.</p>
<p>Stages</p>	<p>Interaction</p>		<p>Materials-Timing</p>
<p>Presentation</p>	<p>Introduction: Teacher explains to students what the class is about, putting the class into context. Also he tells students about what planning is and its functions. Students take notes about what the teacher explains. Examples: Teacher provides some examples about planning and shows students how to put the strategy taught into practice. Students pay attention to the examples.</p>		<p>Power point presentation. Notebooks.</p>
<p>Practice</p>	<p>Practice – Making predictions. Teacher shows students some titles and images related to some texts. Students have to answer some questions related to the texts and share their opinions with their classmates. Example: What do you think the text is about? What do you think the main idea is?</p>		<p>Power point presentation.</p>
<p>Production</p>	<p>Teacher shows three images related with a text and a text’s title and asks students to infer information about the text. Students have to infer the topic of the text, the main idea and write down the answer in their notebooks. Teacher asks students for their answers. Students have to share their answers and opinions with their classmates.</p>		<p>Power point presentation. Notebooks.</p>

Lesson Plan II

Main Objective: Students will be able to understand, apply and practice the ‘directed attention’ learning strategy.			
Subsidiary aims: To identify general ideas.			
Key Activities: Multiple choice. Identifying main ideas.			
Contents			
Skills/procedures: Writing / Reading / Speaking	Lexis Dinner, stand, next to, engagement.	Grammar Past simple	Function Identifying global ideas and main ideas.
Stages	Interaction		Materials-Timing
Presentation	Introduction: Teacher explains to students what the class is about, putting the class into context. Also he tells students about what directed attention is and its functions. Teacher teaches students to identify the global and the main idea of a text. Students take notes about what the teacher explains. Examples: Teacher provides some examples about the strategy and shows students how put in practice the strategy taught. Students pay attention to the examples.		Power point presentation. Notebooks.
Practice	Practice – Identifying elements. Teacher shows students some texts. Students have to identify the global idea and the main idea of the text.		Worksheet.
Production	Teacher asks students to write their answers on their notebooks and share their answers with their classmates. Teacher asks students what they have learned in the class. Students share their opinions.		Notebooks.

Lesson Plan III

Main Objective: <u>Students will be able to apply and practice the ‘planning’ learning strategy.</u>			
Subsidiary aims: To infer information about texts. To predict information about texts. To identify general ideas.			
Key Activities: Making predictions. Inferring information.			
Contents			
Skills/procedures: Writing / Reading / Speaking	Lexis Burn, enough, heat, grow, eat, outer space, space shuttle, launch, noon, data.	Grammar Present simple Future will/going to	Function Planning activities.
Stages	Interaction		Materials-Timing
Presentation	Introduction: Teacher makes a short review about what he taught before about ‘planning’. Teacher asks students what they know about the strategy. Students answer doing a brainstorming activity. Teacher teaches five new strategies about planning. Students take notes in their notebooks.		Board. Power point presentation. Notebooks.
Practice	Teacher gives students a worksheet related to the strategies. Students have to complete the worksheet and compare their answers with those of their classmates.		Worksheet.
Production	Teacher asks students to share their answers with the class to compare them. Students correct their wrong answers. Teacher asks students what they learned in the class. Students share their opinions.		Worksheet.

Lesson Plan IV

Main Objective: Students will be able to apply and practice the ‘selective attention’ learning strategy.			
Subsidiary aims: To identify specific information.			
Key Activities: Identifying information for details. Identifying information selectively.			
Contents			
Skills/procedures: Writing / Reading,	Lexis Outer, gas giants, thousand, storm, cloud, lake, reach.	Grammar Present simple	Function Identifying specific information.
Stages	Interaction	Materials-Timing	
Presentation	Introduction: Teacher explains what selective attention is and its two strategies (For details/Selective). Students take notes in their notebooks.	Power point presentation. Notebooks.	
Practice	Teacher gives students a worksheet with activities related to the strategies. Example: Answer multiple choice questions based on a text. True or false activity. Complete the sentences. Students have to complete the worksheet and compare their answers with those of their classmates.	Worksheet.	
Production	Teacher asks students to share their answers with the class to compare them. Students correct their wrong answers. Teacher asks students what they have learned in the class. Students share their opinions.	Worksheet.	

Lesson Plan VI

<p>Main Objective: <u>Students will be able to understand, apply and practice the following strategies: planning, monitoring, selective and directed attention.</u></p>			
<p>Subsidiary aims: To infer information. To check information. To identify the main ideas. To identify specific information.</p>			
<p>Key Activities: Making predictions Identifying the main ideas Identifying specific information Answering open questions</p>			
<p>Contents</p>			
<p>Skills/procedures: Writing / Reading.</p>	<p>Lexis Admit, arrive, receive.</p>	<p>Grammar Past simple</p>	<p>Function Applying and practice the strategies.</p>
<p>Stages</p>	<p>Interaction</p>		<p>Materials-Timing</p>
<p>Presentation</p>	<p>Introduction: Teacher explains to students what the class is about, putting the class into context. Students get into pairs/groups, Teacher writes the topic on the board (The lottery ticket) and students speculate about what the text might be about.</p>		<p>Power point presentation.</p>
<p>Practice</p>	<p>Teacher asks to students to do a worksheet with some exercises applying all the learned strategies. Match the statements with the definitions. Underline important information from the text. Multiple choice (main idea-vocabulary) Answer the open questions. Teacher asks students to check their answers and share them with their classmates. Students check and evaluate their answers.</p>		<p>Worksheet.</p>

Production	Teacher asks students to do a feedback about what they have learned and what were the most difficult things to do during all of the interventions.	Notebooks.
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APPENDIX D

Reading Comprehension Worksheet

Reading worksheet Lesson II

SIMPLE PAST

Student's name: _____ Course: _____ Date:

I. Read the following text

A Happy Night

Last night, George was at a restaurant with Clara, Charlie, and Katherine. After dinner, George announced his engagement to Clara. George stood next to Clara. He raised his glass. He announced the engagement to his friends. He looked very happy!

Clara was also at the restaurant. She sat at the table next to George. She smiled when he announced the engagement. She showed her friends her ring. It was very beautiful. Clara also looked very happy!

Charlie and Katherine also sat at the table. They were excited for their friends. Charlie congratulated George and Clara. He shook George's hand. Katherine looked at Clara's ring. She hugged Clara. She was happy for George and Clara!

II. Answer the following questions according to the text

1. What is the main idea of the text?

2. What is the theme of the text?

3. What is the topic of the text?

Reading worksheet Lesson III

Student's name: _____ Grade: _____

I. Read the following text.

The sun and all other stars are made of two gases called hydrogen and helium. The hydrogen changes into helium in a process called nuclear fusion. This process produces **heat** and light. Our sun is about 150 million kilometres away from Earth, but it's hot **enough** to **burn** you at the beach! Plants on Earth use energy from the Sun to **grow**. Animals and people also get their energy from the Sun because they **eat** plants.

Glossary:

Burn: to make flames and heat
Enough: how much we want or need
Heat: the quality of being hot or warm
Grow: to increase in size or amount
Eat: to put or take food into the mouth

II. After reading the text, answer the questions.

2.1 What is the main idea of the text? Choose one answer.

- i) The energetic power emitted by the Sun.
- ii) Explains the heat process in the Sun.
- iii) The importance of the Sun for the plants.
- iv) It gives the characteristics possessed by the Sun.

2.2 What is the theme of the text? Choose one answer

- i) Sun
- ii) Stars
- iii) Energy process
- iv) Astronomy

2.3 What is the topic of the text? Choose one answer

- i) The inner planets
- ii) Future in space
- iii) Our solar system
- iv) The outer planet

III. Read the story.

Glossary:

Outer space: the part of space that is very far away from Earth.
Space shuttle: a vehicle in which people travel into space and back again.
Launch: to send something out.
Noon: twelve o'clock on the middle of the day.
Data: information

Brent is an American astronaut. Today, he will travel into **outer space**. At

noon, his **space shuttle** is going to **launch** into space. Brent and the other astronauts are going to travel to the International Space Station. They will stay in space for almost 6 months. They will do some experiments. They will record their **data**.

IV. After reading the text, answer the questions.

4.1 What is theme of the story?

4.2 What is the main idea of the story?

4.3 What is the topic of the story?

Reading Worksheet Lesson IV

“The Outer Planets”

Student's name: _____ Course: _____ Date: _____

I. Read the following text

Gas Giants

The outer planets are called gas giants because they are made of hydrogen, helium, and other gases around a rocky center. Inside these planets, pressure changes the gases into a liquid.

Jupiter and Saturn

It's the biggest planet in our solar system, and it's more than a thousand times bigger than Earth! Jupiter has a big red circle of storm clouds called the red spot.

Saturn is the second biggest planet in our solar system and the sixth planet from the Sun. The rings are made of billions of pieces of dust and ice. Saturn has about 60 moons. The biggest moon called Titan. Titan has atmosphere, clouds, and lakes, but the lakes are made of chemicals, not water.

Uranus and Neptune

Uranus is the seventh planet in the solar system. If you travel another 2 billion kilometers out into space, you will reach Neptune, the farthest planet from the Sun. Uranus has 27 moons and Neptune 13.

Both planets are made mostly of gas, like Jupiter and Saturn, but different chemicals in their atmospheres make them green and blue.

Glossary:

Outer: exterior

Gas Giants:

gigantes gaseosos

Thousand: mil(es)

Storm: tormenta

Cloud: nube

Lake: laguna

Reach: alcanzar

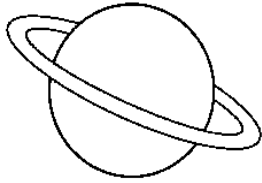
II. Answer the following questions according to the text.

1. Circle the correct words

- Inside gas giants, pressure changes the gases into a **liquid** / **cloud**.
- Jupiter's red spot is a huge **atmosphere** / **storm**.
- The lakes on Titan are made of **chemicals** / **water**.
- All of the gas giants have moons and **rocks** / **rings**.
- Saturn is the **second** / **sixth** biggest planet.

2. Write the corresponding words according to the drawings. (6 points)

Cloud	Lake	Ice	Ring	Rock	Storm
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1. _____ 2. -

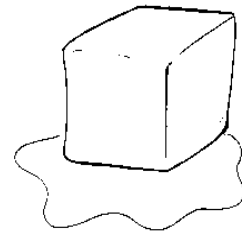


3. _____

4. _____



5. _____ 6. _____



3. Match

1. The outer planets are called
2. Titan is one of
3. Jupiter is the biggest
4. Saturn's rings are
5. Neptune is the
6. Uranus has

- made of ice.
- 27 moons
- farthest planet from the Sun.
- the gas giants.
- planet in the solar system.
- Saturn's moons

Reading worksheet Lesson V

Student's name: _____ Course: _____ Date: _____

I. Read the following text and underline the important information.

A hundred years ago, telescopes were smaller, and it was difficult to see Mars clearly. Astronomers thought that they saw lines on the surface of Mars, and some people thought that they were canals. At the time, people were building great canals on Earth, like the Panama Canal in Central America.

Some astronomers imagined aliens building these canals and living in cities on Mars. People wrote stories and made movies about aliens from Mars, called Martians, visiting Earth. Now we know that there are not any Martians, but we still make movies about them!

II. Activities

1. What is the main idea of the text?

2. Create an appropriate title for the text

III. Vocabulary. Choose the correct definition

1. Clearly

- a) Describes something that you remember easily.
- b) In a way that is easy to see, hear, read, or understand.
- c) Not covered or blocked by anything.

3. Build

- a) To create and develop something over a long period of time.
- b) The size and shape of a person's body.
- c) To base something on an idea or principle.

2. Surface

- a) The outer or top part or layer of something.
- b) To cover a road or other area with a hard surface.
- c) To get out of bed.

IV. Open questions

1. What would you do if you met an alien? Or saw an UFO?

Reading worksheet Lesson VI

Student's name: _____ Course: _____ Date: ____

I. Match the statement with the correct definition.

- | | |
|---|--|
| A) Ask if it makes sense. | 1) What Important Information Can I Write Down? |
| B) Personalize/Contextualize | 2) How Does This Fit With My Experiences? |
| C) Take Notes | 3) Am I Making Sense? |
| D) Use Imagery | 4) What Strategies Can I Use To Help Me? |
| E) Talk Yourself Through It (Self Talk) | 5) Can I Imagine A Situation Or Draw a Picture That Will Help Me Understand? |

II. Read the following text and underline the information that you consider important.

The Lottery Ticket.

A 39-year-old woman admitted that she had lied. She claimed that she bought the latest winning lottery ticket in Massachusetts, but then lost it. The ticket was worth \$18 million after all deductions. Jean Fenn was charged with grand larceny. A conviction could put her in prison for up to seven years. The real winner of the ticket, Kevin Hayes, 66, presented it a week ago to the liquor store where he had bought it. That store will receive one percent of the prize, or \$180,000. The owner of the store, Mark Abrams, 56, was overjoyed. "Last year we had a storm that blew half of our roof off. It cost \$25,000 to put a new roof on." Hayes said he was reminded to check his numbers when he heard that a woman had lost her winning ticket. He and his wife had been camping in the mountains when the winning number was drawn.

"But I feel sorry for this woman," said Hayes. "She only did this out of desperation. In fact, I'm going to help her out financially after she gets out of prison. It's a shame that this wealthy country has so many poor people. So, I'm going to donate a lot of this money to different charities. What do I need \$18 million for?"

The checks to Hayes and Abrams should arrive within two weeks, according to a lottery spokesman. The spokesman mentioned that lottery players should remember that the odds of winning the lottery are only about one in forty million. Even so, most people think that SOMEONE has to win, and it might as well be them.

III. Multiple choice

1. What is the main idea of the text? Choose one answer

- a) All the recipients of the prize
- b) The 39-year-old woman who lied
- c) The poor people in that country

2. What title may be the most appropriate? Choose one answer

- a) "Jean Fenn won the lottery"
- b) "Woman lies about winning the lottery"

IV. Vocabulary. According to the text, you must infer the definition of the word by choosing one answer.

1) Admit:

- a) To allow someone to enter a place.
- b) To allow a person or country to join an organization.
- c) To agree that something is true.

2) Arrive:

- a) To happen or start to exist
- b) To reach a place, especially at the end of a journey.
- c) To have achieved success and become famous.

3) Receive:

- a) To be made a member of an organization.
- b) To formally welcome a visitor or guest.
- c) To get or be given something.

V. Answer the following open-ended questions.

1) What would you do if you won 18 million dollars?

2) Have you ever heard of someone you know who has won the lottery?

APPENDIX E

Experimental Group

Subjects	Pre test reading	Anxiety Scale 1	Post test reading	Anxiet Scale 2
Subject 1	10	60	31	48
Subject 2	9	49	24	54
Subject 3	20	66	31	56
Subject 4	16	57	27	56
Subject 5	24	46	36	57
Subject 6	22	23	31	33
Subject 7	22	51	33	50
Subject 8	8	57	31	51
Subject 9	21	60	36	64
Subject 10	24	33	32	49
Subject 11	6	39	34	55
Subject 12	24	44	33	33
Subject 13	19	50	26	53
Subject 14	5	49	29	54
Subject 15	11	66	23	58
Subject 16	10	32	31	36
Subject 17	36	41	36	40
Subject 18	7	72	30	44
Subject 19	0	59	14	65
Subject 20	32	34	34	34
Subject 21	11	58	16	58
Subject 22	10	48	31	44
Subject 23	16	58	31	68
Subject 24	5	61	17	63
Subject 25	13	71	23	63
Subject 26	10	48	12	56
Subject 27	7	69	28	64
Subject 28	16	59	21	60
Subject 29	6	48	26	44
Average	14,48	52	27,83	52,07

High Anxiety	
Mid Anxiety	
Low Anxiety	

Control Group

Subject	Pre-test	Test A	Post-test	Test A
Subject 1	20	46	32	53
Subject 2	20	37	33	30
Subject 3	14	54	24	57
Subject 4	30	25	32	17
Subject 5	26	72	14	73
Subject 6	22	61	20	58
Subject 7	18	55	33	59
Subject 8	26	33	35	32
Subject 9	14	66	11	66
Subject 10	25	54	36	51
Subject 11	6	71	11	68
Subject 12	5	74	11	64
Subject 13	20,5	70	12	82
Subject 14	6	73	11	68
Subject 15	22	56	20	55
Subject 16	25,5	51	34	57
Subject 17	19	52	17	52
Subject 18	25	25	36	23
Subject 19	30	44	33	35
Subject 20	7	65	17	63
Subject 21	23	52	18	52
Subject 22	16	54	34	55
Subject 23	27	36	26	30
Average	19,43	53,30	23,91	52,17

High Anxiety	
Mid Anxiety	
Low Anxiety	

