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VOCABULARY ACQUISITION THROUGH READING: STRATEGIES TO FACILITATE BRAZILIAN FIFTH GRADE EFL STUDENTS' VOCABULARY LEARNING

por

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To my mother and

to my father, who can not lend us his physical presence

anymore, to live this conquest.

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ABSTRACT

VOCABULARY ACQUISITION STRATEGIES THROUGH READING: STRATEGIES TO FACILITATE BRAZILIAN FIFTH GRADE EFL STUDENTS' VOCABULARY LEARNING

ROSA MARIA BEAL DONATO

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1999

Supervising Professor: Prof. Dr. Leda Maria Braga Tomitch

This study was an attempt to investigate the facilitative effects of two vocabulary acquisition strategies: the Verbal Imagery Mnemonics and the Guessing from Context, on the retention of English vocabulary, as well as on the reading comprehension performance of Brazilian fifth graders. The subjects were real beginning EFL students enrolled in three different fifth grade classes *at Centro Educacional Vidal Ramos Jr*, a public state school, in Lages, Santa Catarina. The method used in the experiment consisted of: (1) a written interview with both subjects and their English teachers, aiming at selecting only the subjects who were real beginners; and (2) five written tests: one to verify the subjects' reading comprehension, given immediately after reading, and a set of four other tests, one week later, to check their ability to recognize and translate words, both on a list and in sentences, and to

check their ability to retain textual information. The results showed a tendency to: (1) confirm the view of researchers who posit that there is a close relationship between vocabulary knowledge and reading comprehension and who advocate the relevance of reading for vocabulary improvement and (2) indicate a balance in the usefulness of both strategies (Verbal Imagery Mnemonics and Guessing from Context) to facilitate EFL students' vocabulary retention and reading comprehension of real beginners. The thesis is drawn to a close with a report about the limitations of the study, its pedagogical implications, and suggestions for further research.

RESUMO

VOCABULARY ACQUISITION THROUGH READING: STRATEGIES TO FACILITATE BRAZILIAN FIFTH GRADE EFL STUDENTS' VOCABULARY LEARNING

ROSA MARIA BEAL DONATO

1999

Orientadora: Profª. Drª. Leda Maria Braga Tomitch

O presente estudo buscou investigar o efeito facilitador de duas estratégias de aquisição de vocabulário : "Verbal Imagery Mnemonics" e "Guessing from Context" na retenção de vocabulário em inglês como língua estrangeira, bem como na compreensão da leitura, de alunos brasileiros frequentando a quinta série do primeiro grau. Os alunos investigados eram iniciantes no estudo de inglês, matriculados em três diferentes quintas séries do Centro Educacional Vidal Ramos Jr., uma escola pública estadual, em Lages, Santa Catarina. O método adotado neste estudo consistiu de: (1) uma entrevista escrita com os sujeitos e seus respectivos professores de inglês, objetivando a seleção de sujeitos que estivessem estudando esta língua pela primeira vez e (2) cinco testes escritos, um aplicado immediatamente após a leitura do texto para verificar a compreensão do mesmo, e outros quatro, aplicados uma semana após a leitura do texto, visando checar a habilidade destes alunos em reconhecer e traduzir as palavras chaves do texto, tanto em lista quanto em sentenças e reter informação a respeito do texto lido. Os resultados deste estudo tendem a confirmar a visão de pesquisadores que defendem a existência de uma relação íntima entre conhecimento vocabular e compreensão de

textos e a importância da leitura para o aumento do conhecimento vocabular e (2) e indicam um certo equilíbrio entre a utilidade de ambas as estratégias (Verbal Imagery Mnemonics e Guessing from Context) no que tange ao efeito facilitador destas mesmas estratégias, na retenção de palavras desconhecidas em inglês e na compreensão de texto destes alunos de quinta série.

Número de páginas: 101

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CHAPTER 1

INTRODUCTION

1.1 Preliminaries

Nowadays, the importance of reading to integrate individuals in the modern world and the role of the reading skill within the teaching/learning context are widely recognized. But what is reading?

Reading is what happens when people try to give meaning to written symbols in a text. More specifically, reading in L2/FL " involves the reader interacting dynamically with the text and making use of his/her background knowledge, text schema, lexical and grammatical awareness, the overall knowledge about his/her L1 and his/her purpose in order to understand a FL written text" (Aebersold & Field: ix, 1997).

Through reading in a foreign language, students are not only given the chance to learn another language and to enlarge their vocabulary so that they can read and comprehend texts better, but they are also offered opportunities to enjoy moments of pleasure, to develop intellectually with the information gained via the text, to think, to compare and to analyze different languages. In short, they are offered the opportunity to read the world.

According to Anderson (1994), whether people read for information or whether they read for pleasure, readers are expected to comprehend what they are reading and to achieve the goal they have established to read the text. He also poses that teachers who are concerned with the learner's ability to read fluently should teach them how to

develop vocabulary acquisition skills, how to coordinate the use of strategies, in order to monitor their own reading improvement, and how to improve reading comprehension and reading rate.

For Pearson and Johnson (1978) reading comprehension is an active process involving the reader's ability to make inferences, interact with the writer and to relate old concepts to new information. In order to get into "the confused world of reading comprehension", they posit, it is necessary to know about the crucial points of this process, to understand concepts at word and proposition levels, to make judgements about the written word, to deal with questions, to figure out what strategies should be used in each teaching/learning situation and how to assess reading comprehension. Furthermore, on Pearson and Johnson's point of view, reading comprehension can be influenced by the learner's linguistic competence, interest, motivation and reading ability, as well as to text readability (text organization) and reading environment (home, school and classroom setting).

In the same vein, Ruddell (1994) defines comprehension as "a process in which the reader constructs meaning while, or after reading, interacting with the text through the combination of prior knowledge and previous experience, information in text, the stance he or she takes in relationship to the text, and immediate, remembered, or anticipated social interactions and communication" (p.415)

Traditionally, it has been accepted that students at any academic level must read and know a large amount of vocabulary in order to comprehend texts better, as earlier as possible (Just & Carpenter, 1987) and recently, literacy researchers have examined the relationship between vocabulary knowledge and reading comprehension (Ruddell, 1994).

For Mckeown and Curtis (1987), although the relationship between vocabulary knowledge and reading comprehension has not been completely understood yet, there is a common sense among researchers indicating that vocabulary and comprehension are closely linked and that one of the goals of vocabulary instruction should be to help learners to understand what they read. More recently, Nation (1990), Grabe (1991) and Aebersold and Field (1997) have also corroborated this assumption.

Nation (1990) suggests important reasons to cultivate vocabulary as a means of improving reading ability, namely: (1) active processing of new vocabulary enhances not only word knowledge but also reading comprehension; (2) both students and researchers consider vocabulary as one of the most important elements in language learning; (3) research findings have recommended what should be done about vocabulary and what kind of vocabulary should be focused on; (4) readability research has pointed out that vocabulary is crucial for the development of reading skills, as well as for academic achievement; and (5) there are a varied range of strategies to present vocabulary in the classroom.

1.2 The Study

Since Brazilian FL teachers are constantly facing many challenges in the classroom, and one of their greatest challenges is to motivate students to read and to prepare them to read successfully, it seems reasonable to investigate strategies that can facilitate vocabulary acquisition through reading, so as to attempt to find some answers for the problems teachers face when they are working with real beginning readers acquiring FL vocabulary. Additionally, as it is essential to provide a theoretical background to give support to any investigation, in the present study I will focus the

theoretical discussion in the reading process, vocabulary acquisition issues and vocabulary acquisition strategies.

1.3 Objective and Research Questions

Starting from the assumption, already mentioned, that there is a close relationship between reading and vocabulary acquisition, and vocabulary knowledge and reading comprehension, the purpose of this study is to investigate the facilitative effects of two FL vocabulary acquisition strategies, the Verbal Imagery Mnemonics and the Guessing from Context strategies, on the retention of FL vocabulary, as well as on the reading comprehension performance of Brazilian fifth graders, aiming to shed some light on the debate about the relationship between vocabulary knowledge and reading comprehension.

The discussion derived from the literature reviewed for this thesis, added to a constant search for a good theory to foreground my practice, in terms of what is more interesting, appropriate and teachable for students from elementary and secondary schools, were important reasons to incite me to carry out a study to investigate the following research questions:

1 – Is vocabulary instruction effective to improve EFL vocabulary learning and text comprehension?

2 – Is Verbal Imagery Mnemonics an appropriate strategy to make Brazilian fifth graders retain EFL vocabulary and comprehend texts better?

3 - Is Guessing from Context a suitable strategy to help Brazilian fifth graders retain EFL vocabulary and comprehend texts better?

4 – Is there any difference in terms of text comprehension and retention of vocabulary between the Verbal Imagery Mnemonics and the Guessing from Context Strategy?

1.4 Value of the Research

Considering that (1) there is a call for investigation of vocabulary strategies specific to young FL learners in Brazil; that (2) there are few conclusive studies on FL vocabulary acquisition (Brown & Perry, 1991, Beck & Mckeown, 1991, Avila & Sadowoski, 1996); that (3) there is a scarcity of research about the effectiveness of FL vocabulary learning strategies (Brown & Perry, 1991); that (4) mnemonic strategies are frequently recommended to increase vocabulary memorization (Cohen; 1987); that (5) strategies that take into account verbal and imagery associations between the native and the foreign languages are recommended to be used with beginners (Carter, 1987); and that (6) guessing from context is considered central for reading comprehension (Clark & Nation, 1980), the present work may be viewed as a possible contribution for the areas of vocabulary acquisition and reading studies in our country.

1.5 Organization of the thesis

This thesis is divided into five parts. In the introduction, I contextualized the study providing a general overview of the subject matter of this investigation. Then I presented my objective, the research questions and the reasons that incited me to carry out this experiment. Also in this introduction, I posed the value of the study for the research in our country.

In Chapter 2, in an attempt to lay the groundwork for the study, I review some of the important studies in the area, focusing on the reading process, vocabulary acquisition principles and vocabulary acquisition strategies.

In Chapter 3, I include the method adopted to make this investigation possible describing, in detail, the procedures used in each of the sessions of the experiment..

In Chapter 4, I report the results of this experiment and discuss the data, founded on the theories presented as the basis of this work in the review of literature.

Finally, in Chapter 5, the reader will have access to the final considerations, the limitations that constrained the accomplishment of the present study, suggestions for further research and the pedagogical implications of this investigation.

CHAPTER 2

REVIEW OF LITERATURE

This chapter is divided into three sections. In the first section I discuss the reading process, presenting a retrospect of different views of reading in the last decades and the role different researchers have attributed to the reader in this process. Then, I briefly examine Schema Theory, its importance and contribution to the second/foreign language reading comprehension field and next, the models of reading that different researchers have proposed to explain the reading process. I start the second section of this chapter with a short historical overview of the vocabulary acquisition studies and the place of vocabulary in the FL/SL context today. After that, I provide some concepts of what it means to know a word and how words are learned, to then focus on the conditions and factors influencing the acquisition of words. I conclude the third section reviewing some studies on strategies tailored to enhance vocabulary acquisition and the importance of these strategies to broaden the learners' vocabulary knowledge and finally, I describe the Verbal Imagery Mnemonics and the Guessing from Context strategies, the two strategies investigated in this experiment.

2.1 The Reading Process

The understanding of the reading process and the efforts to improve second/foreign language reading instruction has changed remarkably in the last decades. Much has been investigated about second/foreign language reading and many aspects of the reading process in FL/L2 have been studied. Until the mid to late sixties, reading

was basically used to reinforce language instruction, to study grammar and vocabulary and to practice pronunciation (Silberstein, 1987).

According to Dole, Duffy, Roehler and Pearson (1991), there are two views of reading, the traditional view and the cognitive view. In the traditional view, the reader is considered a passive reader who is supposed to master a large number of sub-skills and to be able to make use of them when reading any kind of text. In the cognitive view, on the other hand, the reader is viewed as an active reader who constructs the meaning of the text by integrating his prior knowledge to the new information in the text and using flexible strategies to monitor comprehension. Under the cognitive perspective, reading is an active process that demands participation, comprehension and reflection on the part of the reader. Reading involves interaction: the author expresses his thoughts, feelings, wishes and ideas through the written language and the reader gives meaning to the message by bringing his/her experience and contextual knowledge to the text. The reader's background knowledge enables him/her to fill in the gaps of the message not totally explicit in the text, making communication possible.

In the early 1970's, changes in ESL institutional needs and in the theories about the reading process influenced the way L2 reading was seen, and throughout the seventies, researchers started to recognize the great importance of reading and the significance of Goodman's (1967, 1985)[cited in Grabe (1991)] and Smith's (1971, 1979) works, which evolved into a psycholinguistic model of reading.

Reading, for Goodman, is a selective process to which readers bring their prior knowledge in order to predict information, sample the text, and confirm or reject their prediction (Grabe, 1991).

Following the same line of thought, Smith (1971) observes that the reader contributes more to comprehension than do the visual symbols on the page and Grabe (1991:377) poses that reading is "an imprecise hypothesis-driven process" dependent on the readers' abilities to make inferences.

In the psycholinguistic model of reading, researchers view reading as an active process of comprehending, guessing from context, defining expectations and making inferences about the text.

Coady (1979)[cited in Grabe (1991)] reinterpreted Goodman's psycholinguistic model and suggested another model of reading more suitable for L2 learners, arguing that EFL/ESL reader's background knowledge interacts with conceptual abilities (general intellectual capacity) and process strategies (word identification ability) to produce comprehension.

The 1980's were marked by the expansion of Goodman's and Smith's view of reading into much theory and practice.

Recently, with the expansion of research in the areas of artificial intelligence, cognitive psychology and linguistics, other orientations to text processing have been suggested, such as the schema theory and the interactive model of reading, which describe the role of prior knowledge in higher-level processes of comprehension.

The term interactive-approach to reading, according to Grabe (1991), refers to two different conceptions. The first is the one claimed by most cognitive psychologists and educational psychologists, which refers to the interaction of both top-down and bottom-up text processing. The second is the one defended by most L2 researchers, which stresses the interaction between the reader and the text, the reader

(re)constructing the text information by matching the new information from the text to the reader's own prior knowledge.

Nowadays, reading may be viewed as a "psycho-social act where meaning is created as a result of an interplay between information represented in the printed text, and information available in the reader's mind" (Heberle & Meurer, 1991- 1995:41).

2.1.1 Schema Theory

Schema theory in language comprehension derives from basic research in cognitive psychology and linguistics, and recent research has pointed to the importance of the notion of schema theory for describing higher-level comprehension processes and for second/foreign language reading. It has also shown the relevance of background knowledge or prior knowledge which is intrinsically related to the reader's past experience and refers to the overall knowledge an individual possesses to make comprehension possible.

For Rumelhart (1981:4) "a schema theory is basically a theory about knowledge. It is a theory about how knowledge is represented, and how that representation facilitates the use of knowledge in particular ways".

Carrell (1988) has observed that schema theory is extremely useful to understand how prior knowledge is integrated in memory, and the role it plays in the readers' access to text and recall of information. She has also found that formal schemata, that is, structures of knowledge about language and textual organization, contributes significantly to reading ability, and that lack of schema activation can make L2 readers have difficulty to process language.

Recently, researchers have become interested in the notions of different kinds of schemata, and Carrell (1983b, 1984)[cited in Davies (1995)], after having undertaken a series of studies in this area, has distinguished between two types of schema that a reader may bring to a text: content and formal schemata. Content schemata refers to the background knowledge relative to the content area of the text, and formal schemata refers to the background knowledge about the structural organization of the text. These two types of schemata are claimed to lead the reader to comprehend the linguistic representations of concepts, those contained in oral and written texts, as well as the rhetorical organization of these same texts. In the schema theory view a text does not carry meaning in itself, the reader constructs it according to his/her individual purpose for reading, his/her available background knowledge of the context and the formal text structure (Carrell & Eisterhold, 1988). It seems that this new vision has been directly responsible for the formulation of some of the recent models of reading, the interactive models, that have been playing an important role in the teaching methods of reading and in the reading educational policies of the last decades.

2.1.2 Models of reading

According to Davies (1995:57) the term model refers to "a formalized visually represented theory of what goes in the eyes and the mind of readers when they are comprehending (or miscomprehending) texts". For Samuels and Kamil (1984) a good model has three important characteristics: (1) it can summarize the past (synthesizing the research information collected in the past); (2) it can help us to understand the present (serving the important scientific and social function of facilitating the comprehension of complex phenomena of reading comprehension by eliminating what

There are many ways of representing the process of reading, what really goes on in the mind of the readers in each stage of this process, and different researchers have suggested different models to explain it. These models will be presented below.

2.1.2.1 The Bottom-up Model

The bottom up model proposed by Gough (1972)[cited in Davies (1995)] emphasizes the visual symbol approach to text. It is concerned with the decodification of writing, with information that comes from the letters, words, sentences, paragraphs and entire texts. It goes from the specific to the general, processing information bottom-up, that is from the lower level (sound to letter correspondence) to the higher level (readers' knowledge and expectations).

According to the bottom-up model, an individual starts the reading process by observing the following sequence (Davies, 1995:58):

1. Eyes look.
2. Letters identified and sounded out.
3. Words recognized.
4. Words allocated to grammatical class and sentence structures.
5. Sentences given meaning.
6. Meaning leads to thinking.

2.1.2.2 The Top-down Model

The top-down model, which may be considered the opposite of the bottom-up model, includes thinking about meaning from the very beginning of the process and presupposes, according to Davies (1995:58), the following order in the reader's mind during the act of reading :

1.Eyes look.

2. Thinking - prediction about meaning.

3. Sample sentence as a whole to check meaning.

4. To check further, look at words.

5. If still uncertain, study letters.

6. Back to meaning prediction.

The top-down model, which was developed by Goodman (1969), emphasizes the higher level sources of information, that is, prediction, guessing and going for a gist at the expense of letter-sound correspondence. In this also called conceptually-driven model, there is an interaction between language and thought. The reader experiences information from the text in an attempt to confirm or reject hypotheses and predictions he/she raises when reading the text.

2.1.2.3 Rumelhart's interactive model

Rumelhart (1977) proposed this first of a number of interactive models of reading, suggesting that reading comprehension derives from an interaction between the reader and the text, a model in which the reader is encouraged to become sensitive to all sources of information rather than relying only on letter-sound correspondence (bottom-up), or prior expectations (top-down) as Gough and Goodman have proposed. It is an alternative to bottom-up and top-down models, for it offers the reader the possibility of "parallel processing", that is, the chance of processing information from more than one source at the same time, to select from "a range of sources of information: visual, orthographic, lexical, semantic, syntactic and schematic" (Davies, 1995:64).

2.1.2.4 Interactive compensatory model

Stanovich (1980) developed Rumelhart's interactive model of reading, integrating concepts from a variety of knowledge sources and trying to combine information about skilled and unskilled reading in a compensatory way. This model is considered interactive because top-down and bottom-up processing happen at the same time at any level of information processing, and compensatory, because any possible deficiency that may occur during the reading process is expected to be compensated for the reader's reliance on any available knowledge source. As readers may use knowledge from a variety of sources, they are able to predict meaning of the text and, consequently, compensate for possible failures in language control (Samuels & Kamil, 1980).

2.1.2. 5 The Bottom-up interactive model

One of the most recent models of reading is the bottom-up interactive model proposed by Rayner and Pollatsek (1989)[cited in Davies (1995)]. The bottom-up interactive model takes into account the use of all sources of information and is mainly bottom-up, although including the interaction of top-down processes with bottom-up processes. This model is significant because it is not only compatible with Rumelhart's interactive model, but it has also served to complete some hiatus on Gough's and Goodman's models.

2.1.2. 6 Mathewson's model

Mathewson (1985)[cited in Davies (1995)] has contributed to the field of the reading process with a model that considers the real-world context of reading and adds affective variables to other models of reading such as the bottom-up interactive model, the interactive compensatory model and Rumelhart's interactive model, described

number of words, if they are to read or to take part in real conversation, be it in their native or in a foreign language.

Until the early 1950s, vocabulary research focused on vocabulary size at different ages and levels, the relationship between vocabulary ability and general mental ability, useful words to be known, and the development of a corpus of words to facilitate readability.

In the late 1950s and 1960s, the revolutionary ideas of psychology (See Beck and Mckeown, (1991) that turned the focus of research attention to the process in which learners infer and organize information, became the dominant perspective of the 1970s and 1980s.

Between the 1960s and the 1980s, there was a hiatus in vocabulary research, and vocabulary learning was neglected in favor of other language issues, such as syntactic structures, pronunciation, and grammatical competence. Beck and Mckeown (1991) suggest that this hiatus can be explained as a result of: (1) teachers' enthusiasm for the formal structural facts about language; (2) the depth and complexity of vocabulary development issues; and (3) lack of a coherent theory to explain the mental processes involved in relating words and ideas.

In the last decade, applied linguists and language teachers have shown a renewed interest in vocabulary acquisition and in the role that vocabulary plays in the reading process. This revival of interest, according to Beck and Mckeown (1991), may be attributed to the shift to an information-processing orientation in psychology, which gave rise to the thoughts that explain the relationship between words and ideas, the processes in which learners are engaged when acquiring new words, and the role of inference and organization of information in this process. Nowadays, vocabulary acquisition is viewed as a "complex process that involves establishing relationships

between concepts, and expansion and refinement of knowledge about individual words" (p.790).

In an attempt to shed some light on the "complex process" of acquiring words, I will take into consideration the principles that are behind the following aspects of vocabulary acquisition: what a word is, what it is to know a word, how words are learned, and what factors influence vocabulary acquisition.

2.2.2 What it means to know a word

To understand what is involved in knowing a word, let us first examine what a word is. It seems not easy to define a word, for according to Nation (1990) it may have one form or different forms, one use or different uses, depending on the language it belongs to.

For Richards, Platt and Platt (1993) a word (lexeme or lexical item) is "the smallest unit in the meaning system of a language" (p. 210) that can occur in different forms, or be distinct from other similar units. Further, they classify words in two classes: content words and function words. Words that refer to things, actions, state or quality, and have lexical meaning when used alone, are content words. Function words, on the other hand, are those that have little meaning when used alone, but can "show grammatical relationships in, and between sentences" (p. 81) such as conjunctions, prepositions and articles.

Both content and function words may be learned for different purposes, depending on the kind of learning that is required for each specific teaching/learning situation. In the view of Nation (1990), one can learn words for receptive use or productive use. If a learner studies a language to be able to read and understand texts, or to listen and understand oral language, he/she will need a receptive knowledge of

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above. Mathewson states that as reading may occur in a real-world context, affective factors such as attitude, motivation, affect and physical feelings may influence the readers' decision to read or not to read a text.

It seems that the tendency of studies, presently, is for an integration of all these models described above, since it is possible to establish similarities among them. According to Davies (1995), they are all based on the assumption that reading starts with a visual stimulus, and that when comprehension occurs, it ends with meaning. Most of them recognize that visual, orthographic, phonological, syntactic, semantic and real-world knowledge play an important part in the process. However, despite their similarities and differences, they altogether have supplied researchers and teachers with rich sources of information for reading methodology and strategies on reading comprehension.

In this section, I have briefly reviewed the reading process giving a retrospective view of the traditional and cognitive views of reading and the role of the reader according to these views. I have also provided a brief overview of schema theory, and models of reading that have grounded reading instruction in the last decades. In section 2.2, I will turn the discussion to vocabulary acquisition issues, the next relevant aspect of this study.

2.2 Vocabulary Acquisition

2.2.1 Historical Overview

Vocabulary study, one of the oldest areas of interest in the educational studies, has a long history, and vocabulary acquisition may be considered crucial for language learning because students are expected to understand and to be able to use a large

number of words, if they are to read or to take part in real conversation, be it in their native or in a foreign language.

Until the early 1950s, vocabulary research focused on vocabulary size at different ages and levels, the relationship between vocabulary ability and general mental ability, useful words to be known, and the development of a corpus of words to facilitate readability.

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Between the 1960s and the 1980s, there was a hiatus in vocabulary research, and vocabulary learning was neglected in favor of other language issues, such as syntactic structures, pronunciation, and grammatical competence. Beck and Mckeown (1991) suggest that this hiatus can be explained as a result of: (1) teachers' enthusiasm for the formal structural facts about language; (2) the depth and complexity of vocabulary development issues; and (3) lack of a coherent theory to explain the mental processes involved in relating words and ideas.

In the last decade, applied linguists and language teachers have shown a renewed interest in vocabulary acquisition and in the role that vocabulary plays in the reading process. This revival of interest, according to Beck and Mckeown (1991), may be attributed to the shift to an information-processing orientation in psychology, which gave rise to the thoughts that explain the relationship between words and ideas, the processes in which learners are engaged when acquiring new words, and the role of inference and organization of information in this process. Nowadays, vocabulary acquisition is viewed as a "complex process that involves establishing relationships

between concepts, and expansion and refinement of knowledge about individual words" (p.790).

In an attempt to shed some light on the "complex process" of acquiring words, I will take into consideration the principles that are behind the following aspects of vocabulary acquisition: what a word is, what it is to know a word, how words are learned, and what factors influence vocabulary acquisition.

2.2.2 What it means to know a word

To understand what is involved in knowing a word, let us first examine what a word is. It seems not easy to define a word, for according to Nation (1990) it may have one form or different forms, one use or different uses, depending on the language it belongs to.

For Richards, Platt and Platt (1993) a word (lexeme or lexical item) is "the smallest unit in the meaning system of a language" (p. 210) that can occur in different forms, or be distinct from other similar units. Further, they classify words in two classes: content words and function words. Words that refer to things, actions, state or quality, and have lexical meaning when used alone, are content words. Function words, on the other hand, are those that have little meaning when used alone, but can "show grammatical relationships in, and between sentences" (p. 81) such as conjunctions, prepositions and articles.

Both content and function words may be learned for different purposes, depending on the kind of learning that is required for each specific teaching/learning situation. In the view of Nation (1990), one can learn words for receptive use or productive use. If a learner studies a language to be able to read and understand texts, or to listen and understand oral language, he/she will need a receptive knowledge of

vocabulary. However, if he/she needs the language to speak or to write, or if his/her goal is broader as including the four language skills, then a productive vocabulary knowledge is necessary. Receptive knowledge involves the capacity to recognize a word when it is met, that is, what it sounds like when it is heard, and what it looks like when it is written. Receptive knowledge presupposes the learner's readiness to identify different forms or sounds of words, to associate them to other related words and to be able to opt for the most appropriate meaning of each specific word in the context where they are included. Productive knowledge, on the other hand, involves the learners' ability to pronounce and spell words correctly, knowing how, when, and in what context to use them and being able to think of synonyms to be used in the same sentences.

Knowing a word is a "complex matter involving many types of knowledge" (Aebersold & Field, 1997:139), a "complicated multifaceted arena" (Beck & Mckeown, 1991:792), but some researchers offer representative definitions of it.

Oxford and Scarcella (1994) suggest that knowing a FL word involves the ability to recognize it when it is heard or seen (sound and form), the ability to translate it (matching it with its native language correspondent) and to use it for real communication.

For Nation (1990), word knowledge implies the knowledge of form (how the word is pronounced in the spoken language and how it is spelled in the written language); grammatical use (the rules that govern the use of words); collocation (the specific order of the words in a sentence); function (the word frequency use in specific situations and its usefulness in real communication) and association (semantic features and multiple meanings of words and their relation to other words that occur in the same context).

According to Beck and Mckeown (1991), knowing a word can not be simply viewed in terms of "knowing" or "not knowing" it, but in terms of a continuum that goes from no knowledge, to a general sense of it, to having some knowledge but having difficulty to access it, to finally a decontextualized knowledge of the word meaning that enables the individual to relate words to each other, and to use them appropriately.

In the view of Cronbach (1942)[cited in Beck & Mckeown,(1991)], the dimensions and abilities involved in knowing a word are: (1) generalization (ability to define words); (2) application (ability to select the appropriate situation to use a word); (3) breadth (ability to recognize the different meanings of a word); (4) precision (ability to apply the correct word to any situation); and (5) availability (ability to make the real use of a word in discourse).

For Carter (1987), knowing a word presupposes the ability to recall it for active use and to use it productively. For him, knowing a word also means knowing the possibilities of encountering the word in spoken and written contexts, the different meanings of it, the derivations that can be made from it, its relation to other words, both in the FL and in the L1 and the perception of its syntactic, pragmatic and discourse functions.

In essence, knowing a word means to know its limitations of use (functional or situational), its underlying forms and derivations, its relations with other words in the second or first language, its different meanings and above all, its semantic value in order to use it productively. Therefore, as this study aims at investigating the effectiveness of FL vocabulary acquisition strategies on the retention of words for reading comprehension, the kind of word knowledge that will be taken into account for the scope of this study is the word knowledge necessary for receptive use.

In the section above, I presented different views of what it means to know a word. In sections 2.2.3 and 2.2.4 the discussion will be directed to ways and conditions to implement word learning.

2.2.3 How words are learned

How people learn words has been a constant concern of those who are interested in vocabulary acquisition, and according to Beck and Mckeown (1991), psychologists' interest is more directed to cognitive processes which are at work when a word is being acquired and the ways individuals represent words in memory. Practioners, on the other hand, focus their attention on conditions and ways that can enhance the acquisition of words.

Beck and Mckeown (1991) also observe that in the current decade, investigations on vocabulary acquisition have discussed the process to derive meaning from context and the natural and artificial conditions of acquiring words. Natural conditions refer to incidental learning, and artificial conditions to deliberate (intentional) learning. While *incidental learning* occurs when the learner's purpose is normal reading, to have fun or gather information, *deliberate learning* happens when the learner decides to pay attention to specific words or to infer their meaning from context.

In the view of Oxford and Crookall (1990) incidental or indirect vocabulary learning through L2 use is essential for language development, because students usually acquire the greater amount of vocabulary "indirectly" by practicing reading, listening, speaking and by writing meaningful activities.

Just and Carpenter (1987) state that words can be learned indirectly from context, or directly, via dictionary instruction. They also pose that learners can analyze unknown words by making use of *structural analysis* (the process that deals with the

decomposition of complex words into structural components, and the way the synthesis of these components contributes to complex word comprehension), or *contextual analysis* (the process of inferring meaning of words from the context in which they occur).

Drum and Konopak (1987) suggest that word learning is dependent on the learner's exposure to new words, the facility he/she has to distinguish the meaning of these new words and the characteristics of them. In order to acquire new words a learner should hear or read the word in a situational context to become aware of its form and to associate its meaning to the cues provided by the situation in which this word is embedded. Thus, any area of study, hobby or new experience can contribute to the individual's lexicon expansion, that is, the more knowledge an individual has, the more words he/she will know.

In essence, "the process of learning a FL word is to map a novel sound pattern (which will vary across speakers, dialects, emphasis etc.) to a particular semantic field that may (or may not) have an exact equivalent in the native language" (Ellis & Beaton, 1993:530)

2.2.4 Factors influencing L2 vocabulary acquisition

Another concern of language teachers regarding vocabulary acquisition is related to the factors that are at work when L2 students are learning new words. Important considerations about this aspect of vocabulary studies will be presented next.

In the view of Ellis and Beaton (1993), the factors that influence FL vocabulary acquisition are: (1) phonological factors - the similarity between the probability of sequential phonemes in the native and the foreign language, its articulatory features and its position in a spoken word; (2) semantic content - same semantic fields may be

comprised of different lexical fields in different languages; (3) the grammatical class of a word - nouns and adjectives are the first parts of speech to be learned and verbs and adverbs are the most difficult ones; (4) the degree to which the imageability of a FL word arouses its mental image which is the reason why concrete words are generally learned earlier and easier than abstract words; (5) the frequency of exposure of the FL and the learning situation - the number of encounters with the FL word and the learning situation in which it is met, influence its memorization; (6) the alphabet - languages sharing the same alphabet are easier to learn; (7) the orthography - different languages generally have different probabilities for the sequence of letters; (8) word length - the shorter the FL word, the easier to be learned; (9) familiarity of graphemic to phonemic mappings - different languages generally have different spelling-sound correspondence; and (10) similarity of FL and native words - the similarities in orthography, phonology, and etymology are typical facilitators of word learning.

Oxford and Scarcella (1994) have also dealt with the factors that affect FL vocabulary acquisition, which for them are (1) word frequency and order of acquisition; (2) maturational constraints (cognitive development due to age); (3) attention (the particular importance given to a word, and the emotional response to it); and (4) previous language background (particularities of L1 word affect the learnability of the L2 vocabulary).

In the same vein, Carter (1987) suggests that important factors involving vocabulary acquisition are the learner's ability (1) to establish links between the word in the target language and a cognate word in the mother tongue; (2) to associate word meanings with particular social, pragmatic or cultural contexts, and (3) to inter-relate words in the mental lexicon.

Reviewing the researchers above, it may be said that their ideas are complementary, for while Ellis and Beaton present an overarching view of the factors that may influence vocabulary acquisition, Oxford and Scarcella's and Carter's suggestions contribute to go further into the process of word acquisition. Interestingly, although in these three studies the researchers are all concerned with the facilitative conditions to promote word learning, only *word frequency* is mentioned in more than one of these works, in Ellis and Beaton's and Carter's.

"Factors influencing L2 vocabulary acquisition" completes the discussion with respect to the understanding of the complex process of acquiring FL words. The focus of the next section will be on strategies that can be taught to facilitate word learning.

2.3 Vocabulary Acquisition Strategies

Although much has still to be studied in the area of vocabulary acquisition, there are many possibilities for vocabulary development in language learning. Therefore, a significant aspect of this issue that may be added to the discussion so far, is how to teach/learn vocabulary since it is impossible for a learner to predict and know all the words he/she will encounter in texts, and for a teacher to decide what words, and all the words, his/her students will need to know in order to be able to read a text. One of the ways out to solve this difficulty seems to be to prepare the students to be independent learners, teaching them how to master a wide range of strategies in order to enable them to choose the most suitable strategy for each learning situation.

A varied range of strategies can be used to teach vocabulary independently of the teaching purpose. Anderson (1994) suggests that teaching L2 learners to use strategies is of primary importance for any learning situation, and that students should be trained not

only to choose what strategy to use and how to use it, but also to be aware of why, when and where it is prudent to use a given strategy.

Oxford and Scarcella (1994) stress that vocabulary learning strategies are effective tools to develop students' independence of the teacher, to enlarge their possibilities to learn words inside and outside the classroom, and to help them to become skillful learners.

As stated by Carter (1987), in the early stages of vocabulary learning, it is advisable to make use of strategies that can improve memorization. The most suitable, in this case, are the ones that take into account imagistic and picturable associations across L1 and L2. Also helpful is to devote particular attention to phonological patterns, if the aim is to retain a lexical store. For advanced learners, teaching words in semantic sets can be valuable, especially in the case of language production. Yet, if the purpose of the learners is reading, it is crucially important to develop the ability of guessing and of using contextual cues to make inferences, in order to prepare him/her to become a self-confident and skillful reader (Nation, 1990).

Encouraging students to reflect and document their strategies to study vocabulary, according to Sanaoui (1995), may increase their awareness of what practices are more likely to promote their progress and at the same time may provide clues for teachers to plan pedagogical actions to develop further language learners' strategies to vocabulary learning.

Strategies have been defined in different ways by different researchers. For the purpose of this study they will be defined as "deliberate actions that learners select and control to achieve desired goals or objectives"(Winograd & Hare 1988:123)[cited in Anderson (1994)].

Laffey and Laffey (1986) do not name any strategy in particular, but provide a list of characteristics to design strategies to teach vocabulary. According to them, these strategies should: (1) relate students' experiences to the new concepts arising from the subject matter of the text; (2) build subject matter concepts before exposing students to the text; (3) provide experience with technical or uncommon vocabulary before asking students to recognize and understand these terms in the text; (4) stress the prediction and the anticipation of the subject matter concepts making use of students' previous knowledge and experience; (5) provide opportunity for students to interact with each other and share their experience to discuss and clarify the facts and values of the concepts; (6) take advantage of all the opportunities that lead to peer interaction; (7) promote and support creative thinking and (8) assist students' reading of the subject matter at literal, inferential and applied levels of comprehension.

Nation (1990) indicates four strategies to help SL learners to acquire new vocabulary. They are: rote repetition (repeat the word and its meaning until it is learned), analysis of word structure (study of prefixes, roots and suffixes to learn new words), use of context (guessing of the new words meaning paying attention to the word surroundings in context), and, mnemonic approaches (creating links and making mental, verbal or visual associations between the target and the native word or phrase).

Oxford and Scarcella (1994) point out a number of useful strategies for vocabulary instruction, categorizing them as decontextualized, partially contextualized and fully contextualized strategies.

Decontextualized strategies have limited use in language classes because words are taught in isolation, not in meaningful contexts. Within this category, Oxford and Scarcella (ibid) include word lists, flashcards and dictionary use.

Partially contextualized strategies comprise word groupings, word associations, visual imagery, aural imagery, keywords, physical response and semantic mapping, strategies that, as the name suggests, provide a certain degree of context as they involve linking words and meanings. Among all these partially contextualized strategies, Oxford and Scarcella (1994) emphasize the importance of semantic mapping, because besides grouping words, this strategy also provides the visual conceptual links among words.

Fully contextualized strategies are designed to learn vocabulary by reading and listening to real and meaningful texts, by participating in real conversations, by writing purposeful texts, or by participating in authentic communication activities that provide complete contexts to unlock the meaning of unknown words.

Among these authentic communication activities, Oxford and Scarcella (ibid) recommend regular sustained extensive reading, a sort of practice which, they believe, is effective to promote large vocabulary development, by providing many encounters of words in different contexts, as well as offering students opportunities to relate new words to their prior knowledge in a variety of meaningful contexts.

Additionally, they suggest that the most helpful strategy in this category is guessing from context, for this strategy is rather appropriate to boost vocabulary improvement and may lead teachers to spend the necessary time to practice with their students when to ignore, or when to guess the meaning of unknown words from context, as well as how to take profit of the contextual cues provided, until students are ready to use this strategy independently in order to learn words by themselves.

As the purpose of this study is to facilitate vocabulary acquisition of Brazilian fifth graders through reading, and as I would like to keep in agreement with the recommendations related to vocabulary instruction reviewed above, I chose the Verbal Imagery Mnemonics and the Guessing from Context strategies to carry out the present

investigation. The Verbal Imagery Mnemonics strategy was chosen for two reasons. The first is because, although it provides only a certain degree of context, it is believed to be useful for the early stages of vocabulary acquisition to increase word memorization (Carter, 1987). The second is because, according to Cohen (1987), students who are to learn vocabulary should be trained first to remember the new words, to just then be prepared to recognize and use them appropriately.

The Guessing from Context strategy was selected firstly because it is in accordance with the current view of reading, that poses the importance of the interplay between the information printed in the text and the reader's prior knowledge. Secondly, because it is a fully contextualized strategy that can make learners aware of context and help them take profit of the clues provided by the text, as well as to relate the new words to their prior knowledge. Finally and above all, because this kind of strategy is appropriate, after some training, to enable students to learn words by themselves, and to prepare them to become independent readers. In short, I decided to investigate these two strategies, because I think both can contribute to enlarging vocabulary knowledge and consequently to improving reading comprehension.

2.3.1 The Verbal Imagery Mnemonics Strategy

For Cohen and Aphek (1980) and Cohen (1987), verbal imagery mnemonics, or keyword mnemonics, is a strategy in which associative mnemonic links are used as mediators between what is known and what is to be learned, allowing the learner to accomplish an extensive and deep analysis of the foreign word in order to facilitate learning.

As the name suggests, this strategy may be operationalized in two stages: the acoustic link stage and the imagery link stage. In the first stage, the learner is asked to

associate the foreign word (nominal stimulus) to a familiar keyword (functional stimulus), which is a native-language word or phrase whose sound is similar to the sound of the target word. In the imagery link stage, the learner is led to create an interactive image between the keyword and the native word or phrase, if the word to be learned is a concrete word. For abstract words it is recommended first to relate the unfamiliar word sound to the sound of a more concrete concept or word in the native language, and only at a later stage to link it to an image of the more abstract word.

2.3.2 The Guessing from Context Strategy

In the guessing from context strategy, according to Clark and Nation (1980), the learner is led to pay attention to: (1) the unfamiliar word and its surroundings to establish the part of speech to be studied; (2) the immediate word grammatical class to suggest, at least, a close meaning to the target word, so as to have a general understanding of the passage; (3) the wider context to become aware of the inter-relationships among words within the sentences, and between one sentence and another; and (4) the unfamiliar word, in an attempt to firstly predict its meaning to later on confirm if the guess is correct or not.

In the view of Clark and Nation (ibid), this strategy is useful to help students (1) to realize that words may have different meanings depending on the context; (2) not to be so concerned about the exact meaning of a certain word in a certain context; (3) to avoid the dictionary, saving time and learning to read without interruption and (4) to have some information about a word from its use in context, before going to the dictionary (only when it is necessary). In sum, guessing from context is indicated to train FL learners to expand their vocabulary by themselves and to read more efficiently.

In chapter 2, relevant aspects of the FL teaching/learning context, such as the reading process (2.1), vocabulary acquisition (2.2) and vocabulary acquisition strategies (2.3) were taken into consideration, so as to give an overview of the subject matter of the present study: FL vocabulary acquisition strategies to teach English words through reading.

CHAPTER 3

METHOD

In chapter 3, I present information about the experiment describing, the subjects' profile and the conditions in which the study was carried out. The materials and criteria used to collect the data, as well as the procedures that made it possible to accomplish this investigation, are also described in this chapter.

3.1 Subjects

The subjects of this investigation were 86 fifth grade students enrolled in three different classes at *Centro Educacional Vidal Ramos Jr.*, a public state school in Lages, Santa Catarina. However, from the total of 86 subjects, only 53 of them, who had never studied English before and were attending the 5th grade for the first time, were taken into consideration in terms of results. This selection was necessary since the goal of the present study is to deal with real beginners. From the sample population studied, 43 participants were from 10 to 12 years old and the remaining 10 were: 13 years old (5 subjects), 14 years old (2 subjects), 15 years old (2 subjects) and 18 years old (1 subject) who, although physically and mentally disabled, according to the school criteria was not below the mental average age established for fifth graders). All these fifth graders are native speakers of Brazilian Portuguese who do not know any other language, and almost all of them belong to lower class families who can not afford any other means of education for their children.

The methodology adopted by the English teachers working with these subjects consisted mainly of having students perform tasks related to grammar exercises, memorization of individual words about the school environment and every day life, and read and answer literal questions about texts that are not authentic, that is, texts extracted from textbooks basically designed to teach grammar under the structuralist view of language teaching.

3.2 Materials

The materials used in this experiment consisted of: (1) two personal questionnaires in Portuguese, one for the students, in order to get their profile, and another one for the English teacher of each group, aiming at gathering information about these teachers' experience, their beliefs about teaching English, the methodology used in class and the course program (See Appendix C); (2) an authentic expository text in English followed by 6 overall comprehension questions written in Portuguese (See Appendices A and B); (3) 26 sample sentences divided into two groups of 13 (one group in English and the other in Portuguese) each of them containing 13 keywords from the text, to provide training in the Verbal Imagery Mnemonic and the Guessing from Context strategies (See Appendix E); and (4) a set of 4 vocabulary tests, involving the same keywords of the sample sentences (See Appendix F).

The major criteria in the selection of the text for the present study were the following: (1) the text should be authentic, interesting and updated, with plenty of cognates; (2) it should be appropriate in terms of theme, vocabulary difficulty and length for English beginning students from fifth grades; and (3) the keyword vocabulary in it should be suitable to work with both the Verbal Imagery Mnemonics strategy and the Guessing from Context strategy. After choosing a text with the characteristics above

(See Appendix C), the researcher submitted it, together with the tests concerning the experiment, to the appreciation of the subjects' English teachers, who approved the tests as they were prepared, but suggested an adaptation of the text, shortening it from 250 words to around 150 words. According to these teachers, there were many superficial ideas in the text that could be eliminated in order to make it easier to be read and to be understood by their students.

The keywords were selected according to their level of difficulty and importance for the general comprehension of the text. In order to prepare the comprehension questions, the experimenter tried to formulate questions that could cover the main aspects of the topic "France" approached in each paragraph, in order to offer the reader an overview of the text.

3.3 Data Collection

The present study was carried out in real classroom settings, during three different sessions, which involved all the students from 5th grade 2 (Group 1), 5th grade 3 (Group 2) and 5th grade 4, this last one, divided into Group 3 and Group 4. In the first session (last week of July 1998), the students and the teachers were administered the personal questionnaire to fill out. In the second session (mid-September 1998), all four groups received the same text: "France" to read and to answer the comprehension questions, but Groups 3 and 4 were also given sample sentences for training in the Verbal Imagery Mnemonics strategy and the Guessing from Context strategy. The third session was carried out a week later, when Group 3 and Group 4 were asked to perform additional different tests, tests 2, 3, 4 and 5 which involved respectively, vocabulary recognition from a list (test 2), vocabulary translation from a list of words (test 3),

vocabulary recognition and translation from sentences (test 4) and text comprehension and retention of information through a T/F test (test 5) (See Appendix F).

In order to make the procedures and the design of the experiment clearer, I will firstly, explain the reasons why just groups 3 and 4 were chosen to participate in the third and last sessions of the experiment, to then display in a table the distribution of the groups, the sessions and the activities in each of the sessions.

The last part of the experiment was carried out with groups 3 and 4 only because: (1) the objective of this study was to investigate the facilitative effects of the Verbal Imagery Mnemonics and Guessing from Context strategies, (to which just Group 3 and Group 4 were exposed), on the retention of EFL vocabulary, as well as on the reading comprehension performance of the Brazilian fifth graders, subjects of this experiment; (2) as groups 1 and 2 were not exposed to these strategies, it would be impracticable to ask the subjects

to recognize and translate words they had not seen before; and (3) the answers to the research questions of the experiment may be arrived at only by analyzing results derived necessarily from the application of these two strategies. The design of the present study is shown in Table 1.

Table 1 - Design

	Group 1 Glossary	Group 2 Previewing	Group 3 VI Mnemonics	Group 4 Guessing Context
1st session	Interview	Interview	Interview	Interview
2nd session	BRS T CQ	BRS P T CQ	BRS P VI T CQ	BRS P G C T CQ
3rd session			VRL VTL VRTC T/F	VRL VTL VRTC T/F

I– Interview
BRS – Basic Reading Strategies
P – Previewing
VI – Verbal Imagery Mnemonics
GC – Guessing from Context
T – Text
CQ – Comprehension Questions
VRL – Vocabulary Recognition in List (list of the keywords from the text)
VTL – Vocabulary Translation in List (list of keywords from the text)
VRTC – Vocabulary Recognition and Translation in Sentences (keywords from the text in sentences
T/F – True/False sentences

3.4 Procedures for the first session

This first session lasted one 60-minute class. The researcher went to each group's classroom, explained the objectives of the investigation, the importance of the students' and their English teacher's participation and the steps of the experiment. Next, both teachers and students were given the questionnaires to be answered (Appendices A and B).

3.5 Procedures for the second session

Considering that the sample population of this investigation (1) was used to working with texts under the traditional view of reading; (2) was beginning to learn the English language; and (3) was not acquainted with reading FL authentic texts, the experimenter decided to practice some basic reading strategies with each of the four groups at the beginning of the second session. This procedure was an attempt to minimize possible difficulties, on the part of the students, to read and to interpret the text of the experiment. In order to accomplish this goal, they were told to pay attention to the title, cognates, proper nouns, number of paragraphs and different aspects of the topic in each paragraph, before actually reading the text.

Group 1 – (Glossary)

These subjects did not receive any treatment in relation to vocabulary strategies, only the basic reading strategies mentioned above, and they were given the text "France" with a list of keywords in English with their respective translations. In the first 20 minutes they were prepared to read "France", the text to be studied, with some basic reading strategies. After reading, they had to answer 6 overall comprehension questions, in Portuguese, about the text. To read the text and to answer the questions, the students had around the last 40 minutes of the class.

Group 2 – (Previewing)

Firstly, the group was prepared to read "France" with some basic reading strategies (10 minutes) and another 10 minutes, with some oral previewing, which consisted of two activities. First, as a way to introduce the discussion about the text to be studied, the experimenter asked questions about the "World Cup" and about France,

the country where the event had taken place; and second, the students were shown maps of France and Europe, in order to activate their prior knowledge and offer them other cues about the text's content. Next, the students received the text followed by 6 overall comprehension questions (the same questions of the previous group). Finally, they were given the last 40 minutes of the class to read the text and to answer the questions.

Group 3 – (Verbal Imagery Mnemonics strategy)

As with the previous group, this group was also prepared to read the text "France" and to answer the 6 overall comprehension questions, with some basic reading strategies (10 minutes) and oral previewing (10 minutes) about the text's content. Before receiving the text, they were trained during 40 minutes to retain the text's unknown keywords through the Verbal Imagery Mnemonics strategy. As training, the experimenter used 3 sample sentences written in Portuguese, with one English keyword each, to demonstrate how to read and understand the sentence by relating the sound of the English keyword to its Portuguese counterpart (both boldfaced in the text) and forming an image of the situation proposed in the sentence, as for example: "Anunciaram na televisão: **Snow** (se não) chover, vamos ter **neve**". Next, 10 other sentences with 10 different English keywords were handed out to be practiced (See Appendix E), aiming at leading the students to retain these words and to enabling them to read and comprehend the text better. Finally, as the other two groups, they were given 40 minutes to accomplish the reading comprehension test.

Group 4 – (Guessing from Context strategy)

Group 4 had the same distribution of time and received the same treatment adopted with Group 3, varying only on the kind of vocabulary strategy, which, in this

case, was the Guessing from Context strategy. The researcher trained Group 4 to retain the same keywords in the text, using other 13 sample sentences, this time, written in English (See Appendix F). First, the experimenter showed how to work the strategy with 3 of these sample sentences written on a poster, asking the students to read these sentences, paying special attention to the words that were underlined and those which were boldfaced. Then, the participants were led to guess the meaning of the boldfaced word, relating it to the other underlined words and to the context of the sentence. Finally, they were stimulated to translate the whole sentence. After this training, the subjects were given a handout with the remaining 10 sample sentences to practice the strategy. In the next and final step of this session, they received the text with no word list, and with the 6 overall comprehension questions to answer.

3.6 Procedure for the third session

This 60-minute third session was designed to verify the effect of the two vocabulary acquisition strategies on the retention of the English text keywords, as well as on the reading comprehension and retention of information, a week after the teaching session had taken place.

This last part of the experiment was carried out with Groups 3 and 4 only, performing four activities. Firstly, they received a list of 20 words from the text, in which the 10 keywords studied in the previous class were included, and they were asked to recognize these key words and underline them. Secondly, they were given only these keywords to translate. Thirdly, the subjects received 10 sentences in English, one for each of these keywords, and were asked again to recognize and translate the keyword within these sentences. Finally, the researcher gave the students a 10 sentence

True or False test, in which they were asked to correct the ones that were not in accordance with the text previously studied.

CHAPTER 4

RESULTS AND DISCUSSION

The discussion in Chapter 4 will focus on the results of the experiment which show the subjects' performance on the tests of immediate reading comprehension, vocabulary retention and retention of information, with a one week delay. The analysis carried out in this chapter is divided into two sections. In the first section (4.1), I briefly describe each of the tests applied in the experiment and present the tables with the respective results aiming at offering an overview of the investigation and providing data to answer the research questions. Next (section 4.2), I retake each of the research questions posed in the study and answer them in the light of the literature in the area..

4.1 Tests and Tables

Test 1 – Immediate Comprehension Questions

Test 1, which consisted of the application of six overall comprehension questions to all four groups, was applied in the second session of the experiment, with the objective of comparing the performance of Groups 1, 2, 3 and 4 regarding text comprehension, immediately after the reading of the text.

Now, in order to remind the reader of the treatment to which the subjects performing this test were submitted to, let us first explain the procedures that were common to the four groups, and then report in detail how each group was prepared to accomplish the test.

As explained in the "Method" chapter, in the second session of the experiment, groups 1, 2, 3, and 4 were all prepared to read the same text "France" and to answer the same six overall comprehension questions, with the same basic reading strategies. This procedure was adopted to prevent the students of feeling unconfident in relation to the task they were about to perform, since they were real beginners who were not used to reading in a FL, nor to dealing with authentic FL texts.

Group 1 – The nineteen subjects of this group were given the text "France" including a glossary of the keywords, with the goal of comparing the effectiveness of the glossary with the treatments to which groups 2 (control), 3, and 4 were submitted .

Group 2 - In this study, Group 2 was used as the Control group, and did not receive any treatment at all in terms of vocabulary instruction. The fifteen subjects of this group were only encouraged to bring their prior knowledge about the country which was the winner of the World Cup in 1998 to the text with some previewing, and then were asked to read the text in order to answer the questions.

Groups 3 and 4 - Group 3, formed by eleven students, and Group 4, by eight subjects, were also led to bring their prior knowledge to the text with some previewing, as it had been done with Group 2. Furthermore, after being motivated and prepared to read, they were helped by the experimenter to grasp the meaning of the keywords in the text, with training in Verbal Imagery Mnemonics (Group 3) and Guessing from Context (Group 4), the two vocabulary acquisition strategies. The next and final step of this test was the reading activity.

The results obtained in this test, immediate comprehension questions, are shown in Table 2.

Table 2 - Number of questions answered correctly

Description	Total Number of Subjects	Total Number of Questions	Total Number Of Correct answers	Percentage of Correct answers
Group 1	19	114	52.5	46.00%
Group 2	15	90	29	32.22%
Group 3	11	66	34.5	52.27%
Group 4	8	48	23.5	48.95%

As seen in Table 2, Group 1, which was allowed to look words up in the glossary while reading, was able to answer 46% of the questions; (2) Group 2 which did not receive any treatment at all in terms of vocabulary, answered 32.22% of the questions correctly; (3) the group that was trained with the Verbal Imagery Mnemonics strategy (Group 3) achieved the highest score, with 52.27% of correct answers, and (4) the Guessing from Context group (Group 4) was second in the ranking of the comprehension questions, with a score of 48.95% of correct answers.

Test 2 – Vocabulary recognition in a list

From test 2 on, as explained in the Data Collection section, this experiment was carried out just with groups 3 and 4 because these activities and the subsequent ones were designed to verify the effectiveness of the Verbal Imagery and Guessing from Context strategies on the retention of the English keywords, and the overall ability of these subjects to retain textual information, after a one week interval.

Tests 2, 3 and 4 were used to evaluate the effects of the Verbal Imagery Mnemonics and Guessing from Context strategies on the recognition and translation of new words, after one week delay. The data provided by the application of these three tests will be

examined from three different angles, namely number of words retained, factors influencing the retention of these words, and the performance of each group with the words actually retained. The eleven subjects from Group 3 and the nine from Group 4 performed test 2, trying to identify the form of 10 keywords from the text out of a list of 20 words. In test 3, these subjects were asked to translate the keywords that were supposed to have been recognized in the previous test, and finally, they performed test 4, recognizing and translating the same keywords, this time embedded in sentences.

The results achieved with these tests are displayed on Tables 3 and 4, and one of the ways to look at these tables is to compare the overall results in word retention including each group's achievement in recognition and translation as a whole, and to contrast the partial results, that is, each group's performance in word recognition and translation as different steps of word acquisition. Another way to examine these tables is to compare the outcomes of the same group in recognizing the form of the words and in translating them.

Table 3 – Number of words recognized and translated on a list

Description		Partial Results		Overall Results	
Group 3	Word recognition	84.54%			
			Difference. 0.91%	84.08%	
	Word translation	83.63%			
Group 4	Word recognition	80.00%			Difference 1,27%
			Difference. 5.62%	82.81%	
	Word translation	85.62%			

Table 3 clearly shows that (1) taking into account the overall results (word recognition and translation as a whole), there was a balance in the performance of both

groups, since the difference between Group 3 and Group 4 was only 1.27% in favor of the former group; (2) considering the partial results (recognition and translation as different steps of word acquisition), while Group 3 was better in recognizing the form of words , Group 4 was superior in giving the meaning of them (84.54% - 80.00%); and (3) regarding performance within the group in recognition and translation, the Verbal Imagery Mnemonics group (Group 3) achieved almost the same score in both testing situations (84.54%-recognition, 83.63% -translation) while the Guessing from Context group showed a 5.62% difference in these abilities (85.62% translation –80.00% recognition).

Table 4 – Number of words recognized and translated in sentences

Description		Partial results		Overall Results	
Group 3	Word recognition	86.36%			
			Difference. 21.82%	75.45%	
	Word translation	64.54%			
Group 4	Word recognition	92.50%			Difference 9,55%
			Difference. 15.00%	85.00%	
	Word translation	77.50%			

The results from Table 4, which shows the outcomes of groups 3 and 4 in the sentences, are more contrasting than those presented in Table 3, showing the superiority of Group 4 not only in the overall results (85.00% - 75.45%), but also in the partial results, both in recognition (92.50% - 86.36%) and translation of words in sentences (77.50% - 64.54%). Additionally, these results also indicate that both groups were more competent in recognizing the words than in translating them.

Yet, it is also relevant to present the results related to word retention, in order to account for the performance of Groups 3 and 4 with each of the words to be retained, for these data may indicate the words that were easier to be retained by a larger number of subjects. Furthermore, these results may also provide additional rich elements to accomplish the goal of this experiment, that is to verify the facilitative effects of the Verbal Imagery Mnemonics and the Guessing from Context strategies on the retention of the EFL vocabulary.

Tables 5 and 6 display the overall performance of the subjects from both groups, with each of the words that were supposed to be retained.

Table 5 - Overall performance of Group 3 (Verbal Imagery Mnemonics) in vocabulary recognition and translation: Percentage of subjects retaining words on a list and in sentences.

Description	Group 3 List			Group 3 Sentence		
	Recognition of Form	Recall of Meaning	Overall Results in List	Recognition of Form	Recall of Meaning	Overall Results in Sentences
Olive trees	81.81%	90.90%	86,35%	81.81%	81.81%	81.81%
Soil	81.81%	72.72%	81.81%	81.81%	54.54%	68.17%
Ski	81.81%	63.63%	72.72%	81.63%	63.63%	72.72%
Grape	90.90%	90.90%	90.90%	81.81%	63.63%	72.72%
Snow	72.72%	72.72%	72.72%	81.63%	63.63%	72.72%
Wine	63.63%	90.90%	77.26%	81.81%	54.54%	68.17%
Cooking	81.81%	90.90%	86.35%	90.90%	72.72%	81.81%
Border	90.90%	72.72%	81..81%	63.45%	45.45%	54.45%
Country	81.81%	81.81%	81.81%	90.90%	54.54%	72.72%
Winter	63.63%	63.63%	63.63%	90.90%	54.54%	72.72%

The results displayed in Table 5 clearly show that: (1) more than 70% of the subjects were able to retain nine (9) out of the ten (10) words included on a list, and seven (7) of those presented in sentences; (2) four (4) words in the list testing situation and one in the sentence testing situation were recognized and translated by the same number of subjects; (3) while **grape** was shown to be the easiest word to be retained on a list, **border** was the most difficult in the sentence testing situation; and (4) a higher number of subjects retained a higher number of words in the list testing situation than in the sentence testing.

Table 6 - Overall performance of Group 4 (Guessing from Context) in vocabulary recognition and translation: Percentage of subjects retaining words in a list and sentences

Description	Group 4 List			Group 4 Sentence		
	Recognition of Form	Recall of Meaning	Overall Results in List	Recognition of Form	Recall of Meaning	Overall Results in Sentence
Olive trees	100%	100%	100%	100%	87.50%	93.75%
Soil	87.50%	62.50%	75.00%	100%	75.00%	87.50%
Ski	100%	75.00%	87.50%	100%	100%	100%
Grape	75.00%	75.00%	75.00%	87.50%	75.00%	81.25%
Snow	87.50%	87.50%	87.50%	87.50%	87.50%	87.50%
Wine	62.50%	87.50%	75.00%	87.50%	87.50%	87.50%
Cooking	100%	100%	100 %	100%	100%	100 %
Border	62.50%	100%	81.25%	100%	62..50%	81.25%
Country	75.00%	75.00%	75.00%	75.00%	37.50%	56.25%
Winter	87.50%	87.50%	87.50%	100%	62.50%	81.25%

Table 6 shows that: (1) all the words included on the list testing situation and nine out of the ten words in the sentences were retained by more than 70% of the subjects; (2) the subjects' performance was uniform with six of the words present on a

list and with four of those included in sentences; (3) 100% of the subjects were able to retain two words either on the list or in sentences; and (4) **cooking** was the easiest word for Group 4, and **country** the hardest to be retained.

As can be seen on Tables 5 and 6 above, many different criteria may be adopted to analyze these results. Therefore, it is important to include some comments here, so as to explain the procedures that will be adopted in section 4.2 to discuss the data displayed on these two tables.

First, in order to keep in accordance with the assumption adopted in the present experiment that knowing a word means "knowing how it is spoken in the language and how it is spelled in the written language" and that an individual does "know a word when he/she is able recognize it when it is heard or seen, as well as to translate it, matching it to its native language correspondent" (Nation, 1990), only the words retained by more than 70% of the subjects from each group, in each test, will be taken into consideration as known, in the present discussion.

Second, as the major concern of this study is to investigate the effectiveness of the Verbal Imagery Mnemonics and Guessing from Context strategies for FL vocabulary acquisition, and one of the issues that was chosen to be discussed in the review of literature so as to lay the ground for the experiment was factors influencing vocabulary acquisition, for the scope of the present analysis, I will also discuss what factors might have affected the present results and to what extent the characteristics of each strategy have played a role in the retention of the words studied.

Still for effect of analysis, I will examine the words whose scores were equal in both recognition and translation, and then those ones that presented different ratings in each of the situations.

After laying the ground to analyze the results regarding word retention, lets turn our attention to Test 5, the last test of the experiment.

Test 5 – T/F sentences

In test 5, the students from Groups 3 and 4 were given ten T/F sentences about the text to identify the correct ones and to rewrite those containing the distracting information. The use of a T/F sentence test in this experiment aimed at checking the subjects' comprehension and retention of information, after a one week delay, and indirectly, the students' ability to retain words in order to grasp information from the text.

The findings drawn from the application of Test 5 are showed in Table 7.

Table 7 - **Percentage of correct answers in the T/F test**

Description	Percentage of correct answers	
Group 3	83.18%	Difference 8.81%
Group 4	74.37%	

As can be seen in Table 7, both groups, the Verbal Imagery Mnemonics (Group 3) and the Guessing from Context (Group 4) may be considered efficient in the accomplishment of the T/F test. The effectiveness of Group 3, however, was more evident, since this group out-performed Group 4 by 8.81% percentage points.

Section 4.1 presented an overview of the results regarding immediate reading comprehension, vocabulary retention and retention of textual information, as a means of laying the ground for the discussion that is going to be carried out in the next section

In section 4.2, the focus of the present chapter will be set sharply on the research questions, retaking and discussing each one of them

4.2 Research Questions

4.2.1 Research Question 1

Is vocabulary instruction effective to improve EFL text comprehension?

Question 1 will be answered based on the performance of the subjects from the four groups (Group 1- glossary, Group 2 - control, Group 3 - Verbal Imagery Mnemonics and Group 4 - Guessing from Context) regarding the results obtained in text comprehension. These results (Table 2), were obtained through the application of the six overall comprehension questions (Test 1- Appendix F.) immediately after reading

Therefore, concerning vocabulary instruction, the overall results of the present study suggest first that teaching vocabulary acquisition strategies improves immediate text comprehension since the groups that were trained with the vocabulary acquisition strategies (Groups 3 and 4) performed 6.27% and 2.55% points better than Group 1 (list of vocabulary - glossary), and 20% and 16% points better than Group 2 (no treatment at all). These findings may be especially interesting because despite the modest difference between the performance of Groups 3 and 4 in relation to Group 1, there was a considerable difference between these two groups trained with the vocabulary acquisition strategies and Group 2, the group which received no treatment at all.

A possible explanation for the discreet variation in the performance of the groups that received vocabulary acquisition strategies instruction in relation to Group 1 is that while this group could look up the unknown words during the reading test, Groups 3 and 4 had to work by themselves to recall the meaning of the unknown words, in order to accomplish the same test. Another likely factor that might have influenced the results is that all the four groups were equally exposed to the reading strategies. As a consequence, in a certain way, it may be said that Group 1 was favored twice, because

they were prepared to read the text just as the others (reading strategies) and were allowed to look up the words while reading and answering the questions.

Regarding the considerable out-performance of Groups 3 and 4 in relation to Group 2, on the other hand, the results tend to confirm the assumption posed as the basis of this investigation that there is a close relationship between reading and vocabulary acquisition as well as, between vocabulary knowledge and reading comprehension. In other words, these results corroborate the assumption that a large number of words may be acquired through reading and as a consequence, the more an individual reads, the richer his/her vocabulary, and the better his/her vocabulary knowledge, the easier it is to understand a text.

A second interpretation for the findings is that teaching vocabulary acquisition strategies seems not only to facilitate immediate text comprehension but also the retention of information from texts, since as can be seen in Table 7, Group 3 was successful in 83.18% of the T/F sentences and Group 4 of a 70.33% of this test applied a week after the first session of the experiment. Additionally, the statement posed above about the effectiveness of vocabulary instruction on the delayed comprehension and retention of text information may be confirmed by contrasting the results from Table 2 with the results from Table 7. Comparing these two tables, one may conclude that Groups 3 and 4 were not only successful in comprehending the text, but also that they were able to out-perform themselves in relation to the first test, in the first session of the experiment, when these subjects had been exposed to the vocabulary acquisition strategies before reading the text. According to this researcher, this "self out-performance" may be another evidence of the usefulness of vocabulary instruction not only to improve FL learners' ability to comprehend texts, but also to help them to retain

information from texts over time, two skills that play a decisive role on the learners' intellectual development.

Finally, these findings also suggest that knowing the text's keywords facilitates text comprehension since the groups that were trained to memorize these keywords by means of the Verbal Imagery Mnemonics and the Guessing from Context strategies answered a higher number of questions correctly, in relation to the other two groups, Group 1, the group that had access to the glossary with the keywords while reading and answering the questions, and Group 2 that had no treatment at all.

The results related to this question are not surprising for they are in line with the view of some researchers reviewed for the present study. Firstly, it may be said that these findings point to McKeown and Curtis' (1987), Nation's (1990), Grabe's (1991) and Aebersold and Field's (1990) beliefs, who pose that one of the objectives of vocabulary instruction should be to help learners understand what they read. Second, it may be asserted that the findings go along with the position of Oxford and Scarcella (1994) for whom one of the most appropriate vocabulary acquisition strategies to help students to learn vocabulary by reading real and meaningful texts is the Guessing from Context strategy. Third, it may be conjectured that these results corroborate Carter's (1987) claims that the use of the Verbal Imagery Mnemonics is useful to increase word memorization in the early stages of vocabulary acquisition. Fourth, these findings are in agreement with Cohen (1987), who stresses the importance of word memorization as the first step of vocabulary acquisition. And last but not least, they substantiate Just and Carpenter's (1987) assertion that FL students must read a great deal and know a large amount of vocabulary, as earlier as possible.

As a whole, going back to each of the considerations above, the answer that seems to be the most appropriate to this first research question is that, in the universe of the present study, vocabulary instruction was effective to improve text comprehension.

4.2.2 Research Question 2

Is Verbal Imagery Mnemonics an appropriate strategy to make Brazilian fifth graders retain EFL vocabulary and comprehend texts better?

On the basis of the results achieved by Group 3, the group exposed to the Verbal Imagery Mnemonics strategy (used in this experiment to facilitate the retention of the keywords in the text as a form to improve reading comprehension) may be thought of as profitable because of the clear superiority (20.05%) of the Verbal Imagery Mnemonics over Group 2 (no treatment at all) (See Table 2). This brings to the forefront the debate about the relationship between vocabulary knowledge and reading comprehension, giving support to the views of researchers such as Anderson (1994) and Nation (1990), among others, who suggest that learning vocabulary improves reading ability, and that processing new words actively is not only a means to enhance vocabulary knowledge, but also a way to increase reading comprehension.

Still apparently relevant to explain the positive performance of Group 3 is to consider the characteristics of the Verbal Imagery Mnemonics strategy, a strategy designed to lead learners to create links and make mental associations, be it verbal or visual or both, between the unknown words present in a sentence and the native language words or phrases (Nation, 1990). Therefore, as this strategy is also meant to foster imagistic and picturable associations between the target and the native language (Carter, 1987), it follows that it might also have played a role in the association of the

information comprised in the text with the learner's background knowledge, so as to make text comprehension possible.

The outcomes of Group 3 with respect to word retention indicate the efficacy of the use of the Verbal Imagery Mnemonics, since 84.00% of the words studied in class were retained when presented on a list and 75.45% of them, when included in a sentence. These results are consistent with the views of Avila and Sadowski (1996), and Brown and Perry (1991), for whom the use of Verbal Imagery facilitates the recall of vocabulary, as well as those of Carter (1987) and Cohen (1987), who suggest respectively, that this strategy may increase word memorization in the early stages of vocabulary acquisition and that the first step to make students learn vocabulary is to train them to remember the new words they are getting in touch with.

Furthermore, regarding these subjects' satisfactory performance with each of the words to be retained (See Table 5), it may be said that the results tend to go along with the views of researchers such as: Craik and Lockhart (1972), who suggest that the use of mnemonic devices are useful to memorize words because during this process, they increase the duration and strength of memory traces, leading learners to analyze words more deeply so as to facilitate their retrieval; Carter (1987), for whom this strategy stimulates imagistic and picturable associations between the target and the native language, and Cohen (1987), who posits that the Verbal Imagery Mnemonics strategy gives learners support to make the necessary acoustic and imagery links to memorize and retrieve the words to be learned.

Given the results shown in table 5, and based on what was discussed so far, it might be argued that the difference in the number of words retained in tests 2 and 3 (word recognition and translation in a list) and test 4 (word recognition and translation in sentences) may be due to the characteristics of the Verbal Imagery Mnemonics to

which Group 3 was exposed, and to several factors, or conditions (reviewed in chapter 2) that play a role on the process of FL vocabulary learning.

As noted earlier, the Verbal Imagery Mnemonics strategy is meant to facilitate the memorization of words by leading the learner to use associative mnemonic links (the foreign word or *nominal stimulus* and the familiar native keyword or *functional stimulus*) as mediators between what is known and what is intended to be learned.

An influential evidence deriving from the characteristics of this strategy may be related to the features of the *functional stimulus* (the keyword in the native language) and the *sentence stimulus* (the sentence in which the target word was included) that were used to provide the necessary verbal and imagery interaction to make the retrieval of the native language equivalent word possible. In terms of the Verbal Imagery Mnemonics strategy, all the keywords and sentences chosen to prepare the students to memorize the to be learned words were suitable to create acoustic and visual links to perform a deep cognitive analysis of the target word and to generate the demanding connections in order to make the retention successful (See Appendix E).

After reviewing the characteristics of the Verbal Imagery Mnemonics and the particularities of it that might have influenced the results, let us turn the focus of the discussion to the factors that contributed to the retention of the words displayed in Table 5.

As can be seen on table 5, the words that were retained by more than 70.00% of the subjects in the list task were: **grape, country, snow, olive trees, cooking, border,** and **soil,** and those retained in the sentences task were **olive trees, cooking, ski, grape, snow, country and winter**. Examining these words in the stimulus sentences and in the test sentences (in which each of them were included), it is possible to suggest that they altogether were apparently retained thanks to the following factors: (1) order of

acquisition and grammatical class – all of them are nouns (with the exception of **ski**) and according to researchers, they are, together with adjectives, the first part of speech to be acquired; (2) attention, interest and saliency given to the word – according to Craik and Lockhart (1972) remembering a word is dependent on the amount of attention that is given to an item and the effort that is used to recall it – as the learners were motivated to play with these words before reading the text in order to retain them, they probably paid the required attention to them; (3) degree of imageabililty – all words, except border and country are nouns easy to be imagined; (4) ability to inter-relate words in the mental lexicon and to make connections between the FL and the native word – if the subjects were able to recognize and translate these words, it means that they were able to make connections and elaborate them in their mental lexicon; (5) previous language background knowledge – the words retained were already part of the learners' vocabulary knowledge in their native language and (6) word length – the fact that these words are short might have also contributed to their retention (this last factor is not applicable to cooking and olive trees) .

Let us now discuss the words whose scores were different, in each condition, in detail. As Table 5 clearly shows, a different number of subjects were able to either recognize the form or to recall the meaning of six words checked in tests 2, 3, and 4. Moreover, it is also evident from this table that, the subjects' performance with the words **olive trees** and **cooking** was exactly the same in tests 2 and 3, with a score of 81.81% for form recognition and 90.90% for meaning recall

These data lead us to several possibilities of interpretations. The first one that is worth commenting is regarding **cooking.** This word is the only word that can be considered as retained by Group 3 within the criteria established in the present study, for it was recognized and recalled by more than 70.00% of the subjects in each of the tests

in which its retrieval was required. As seen in Table 5, the number of subjects retaining this word was: 81.81% (recognition) and 90.90% (translation) on the list task and 90.90% and 72.72% in the context of sentences Therefore, two pertinent questions that may arise from these results are: Why only this word was retained regarding the criteria established in this study? What features of this word and what external factors facilitated its retention? One of the possible ways to find the answer to these questions is to examine the word from the following perspectives: first, its own characteristics in relation to the characteristics of the other words; second, examining the native language keyword (functional stimulus) and the sentence used as a mnemonic device to provide the "environment" so that it could be retained and finally, analyzing it in the test sentence context used to verify the effectiveness of the treatment strategy on its retention.

Comparing **cooking** to the other words from Table 5, apparently no particular feature seems to have played a part in its retention besides the factors that were believed to predispose the memorization of the other words in the same conditions. The most probable explanation, therefore, seems to remain on the acoustic and visual stimulus provided by the keyword **"mestre cuca"** and by the sentence **"O mestre cooking (cuca) é um especialista em culinária e gosta de cozinhar"** used as mediators between the unknown "cooking" and the native equivalent.

A second relevant component that have taken a part on the acquisition of **"cooking"** could have been the test sentence **"Bahia's cooking is delicious"** which may have been very easy to understand thanks to the words **"Bahia"** and **"delicious".** First of all, because they were close to the target word; second, possibly because the subjects, as Brazilians, are used to associate **"Bahia"** to fun, beaches, music and

delicious food, and third, in this context, **"delicious"** must have reinforced the idea of food, contributing to form the required image of cooking.

Following this line of reasoning, with regard to the factors affecting the retention of **olive trees, border** and **soil**, as a whole, it seems that they have also been influenced by basically the same factors that have played a role with the other words above. Individually, however, it appears that **border** and **soil** were additionally facilitated by the similarity between the sound and spelling in English of each of these two words and, in the case of **soil**, by the similarity of its form in English and Portuguese. But, despite what was already said about **"border",** it deserves special attention because the performance with this word was rather surprising. While the scores achieved in Tests 2 and 3 were among the highest, 90.90% in form recognition and 72.72% in meaning recall, in Test 4 (sentences), it was the word with the lowest percentages 63.63% (form) and 45.45% (meaning). Now let us try to understand this discrepancy.

Border

Stimulus sentence - A **border** de um Boeing a Seleção Brasileira de Futebol cruzou **fronteiras** para chegar à França.

Test sentence - Foz de Iguaçu forms Brazil's border with Paraguay.

If the stimulus word "**bordo**" has played its role on the retention of "**border**" individually, the context of the stimulus sentence may, therefore, be seen as the element responsible for the difficulty to recognize and give the meaning of it. Probably the cue words "**Foz de Iguaçu, Brazil** and **Paraguay**" instead of offering a clarifying hint to retrieve the word, caused an opposite effect. Possibly, this effect might be due, on the one hand, to the fact that these words worked as "inferring cues" (Carmine, Kameenui & Coyle, 1984) and on the other hand, perhaps because the contextual information

provided by them might have not been clear enough to activate the subjects' prior knowledge, and consequently to promote the necessary associations to accomplish the guessing.

With regard to the T/F test, the achievement of Group 3 was also rather positive, for 83.18% of the sentences were identified as correct or wrong, and were rewritten so as to be in accordance with the information in the text, results that also confirm the usefulness of this strategy for this sample population, when they were asked to recall the content of the text read in the previous session.

4.2.3 Research Question 3

Is Guessing from context a suitable strategy to help Brazilian 5th graders retain EFL vocabulary and comprehend texts better?

This question leads us to the outcomes of Group 4, the group that was exposed to the Guessing from Context strategy aimed at checking the effects of this strategy on immediate text comprehension (Test 1), retention of words (Tests 2, 3 and 4), and retention of textual information (Test 5) with a week interval.

To start this discussion, let us first examine the outcomes of this group in relation to immediate text comprehension, which was checked through the application of Test 1 (comprehension questions).

Considering the results regarding the comprehension questions, two factors are worth commenting upon. On the one hand, given the superiority (16.73%) of Group 4, in relation to Group 2, which had no treatment at all in terms of vocabulary, it may be said that this result tends to confirm the viewpoints of three important researchers mentioned in the review of literature, namely: Anderson (1994), who suggests the primary importance of teaching strategies for any learning situation; Oxford and

Scarcella (1994), who posit that vocabulary acquisition strategies are effective tools to help students enlarge their vocabulary knowledge, and Nation (1990), for whom developing learners' skill to guess the meaning of words using contextual clues to make inferences is crucial to improve reading ability.

Taking into account the group's percentage of correct answers (48.95%) in relation to the other three groups, the performance of the Guessing from Context group (Group 4) may be considered satisfactory, but not as expected if one considers the results of other studies. According to Nation (1990), guessing and using contextual clues to make inferences is one of the most helpful strategies to prepare learners to become skillful readers. Thus, it seems not easy to explain the achievement of Group 4 in the comprehension questions test, but some tentative causes may be raised. First, a presumable variable that might have affected this result was the subjects' background knowledge in English. As explained before, these subjects are real beginners, who, at the time of the experiment, had had only a few English classes with three different teachers. Second, these subjects had not read any real, authentic text yet. "France", which was taken from a junior American encyclopedia, was the first text written for real communication that they were asked to work with. And the last probable cause of this slightly poorer performance of 48.95% is the fact that they were not used to reading texts, nor to trying to have a general comprehension of them, looking for contextual clues, cognates and other text clues without the help of a dictionary.

Regarding the percentage of words retained, the results obtained by Group 4, have pointed to a strong predisposition of the Guessing from Context strategy to facilitate the retention of the unknown words from the text, since the subjects in this group were able to recognize and translate 82.82% of these words when in a list, and to identify as well as give the meaning of 85.00% of them when included in a sentence.

But what do these results suggest? First, these findings confirm the claims of several researchers extensively discussed in this study, that the Guessing from Context strategy is appropriate to help learners to acquire vocabulary. Second, this strategy showed to be slightly more effective to deal with words in context, than in a list, thanks to the peculiarities of this strategy itself, which according to Nation (1990) is suitable to lead the learner to pay attention to the context, to the relationship of words within the sentences, and to the target word's surroundings. In other words, the use of the Guessing from context strategy seemed to be likely to be appropriate to instigate the learner's visual and spatial perception from a whole contextual perspective, and consequently, once they are familiarized with this procedure, to prepare them to identify the keywords in the sentences. Third, these results suggest that the Guessing from Context strategy is likely to lead students to learn words by making inferences, and finally, that acquiring words from context may be facilitated by a previous training with this strategy.

With respect to the performance of these subjects in terms of retention of words, the findings of this experiment indicate that Group 4 had an excellent performance, for three out of the ten words of the test were retained by a 100% of its components, and more than 70.00% of the subjects retained the other words, with the exception of country. This excellent performance of Group 4, regarding the words retention might also be due to the characteristics of the Guessing from Context strategy as noted in the previous paragraph. Additionally, these high percentages suggest that the kind of sentences used to teach these words (See Appendix E) have provided the necessary context to make inferences and to relate the unknown words to their native language correspondents, as well as the necessary training to recognize them in a list, or to recall their meaning in other context.

In order to facilitate the discussion about the outcomes of Group 4 in relation to the factors that have influenced the retention of words, the results achieved by this group will be discussed first considering the words with a uniform achievement on the list and in the sentences, and next, those words with different scores.

With respect to the words retained by the same percentage of subjects (on the list and in sentences), it may be said that the performance of Group 4 was rather satisfactory for the following reasons: 100% of the subjects recognized the form and translated the words **olive trees, ski** and **cooking ,** the first word when presented on a list, the second when included in a sentence and the word **cooking,** in both situations. **Snow**, as **cooking**, was also easy to be retained, although with a lower score (87.50%), for it was identified and translated both on the list and in the sentence. **Winter, wine, country** and **grape** are the other words that may be considered relatively easy, for their form and meaning were recognized and translated, by a higher number of subjects in one situation or another, that is, on a list or in a sentence.

Thus, the following procedures seem to be of particular relevance for the present discussion: first, to review the characteristics of the Guessing from Context strategy, through which the subjects of Group 4 were prepared to memorize the to be learned words. Next, repeating the procedure adopted with the results of Group 3 to check what factors were responsible for the retention of these words, to then analyze the causes of the unanimity of a 100% (in one of the situations) with **olive trees, ski** and specially with **cooking,** and the 87.87% of retention with the word **snow** (in both tasks, list and sentence). Finally, as the subjects' performance with **country** was contentious, it will be analyzed separately.

According to Nation (1990), independently of the approach chosen to guess the meaning of unfamiliar words in a context, there are different kinds of clues to provide

information to help the guessing, and among the clues described by several writers he mentions inference, word analysis and learner's world experience, which were mainly taken into account to prepare Group 4 to do their guessing in the present experiment.

For Carmine, Kameenui and Coyle (1984) the meaning of unfamiliar words in context is easily identified when the learner can be oriented by contextual clues, when learners are older, when the clues suggest a synonym for the unknown word instead of an inference form and when the clues are close to the unfamiliar word. Further, they also pose that in order for a word to be more easily guessed, three conditions are essential: (1) there must be an explicit connection between the unfamiliar word and the contextual clue, (2) the unfamiliar word and the contextual clue must be close, and (3) the reader must know how to use these clues.

Therefore, since most of the guidelines suggested by the researchers above were taken into consideration to prepare Group 4 to read the text and to accomplish the tasks of the experiment successfully, it might follow that the characteristics of the Guessing from Context strategy was one of the variables determining the results derived from the subjects' high performance on the retention of words.

With regard to the factors influencing the retention of the words, however, in order not to be repetitive, and as among the words displayed in Table 6 just **ski, winter** and **wine** have not been analyzed yet, and above all, as there are not any additional factors (besides the ones previously discussed in the analysis of the other words) to be added in relation to **winter** and **wine,** I will limit this analysis just to the factors that were specific to the retention of **ski**.

Ski is the only word retained by Group 4 that was used in the function of a verb. Accordingly, the percentages that were achieved with it do not go along with the claims of researchers for whom verbs are the last part of speech to be acquired. Therefore, the

most feasible interpretation for the out-performance of Group 4 with this word must be due to the item "particularities of L1" (sound/spelling correspondence in English) for, although it is not part of an ordinary Brazilian student's every day language and real life experience, it seems, indeed, perfectly incorporated into the Brazilian Portuguese vocabulary, especially here in the South.

Finally, following the last procedure suggested as a means to understand the subjects' different performance with the same word on the list and in sentences, let us examine **olive trees, ski, cooking** and **snow** in the contextualizing and test sentences in which they were included, and **country** separately, in order to close the present discussion.

Nevertheless, before accomplishing the analysis suggested above, it is important to explain what it is meant by "contextualizing" and "test" sentence in this study. These two terms were only used to distinguish the sentence through which the students were prepared to guess the meaning of the unfamiliar word and to memorize it, as well as to understand the text they were supposed to read (contextualizing sentence), from the one employed to check the retention of the unfamiliar word in another context (test sentence).

Cooking

Contextualizing sentence – I love Italian **cooking** *and my favorite dish is pizza.*

Test sentence – Bahia's cooking is delicious.

Olive trees

Contextualizing sentence – The olive oil is taken from **olive trees**.

Test sentence – I like olives, but in Lages, we do not have olive trees.

Ski

Contextulizing sentence - Prince Charles likes to **ski** *in* Switzerland.

Test sentence – I would like to ski in the French Alps

Snow

Contextualizing sentence – In July tourists visit São Joaquim to see the **snow.**

Test sentence – During winter, "paulistas" go to Caxias do Sul to see the snow.

The retention of the words showed above may be attributed to both the contextualizing and the test sentences, and not surprisingly, tend to indicate corroboration with Carmine, Kameenui and Coyle's (1984) views with respect to conditions that can facilitate guessing from context for several reasons. First, all the sentences were designed so as to guide the learner to pay attention to the contextual clues. Second, in the first session of the experiment, the learners were taught how to identify and take advantage of contextual clues. Third, the contextual clues and the unfamiliar words are near each other, and finally, because the unfamiliar word and the contextual clues are explicitly inter related in the sentences.

Now, to conclude the discussion of Table 6, let us analyze the discrepancy in relation to **country**. As had happened with **border** in Group 3, the performance of Group 4 with **country** was not only unexpected but also debatable, first because this word is part of Brazilians' everyday language, and also because, while it was retained by 75.00% of the subjects on the list task, the performance with it was the lowest in the sentence conditions, with scores of 75.00% in form recognition and 37.50 % in meaning recall. But, what were the determinants of these results?

Country

Contextualizing sentence – Brazil is the largest **country** *in South America.*

Test sentence – The United States is a large ***country****.*

Looking at the sentences above, the apparent explanation once more seems to be related to the test sentence, as was the case with **border** in Group 3. As can be seen in the contextualizing and test sentences, the contextual clues in the last sentence were only *the United States* and *large*, and probably for this reason the subjects were not provided the essential context to relate these two words to *country*, and especially, to use them as bridges to bring about the meaning of *country*. Another additional explanation for this difficulty may be due to the factor "frequency of use", since *country* is widely employed in Portuguese as a collocation for "*country music*", which may have misguided the subjects' attention from the core meaning of this word in this specific context.

Concerning the different performance of the subjects with some words, a compelling way to start with the discussion about the differences is trying to find plausible answers for at least three questions that comes immediately to mind when looking carefully at the achievement with words such as **olive trees**, **soil**, **ski** and **grape**, namely: (1) Why were the forms of **olive trees**, **soil** and **ski** recognized by 100% of the subjects from Group 4?; (2) Why was the form of **grape** (which is not a cognate) not as easy as the others to be recognized?, and (3) Why was these subjects' performance with **soil** and **ski** exactly the same in different tests?

Regarding the first question, the results displayed in Table 6 are likely to corroborate the assumption made earlier in this study, that the high percentages of retention for these words are due to factors related to these words' own form. Being more specific, **olive trees** was probably easily retained because part of it, "olive" is a cognate of "oliva" the oil that everyone knows. Concerning **soil** and **ski**, the factors that might have facilitated their recognition were probably these two words' length (both are short words), the sound/spelling correspondence of both, **soil** and **ski** in English, that is

the similarities between the English form and the English sound of these two words, added to the correspondence between their form and sound in English, to their counterparts in Portuguese, in the case of **soil.** Moreover, with respect to **ski**, it can still be added that this word is a borrowing from English and is the form used in the subjects' native language.

Another significant source of influence on these results seems to have been the features of the Guessing from Context strategy. Given that, early in the first session of the experiment, Group 4 was oriented to guess the meaning of unknown words by observing their immediate context and by looking for contextual clues close to them in order to make the necessary associations to perform the right guess, one can assume that the procedures used with this group did facilitate the recognition of **olive trees, soil** and **ski**.

In order to answer the second question posed earlier (Why was the form of grape not as easy as the other words to be recognized?), it seems convenient to analyze the word **grape** within the contexts used to suggest, practice and check its meaning: .

Grape

Contextualizing sentence -**Grape** *is a fruit used to make wine.*

Test sentence - My favorite fruits are apples and grapes

Considering the contextualizing and test sentences above, the results with **grape** could have been more representative since, in the first as in the second sentence, the contextual clues (*fruit, wine, fruits* and *apples*) were close and explicitly related to **grape**, *fruit* suggested a synonym of it, and the learners had been previously oriented in how to use these clues to guess the meaning of **grape** in another context, therefore fulfilling the conditions that, according to Carmine, Kameeini and Coyle (1984), facilitate the identification of an unfamiliar word in context.

Nonetheless, comparing **grape** to the other words (**olive trees, soil** and **ski**), the causes of the "apparent difficulty" become rather evident since **grape** is neither a cognate nor a borrowing, its sound and spelling (for a Brazilian native speaker of Portuguese) do not correspond, and this word is completely different in form from **uva,** its equivalent in Portuguese.

With respect to the third question (Why was these subjects' performance with **soil** and **ski** exactly the same in different testing situations–list and sentence?), the results must be discussed more cautiously. Although **soil** and **ski,** as suggested above, were retained with exactly the same percentage (100% in form and 75% in meaning), share some features and were presumably affected by the same factors, the situations in which they were retained were not the same. While **ski** was retained on a list, **soil** was recognized and translated in a sentence. Thus, trying to understand the findings related to these two words, let us look at the sentences in which they were included:

Soil

Contextualizing sentence - To plant some vegetables you need a humid **soil**

Test sentece - In the Sertão Baiano the soil *is poor and arid*

Ski.

Contextualizing sentence - Argentinians like to **ski** *in Bariloche*

Test sentence - I would like to ***ski*** *in the French Alps*

Apparently, part of the answer for **ski** being more easily retained on the list task is found in on the characteristics of the sentences where they were included. As can be seen in the sentences above, the contextual clues provided in any of the two sentences seems not to be the most appropriate to help learners guess the meaning of **ski**, for instead of providing a synonym for the unknown words, they were likely to lead the learner first, to make inferences about them (clues) to just then, try to associate the

meaning of the context clues to the meaning of the unknown words. These variables, therefore, must have made the difference and must explain the reasons why ski was retained on the list situation. Accordingly, if the subjects could not benefit from the contextual clues, as it was expected, they were possibly assisted by the form of the word **ski** itself. The other possible explanation for the answer is that as **ski** is a borrowing, the learners did not need, or did not want to spend time with the context in the first sentence. Consequently, with the second sentence, they probably employed the same procedure, avoiding the context and concentrating on the form of the word only, and in doing so, they did better on the list, and failed to show the expected performance to retain the word in the sentence.

In the case of **soil**, however, the features of the sentences seem to be responsible for its retention, since *plant, vegetables* and *humid*, in the first sentence, were cognates and therefore might have provided the facilitative context for the guessing. Additionally, when the subjects were asked to recognize and translate **soil,** possibly the words *Sertão Baiano* and *arid* played their part in the associations required not only to identify **soil**, but also to translate it. The first for Brazilians suggests a desert place where nothing grows, and the second, besides being a cognate, was also related to the concept of **soil** in that specific sentence as well as to its concept, in the text previously read.

Concerning the last test, the True/False sentences, applied a week later with the objective of checking the subjects' ability to retain information from the text, Group 4 fulfilled the requirements of the activity, with 70.33% of correct answers, indicating once more that the Guessing from Context strategy is a useful tool, not only to deal with the acquisition of words through reading texts, but also with comprehension and consequently retention of textual information.

In essence, generally speaking, the findings of this experiment, besides being in accordance with Clark and Nation's (1980) arguments in favor of the Guessing from Context strategy as an aid to retain words, and as a consequence, to facilitate reading comprehension, may also lead us to infer that it may also be highly helpful for teachers who want to teach their students efficient techniques to learn vocabulary in order to read text independently and more productively.

4.2.4 Research Question 4

Is there any difference in terms of text comprehension and retention of vocabulary between the Verbal Imagery and the Guessing from Context strategies?

Comparing the performance of Groups 3 and 4, exposed to the Verbal Imagery Mnemonics and the Guessing from Context strategies, results reveal that, generally speaking, there was a balance between the two groups. In most tests (tests 1, 2 and 3 – Tables 2 and 3) the findings indicate just a slight difference in the efficacy of one or another strategy, even though in relation to the results derived from test 4 (vocabulary recognition and translation in sentences – table 4) and test 5 (True/False test - table 7) the numbers were more definite. Examining the data more carefully, however, brings immediately to mind interesting facets of these numbers that make evident the particularities of each strategy.

As it was expected, considering tests 2, 3 and 4 (recognition of words on a list, translation of words on a list and recognition and translation of words in sentences – Tables 2 and 3), the training with the Verbal Imagery Mnemonics strategy showed to be slightly more effective to retain partially contextualized words (the keywords from the text, on a list), whereas the Guessing from Context strategy was shown to be more applicable to retain contextualized words (the keywords in sentences), which may lead

us to two conclusions: First, that both strategies may be equally useful for vocabulary retention . That is to say that, while the Guessing from Context strategy helps the learner to unlock the meaning of unknown words, the Verbal Imagery Mnemonics gives support to word memorization, which according to Carter (1987) is the first step to word acquisition.

Second, another probable explanation for this apparent particularity of each of these strategies, is that the Verbal Imagery Mnemonics strategy seemed to be more suitable to facilitate memorization of the form of the words by means of associative links and interactive images between the FL target word, the native keyword and the target word correspondent in the L1. The Guessing from Context strategy, on the other hand, seems to be more likely to be applicable to situations when more elaboration is demanded, i.e., when it is necessary to link the form of a word in the target language to its meaning in one's L1. Nonetheless, if one looks at these data more specifically, and considers the recognition of form and translation of the words separately, additional observations may be raised concerning the specificity of each of these strategies. First, the Verbal Imagery Mnemonics strategy tended to present a uniform effect over Group 3, indicating its appropriateness for the recognition of the form of words, which may lead us to the inference that the analysis the learner accomplishes to learn a word is not so deep when he/she is to use associative links to recognize words, as when he/she is building imagistic bridges between the target and the native words, to translate them. In other words, it appears that during the word learning process, recognizing the form of words precedes the matching of it to its native correspondent. Second, the effect of the Guessing from Context strategy on Group 4 was somewhat inconsistent. When the subjects of this group had to recognize and translate the words on a list, they were more competent on the translation of the words, but curiously when the same words were

contextualized in sentences, the results were opposite, showing the group's out-performance on the recognition of the form of the words. Therefore, in the view of what was said above and considering what the results have shown, the relationship between Guessing from Context and word translation, as well as the assumption that this strategy is more likely to facilitate the matching of the target word to its native correspondent ought to be taken cautiously: (1) because the performance of the group showed different tendencies in the accomplishment of tests 2, 3 and 4, used to verify the subjects' ability to retain words (Tables 2 and 3) as noted above, and (2) because the universe of this group (8 subjects) is too reduced to provide more consistent data to corroborate or not, this possibility.

Third, still concerning vocabulary retention, but with respect to the percentage of subjects retaining each word out of context (list) and in context (sentences), the performance of Group 4 was better than that of Group 3. These findings, as evident in Table 6, point out that despite the balance between Groups 3 and 4 regarding the percentage of words retained (as a whole, Group 3 was better at retaining words on a list, and Group 4 in sentences) the percentage of subjects that were able to retain each of these words was higher among the students from the Guessing from Context group (Group 4) than among those exposed to the Verbal Imagery Mnemonics strategy (Group 3). Accordingly, contrasting the overall performance of both groups and examining the data carefully, it seems possible to suggest that this inconsistency in the performance of Groups 3 and 4, in regard to the retention of words, is a plausible indication that the assumptions about the suggested balance between the effectiveness of each of the strategies with tasks regarding text comprehension and word retention, as noted earlier in this study, is likely to be correct.

Fourth, regarding the achievement of the groups in the T/F test applied to verify the subjects' ability to retain information over an extended period of time, the evident superiority of Group 3 in relation to Group 4 may be viewed as a consequence of the characteristics of the Verbal Imagery Mnemonics strategy, that according to its advocates, is recommended to help students to memorize words in the early stages of vocabulary acquisition. In the specific case of this test, however, this deduction may go further and one can posit that these subjects were not only able to take profit of the particularities of this strategy to memorize the unknown words of the text, but were also able to make use of, and extend their ability to retrieve the lexical items from the mental lexicon, to retain the information from the text read, in the second session of the experiment. In sum, taking the position that word knowledge is a desirable competence to access the intelligibility of a message transmitted by a text, it may be said that these results lay a certain foundation to suggest that the outcomes of Group 3, regarding the retention of information, are also associated to these subjects' ability to retain the unknown words. In addition, these findings are consistent with the views of Avila and Sadowski (1996), Brown and Perry (1991), Cohen (1987), for whom the use of the Verbal Imagery Mnemonics strategy facilitates the recall of vocabulary, and Carter (1987) who advocates the importance of training students from early stages of vocabulary acquisition to memorize words if they are to learn vocabulary.

All in all, these findings showed that when word learning was related to text comprehension and recall, the Verbal Imagery was 12.57% percentage points (1 week delay) and 3.32% percentage points (immediate comprehension) more effective than the Guessing from Context. Regarding word retention, on the other hand, the results were not so definite, for the Guessing from Context has shown to be 9.55% percentage points

more helpful to retain words in sentences, while the Verbal Imagery was slightly more applicable, by 1.18%, to retain isolated words.

To conclude, comparing the general outcomes of the subjects instructed with the Verbal Imagery Mnemonics strategy to those from the Guessing from Context strategy, the results revealed that the former strategy was more effective to lead the subjects to answer the questions about the text in order to check their immediate comprehension (test 1 – Table 2), to correct the sentences of a T/F test that were not in accordance with the text read in the previous week (Table 7) and also when they had to recognize the form of the keywords on a list of individual words, a week after training. The Guessing from Context, on the other hand, attested to be more productive to help the subjects retain the keywords inserted in sentences (Table 3), as well as to help them retain a larger number of words (table 7).

In short, the lack of a consistent difference between the efficiency of each strategy, in the majority of the activities, as well as these contentious findings, must be a sign that both Verbal Imagery Mnemonics and Guessing from Context strategies were somewhat helpful to teach Brazilian fifth graders to retain EFL words in order to read texts more proficiently. Additionally, a strong argument to attest this inference is the fact that in only two situations (a one week delay text comprehension and vocabulary retention in sentences) there was quite a substantial difference between the facilitative effects of these strategies in terms of vocabulary retention and text comprehension and recall. Therefore, the apparent balanced performance between both strategies and the view suggesting the effectiveness of both strategies to facilitate text comprehension, retention of textual information, as well as vocabulary retention of real beginners seems to be consistent with the findings of this experiment and consequently, the most plausible to be accepted, as an answer to this fourth question.

CHAPTER 5

FINAL CONSIDERATIONS

5.1 Conclusions

The purpose of this study was to investigate the facilitative effects of the Verbal Imagery Mnemonics and the Guessing from Context strategy on the retention of English vocabulary, as well as on the reading comprehension performance of Brazilian fifth graders. In this chapter, I attempt to draw some conclusions based on the data resulting from the performance of the subjects in each of the tests carried out throughout the experiment, to next discuss the limitations, suggestions for further research and pedagogical implications of the findings in the present investigation.

Given that, to this researcher's knowledge, this is the first research concerned with (1) the study of FL vocabulary acquisition strategies; (2) the effectiveness of this kind of strategies for vocabulary learning of real EFL beginners, here in Brazil, and (3) the implication of vocabulary knowledge for reading comprehension, the findings of the present investigation should be interpreted as suggestive rather than definitive. Moreover, despite the fact that many more studies should be carried out in order to provide theoretical foundation for pedagogical practices aiming at the fulfillment of the needs of Brazilian teachers who are engaged in teaching FL reading, as well as concerned with their students' vocabulary knowledge enhancement, in the primary and secondary schools, it is possible to suggest some tentative conclusions, as follows:

First, the prediction about the significance of vocabulary knowledge for reading comprehension and in turn, about the relevance of reading as a source of vocabulary enhancement has been supported.

Second, the results of this study tend to strengthen the views of the researchers reviewed for this experiment with regard to the relevance of strategies for vocabulary learning, the interface between vocabulary knowledge and reading comprehension, as well as psycholinguistic factors and conditions that influence vocabulary acquisition.

Third, the characteristics of both the Verbal Imagery Mnemonics strategy and the Guessing from Context strategy seem to have facilitated the accomplishment of all the tests in which this sample population was engaged .

Fourth, the training to which the subjects were exposed to, in order to lead them to grasp the meaning of the keywords in the text, seems to have been considerably helpful not only for the retention of words, but also for the retention of textual information and comprehension of text.

Fifth, the effectiveness of both strategies, Verbal Imagery Mnemonics and Guessing from Context, seems to lie in the fact that either when inferring word meaning from context, or when using mnemonic devices to remember words, the learner is engaged in an activity that is likely to elaborate links between the new word and existing knowledge, which according to Harley (1995), stimulates explicit learning and consequently vocabulary development.

In sum, in regard to this sample population, the results of the experiment suggest that (1) vocabulary instruction made the difference in the performance of the subjects in relation to immediate text comprehension and retention of textual information; (2) Verbal Imagery Mnemonics and Guessing from Context strategies were useful tools to

enlarge receptive vocabulary knowledge; and (3) that both strategies may be used successfully in the early stages of vocabulary learning

5.2 Limitations of the Study and Suggestions for Further Research

The limitations of the present study are basically related to three points: the school environment at the time of the data collection, the number of subjects and the heterogeneity in terms of age of this sample population.

1998 might not be considered a typical school year for the public state schools of Santa Catarina, due to the educational policy adopted by the government, which did not guarantee the legal distribution of time allotted to classes. As a consequence, both students and teachers were exposed to many detrimental changes, not only in the duration of their classes, but also in relation to the definition of the teacher for each group of students. From March to July, the groups of students selected for this experiment had at least two different English teachers and three different class schedules (classes of 45minutes, 48 minutes and 60 minutes). Furthermore, by the time of the data collection, these subjects, their teachers, and the school staff were all trying to readapt themselves to the 60 minute classes, as in the beginning of the year .

As a matter of fact, this unfruitful shifting in the school environment undoubtedly affected the whole pedagogical organization of the school, and in turn, the students' motivation, their way of behaving in the classroom, their level of concentration and interest for the school tasks and accordingly, these fifth graders' real expectations about studying another language. Thus, given the chaotic situation the subjects were facing, one can suggest that their readiness to participate in the experiment, their overall performance and the results of the study were negatively influenced by these external variables.

This hypothesis of the interference of external factors on the results of the study may explain the sometimes inconsistent achievement of the groups (Groups3 and 4) in the retention of certain words and in their overall performance, in one or another testing situation (list or sentence). Just to illustrate this argument, lets examine Group 3's achievement with the words **border** and **country** (Table 5), as well as Group 4's performance with **country** (Table 6), where the inconsistent findings about these two words can be observed.

Yet, related to the above, another relevant aspect to ponder is concerning the effects of the Guessing from Context strategy with respect to Group 4's performance on word recognition and translation. As mentioned before, while the group was more successful in translating words than in recognizing them on a list, these subjects unexpectedly were more efficient by 15 percentage points in recognizing than in translating the same words in sentences.

Therefore, added to the influence of the characteristics of each strategy and the factors that contributed to the acquisition of words, explained in the discussion of the research questions 3 and 4; we may additionally consider what can be "read between the lines" of the findings. For this researcher, these inconsistent results are also a sign of the students' low motivation, weariness and lack of seriousness to accomplish any school task, owing to the atypical situation they were involved in, thanks to the irresponsibility, the disrespect and the misgovernment of educational authorities with the public education in our state.

The students' beliefs that it is impossible to read a text without the help of a dictionary and that beginners like them are not ready to read in another language because of their poor knowledge of vocabulary may be viewed as a supplementary constraint for the development of the investigation, since most of the subjects of this

sample population, even being motivated to participate in the study, were neither feeling confident nor willing to try the experience of making use of prior knowledge, contextual clues and cognates in order to read the text and to answer the questions about it.

In addition to the factors above, the small number of subjects and the resulting impossibility of statistical analysis of the data may also be viewed as a restricting component which did not allow more significant and generalized conclusions.

And last but not least, a presumable limiting factor of the study is related to the heterogeneity of Groups 3 and 4 in terms of age. As mentioned earlier, while the students from Group 4 (Guessing from Context) were 10 (one subject)and 11 years old (seven subjects) only, those from the Verbal Imagery Mnemonics group (Group 3) were 10 years old (1), 11 years old (5), 12 years old (1), 13 years old (2), 14 years old (1) and 18 years old (1). Thus, given that age is a significant determinant factor of individual differences in language learning (Harley,1995), the discrepancy in the subjects' maturity might have acted on the performance of these two groups too.

Therefore, balancing the tentative conclusions and the limitations of the present study, one can suggest some points that may be considered more thoroughly in designing a further research of this nature. Among the many points that could deserve attention, three are reported below:

(1) Age – Considering what was mentioned above with respect to age, a further research, similar to this one, should not neglect this variable for the effect of analysis, and select a larger number of subjects to be studied varying from 10 to 12 years old, which is considered the regular age for fifth graders.

(2) Interval of data collection and sample population – A longitudinal study, with a larger number of subjects, comprising a longer period of time, a semester for

example, should undoubtedly provide more elements for more significant and conclusive results.

(3) Comparative analysis - Taking into account the impossibility of comparing directly, the effects of vocabulary instruction on the performance of the four groups (Group 1 glossary, Group 2 - no treatment, Group 3 – Verbal Imagery Mnemonics and Group 4 – Guessing from Context), because Groups 1 and 2 were object of study just in the second session of the experiment, a further research should be designed so as to make it possible to verify incidental vocabulary learning and the effects of a glossary on vocabulary retention, as well as to compare these data to that resulting from the treatment with the vocabulary acquisition strategies.

5.3 Pedagogical Implications

The value of this study lies mainly in two facts. First, some suggested results point to real possibilities of pedagogical actions for both elementary and secondary schools and to some extent, for "Letters Courses". And second, this study served to show, at least for the sample population and their English teachers, that (1) real beginners may read authentic texts and comprehend them, without the help of a dictionary; (2) the text itself may provide the keys to unlock the meaning of some unknown words; (3) the reader by himself/herself may find out the appropriate cues to guess the meaning of a considerable number of words in each text; (4) mnemonic devices are valid to memorize words, to retain information and consequently, to comprehend and read texts better; and (5) inferring meaning from context is a helpful strategy to read successfully.

Regarding elementary and secondary schools, it may be suggested that FL teachers who are engaged in teaching FL reading, as well as in enhancing their students'

vocabulary knowledge, should take advantage of the Verbal and Imagery Mnemonics and the Guessing from Context strategies in their classes, using them as follows:

First, as an activity to motivate students to retain vocabulary and textual information (at least for a short period of time), children like to be challenged and to play with words, hence teachers can offer them opportunities to learn vocabulary playing, by teaching them how to use the Verbal Imagery Mnemonics so as to lead them to be creative and independent learners, devising their own verbal and imagery associations to retain words, and/or training them to pay attention to the context in order to benefit from the contextual clues to guess the meaning of the unknown words.

Second, as a pre-reading activity, working vocabulary in advance has been a common practice to facilitate reading comprehension, thus either of the two strategies investigated in the experiment may be used with the purpose of (by means of the study of the unknown words) predicting the text's content and activating the students' prior knowledge about the topic to be read.

Third, as an entertaining activity, experienced teachers know the importance of having "extra activities" to be used during the class to maintain the students' motivation, or to increase their interest in a certain topic, as well as, once in a while, to use the time left productively and having fun. Therefore either the Verbal Imagery Mnemonics or the Guessing from Context strategies, considering the results of the present study, seem to be adaptable and recommended to fulfill the requirements posed above.

On the other hand, with respect to "Letters Course" and considering that (1) their language teachers are directly responsible for the beliefs about language learning principles of the professionals working in elementary and secondary schools; (2) the social role of the University should not be only the immediate academic education of

their students, but also a coordinate policy with the educational authorities regarding programs of continued "in-service-training" of these clients, in the working market and (3) the results of this study present some real possibilities of teaching vocabulary acquisition strategies through reading, it is hoped that this, and all the academic works related to the implementation of teaching practices in the elementary and secondary schools produced at the University, should be taken to those teachers who are in need and searching for theories to foreground their practice and to improve their performance as educators.

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APPENDIX A – SUBJECTS' INTERVIEW

Entrevista com os alunos das 5 ª séries do Centro Educacional Vidal Ramos Jr. Lages

Gostaria de conhecer os alunos das 5ª séries do Centro Educacional. Você pode colaborar comigo respondendo sinceramente às perguntas abaixo:

1 – Qual é o seu nome?

2 – Quantos anos você tem?

3 – Onde você mora?

4 – Onde seu pai trabalha? O que ele faz?

5 – Sua mãe trabalha fora? O que ela faz?

6 – Esta é a primeira vez que você está cursando a 5 série?

7 – Onde você estudou nos anos anteriores?

8 – Você já estudou inglês? (caso já tenha estudado , diga onde e por quanto tempo)

9 – Você gosta de inglês?

10 – Você acha importante estudar inglês? Por quê?

11 – Você fala outra língua além do português? (qual)

12 – Seus pais falam outra língua além do português? (qual)

13 – Você já viajou para outro país? (qual e por quanto tempo)

14 – Você tem TV a cabo em casa? Assiste programas de outros países? (quais)

15 – Você tem computador em casa? Joga no computador?

16 – Você tem vídeo game? Joga vídeo game em casa?

17 – Você tem aparelho de som em casa?

18 – Você ouve música em inglês em casa?

19 – Conhece ou canta alguma música em inglês, em particular?

20 – Você gosta de ler? (o que costuma ler)

APPENDIX B – ENGLISH TEACHERS' INTERVIEW

Caro colega: A minha pesquisa "Vocabulary Acquisition Through Reading: Strategies to Facilitate Brazilian Fifth Grade EFL Students'Vocabulary Learning" só será possível com a sua colaboração, e você pode colaborar comigo, respondendo às perguntas abaixo:

1 – Você trabalha com inglês por opção ou para preencher carga horária?

2 – Há quantos anos você leciona inglês?

3 – Em que séries você tem lecionado? Você pode escolher as séries com as quais quer trabalhar?

4 – Você trabalha com inglês só na escola pública?

5 – Onde você se formou? Você é licenciado em inglês?

6 – Além da graduação, você teve oportunidade de fazer outros cursos de inglês? Por quanto tempo? Onde?

7 – Que tópicos você já trabalhou este ano?

8 – Nas suas aulas você dá mais ênfase à gramática, vocabulário, leitura/interpretação e, ou, tradução, conversação ou compreensão oral? Por quê?

9 – Você trabalha textos? Que tipos? De onde você os extrai?

10 – Na sua opinião deve-se ou não, trabalhar textos autênticos em língua estrangeira?

11 – Na sua opinião quais são os objetivos de se trabalhar textos em língua estrangeira?

12 – Como você trabalha vocabulário nas suas aulas? Você tem uma maneira específica de trabalhar este aspecto da língua? (listas, vocábulos que surgem no transcorrer das aulas, vocábulos de exercícios ou textos, vocabulário por tópico – comente)

13- Você cobra dos alunos vocabulário trabalhado em classe? De que maneira?

14- Você trabalha com seus alunos alguma técnica de descobrir palavras desconhecidas? Você mesma dá o significado ou orienta os alunos para que usem o dicionário?

15 – Você trabalha com seus alunos alguma técnica que facilite a memorização de palavras novas? Descreva-a

16 – Das atividades desenvolvidas em sala até então, quais as que despertaram o interesse dos alunos e com quais houve um maior aproveitamento? Você saberia dizer o porquê?

17 – Além do que foi perguntado acima, você tem alguma coisa que gostaria de comentar ou acrescentar?

APPENDIX C – TEXT

France

France is a beautiful and pleasant country famous for its rich cultural life, cooking, delicious cheeses and fine wines that are enjoyed all over the world.

France is the largest country in western Europe. The high mountains called Pyrenees form France's border with Spain in the south. The Jura mountains and the snow cover French Alps in the east, and separete it from Switzerland and Italy.

France has a variety of climates. The northern part of the country is warmer than might be expected so far north. In the eastern part of the country, the Alps get much snow in the winter making them an excellent place to ski. The southern part of France has warm, moist winters and hot sunny summers.

The great variety in climate and fertile soil make France a rich agricultural country. Farmers grow wheat, fruits and vegetables in the north and west. Olive trees and wine grapes grow in the south region.

(Adapted from: The New Grolier Student Encyclopedia – Vol. 14 – 1991)

APPENDIX D – GENERAL PROCEDURES

Basic Reading Strategies –

1 - Lembre-se que você sempre sabe algumas coisas a respeito do tópico do texto.

2 – Leia o texto silenciosamente.

3 – Leia o texto até o final, sem interrupção.

4 – Não se preocupe com palavras desconhecidas.

5 – Procure observar as palavras que você já sabe e se o texto apresenta: – título – nomes próprios - figuras - números – palavras parecidas com o português – palavras em negrito, entre aspas, ou sublinhadas – número de parágrafos e o enfoque de cada um deles.

6 – Leia o texto quantas vezes forem necessárias para que você tenha, pelo menos, uma idéia geral a respeito do assunto que você está lendo.

Glossary

East – leste

Grape - uva

Olive trees – oliveiras

Cheese – queijo

Border – fronteira

Snow – neve

Ski – esquiar

Soil – solo

Country - país

South - sul

Cooking – culinária, cozinha

Wine - vinho

Winter - inverno

Previewing -

Bandeira da França – Mapa da França e Mapa Mundi (físico)

1 – Você reconhece esta bandeira? Este mapa?

2 – Que país é este? Em que continente está situado? Que evento aconteceu aqui recentemente?

3 - Você é capaz de localizar a França neste mapa da Europa?

4 – O que você sabe sobre a França?

- Qual a sua configuração geográfica?
- Qual a sua capital? Que língua é falada neste país e como se chamam seus habitantes?
- Você sabe alguma coisa a respeito da economia, dos hábitos dos franceses?

APPENDIX E - Vocabulary Acquisition Strategies

Verbal Imagery Mnemonics Strategy

Hoje nós vamos ler um texto em inglês e, para facilitar a compreensão do mesmo, vamos brincar um pouco com algumas frases e procurar guardar o significado de algumas palavras.

Leia as frases abaixo, observando as palavras em negrito e descubra que relação existe entre elas.

Stimulus sentences

1 – O **cheese** da questão é que eu não gosto muito de **queijo.**

2 - **East** é verdade. O sol nasce no **leste** e se põe no oeste.

3 - Você sabia que a "Cachoeira do **South**" fica ao **sul** de Lages?

Agora que você já descobriu a relação entre as palavras em negrito acima e sabe qual o significado das que estão escritas em inglês, vamos brincar com estas outras frases e aprender novas palavras:

1 - A **border** de um Boeing, a Seleção Brasileira cruzou **fronteiras** para chegar à França.

2 - Estou fanha. A **grape** Hilda Furacão levou-me para cama. Preciso tomar suco de limão em vez de suco de **uva.**

3 – O **winter** de Milão é o time do Ronaldinho pé frio, seja no **inverno** ou verão.

4 – O mestre **cooking** é um especialista em **culinária** e gosta de **cozinhar.**

5 – Na televisão eles anunciaram : **Snow** chover vamos ter **neve.**

6 – Você aí, **country** outra músca. Eu prefiro ouvir algo de um **país** como os Estados Unidos.

7 – O **soil** e a chuva são indispensáveis para um **solo** fértil.

8 – Um mineiro diz para o outro: **Wine** que o **vinho** é feito de uva.

9 – **Olive tree** nes de produtos importados. Tem azeitona e óleo de oliva produzidos pelas **oliveiras** da França.

10 – Para mim é muito **ski** sito **esquiar** na neve.

Guessing from Context Strategy

Hoje nós vamos ler um texto em inglês e para facilitar sua compreensão, vamos brincar com algumas frases e procurar guardar o significado de algumas palavras.

Leia as frases abaixo observando as palavras sublinhadas e em negrito e tente descobrir a relação que existe entre elas.

Contextualizing sentences

1 – I like **cheese** and salami sandwich.

2 – Rio Grande do Sul is on the **south** of Brazil.

3 – In relation to Brazil, the Atlantic Ocean is on the **east**.

Agora que você já entendeu a relação entre as palavras sublinhadas e em negrito, vamos brincar com estas outras frases para aprender palavras novas.

1 – In July, tourists visit São Joaquim to see the **snow**

2 – Vinícola Aurora from Rio Grande do Sul produces delicious **wines**.

3 – Rio Pelotas forms Santa Catarina's **border** with Rio Grande do Sul.

4 – In Lages, during **winter**, the temperature goes below zero.

5 – To plant some vegetables you need a humid **soil**.

6 – The olive oil is taken from **olive trees**.

7 – **Grape** is a fruit used to make wine

8 – Brazil is the largest **country** in South America.

9 – Argentinians like to **ski** in Bariloche.

10 – I love Italian **cooking**, and my favorite dish is pizza.m

APPENDIX F – TESTS

Immediate Comprehension - Test 1

Leia as perguntas com atenção para responde-las após a leitura do texto:

1 – O que faz da França um país famoso?

2 – Que países fazem fronteira com a França?

3 – Como é o clima da França?

4 – Por que, segundo o texto, os Alpes são um excelente lugar para esquiar no inverno?

5 – O que contribui para que a França tenha uma agricultura rica?

6 – Em que região da França há o cultivo de oliveiras e uvas próprias para fabricação de vinho?

Word Recognition in List – Test 2

Leia com atenção as palavras abaixo, lembre-se do que estudamos no texto sobre a França e sublinhe as palavras que foram trabalhadas:

Sunny – world - border – grape – winter – cooking – snow – country – wind – coast – warm – moist – hot – south – east – wheat – wine – soil – olive tree – ski

Word Translation on List – Test 3

As palavras realmente estudadas no texto "France" estão relacionadas abaixo. Vamos ver se você consegue dar o significado, em português, de todas elas. Lembrando do assunto do texto e de como as palavras foram trabalhadas, certamente você conseguirá lembrar da grande maioria delas. Vamos tentar?

Cooking	country	olive trees
Border	soil	ski
Wínter	wine	
Grapes	snow	

Word Recognition/ Translation in sentence – Test 4

Todas as frases abaixo, contém uma palavra estudada na aula passada. Mostre o que você aprendeu, sublinhando-a e traduzindo-a, neste novo contexto:

1 – In the "Sertão Baiano" the soil is poor and arid.

2 – I like olives, but in Lages, we do not have olive trees.

3 – I would like to ski in the French Alps.

4 – My favorite fruits are apples and grapes.

5 – In July, "paulistas" go to Caxias and Gramado to play in the snow.

6 – Bento Gonçalves and Caxias do Sul produce delicious wines.

7 – Bahia's cooking is delicious.

8 – Foz do Iguaçu forms Brazil's border with Paraguay.

9 – The United States is a large country.

10 – Pinhão is a winter fruit.

Retention of Textual Information - Test 5

As frases abaixo são todas relacionadas ao texto "France". Leia-as com atenção e mostre o que você aprendeu na nossa aula passada, **corrigindo** com suas próprias palavras, as frases que **não** estão corretas.

1 – Os queijos e vinhos franceses são famosos no mundo todo.

2 – Nos Alpes franceses não há neve.

3 – A França tem só um tipo de clima.

4 – A comida francesa não é muito conhecida.

5 – Os agricultores franceses não cultivam uvas próprias para vinho.

6 – A França faz fronteira com Portugal.

7 – Os Alpes franceses são um excelente lugar para surfar.

8 – Os agricultores do sul da França cultivam oliveiras.

9 – A França é um país de agricultura rica.

10 – A França possui um solo fértil.

APPENDIX G

Data Collection

Second Session

Group 1

5th grade 2 - Prof. Fátima – Readidng Strategies – Text with glossary – 6 comprehension questions –

Age	Correct answers	Age	Correct answers
Viviane - (11 anos) – 3.5		Valéria - (10 anos) – 2.5	
Luis G. - (11 anos) - 4		Katahurine - (10 anos) - 3	
Carine - (11 anos) - 3		Kalleu - (10 anos) – 3	
Ellen - (11 anos) – 3.		Juliane - (12 anos) – 2.5	
Patrícia - (11 anos) - 3		Edna - (13 anos) – 3.5	
Kamila - (11 anos) – 4		Dani - (13 anos) - 0.5	
Drieli - (11 anos) - 3		Bianca - (13 anos) -3	
Josimar - (11 anos) - 1		Fabrício - (14 anos) - 3	
John - (11 anos) - 0.5		Gilton - (15 anos) - 4	
Cintia - (11 anos) - 3			

Number of students - 19 - Overall result – 46.00%

Group 2

5th grade 3 - Prof. Wanda - Reading Strategies -Previewing – Text -6comprehension questions -

Age	Correct answers	Age	Correct answers
Damian - (11 anos) - 3		Maikon - (11 anos) – 0.5	
J. Henrique - (11 anos) -2		Karla - (11 anos) - 2	
Leonardo - (11 anos) - 3		A Marcelino - (11 anos) –2.5	
Marcelo - (11 anos) – 2.5		Andréia - (11 anos) - 2	

Lucas - (11 anos) - 3.5

Ana C. - (11 anos) - 2

Tiago - (12 anos) - zero

Ricarti - (12 anos) – 0.5

Deize - (11 anos) - 2

Douglas - (10 anos) _ 2.5

Jamile - (12 anos) -1

Number of students - 15 - Overall result- 32.22%

Group 3

5th grade 4 - Prof. M. Inês - Reading Strategies - Previewing – Verbal Imagery Mnemonics Strategy- Text - 6 comprehension questions -

Age Correct answers

Fernando - (11 anos) – 4

Bruna V.R. - (11 anos) - 5

Francine - (11 anos) – 4.5

Josiane - (12 anos) –3.5

Jefferson - (13 anos) - 3

Kenner - (18 anos) - 3

Age Correct answers I

Emir - (11 anos) - 5

Francoise - (11 anos) – 0.5

Andrew - (10 anos) –5

Elezina - (13 anos) - zero

Claudia - (14 anos) - 1

Number of students - 11 – Correct answers-52.27%

Group 4

5th grade 4 - Prof. M. Inês - Reading Strategies - Previewing - Guessing from Context Strategy - Text - 6 comprehension questions -

Age Correct answers

Márcio - (11 anos) - 4

Oilson - (11 anos) - 2.5

Diego - (11 anos) - 2.5

Ricardo - (11 anos) - 2

Age Correct answers

William - (11 anos) – 4

M. Clara - (11 anos) – 2.5

Rafael - (11 anos) - 3

Vinicius - (10 anos) – 3

Number of students- 8 - Correct answers - 48.95%

Third session

Group 3

5th grade 4 – Verbal Imagery Mnemonics Strategy - (10 questions)

	Keywords (list)		Keywords (sentences)	T - F (sentences)
	Recognition	Translation	R/T in sentences context	Correction
	Correct answers			
Jefferson -	9.	6.	5.5	7.
Fernando -	10.	10.	10	5
Emir -	10.	9.	9.5	10.
BrunaVR -	10.	9.	9.5	10.
Francoise -	8.	7.	8.5	9.
Claudia -	8.	10.	6.5	5.5
Josiane -	8.	10.	9.5	10.
Kenner -	8.	8.	2.5	5.
Elesina -	6.	5.	4.	5.5
Andrew -	10.	10.	9.5	10
Francine -	9.	10.	8.5	9.
Overall results				
-	84.54%	83.63%	75.45%	83.18

Group 4

5th grade 4 - Guessing from Context Strategy - (10 questions - score - 1)

	Keywords (list) Recognition/Translation		Key words (sentences) R/T in sentences context	T/F (sentences) correction
Márcio -	7.00	9.00	9.00	6.50
William -	9.00	10.00	8.00	6.50
Vinicius -	7.00	10.00	9.00	10.00
Oilson -	9.00	8.50	9.50	7.50
M. Clara -	8.00	10.00	9.00	8.00
Diego -	8.00	10.00	10.00	10.00
Rafael -	9.00	5.00	8.00	5.50
Ricardo-	7.0	6.0	6.5	4.0
Overall results -	80%	85.62%	85.00%	70.33%

APPENDIX H

OVERAL RESULTS:

PERFORMANCE OF EACH GROUP

PERCENTAGE OF WORDS RETAINED

	Group 3		Group 4
R T List	84.00%		82.82%
R T Sentence	75.40%	9.55%	85.00%
R List	84.54%	4.54%	80.00%
R Sentence	86.36%	6.14%	92.50%
T List	83.63%		85.62%
T Sentence	64.54%	12.66%	77.50%

PERFORMANCE OF EACH GROUP

PERCENTAGE OF SUBJECTS RETAINING WORDS

	Group 3		Group 4
List – 9 words	80.80%	List - 10 words	84.37%
Sentence – 7 words	75.31%	Sentence – 9 words	88.88%

PERFORMANCE OF EACH GROUP

PERCENTAGE OF CORRECT ANSWERS IN THE T/F TEST

Description	Percentage of correct answers	
Group 3	83.18%	Difference 8.81%
Group 4	74.37%	

OVERALL RESULTS

	GROUP 1	GROUP 2	GROUP 3		GROUP 4	
Tasks	Vocabulary List	Previewing	Previewing Keyword		Previewing/Guessing	
1 Comprehension Question	46,05% 114/52.5	32.22% 90/29	52.27% 66/34.5		48.95% 48/23.5	
2 Vocabulary Recognition			84.54% 110/93		80.00% 80/64	
3 Vocabulary Translation			83.63% 110/92	84.00%	85.62% 80/68.5	82.82%
4 R/T Sentences			R 86.36% 110/95	T 64.54% 110/71	R 92.50% 80/74	T 77.50% 80/62
			75.45%		85,00%	
5 T/F			83.18%		70.33%	