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" THE EFFECTS OF TEXT STRUCTURE INSTRUCTION ON EFL READERS' UNDERSTANDING OF EXPOSITORY TEXTS "

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Ao meu esposo GERALDO...

Aos meus filhos, CHRISTIAN e BÁRBARA ...

Seres humanos maravilhosos que compartilharam os meus silêncios, as minhas ausências... simplesmente por amor ...

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RESUMO

O objetivo do presente trabalho é examinar a influência do ensino de organização textual de textos expositivos, compreensão e evocação de leitores brasileiros estudando Inglês como lingua estrangeira. O trabalho envolveu 10 alunos do 2º grau da rede estadual de ensino, 9 alunos universitários e um professor de Ciências Sociais atuando no 2º grau. sujeitos foram divididos em dois grupos, experimental e de controle, e foram submetidos a idênticos pré-testes e pós-testes. A compreensão e a evocação dos textos lidos pelos sujeitos, foram analisadas conforme duas condições de testagem: antes e depois da instrução sobre organização textual. A instrução de leitura (variável independente) foi proposta conforme uma abordagem interativa. Os modelos de organização comparação/contraste e problema/solução foram focalizados com o objetivo de maximizar macroprocessos relacionados com a interpretação global, o significado textual, os quais foram desenvolvidos conforme a ativação de esquemas formais. Três variáveis dependentes foram investigadas e quatro resultados foram obtidos: 1) Teste de compreensão - compreensão geral do texto; 2) Evocação imediata - presença de unidades de idéia que representam a macro-estrutura do texto, bem como, a presença de relações textuais conforme os modelos de organização focalizados; 3) Resumo - presença das estruturas de nível superior. cálculos estatísticos realizados (Teste "T") para observar a probabilidade de significância da diferença entre médias, na condição após instrução de leitura, indicaram resultados obtidos pelo grupo experimental foram superiores comparações com o grupo de controle e em comparações

Os resultados obtidos conforme individuais. diferente modelos textuais confirmam o melhor desempenho do grupo quando comparado ao grupo controle. experimental resultados obtidos a partir de comparações individuais relacionadas ao modelo de organização comparação / contraste indicaram que: a) não há significância estatística para o uso da estrutura de nivel superior nos resumos apresentados pelo grupo experimental quando pré-testes são comparados aos pós-testes; b) não há significância estatística em relação as questões de compreensão realizadas pelo grupo de controle, quando pré-testes são comparados aos pós-testes. Os resultados globais entre os dois grupos, na condição pós-teste, indicam que a ativação de esquemas formais exerce uma influência positiva em atividade de leitura que versa sobre organização textual, e vem de encontro a muitas pesquisas, cujos resultados sugerem que a interação de esquemas formais com habilidades de leitura é um dos fatores que propicia uma melhor compreensão e evocação na leitura de textos expositivos.

ABSTRACT

The purpose of this study was to investigate the effect of text structure instruction on Brazilian EFL readers as a factor improvement in understanding and recall. Ten high-school students, nine college students and a high-school teacher participated in the study. A Pretest/ Posttest control group design was used with instruction on text structure independent variable. Text structure included models of Comparison / Contrast and Problem / Solution in expository English texts. Reading instruction was proposed according to an interactive approach to reading aiming at developing schemata in order to facilitate macrostructure struc**t**ure formation. Three dependent variables were investigated: the scores on comprehension questions, the scores on immediate on summaries. Students' the scores written recall and recall were assessed after reading four comprehension and Passages according to each specific testing condition: and after treatment. Four sets of data were obtained: 1) scores on a Comprehension Questions Test; 2) scores for the presence of T-units that represented text macrostructure; 3) the scores for the presence of matching relations in comparison/ contrast texts and problem/solution metastructure in problem/solution texts; 4) scores for the presence of the top-level structures of Comparison in a Comparison/ Contrast format and Response in a Problem/ Solution format. The calculations for difference of the means were analysed using a "T" test indicate that had a statistically text structure training **significant** effect on comprehension and recall for both inter-group and intra-group comparisons. Results of the subjects' Performance that the experimental subjects on text types indicated

outperformed control subjects in all inter-group comparisons. However, intra-group results showed two unexpected results that seemed to be related to the effect of the Comparison-Contrast structure: a) There was no statistical difference for the experimental group results concerning the use of the top-level structure in summary protocols when pretest was compared with posttest; b) There was a statistical difference in control group results on the comprehension questions test when pretest was compared with the posttest. The global results seem to show the beneficial effects of activating formal schemata in reading tasks and they are in harmony with recent literature that postulates that text structure interaction with comprehension skills is an improvement factor in understanding and recall.

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INTRODUCTION

A. THE PROBLEM

Brazilian foreign language teachers have been confronted with the responsibility of assisting students to develop an acceptable degree of reading proficiency in the foreign language. The pedagogical activity should satisfy immediate and relevant goals on the bases of relevance and significance in relation to the student's needs. When Brazilian students, for example, have to learn to read texts in English they need to comprehend and remember the essential information of the written passage as efficiently as possible. However, the learning process seems to be affected by difficulties that appear to impair or at least significantly delay effective EFL reading comprehension.

Available research has not provided enough evidence whether reading difficulties in reading a foreign language are due to poor reading strategies in L1 (reading problems) or if they are due to lack of Knowledge in the foreign language (language problems). In an attempt to discuss this issue, Alderson (1984) suggests the existence of several variables that may affect the foreign reader's performance and he hypothesizes that these

variables are closely related to a certain "threshold level of competence" in the FL. He argues that foreign readers who are at a threshold level of competence in L2 and are good readers in L1 have the tendency to transfer the reading strategies employed in L1 when reading in L2. However, if these readers are poor readers in L1 their reading strategies need to be improved. Alderson does not explain within the scope of his hypothesis what the nature of this "threshold level" is. For example, to what extent is it syntactic, semantic, conceptual or discoursal? He suggests that the threshold level may vary according to the stage of cognitive development, language competence and available background knowledge of the foreign reader. In this manner, the author establishes a relation between reading ability and knowledge of the foreign language.

Alderson further refers to background knowledge. A reader may not possess available background knowledge to comprehend a passage, or a reader may possess available background knowledge but not know how to bring it to the passage. Quite obviously, / even native readers with presumed proficiency in the language but lacking knowledge of a subject matter have difficulties in reading in their first language.

There is a good ground to conclude that there is an interplay of reading difficulties and language difficulties when students learn to read in a foreign language. The former emerge from inconsistent reading strategies and the latter relate to lack of substantiated knowledge in the foreign language in addition to a lack and/or inadequate activation of pertinent and available background knowledge. Thus, based on

this rationale two problematic circumstances that have influenced the development of this investigation will be considered in the next pages.

A. 1. READING DIFFICULTIES IN L1 AND L2

The first problematic circumstance to be underlined is related to the occurrence of reading difficulties in L1, e.g., Portuguese and L2, e.g., English as a foreign language.

Reading difficulties in L1 are illustrated by Marquesi (1986) and Grimm-Cabral (1988). According to Marquesis's view, a reader is a continuous agent of an interactive reading process. She suggests that the complexities involved in developing a critical reading approach in Brazilian classrooms makes room for reading difficulties. For example, the reader's difficulty in reaching an acceptable interpretational level of reading generates a type of reader that is identified by the author as a "reader of words" (the one that reads a passage in a fragmented way without considering it as a unified piece of information).

As well as Marquesi, Grimm-Cabral refers to L1 reading difficulties which have been analysed during the development of a reading project. This reading project is concerned with experimental work specially designed to deal with the complexities of the reading process with the aim of investigating reading difficulties of Brazilian university students (mainly the ones who were attending the

Language Courses, i.e. English/Portuguese, the project, when reading in their mother of the tongue. Results indicated that: a) Reading difficulties related to are not only one's inherent factors (congenital or / and acquired reading problems) but the difficulties are also related to inadequate reading instruction and development of reading, e.g. reading difficulties may occur when a reader is just encouraged to follow linguistic clues, for instance, word-class recognition, grammatical function and not challenged to establish a relation between information of the text and the information stored as background knowledge. b) There is an interrelation of cognitive factors that seem to be associated to fluent reading, e.g. ability of decoding features of the language, selective attention, lexical knowledge, activation of pertinent and available background knowledge, ability of inferring, ability of retaining information and others.

With respect to reading difficulties in L2, Alderson (1984) and Taglieber (1988) shed light to controversial but significant positions toward L2 such as a) reading problems in a foreign language are not only due to lack of knowledge of the language but they are also due to the interference of the native language in the reading process (Yorio 1971 cited in Alderson 1984), b) reading problems in a foreign language are due to an unsuccessful transference of L1 abilities (Jolly 1978 and Coady 1979 cited in Alderson 1984), c) reading problems in a foreign language are similar to reading problems in a native language (Taglieber, 1988).

The first position starts from the assumption that reading strategies are language specific. So, it is presupposed that to the extent that languages are dissimilar in their structures, so will be the strategies required to read passages in the respective language. When a reader's ability (e.g., of predicting or guessing the correct clues) is based on the strategies associated with his first language, reading difficulties in the foreign language may occur derived from the influence of the native language.

The second position stems from "a reading universal hypothesis" (Goodman, 1976 cited in Alderson 1984), that is, the reading process is the same or very similar in all languages. Therefore, one may expect that reading abilities may be transferred across languages; consequently, based on this assumption foreign language success depends upon a reader's first language ability. When a native reader is a poor reader in his mother tongue his reading strategies need to be improved as soon as he has a language ceiling in L2.

The third position suggests that there are similarities among languages concerned with the reading process. According to this view EFL reading difficulties are similar to the reading difficulties a reader encounters when reading in his native language. Taglieber (1938) suggests the existence of reading difficulties that may interfere in reading and understanding of the foreign language as they may interfere in reading and understanding of the native language e.g., vocabulary constraints, the ability of following clues, to remind and to predict and to associate meanings in an automatic

and simultaneous way, the absence of pertinent schemata (when the author's schemata and the reader's schemata are not shared because either cultural aspects, beliefs or presuppositions are not shared).

Therefore, there seems to be a close relationship between difficulties in L1 reading L2. and Although psycholinguistic assumptions of reading universals may justified one's first-language ability does not determine one's reading proficiency in L2 (cf. Riggs 1977 cited in Hudson 1982), but this ability may influence one's reading performance. In the same manner, it is considered that the difficulties that a reader encounters when reading L1 is to some extent similar to the difficulties he may encounter in L2 by the time he has a language ceiling in this language. The understanding of a passage is dependent upon the readers background knowledge and readers atributions that interact with linguistic, semantic and characteristics of the passage. Constraints in background knowledge, inadequate reading skills and strategies, lack of knowledge of principles of textual organization are factors that in a similar way may impair a successful reading when the focus is concerned with similarities among languages in terms of an interactive reading process. This last assumption is closely related to the second problematic occurrence that prompted this investigation.

A. 2. EFL CLASSROOM INSTRUCTION

The second problematic circumstance to be proposed in this study is concerned with the lack of classroom instruction to

develop reading skills and strategies as well as the lack of relevant background knowledge against which to process textual organization.

Reading processing involves a variety of skills (the individual's tools needed to contend with the writer's message), a variety of reading strategies (plans readers use flexibly and adaptively, depending on the situation they encounter in a passage, in order to satisfy a particular reading task); however, the development of reading skills and strategies in an interactive environment, in general, has not been proposed in EFL classrooms.

In general, EFL Brazilian students receive formal instruction in the EFL classroom, but they are neither taught how to develop reading strategies nor stimulated to improve their reading skills when reading in the foreign language. When their reading proficiency is measured, the results show that they do not read as efficiently as it would be desirable (Meurer, 1985). Frequently, reading instruction is promoted in a traditional environment and the materials used are divided according to language structural criteria. Reading exercises are designed with the aim of developing the student's control of language structure, e.g., grammatical topics, rather than to allow the development of reading skills, e.g., to distinguish the main idea from supporting information, or/and the development of a strategic behaviour in reading. It is worth saying that in the last decade, Brazilian EFL pedagogical activity has been influenced by theoretical orientations concerned with an interactive and critical approach of EFL reading; however, this influence has been constrained to selected Foreign Language Teaching Institutions.

Recent research has suggested that proficient readers use text structure when reading (Meyer & Brandt & Bluth, 1980), that is, readers use the stored knowledge of how writers structure their ideas when they are engaged in a reading task. The use of this type of knowledge may influence reading processing (Taylor and Beach, 1984; Meyer, 1984; Ohlhausen and Roller, 1988). When a reader lacks knowledge about principles of textual organization, strategic possibilities may be lost, e.g., reading Structure Strategy (Meyer, 1984). This strategy is seen as a reading device that is based on the use of knowledge related to text structure. This reading device may help a reader to build expectations, to accept or reject possibilities, to establish interrelations along a passage at the time he interacts with the passage by considering it a unified piece of information. The use of this type of knowledge has been revealed as a factor that affects the reader's ability of capturing and remembering crucial information (cf.Carrell, 1987).

In short, the problem to be considered in this study comes with interrelated problematic occurrences toward Brazilian EFL reading context.

First, there is the implication between native language difficulties (L1) and EFL reading difficulties (L2) in the reading process domain. Difficulties in reading (e.g., lexical, syntactic, non-linguistic difficulties, cultural differences

and other sources of misunderstanding) may impair a successful reading either in L1 as well as in L2 because these difficulties stem from factors that influence the reading, processing, for instance, absence of an adequate threshold level of language competence, unskilled reading, absence of pertinent background knowledge, lack of activation of available background knowledge.

Next, EFL reading difficulties may be due to the absence of instructional reading activities that contemplate a strategic behaviour in reading with the goal of providing interactive reading. The development of adequate reading strategies are expected to play a relevant role in text processing, e.g., the reader's use of reading strategies has been seen as a factor that allows one to distinguish good readers (as models of the aimed fluency in reading) from poor readers (the ones that are not considered readers) with the goal of providing empirical evidence. Similarly, the lack of strategic reading devices that may help a reader to cope with intrinsic complexities that are inherent to a text is related to the lack of knowledge of principles of textual organization that is seen as one of the factors that may add difficulty to the reading task as well. This study comes with explicit instruction of principles of textual organization within an interactive of according to reading which was designed approach objectives and hypotheses that will be described in the next section.

B. OBJECTIVES AND HYPOTHESES

The main purpose of this study is to investigate whether Brazilian EFL students understand and recall English expository texts better when they are taught to select the important information of a given text based on its overall textual organization than when they simply read the text without developing awarenesses of textual organization.

The experimental subjects were instructed to employ a Structure Strategy, the use of knowledge related to text structure, as a reading strategy, with the goal of improving their ability of searching for the essential information. This study is limited to expository texts that follow the organizational patterns of Comparison / Contrast and Problem / Solution.

The experiment reported here was designed to pursue the answer to the following research question: TO WHAT EXTENT WILL EXPLICIT INSTRUCTION ABOUT TEXTUAL ORGANIZATION INFLÜENCE EFL STUDENTS' PERFORMANCE ON READING EXPOSITORY PASSAGES THAT CONTAIN THE OVERALL PATTERNS OF COMPARISON/CONTRAST AND PROBLEM/SOLUTION AS MEASURED BY MEANS OF COMPREHENSION QUESTIONS AND RECALL? The following hypotheses were investigated:

- A) EFL students have better understanding of expository texts when they are taught about text structure organizational principles of expository structures, than when they read the passages without any explicit text structure instruction.
- B) EFL students recall better the macro-information of expository texts when they are instructed to use text structure knowledge as a reading strategy than when they simply read the texts.

Finally, an overview of the development of this study will be provided. The theoretical background that influenced this investigation will be described along Chapter I. Subjects, materials, procedures, data collection and data analysis will be reported in Chapter II. Results will be presented and commented on the light of the hypotheses investigated in Chapter III. Chapter IV will include the conclusion and further comments on pedagogical implications pertinent to the investigation.

CHAPTER I

THEORETICAL APPROACH

1. 1. SCHEMA THEORY

The schema-theoretical perspective in language comprehension is based on the concept of background knowledge technically referred to in the literature as SCHEMATA (Bartlett 1932 cited in Rumelhart 1981, Pearson and Johnson 1977, Adams and Collins 1979) and derives from basic research and combined efforts of cognitive psychology, linguistics and artificial intelligence. A schema-theory is a theory about how knowledge is represented in memory and how that knowledge is used in specific ways. BACKGROUND KNOWLEDGE, previous acquired knowledge, refers to the set of generic concepts that each individual stores in mind, that is, all the knowledge an individual possesses. These general concepts are dinamically related to more specific concepts. Those general and specific concepts are represented by clusters of units, previously acquired knowledge structures, referred to as SCHEMATA.

There are schemata representing an individual's knowledge about all concepts: situations, events, scenes, actions and objects (Rumelhart 1984). The term SCHEMA (singular of schemata) is seen as a structured,

organized mental representation of generic concepts that. contains a dynamic network of interrelations among the constituints of a generic concept. This mental representation is intrinsically related to an individual's past experience. For example, an individual who knows exactly how to act after deciding to go to the movies is the one who has already stored a routinized "going to the movies" schema. This is to say that this individual relies on a well-known sequence of acts which are based on implicit knowledge. Thus, the individual behaves according to his degree of familiarity to parts of a " going to the the movies " schema, e.g., to arrive at the selected cinema on time, to wait in line to buy tickets, to select any seat because all seats are available (they are not numbered), not to disturb neighbours avoiding to talk loudly while the projection is carried on, and so on.

Any individual stores a multitude of schematic mental representations along his life. His reactions to input information (linguistic or non-linguistic) are closely related to available schemata to be activated. For example, if we are taking into account the schemata for problems with a computer system, we can notice that an individual's reaction to this type of problem is related to an interpretation that is configurated according to the available schemata to be activated, e.g., the owner of a computer system that is a lay person in regard to computers and a specialized technician of computer systems. For the owner the problems meant to be "unable to fulfil a required (and sometimes extremely necessary) task", or "to spend

money to have the computer fixed". For the technician the problems meant "to receive money", "to develop a kind of work and fix it". So, the technician is familiar to parts of "defficiencies that may occur in computer systems" schema whereas the owner is not. Consequently, the owner and the technician activate different schemata and they react to the same situation differently.

The effects of background knowledge, schematic interpretation and conceptualizations of reading processing are claimed to be important aspects of schema-theoretic accounts of reading comprehension and these factors have influenced reading research.

Schema-theory research has shown the effects of two domains of schemata (Carrell 1987), that is, types of schema a reader may bring to a text. One type is CONTENT SCHEMATA. It refers to the reader's background knowledge relative to the content domain of the text. The other type is FORMAL SCHEMATA. It refers to the reader's knowledge related to the distribution and formal organizational structures in different text types (Meurer 1985, Carrell 1987, Ohlhausen and Roller 1988). Schemata are claimed to guide readers to comprehend the linguistic representations of concepts in a CONTENT SCHEMATA domain, e.g., those contained in oral and written texts, and the hierarchical rhetorical organization of these texts in a FORMAL or TEXTUAL schemata domain.

A schema theoretical orientation in comprehension starts from the principle that a text doesn't carry meaning by itself

(Adams and Bruce 1982, Meyer and Rice 1984, Meurer 1987). A reader constructs the meaning of a text which is intrinsically related to the nature of the text itself, in an interactive way, according to his individual purpose of reading and to the extent he possesses, activates and integrates pertinent and available background knowledge of the content domain of the text and its formal organizational structure.

The influence of schemata in the process of interpreting a text is guided by the principle that "every input is mapped against some existing schema and that all aspects of that schema must be compatible with the input information" (Carrel 1983:357). A text activates and builds on existing schema, that is, in the reading act readers make predictions about the information conveyed that need to be compatible to an existing schemata in order to get a consistent interpretation. A schematic interpretation can be illustrated by considering the following mini-text introduced in Rumelhart's 1984:1.

MARY HEARD THE ICE-CREAM TRUCK COMING DOWN THE STREET. SHE REMEMBERED HER BIRTHDAY MONEY AND RUSHED TO THE HOUSE.

In the process of trying to understand the passage above, there is the need to try to relate it to something familiar, a schema which will account for the event described. So, what kind of schema we readers may activate against which we may give a consistent interpretation to the mini-text? There are many schemata available, anyway, the activation of the

"ice -cream truck schema" may be considered and devised based on assumptions such as a) Ice-cream can be obtained from ice-cream trucks that circulate around neighbourhoods; b) There is a driver in the ice-cream truck who sells ice-cream; c) The driver calls attention to possible ice-cream buyers by blowing the truck's horn; d) Children are considered potential buyers because they generally love ice-cream; e) Possible buyers need to wave to the truck driver to make him stop the truck; f) Money is required to obtain ice-cream and it should be available as fast as possible otherwise the truck will not stop; g) Children receive money as a birthday gift and they generally save this money to buy sweets, candies, ice-cream, etc,. "ice-cream" and "birthday money" may function as sources of information which are mapped against an "ice-cream truck schema" and all aspects of that schema should be compatible with those sources that provided the input information according to an existing "ice-cream truck schema".

In addition, what kind of interpretation may we give to Rumelhart's mini-text against the previous schematic representation? We may interpret that Mary is a little girl who recognized the sound of the horn of the ice-cream truck and is compelled to buy ice-cream. So, she decided to spend her birthday money on it. The ice-cream truck is coming down the street in a regular speed, however, if Mary takes a long time to get the money inside her house (probably the money is kept in her room) she would be unable to stop the truck on available time.

It is the reason who she needs to rush in the house, to pick up the money, as fast as possible, in order to have enough time to make the ice-cream truck driver stop to sell her an ice-cream. When the mini-text is interpreted against the devised schema, related which were not explicitly stated were taken into account based on previously acquired background knowledge which was by the activation of pertinent and available structured schemata. This means that the information which was not explicit in the text, was originated from one's schemata by the use of knowledge that goes beyond the text itself in an INFERENCING process, that is, the apprehension of information that was not explicit in the text. Thus, an acceptable interpretation of the passage was provided because a certain schemata was activated and configurated offering a coherent account for the various aspects of Rumelhart's mini-text.

As well as background knowledge and schematic interpretation, another factor that has been considered in a schema-theoretical orientation is the influence of conceptualizations of reading processing to which I turn next.

1. 2. MODELS OF READING PROCESSING

The development of Psycholinguistics in the field of reading has brought theoretical accounts of reading conceptualizations about the reading process in the form of explicit models.

According to Rumelhart (1981), Schemata are hierarchically organized, that is, from the most general to the top (at a top-level schemata) to the most specific at the bottom (at a bottom-level schemata). There are two basic modes of reading processing that are seen as sources of activation of those different levels of schemata, namely, BOTTOM-UP and TOP-DOWN. The former is identified as "data driven processing" (Samuels and Kamil 1984) and it starts with a 1972 cited in perception of printed symbols and derives meaning individual words, phrases, clauses, sentences, paragraphs and then to a general perception of entire texts. Bottom-up processing is evoked by the features of the data that enter in the system through bottom-level schemata. Conversely, the is referred to in the literature as "conceptually driven" and it starts in the reader's mind and goes to the perception of letters in the text. There is an interaction between language and thought. The textual information is by a reader as an attempt to confirm hypotheses and sampled predictions as he proceeds through the text. Accordingly, top-down processing occurs in the system through top-level schemata.

These early reading models present "deficiencies" when are seen as ISOLATED explanations of fluent reading. They have been referred to in the literature as LINEAR MODELS (Samuels and Kamil, 1984). Each processing level works i ts production to next ' independently and passes the information contained higher level. Consequently, a higher level is not considered as a factor that may Therefore, influence the processing lower level. in ä.

a possible interaction between higher and lower levels of processing information is not considered. Reading research literature (Stanovich, 1980, Samuels and Kamil, 1984) postulates that Bottom-up "serial stage" models (La Berge and Samuels, 1984) not offer consistent empirical results and Top-down "hypothesis-testing" models (Stanovich, 1980) have been questioned in their account of the reader's individual differences in the explanation of skilled reading behaviour.

Nowadays, reading processes are seen as interactive processes and interactive notions have influenced of reading conceptualizations processi**ng** within schema-theoretical orientation. When a reader aims to get meaning from a written passage he relies on knowledge abstract representations of organized concepts (schemata). Thus, these schemata are activated in the reader's mind via top-down processing (e.g., when the message is predictable and can be assimilated because there is an existing structure) or/and via bottom-up processing (e.g., when the message is not predictable and to get meaning depends on lower-level stages that allow a reader to contend text information).

"Interactive model" (1981) Rumelhart's of reading represents a recent position in the attempt conceptualizing reading comprehension as the result of interactive process between a reader and a text. This interactive notion was further developed. Stanovich's "Interactive Compensatory" model (1980) represents refinement of this development.

Rumelhart's model supports the view that comprehension is the result of simultaneous interactions among several knowledge sources available to a reader such as FEATURAL, ORTOGRAPHIC, LEXICAL, SYNTACTIC and SEMANTIC. The information originated from these sources converge upon a "pattern synthesizer" (Samuels and Kamil, 1984), in an interactive way, by means of a mechanism (a message center) which accomplishes the task of accepting, rejecting and redirecting the information as needed to the most probable interpretation. The processed information is temporarily stored in the message center and each of those knowledge sources may use the information provided by one or more than one available knowledge sources previously mentioned. Accordingly, by means of individual sources and the activation of a message center which permits the interaction of several knowledge sources, higher level stages (e.g., semantic and syntactic analysis) may influence lower-level stages (e.g., ortographic and phonemic analysis).

Stanovich's model presents a conceptualized interaction among the knowledge sources postulated in Rumelhart's model in a COMPENSATORY way, based on top-down processing and bottom-up processing. The author's model is claimed to be INTERACTIVE because "top-down and bottom-up processing take place at the same time at all levels of information processing" (Meurer, 1985: 38). Stanovich's model is postuladed to be COMPENSATORY because "any reader may rely on better developed knowledge sources when particular, and usually more commonly used, knowledge sources are temporarily weak" (Samuels and Kamil, 1984: 212). For instance, when a reader does not

have stored much knowledge about a certain given topic he may rely on bottom-up strategies (e.g., word recognition) to compensate for his incapability to make predictions about text content. On the other hand, if a reader is unskilled at word recognition he may rely on top-down strategies (e.g., to use the context) to compensate for the difficulty.

Accordingly, this study starts from a schema-theoretical orientation that reading comprehension derives from an interaction between content nd textual information by means of the activation of available and pertinent schemata via the interplay of top-down and bottom-up processing. Possible deficiencies that may occur in reading processing are expected to be compensated by the readers' reliance of any available knowledge source. Because readers may use knowledge from a variety of sources they may predict meaning embedded in a text, adjusting these predictions as they proceed in the text, e.g., the use of knowledge of principles of textual organizational to compensate "deficiencies" in language control.

Thus, comprehension is seen as "building bridges between the new and the known" (Pearson and Johnson 1977:24). Comprehension is seen as the result of an interaction between the text and reader's knowledge. The only way a reader can figure out an unknown subject is seeing this subject in relation to what he already knows by the activation of pertinent schemata, reliance on available knowledge sources whithin the scope of psycholinguistic processes, e.g., the use of reading skills, and the use of a strategic reading — which will be explored next.

1. 3. READING SKILLS AND STRATEGIES

Reading and understanding a text requires the interaction of a reader with the text using background knowledge and skills in a strategic way.

As said before, reading skills are individual tools readers need to assess the information conveyed in a passage (e.g., to identify a main idea, to distinguish the main idea from supporting details, to figure out implicit information). The use of reading skills are related to the occurrence of different levels of comprehension. Smith (1978) identifies four different levels of comprehension, namely, Literal, Interpretational, Critical and Creative.

The LITERAL level is related to simple reproduction, repetition of the information as it is conveyed by the author. On the other hand, when a reader goes beyond the literal information, relates partial information to global information, draws conclusions, interprets relationships he is engaged in an INTERPRETATIVE level of reading comprehension. The CRITICAL level is reached when a reader, after interpreting a target information, evaluates the information itself and the author's presentation of it – author's qualification in relation to the subject information, his point of view, his goals and thoughtfulness. The CREATIVE level comes with a reader's ability of reducing target information (after interpreting and evaluating it) in a process of reconstruction when his own knowledge, point of view, judgements and values are

incorporated to the target information, therefore, the reader's success in reaching any of these levels demands the use of a wide range of skills (e.g., decoding, interpreting, inferencing, evaluating, elaborating information, etc.).

Another factor that exerts influence on the classification of different levels of reading comprehension is reading purpose. Purposes of reading can vary and the exploration of a text may assume different approaches according to the load or tupe of information a reader wants or needs from a passage, e.g., to read to get specific information for academic purpose, to read to get general information for entertainment. Deves proposes three different levels of comprehension: (1985) GENERAL COMPREHENSION - a reader reads a passage for the main gist e.g., the topic of the text is identified and has a brief idea of what is being conveyed by the author. b) MAIN POINTS COMPREHENSION - a reader identifies arguments and their development, e.g., a reader knows the topic and identifies the key ideas about it. DETAILED < > COMPREHENSION - a reader concentrates on specific meanings (components of sentences, lexical items from the passage and others), e.g., supporting information is explored in detail. Thus, reader's success in reaching a desirable level of comprehension demands the use of a strategic behaviour in reading.

As mentioned before, strategies are seen as plans readers use flexibly and adaptively, depending upon a situation (Duffy & Roehler, 1987). To develop strategic reading means to develop thoughtful and conscious reasoning on situations encountered in texts.

In the present study, reading strategies are identified as reading devices a reader may use to facilitate the understanding of a passage, adaptively, according to his reading purposes, his proficiency in reading, and the amount and type of information to be obtained from a target text. A text provides clues that enable readers to construct meaning from existing knowledge and readers may benefit from the use of these clues as a reading strategy.

The last position is theoretically supported by Smith Goodman (1982). Smith claims that fluent (1978) and readers do not process all visual information, but pass their eyes ower the print selecting information that is relevant to their purposes. Goodman. postulates that efficient reading does not depend on accurate identification of all language items. To elaborate a good hypothesis depends on effective strategies for selection of necessary and productive cues. The printed information is used as reference for guessing, testing, confirming or correcting. Proficient reading demands the employment of effective strategies for selecting the adequate and useful cues for that.

With respect to this study, reading comprehension is seen as a strategic process and strategy instruction is devised with the aim of developing reading skills to obtain general information and main points according to an interpretative and critical level (Smith, 1978) by means of the use of a schematic strategy (Van Dijk, 1983), that is, by establishing the overall organization of the target texts and their rhetorical function. Rhetorical function means

to instruct readers to follow rhetorical expressions (the author's train of thought) with the aim of enabling them to comprehend the communicative importance of parts of the text.

1. 4. STRATEGY INSTRUCTION

Reading requires strategies and awareness of strategy use (Duffy et al, 1987). Accordingly, one of the teacher's tasks in a reading class is to provide effective strategy instruction, e.g., learning strategies.

Learning strategies include any thoughts or behaviours that help a reader to acquire new information in such a way that the new information is integrated with existing knowledge. Weinstein (1987) proposes a set of categories of learning *strategies that consist of processes and methods that can be used to acquire information and to retrieve and use that information. They are: Comprehension Monitoring, Affective, and Reherseal, Elaboration and Organization. For the author, Organization is a learning strategy that by a reader with the aim of transforming information into another format that may facilitate understanding. It consists of an existing or created framework used to impose organization which requires active cognitive processing on the part of the reader. To be cognitively active requires the reader to activate prior knowledge and to be purposeful, goal directed and strategic as well. The notion of cognitively active reader is in harmony with the concept of cognitive organization which can be related to Ausubel's learning theory.

Within a theory of cognitive organization Ausubel (1960) defends "receptive learning" in opposition to "discovery learning". According to the receptive learning theory, the reader's task in a receptive learning process is to internalize information that will be available in a future time through a process of assimilation, e.g., new meanings may be acquired through a process of assimilation whereby unfamiliar information is incorporated, stored in the individual's knowledge system and available at a future time.

Ausubel's theory of cognitive organization holds that learner's acquisition of new meanings is facilitated when he possesses a cognitive structure, that is, a clear, stable and hierarchically organized structural framework of concepts, factual items, generalizations pertinent to the learning task. Therefore, symbolic representations whose purpose is to clarify and structure the concepts and their relationships needed by a reader to understand the information contained in a particular passage are identified as Cognitive Organizers. A cognitive organizer may take any form "as long as it meaningfully employs the concepts and interrelationships relevant to the cognitive structure of the selection" (Hill, 1979: 40), e.g., a short passage, a tape recording, an outline, a diagram and so on. They may be presented as pre-reading, during or post-reading activities. The most common form of cognitive organizers is the "Advance Organizer". It consists of an introductory passage or statement to be read by a reader in advance of a target reading material. There are diferent labels that identify certain forms of cognitive organizers (Structured Overview, Graphic Overview, Graphic Organizer). All of those labels refer to visual and verbal representation of the key vocabulary or ideas which may be organized through a diagram or outline so that the relationships between the words or between units of information are highlighted.

Within the scope of this study. Cognitive Organizers are seen as an operational implementation of Ausubel's theory of cognitive organization. They are seen as Organization Strategies which may help a reader to structure information, creating a framework to impose organization. They are identified as Structured Textual Organizers (the label that identifies the profile of an operational strategy that fits the goal of this study - explicit instruction of textual organization of expository texts), that is, visual representations of major segments of text depicted through a diagram that permits a reader to configurate textual interrelationships and the overall distribution of textual expository material.

In this manner, the use of Structured Textual Organizers stems from the view that cognitive organization is not only consistent with schema-theory (Meyer, 1984; Meurer, 1985) but also with reading research which has also applied the notion of cognitive structure, e.g., Meyer's system which explains logical relations in discourse, as well as Kintsh & Van Dijk's description of micro and macro levels relationships of textual material. Moreover, texts are neither randomly selected nor randomly arranged sentence sets. Texts provide clues (textual clues) that enable readers to activate and build on existing schemata (e.g., Formal/Textual Schemata). Formal schemata has

been referred in the literature in the context of "Text Structure" that will be described next.

1. 5. TEXT STRUCTURE

Recent research in reading has offered relevant insights for understanding the role of content schemata (Langer 1984 and others cited in Tomitch 1988) and formal schemata (Meyer and Freedle 1979 cited in Pearson and Camperell 1981; Meyer and Rice 1984; Carrel 1987; Garner and Gillingham 1987; Baker, Atwood and Duffy 1988) in comprehension and retrieval.

More recently attention has also been paid to formal schemata, that is, text organization. Readers use prior knowledge in the form of a text schema for organizing and interpreting texts. For Meyer and Rice (1984) the term text structure refers to how the ideas in a passage are interrelated to convey a message to a reader, how the logical connections among them are specified and how some ideas are subordinated to others.

The use of text structure has been seen as a factor that may influence text processing (Carrell 1983, Meyer 1984, Ohlhausen and Roller 1988). A written text may be seen as a semantic unit that contains a text structure. It is constructed by a writer and reconstructed by a reader according to different patterns of textual organization which may generate different text types, e.g., a narrative text, an expository text.

Recent research has investigated the influence of text structure on reading by following theoretical accounts where the notions of MICROSTRUCTURE, MACROSTRUCTURE and SUPERSTRUCTURE have been examined within the scope of text structure variation.

MICROSTRUCTURE is related to meaning at local levels. To examine the microstructure means to consider the structural variations that occur between or among sentences or sentence components. MACROSTRUCTURE is related to meaning at a global level. To examine the macrostructure of a text means to consider the overall organization of discourse and the hierarchical distribution of ideas. Ideas are examined according to their structural importance within the hierarchy. For example, for expository texts ideas are ranked according to their structural importance in a criteria of superordination, that is, an idea is ranked according to what extent it is considered a "main idea" (in relation to details) within the global organization of the text. The structure is seen as a semantic network whose components are identified either as idea units or as propositions. SUPERSTRUCTURES are defined by Van Dijk (1981:15) as "schema-like global structures", that is, schematic categories of a conventional type , e.g., scientific report, a theatre play. Superstructures help to organize semantic macrostructures serving as an abstract schema which has to be semantically filled in by macropropositions. Superstructures are related to the form of the discourse, e.g., a narrative. Superstructure is not always explicit in a text, so, a reader needs to identify the implicit schematic categories resorting to his internalized knowledge of principles of textual organization.

Recent research in reading that investigated aspects of schemata seems to indicate that both content and formal schemata influence text processing. The operation of the two types of schemata was examined by Ohlhausen and Roller (1988) in isolation and in interaction across four-age groups of students (5th, 7th, 9th and College) when selecting important information of descriptive expository texts. Results showed that the structure strategy scores indicated a developmental trend over all passages and experimental conditions (Content/Structure, Content/only and Structure/only). The authors concluded that the developmental trends in strategic awareness and developmental preferences seemed to indicate that content and formal schemata interact and influence text processing.

The effects of text structure instruction in understanding and recall have been examined according to the use of Meyer's top-level structures (Bartlett 1978 cited in Meyer 1984); Meyer & Brandt & Bluth, 1980; Slater & Graves & Piche, 1985). Results showed that experimental subjects increased their ability to identify and use the original superordinate structure of the text and significantly increased the amount of information the subjects remembered. Similarly, Berkowitz's data analysis (1986) provided empirical evidence that direct instruction in using an author's organization of ideas in content material 🧸 🕏 a framework for studying may increase recall of expository information. Furthermore, the results of data analysis on text structure instruction have suggested that this type of reading instruction has indirect effects on student's writing competence, e.g., summarization (Winograd, 1984; Rinehart & Stahl & Erickson, 1986), had direct effects on students' recall

for unfamiliar reading material (Taylor & Beach, 1984) and supported the conclusion that awareness of text structure and use of text structure strategy approach to a expository text resulted in a significant difference between main ideas recalled and details recalled from the reading of the original passages (Richgels & Mcgee & Lomax & Sheard, 1987).

Another aspect that has been investigated within the scope of formal schemata is concerned with the interaction of reader's background knowledge, reader's purpose of reading, reader's identification of macro-information and conventional expository structures based on the assumption that no one factor determines comprehension. Birkmire's results (1985) indicated that recognition memory for text elements is a function of the location of the elements in text structure, for example, information that was located at a higher level of the content structure (cf. Meyer's, 1984) was better recognized than the information located at middle-level of the content structure. This study showed that the rate at which information was obtained from text is dependend upon the structure of the the text, reader's background knowledge and purpose of reading. Accordingly, Risko & Alvarez (1986) developed a thematic organizer (a text adjunct for texts in a comparison top-level structure and for texts in a descriptive top-level structure) to explicitly highlight the central theme of the texts, to relate the theme to students' prior knowledge and to provide cohesion among text ideas to accomodate text structure. The findings suggested that to provide passage-relevant information and to relate it to background knowledge the reading of a descriptive prior text extends comprehension. To teach the central theme by. relating it to students' schemata prior to reading when reading a comparison text was found to be superior to a strategy that activated passage relevant information without interaction. Armbruster & Anderson & Ostertag (1987) examined the effect of text structure instruction of a conventional expository text structure (problem-solution). Data analysis showed that use of the P/S structure as an organizational framework facilitated the formation of a macrostructure for text with a P/S structure and exerted a positive influence in recall. Brown & Smile (1977) and Roller (1985) presented experimental work on text structure instruction. Results indicated that prior knowledge C) f textual organization o f expository structures and sensitivity to the relative importance of certain parts of information are that are factors closely related to comprehension and memory.

The influence of text structure instruction of expository structures was also investigated in non-native English readers. Carrell (1984) examined whether different groups of ESL readers (Spanish, Arabic and Eastern countries) possess the appropriate formal schemata against which to process four of Meyer's (1984) expository structures. Results indicated that there were differences among the different types of expository structures in terms of recall. Also the different structures exerted a differential impact on different ESL readers. The researcher concluded that the native language background of the readers and the existence of different discourse types had influenced the amount of ideas recalled. Carrell (1985) developed another study with the purpose of examining the effect of training ESL readers to identify and use Meyer's (1984) rhetorical text

types as a structure strategy. Results indicated that the training sessions for the experimental group significantly increased the total amount of information recalled when compared to a control group and facilitated recall of supporting details as well as major topics and sub-topics. Stanley (1984) described an exploratory study designed to examine similarities and/or differences in the way native and non-native readers process problem-solution texts in a macro-textual approach. She obtained homogeneous results that provided the evidence of the existence of a problem-solution structure and she concluded that when EFL readers are aware of a P/S structure they can use it as an attempt to solve sentence-level syntactic and lexical problems when reading in the foreign language.

Therefore, recent research has provided evidence for the effect of the rhetorical organization of a text and its interaction with readers' formal schemata. Different measures (e.g., written recall protocols, summaries, notetaking, underlying, question-answering and others) have been used in experimental studies. The most widely used measure has been the written recall (immediate and/or delayed) analysed not only for the number or level of ideas recalled but also examined for the degree to which readers use the same organizational pattern as the author.

A writer constructs a passage with a purpose, based on his background knowledge (culture specific values are included), knowledge of the language and he develops a selected topic following a certain textual organization, in order to convey certain information to a target audience that is distant from

him in terms of space and time. A reader has a specific aim at reading a passage and he constructs meaning according to internalized representation of objects, situations and events based on his background knowledge, linguistic knowledge, reading skills, reading strategies and ability of administering variables that are related to breakdowns in communication due to a distance in space and time between readers and writers. A text is the means whereby information is conveyed and integrated according to different text types. For Halliday and Hassan (1976), what distinguishes a text from a non-text is the presence of certain linguistic features that contribute to its total unity and gives its "texture" (the term is used to express the property of being a text). According to these authors, text is a semantic unit of language in use (spoken or written) of whatever lenght that forms a unified whole and is encoded by sentences (but with an overall organizational structure different from that of sentences) and function as a unit according to its environment. The examination of text structure variables is closely related to prose analysis systems which will be explored in the next section.

1. 5. 1. TEXT ANALYSIS SYSTEMS

Within the scope of an interactive view of reading, text structure and understanding are closely related. Smith claims that

"The more we can anticipate and employ the formal structures that an author uses, the more we can understand and remember what we read, because the structures form the basis of our understanding and remembering"

(1978 : 65)

According to him, a reader may use knowledge of conventional structures of text, e.g., conventional textual patterns, by the time he interacts with a text. The use of this type of knowledge may function as the basis for understanding and recall. The more familiar a reader is with a certain text structure schema, the more he is able to transfer this type of knowledge to a "new" text. There are common textual organizational patterns which specify where in a passage specific content is likely to appear, e.g., problem-solution organization in problem-solving texts.

From the point of view of reading research, to specify the textual structure of a passage allows the identification of textual variations that may arise between the text and the reader. For Meyer & Rice (1984:320) text structure analysis focuses upon text properties and sheds light on reader's contributions that are pertinent to the reading and understanding process.

The studies that have investigated the effects of Formal Schemata in reading comprehension have started from the specification of text structure provided by prose analysis approaches developed according to the characteristics of the text to be analysed and the researcher's purpose; consequently, none of the proposed systems of analysis may be accepted as a universal system. Kintch's system (1974, cited in Meyer &

Rice 1984) relates to narrative texts, and Meyer's system (1984) concerned with expository texts, are illustrations of available text structure systems that represent text structure in a hierarchical organization. Both systems allow text classification, measuring and score of textual content understood and recalled by readers.

Kintsch's text analysis system identifies the proposition (the linking of words to form predications about things, people or events) as the minimal unit of analysis. Propositions are hierarchically ordered on the basis of content rather than interrelations. This system accounts for three aspects of text that are related to the reader's understanding: Microstructure, Macrostructure and Superstructure.

According to Kintsch & Van Dijk (1977) different properties of discourse structures can determine some aspects of cognitive processing. They postulate that understanding organization and retrieval are a function of the structures the individual assigns during reading. Although, the authors are concerned with narrative, their theory postulates that for understanding text, a reader starts from the MICROSTRUCTURE (a sequence of propositions in a local meaning) and based on specific schemata knowledge of text SUPERSTRUCTURE (which corresponds to Meyer's top-level structure), a reader creates a MACROSTRUCTURE (relationships among sentences-unification of the propositions in the discourse in different levels of descriptions) for a text. Text structure can be expanded, modified or rejected as the reader attempts to interpret successive propositions. Thus, textual information is reduced to macrostructures by the application of certain semantic transformations namely

"macro-rules", that is, mapping rules (identified as generalization, deletion, integration and construction) to obtain the macrostructure from the microstructure of the discourse.

Meyer's text structure approach identifies the idea unit as the minimal unit of analysis. Idea unit is referred to in Meyer's work as explicit and implicit textual units of information (content units) which are divided into meaningful pausal units.

The author proposes that the structure of expository texts can be described according to a hierarchical organization, which forms a conceptualized tree diagram that represents all CONTENT information from a text: the STRUCTURE. This representation configurates the overall organization of expository texts and clarifies the interrelations between its idea units, as well as highlights the importance of these ideas from the text perspective, e.g., certain idea units are subordinate to other idea units, creating in this way a kind of textual subordination. In fact, these idea units represented by a propositional structure that shows how certain propositions are subordinate to other propositions.

Accordingly, aiming to locate how propositions are represented in the Content Structure, Meyer distinguishes three levels of text information: top-level information which is represented by macropropositions, e.g., the gist of a text (main ideas) and middle and bottom-level information which are represented by micropropositions, e.g., supporting information, very specific details. The ideas that are represented by

propositions which are located at the top of the content structure dominate their subordinated ideas that are represented by propositions which are located at the levels of the content structure. In this manner, three levels distinguished: Top-level cif STRUCTURE are structure (represented by propositions the whole text that bind together), Macropropositional structure <that</pre> includes macropropositions that occur at the top-level stucture) and a micropropositional structure (that includes the propositions that are located at the lowest level of the content structure).

Meyer claims that her conceptualization of text information within a Content Structure depicts—an important aspect of the text—its TOP-LEVEL STRUCTURE—at which an expository discourse can be examined and described. This aspect is considered important because it clarifies the organizational textual structure of expository texts which can be used to facilitate the understanding of expository information. The notion of "top-level structure" has been referred to in the literature according to different labels, e.g., "superstructure" (Kintsch & Van Dijk, 1977); "patterns" (Niles, 1974 cited in Meyer 1984) and it has been explained by Meyer and her associates as a structure that

"...contains rhetorical relationships that ties all of the propositions in a text together and gives its overall structure".

(Meyer, 1984: 116)

Meyer's explanation of "top-level structure" is intrinsically related to her conceptualization of "content structure". As said previously, her system of analysis

emphasizes relations among and between propositions according to their location at the content structure. She identifies propositions that are seen in a rhetorical relationship to each other (semantic propositions that specify relationships between and among sentences, paragraphs and larger text segments) and she labels them as RHETORICAL RELATIONS (or predicates). For Meyer, rhetorical relations play a crucial role in the formation of the conceptualized diagram that represents the content structure since the description and examination of these relations a) shed light on sentences interrelations, b) subordinate certain propositions to others, c) specify propositional relationships whose occurrence at the upper part of the diagram (that represents the content structure) permits the configuration of a hierarchical organized representation of the overall textual organization of a discourse and, in this way, provides its top-level structure. Thus, a top-level structure is the rhetorical relation that governs the highest level of text information depicted at the content structure and gives to the text its overall structure. Accordingly, Meyer examined and described conventional expository structures; as a result, she identified a set of rhetorical relations that are related to typical organizational models of expository texts and she classified these rhetorical relations into 5 basic groups: DESCRIPTION, COLLECTION OF DESCRIPTIONS, CAUSATION, COMPARISON AND RESPONSE (Question/ Answer, Remark/reply, Problem/Solution are included in the last group).

The first group, DESCRIPTION, is identified as a top-level structure and it includes relationships that provide information about a topic by presenting attributes,

specific explanations or settings. These relations are a kind of grouping by association in which one element of the association is subordinated to another. In this way, these descriptive rhetorical relationships subordinate some propositions to others. The second group, COLLECTION DESCRIPTIONS, includes relationships that show how ideas or events are interrelated on the basis of some commonality. It contains a group or a list of concepts or ideas which are associated in two basic ways - time order or space order. The third top-level structure proposed by Meyer - CAUSATION shows a causal relationship betwen topics by pointing out propositional relationships (e.g., one proposition is the antecedent and the other is the consequent, one proposition is the cause and the other is the consequent). The fourth group of rhetorical relations, COMPARISON, refers to top-level structure in which similarities and differences between two or more topics are pointed out. This top-level structure is classified according to three different formats: a) Comparison/Analogy (when explanatory analogies are included, that is, things that belong to a certain class are explained by reference to another), b) Comparison/ Alternative (it is concerned with alternative relationships that present "equally but mutually exclusive positions" (p. 114) when parallel cases are set up), c) Comparison/Adversative (when viewpoints or events are emphasized). The last group of rhetorical relations is identified as RESPONSE. This top-level structure, is organized to three different according types: Remark/Reply, Question/Answer, Problem/Solution. These structural types require some overlap in content between the propositions interrelated, e.g., overlapping content between propositions in the problem and in the solution in a Problem/Solution type.

Therefore, Meyer's approach is based on a propositional analysis of the text and the identification of the coherence relations between propositions. This system is applicable to all types of expository texts. According to the author's theory a reader builds a propositional hierarchical structure (a content structure) which is provided by the author as a framework that guides the flow of information and functions as a basis for understanding and recall. All the information in an expository text is seen as a whole piece of information, following rhetorical relationships, e.g., comparison—contrast, a problem with a range of solutions, that will define a text as a certain type.

In short, Meyer's prose analysis system produces a conceptualized representation of textual information within an organizational structure which can be used during reading for understanding information and judging its importance. Her system allows investigation of text structure variables and their effect on reading recall. It has been widely used in the analysis of the structure of expository texts and in investigations of the influence of these structures on readers' understanding and recall. The theoretical orientation proposed by Meyer in relation to text structure research provided insights for this study, e.g., the employment of text structure strategy — to which I turn next.

1. 5. 2. TEXT STRUCTURE STRATEGY

Structure Strategy, that is, reader's ability to follow the textual organization authors employ in their writing is seen by theorists and researchers as an important factor in comprehension and recall. Text structure strategy consists of a systematic plan for processing text (Meyer, 1984). This reading strategy is concerned with the use of knowledge of text structure organization and selection of information, e.g., the major text based relationships among propositions. employing this strategy, readers are seen to approach text by looking for patterns (a combination of relations organizing discourse) which will tie together the propositions contained in the text. Readers also search for coherent relations that link large chuncks of information, which, in turn, signal particular text structures. For Meyer (1984) the signalled relationships in expository texts are the rhetorical relationships of Causation, Comparison, Description, Collection of descriptions and Response. The use of text structure strategy on expository texts, as a reading strategy, gives readers a framework to organize incoming information. This framework permits them to perceive hierarchical levels of information distribution and makes it possible for them to reduce information to manageable chuncks.

For Meyer (1984) when a reader approaches text without knowledge of textual organization and no effective strategy for utilizing the top-level structure of the passage, he is expected to follow the default strategy. The author explains that when a reader approaches text in a default mode, he does

not take into account that there is a considerable variance in the structural complexity of different text types (Meyer, Brandt and Bluth, 1980) and he does not follow a systematic plan for processing text based on its text structure. The work of Meyer and her associates suggests that the Structure Strategy is the dominant strategy of good readers and the Default Strategy is the dominant strategy of poor readers. For example, recent literature suggests that poor readers seem not to have focus for recalling the text, as a result, their recall is simply a collection of unrelated descriptions about the topic of the text (Meyer, 1984; Duffy et al., 1987).

Meyer's work also suggests the existence of variables, e.g., individual differences, individual text types, that may influence success in the use of text structure strategy. Ohlhausen and Roller (1980), identify these variables as reader-based factors and text-based factors.

Reader-based factors are concerned with the characteristics of the reader that may affect reading performance, e.g., developmental and ability differences in sensitivity to important information (Brown and Smiley, 1977), and previous knowledge of text structure organizational principles (Pearson and Camperell 1981; Meyer 1984; Carrell 1987; Ohlhausen and Roller 1988). Text-based factors are related to structural features of the text that appear to influence reading performance, e.g., the existence of textual elements that may signal text structure relations, the existence of organizational structures that seem to be easier to read and recall than others (Winograd, 1984).

One of these factors that seem to facilitate comprehension and recall - signalling of text structure relations - will be the topic to be explored in more detail in the next pages.

1. 5. 3. SIGNALLING

Spyridakis & Standal (1987) explain that signals expository prose are generally described as a word, phrase , or and/or preanounces content statement that reweals relationships in content. Theoretically, signals may aid readers in instantiating an adequate schema, in forming a hierarchical framework in which to store incoming textual information. Accordingly, recent research (Meyer & Brandt & Bluth. 1980: Spyridakis & Standal. 1987) has identified particular types of signalling: a) PREVIEW STATEMENTS headings or previews announcing content before the readers encounter the actual content. b) LOGICAL CONNECTIONS - logical connectives revealing relationships between ideas. e. a. . "first". "next". c> EVALUATIVE SIGNALLING - pointer words revealing a writer's view of the content, e.g., "fortunately", "unsuccessfully". d) STRUCTURAL CUES- explicit statement of the structure of relations in the text structure, e.g., signalling for comparison relationships, signalling for problem - solution relationships. This last type is included in Meyer's conceptualization of signalling. For her, signalling is defined as

^{... &}quot; information in text which does not add new content about a topic, but which gives emphasis to certain aspects of the semantic content or points out aspects of the structure of the content."

According to Meyer's view "signalling" includes signals that may appear before and after relevant content. Thus, signalling is seen within the scope of a propositional structure - the content structure (conceptualized description of the structure of expository texts). There are rhetorical relationships that specify textual relations propositions, paragraphs, and larger text segments. Signalling of those rhetorical relationships at the superordinate level of the content structure (at top-level) explicitly points them out to the reader, that is, according to Meyer's concept of content structure, textual relationships are signalled according to their occurrence in the propositional structure (in this case at top-level) and are identified as a set of relations that are rhetorically organized and configurate the 5 mentioned earlier structure patterns, e.g., problem - solution pattern. The occurrence of signalling mechanisms within discourse descriptions, e.g., how these mechanisms occur in the problem-solution structure, is demonstrated by Hoey (1979, 1983).

Hoey's explanations about signalling are rooted in Winter's concept of Clause Relation. Winter claims that Clause Relation

^{...&}quot; is the cognitive process whereby we interpret the meaning of a sentence or group of sentences in the light of its adjoining structure or group of sentences."

Winter's definition of Clause Relation was adapted by Hoey in an attempt of explaining how these relations are interpreted by a reader since they are not identified by intuition and they are not always adequately described at the level of the text itself. Accordingly, Hoey postulates that Clause Relation

..." is the cognitive process whereby the choices we make from grammar, lexis, intonation in the creation of a sentence or group of sentences are made in the light of its adjoining sentence or group of sentences."

(Hoey 1983 : 15)

Thus, Hoey expands Winter's concept of Clause Relation when he claims that interpretation of meaning is concerned with the reader's choices made from available sources (e.g., grammatical, lexical) which function as a basis for meaning construction. For the author, a text contains a set of clause relations (which are created by a writer and, in turn, are interpreted by a reader as the result of reader/writer interaction) whose occurrence in discourse may be described as follows (see figure 1):

CLA	USE RELAT	IONS
I	I'I	111
Logical Sequence Relations	Matching Relations	General/Particular Relations
a.Condition/ Consequence	a.Compatibility b.Contrast	a.Unmatched General/ Particular Relations
b.Instrument/ Achievement	c.General/Particul: Matching Relatio	
c.Cause/ Consequence	c.1.Generalization: Examples-Match Compatibility Contrast	
	c.2.Preview/Detail Matching Compatibilty/ Contrast	
		* * * * * * * * * * * * * * * * * * * *

FIGURE 1 - HOEY'S CLASSIFICATION OF CLAUSE RELATIONS

According to Figure 1, Clause Relations are described according to three main categories: A) Logical Sequence, B) Matching Relations, C) General/Particular Relations.

The first category includes relations between sucessive events or ideas. Those relations form a logical sequence where propositions may be organized in three basic ways: a. one proposition is the condition and the other is a consequence; b. one proposition is the instrument and the other is the achievement; c. one proposition is the cause and the other is

the consequence. The second category refers to relations "where statements are 'matched' against each other in terms of degrees of identicality of description" (p.20). These clauses can basically match for compatibility or they can match for contrast. General/Particular Matching relations are the ones that start with a general statement that may be exemplified (Generalization/Examples-Matching Compatibility/Contrast) or detailed (Preview/Detail- Matching Compatibility/Contrast) throughout the text. The third category is related to Clause Relations that are presented in a passage where no matching relations appear. In this case, there is a general statement supported by details with no development of compatibility or/and contrast between them.

As said previously, for Hoey (1983), Clause Relations are seen as acts of interpretation on the part of the reader and at the level of the text these relations are combined and/or interrelated in different ways. The occurrence of these relations within discourse in an interactive reading process may be affected by linguistic and non-linguistic factors. This last aspect is discussed in Hoey's work.

Hoey explains that there is a difference between the writer's approach to producing texts and the reader's approach to reading texts. The first, is characterized as a non-linear approach (a writer manipulates information in a non-linear way- adding, rejecting, skipping -when producing it). The second approach is characterized as a linear approach (a reader reads materials from beginning to end). This difference of approaches presupposes a load of complexity

in the reader's act of interpreting discourse which was built out in inter-connecting parts. Thus, the author suggests the existence of non-linguistic factors background knowledge storage> and linguistic (e.g., signalling) that can help in the explanation how a reader is able to administer complexities that stem the dissimilar approaches above which may affect reader's interaction with the text; and consequently, its interpretation. With respect to non-linguistic factors, Hoey suggests that there is an infinite number of text pattern possibilities; however, in order to be considered by a reader they need to be culturally approved patterns (e.g., the western world's concern with problem-solution). The reader's knowledge of accepted text patterns simplify the reader's task of searching for a linear path through a non-linear network produced by a writer. In this way, there is a relationship between the network of information conveyed by a writer and the reader's possible ways of interacting with it. One of these possible ways is a matter of clause relation signalling (a linguistic factor) that may facilitate the reader's interpretation of discourse.

Hoey's view of relation is concerned with meaning. Moreover, he claims that semantic relations are linguistically signalled and they can be identified only by examining the content of clauses (grammatical constructions consisting of subject and predicate with optional adjuncts) and their context. From this perspective Hoey proposes that

..." signalling is used to focus on particular relations as rhetorically important and to create relations where otherwise they could not have confidently exist."

(1984 : 187)

Accordingly, Hoey highlights the applicability of "signalling" as the means whereby a relation may be established in discourse. Thus, signalling is seen as a linguistic interface between readers and writers.

Hoey identifies three main types of signalling:

- a. GRAMMATICAL SIGNALLING the presence of subordinators and / or conjuncts.
- b. LEXICAL SIGNALLING a type of signalling that may spell out a relation before (as an anticipatory signal) during an event, or after an event (as a retrospective signal).
- REPETITION SIGNALLING this type of signalling is identified according to 5 different groups : 1) repetition - repetition of words with no alteration paradigms, e.g., trend / trends. 2) Complex repetition repetition of words that involves a change of grammatical the verb "danced" replaced class, e.g., as the DOM: D 3) Substitution - the occurrence of personal "dance". pronouns, demonstrative pronouns or/and adverbs. 4. Ellipsis - when a missing element of a sentence can be recovered from a previous sentence. 5) Paraphrase - when the same thing is said with different words, with or without change in the grammatical class of the word receated.

As well as Meyer's theoretical orientation about the effects on text structure in understanding and recall, Hoey's work on signalling has also provided insights for the development of this dissertation. Both authors postulate the occurrence of signalling as a way of specifying relations in written discourse. For them, passages contain semantic relationships that are rhetorically organized and those relations can be interpreted by a reader through signalling devices provided by a writer. As seen above, the authors' explanations and focus on the role of signalling in discourse are seen according to specific perspectives.

For Meyer, expository discourse is hierarchically organized. This notion of hierarchy is explored through a propositional system of analysis that clarifies possible sets of rhetorical relations that can occur at different levels of discourse description, e.g., overall textual organization is identified at the top-level of the conceptualized content structure. The structures that occur at the top-level of the content structure are signalled through relationships between topics that point out organizational possibilities, e.g., the five types of top-level structure identified by Meyer in expository texts (Description, Collection of descriptions, Causation, Comparison and Response).

For Hoey, discourse is organized "at least in part in a hierarchical manner" (1983:53), and it may be made up of clause relations in a sentence or group of sentences (at a micro-level), which are themselves members of large clause relations paragraphs (at a macro-level), which are in turn,

members of an overall relation, e.g., a pattern. Accordingly, the author proposes the occurrence of rhetorical relationships at the discourse itself that help readers/listeners to perceive text structure, e.g., signalled relations at micro and macro level. Readers may interpret signalled relations through signalling mechanisms that allow them to construct meaning, e.g., the signalling mechanisms that help a reader to identify the functioning units in a problem/solution structure.

With respect to this study, Meyer's description of the top-level structure of Comparison (in a comparison/alternative format) and Response (in a problem/ solution format) are introduced as the target text structures to be explored along text structure instruction. Similarly, Hoey's classification of the main types of signalling within discourse (that shows the occurrence of signalling mechanisms within the selected target text structures) are included as crucial elements pertinent to the development of the experimental work in terms of data collection and data analysis. These topics will be further described along Chapter III and IV.

CHAPTER II

METHODOLOGY

2. 1. EXPERIMENTAL DESIGN

The research presented here evaluates and compares the effects of reading instruction on Brazilian EFL reader's comprehension and recall with and without training on text structure organization of expository texts. Comprehension and recall were measured in pretest and posttest condition for experimental and control group. This chapter contains information about subjects, testing materials, instructional materials and procedures.

2. 1. 1. SUBJECTS

The 20 subjects participating in the study were enrolled in extracurricular English Courses offered by different institutions (Instituto Estadual de Educação and Universidade Federal de Santa Catarina - Cursos Extracurriculares). All of the participants were following the same pedagogical method and were using "Developing Strategies" (Abbs & Freebairn, 1986) as the main classroom materials.

The students had been attending a ninety minute English class, twice a week, along 5 semesters preceding the experiment and they had received foreign language instruction with the aim of developing the four abilities (listening, speaking, reading and writing). The subjects' age ranged from 16 to 35 with a mean age of 19. There were 9 women and 11 men. Ten subjects were high - school students (3rd year), nine of them were attending college, and one of them was a high-school teacher.

Taking into account that there were two groups available, by a flip of a coin I decided which group would be the experimental (G1) and the control group (G2). As pointed out before, both groups were attending English classes following the same pedagogical method and syllabus. However, G1 received additional reading instruction when compared to G2. G1 received reading instruction that focused on principles of textual organization whereas G2 did not receive this type of instruction. The experimental classes were taught by the researcher herself with the purpose of providing experimental instruction to G1 along regular extracurricular English classes. Nevertheless, both groups were submitted to the same Proficiency Test and they were also submitted to identical Pretests and Posttests. Testing materials will be described in the next section.

2. 1. 2. TESTING MATERIALS

Two different types of testing materials were devised and used in this study: a Proficiency Test to measure

general knowledge of the language and reading ability and a set of Pretests and Posttests to measure reading comprehension and recall before and after the experimental instruction.

2. 1. 2.1. THE PROFICIENCY TEST

All subjects were submitted to a Proficiency Test with the purpose of selecting two homogeneous groups in terms of knowledge of the foreign language and reading ability (see appendix G for the results).

The Proficiency Test was a recognition test devised to assess subjects' communicative competence. According to Canale (1983) communicative competence refers to knowledge (what one knows about the language and other aspects of communicative language use) and skill (how well one uses the knowledge when interacting in actual communication). So, the author identifies areas of knowledge and skill within a theoretical framework: a) Grammatical Competence- this area is concerned with the mastery of the language code, features and rules of the language, e.g., vocabulary, sentence formation, word formation. b) Sociolinguistic Competence- it refers to the appropriatness of utterances that are produced and understood in sociolinguist contexts, e.g., the 'status of participants, purpose of the interaction, conventions of interaction. c> Competencethis area of i≤ Discourse concerned with the mastery of how to combine grammatical form to achieve a unified text (written or meaning **d** > spoken) in different text types, e.g., a narrative. Strategic Competence- this area includes all communicative strategies (verbal and non-verbal) to compensate for breakdowns in communication, e.g., inability to enhance effectiveness of communication.

The cited areas of competence were not deeply examined along the proficiency test, but they were implicitly presented along the two main testing parts that composed it. Part "A" was a language test. The English Language Test applied was the general proficiency test designed by a team of teachers at UFSC for the Extracurricular English Courses offered by the Department of Foreign Languages. Grammatical and sociolinguistic competence were areas of communicative competence emphasized along the language test. Part "B" was a reading comprehension test and it consisted Of a set of reading passages followed by comprehension questions. These passages were extracted from the preliminary section of the examination for the Certificate of English Proficiency provided by the English Institute of Michigan with the aim of assessing reading skills, e.g., ability to capture main ideas, to read for details, to understand vocabulary in context, to infer implicit information from the text. The results obtained from the Proficiency Test showed that the the target groups were to some extent homogeneous (both groups ranked around 7.8).

2. 1. 2. 2. EXPERIMENTAL TESTING PROCEDURES

The experimental tests were devised in a Pretest Posttest Control Group design. All subjects were submitted to identical Pretests (T1) and Posttests (T2) -see appendix B-

with the purpose of observing to what extent the experimental group (G1) reading comprehension and recall was influenced by the experimental treatment (X) when compared to the control group (G2). Figure 2 represents the experimental design.

Gi	<	RANDOM	>	T1	(X)	T2
G2	Ç	RANDOM	>	Ti		T2

FIGURE 2 - THE EXPERIMENTAL DESIGN

Accordingly, testing procedures and activities were designed with the goal of obtaining comparable measures in terms of identification of main ideas, use of knowledge of the target text structure organizational patterns (Comparison and Problem-Solution) and recall of information. Testing procedures are represented in figure 3.

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#
  TEST
               PRETEST
                                     POSTTEST
**************************
  GROUP
               G1 & G2
                                        G1 & G2
*************
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          #
                              #
#
    P
          #
              TEXTS I, II
                              #
                                   TEXTS I, II
                                                 #
#
    R
          #
                              #
                                                 #
#
    O
             (half of the
                              #
                                 (the other half of #
#
    0
              students)
                                                 #
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                                   students who
#
    Ε
                                didn't read these
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              TEXTS III, IV
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                                   TEXTS III, IV
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**********************
              Free Recall
          #
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 MEASURE
#
          #
              Comprehension Questions
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          #
              Summary
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***********************************
```

FIGURE 3 - TESTING PROCEDURES AND MEASURES

According to figure 3, both groups (G1 & G2) were submitted to the same English expository texts (I, II, III, IU). The PRETEST was administered as a preliminar testing activity and the POSTTEST as a final testing activity. In the pretest, half of the students of each group read texts I and II and the other half read texts III and IV. In the posttest, the students of both groups were assigned to the passages they had not read in the pretest. This procedure was identical in both groups and it was designed avoid effects inherent to texts themselves. For example, if any of the texts were easier (when compared to the other texts), this effect was supposed to be neutralized because that text would be better recalled than the other texts in the pretest and in posttest condition. Both test conditions were proposed according to identical instruments of testing which provided data for analysis: Immediate free-recall protocol, Comprehension Questions and Summary.

The immediate free-recall was produced by each of the participants after they had read each text. They were previously informed that they were not expected to produce a summary, but to write down everything that came to their minds about the text they had just read aimed at providing data for identification of the idea units recalled, type of information recalled (main ideas, supporting information, details), awareness of Text Structure (presence of matching relations, and textual clues that may signal textual interrelations). These protocols were analysed and scored according to a Master Score Key and a Key of Textual Relations, as described next.

The four passages used in the Pretest and Posttest

conditions were parsed into idea units which were listed in the order they appeared in each passage. Eighteen independent judges were asked to read the four passages and then rate the relative importance of the idea units to the theme (from the most important to the least important). Specifically, the raters were asked to place a 4 beside the T-units that were most important to the theme (superordinate ideas), a 3 beside the ideas that were next in order of importance (the ideas that give support to the superordinate ideas), an so on for 4 levels of importance. The ratings were averaged to produce a rank of T-units according to their level of importance in each original text. The subjects' recall protocols were parsed into idea units and each idea unit was scored against the Master Score Key (see Appendix C). The total possible number of T-units ranked 3 and 4 would represent text macrostructure in each original text. In the same way, the four texts used in Pretest and Posttest condition were submitted to a text analysis procedure (which will be described in section 2.2.1.) in order to identify sets of textual relationships that represented the top-level structure of each original text. A finite set of relations resulted from the analysis producing the Key of Textual Relations for each passage (see Appendix D). The students' protocols were also submitted to identical text analysis procedures. The total possible score for comparison/contrast protocol was the number of finite sets of textual relations that represented ideas being compared/contrasted. The presence of interrelated cluster of ideas that represented the 4-Part Metastructure of Problem-Solution (see section 2.2.1.) were scored according to the maximum score of 10. Two points were assigned to the presence of Situation and Evaluation parts and three points were assigned to each Problem and Solution parts in subjects' protocols.

Reading comprehension-questions (open-ended questions and multiple-choice questions) were also assigned to the students as a way of assessing reading comprehension skills, e.g., ability to identify and select macro-information (see Appendix B). Students' answers were corrected according to the Master Score Key.

A final testing activity - summarization - was selected as a second measure (not as a focus of analysis) intended as a further confirmation of the tendencies revealed in the recall protocol. The students were asked to write a summary of limited size about the text they had read. The goal was to investigate whether the summary presented would match the textual structure of the original texts. Students' summaries were analysed according to the same KEY OF RELATIONS used in the analysis of the recall protocols.

All the activities described above were produced in the students' native language, aiming to avoid the difficulties they might have in producing answers in the foreign language. In addition, a glossary of possible unknown words and expressions was provided with the goal of minimizina difficulties that the students might in decoding the foreign language. Pretests and have Posttests were designed according to four different expository passages that will be mentioned in the next section.

2. 2. TEXTS

A set of 14 expository passages was selected and used for Specific purposes in different activities along this study: a) as available material for data analysis developed for pretest / posttest activities, and b) used as instructional materials in the instruction provided to the experimental group (G1). Figure 4 identifies the set of Passages used in the study.

PRETEST & POSTTEST

- I. Skirting with disaster (Jordan, 1984 p.34)
- II. Universities (Imhoof & Herman, 1987 p.23)
- III.Hair Color (Jordan, 1984 p.62)
- IV. Respected Leaders (Imhoof & Herman, 1987 p.31)

READING INSTRUCTION

- 1. Smoke (H.G. Robinson, 1983 p. 286)
- 2. Football (Imhoof & Herman, 1987 p.26)
- 3. Box-Office successes (McCrea & Kernnerle, 1985 p.120)
- 4. Competition (Grellet, 1983 p. 178)
- 5. Reading Passages (Jordan, 1984 p. 45, 48, 56, 85)
- 6. Lifts (Knight et al, 1982 p. 65)
- 7. Chinese Writing (McWorther, 1986 p.101)
- 8. Languages (McWorther, 1986 p. 107)
- 9. Alcoholism (McWorther, 1986 p. 111)
- 10.Giants of Biology (McWorther, 1986 p. 133)

As seen in figure 4, four expository passages (I, II, III, IU) were selected from the basic set of texts and used as both pretests or posttests. Passages I and III were short passages (between 95 to 131 words) and they were organized in a problem-solution format. Passages II and IV were longer passages and contained between 243 to 252 words and they were organized in a comparison-contrast format with similar number of salient similarities and differences. The passages used in the experimental instruction contained general information, between 95 to 450 words, half of them were organized in a problem-solution format and the other half in a comparison-These passages were assigned contrast format. to the experimental group (G1) in addition to the reading materials provided in the English regular course.

2.2.1. MODELS OF TEXTUAL ORGANIZATION

Based on Meyer's classification of Top-Level structures (cf. Meyer, 1984) two organizational patterns were selected: The Top-Level Structure of Comparison (in a comparison-contrast format) and the Top-Level Structure of Response (in a problem-solution format).

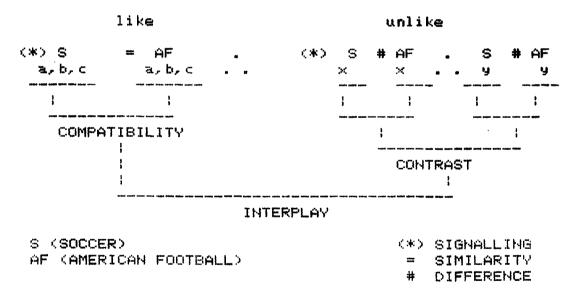
The Top-Level structure of Comparison in a comparison-contrast format is identified in this study as a type of relationship that governs the overall structure of a text according to an interplay of sets of relations that match for compatibility and/or contrast (Hoey, 1983). For example, let's consider the following mini-text

1 Like football, soccer is a ball game played on an outdoor field with a goal at each end. Unlike, a 3 football, the soccer ball is round. It is not passed or carried, as the football is, but rather is kicked 5 along the ground or hit with the head.

(Hefferman & Lincoln, 1986:59)

From reading the short text above, we can note that there is a development of matching relations between statements when Soccer and American Football are compared. Figure 5 represents sets of textual relations obtained from the analysis of the mini-text

ଉଚ୍ଚର୍ଗର ପ୍ରତ୍ୟକ୍ତ ପ



ରତ୍ତ୍ୱର ଉଦ୍ୟବ୍ୟ ପ୍ରତ୍ୟର ପ୍ରତ୍ୟର

FIGURE 5- SETS OF TEXTUAL RELATIONS IN A COMPARISON-CONTRAST MODEL

According to figure 5, there is an interplay of sets of textual relations that match for compatibility and contrast that contributes to the overall organization of the information. Sentence 1 and 2 match for compatibility since

similarities are emphasized, e.g., both games are "ball" games (Sa, AFa), both games are played on an outdoor field (Sb,AFb), both games ought to have a goal at each end of the field (Sc,AFc). Sentence 3, 4 and 5 match for contrast since differences are emphasized, e.g., the shape of the ball used in each game (Sx,AFx) and the rule that governs the way soccer players and football players deal with the ball are contrasted (Sy,AFy). In this minitext, matching relations are signalled to a reader through signalling words (*) employed by the writer either to connect similarities between the two games, e.g., "LIKE football, soccer is a ball game", or to connect and express differences, e.g., "UNLIKE football, the soccer ball is round", as an anticipatory lexical signalling.

In the present study two texts in a comparison-contrast format were used as part of the reading material used in Pretests / Posttests. Both of them were analysed according to the illustration above in order to develop critera for data analysis.

The top-level structure of Response in a problem-solution format was introduced and developed according to Hoey's (1983) and Jordan's (1984) theoretical support and text analysis work.

Hoey (1979, 1983) selected and analysed the Problem-Solution structure (P/S) based on theoretical support provided by Beardsley, 1950; Becker et al., 1965; Young,

Becker and Pike, 1970 (cited in Hoey 1983) and others. According to him, there are relationships among the main units of information that form the P/S structure which are seen as chunks of information that can be identified and interpreted by the help of signalling. The author's text analysis work has provided evidence that a complete P/S structure or according to Jordan's words (1984:18) "The 4-Part Metastructure", contains four basic units of information, namely, Situation, Problem, Response / Solution, Result / Evaluation. (see figure 6)

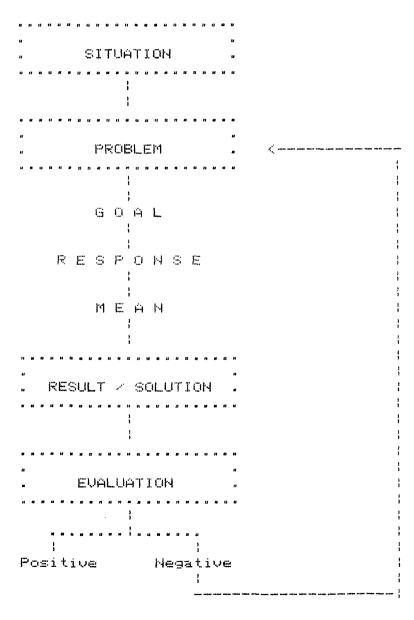


FIGURE 6 - AN OVERVIEW OF THE P/S MODEL

According to figure 6 , SITUATION is expressed situational features. This unit of information starts the cycling of the pattern and it can be expressed by one more sentences that may be either linked by proximity or by their position in the overall structure. The unit information that contains a PROBLEM is expressed by a linguistic problem in connection to real world and it related to an aspect of a problematic situation that requires a response. Basically, there is a situational aspect that needs to be changed, in addition, there is a goal to be reached. RESPONSE/SOLUTION are elements that are inter-connected in the same unit of information. Response comprises a sub-relation of cause-consequence stimulus-response. A new situation is provided and it is seen as the mean to reach the goal. Solution identifies a particular response which is evaluated as successful. Similarly, RESULT/EVALUATION are also inter-connected elements in the same unit of information. Evaluation has to do with opinion about the efficacy of the response provided to the stated problematic situation. A positive or dramatically negative evaluation ENDS the cycling of the pattern. Conversely, a negative but not irremediable evaluation RECYCLES the pattern. In this manner, Hoey claims that SITUATION (the unit of information that contains the specific fact that contextualizes the occurrence of a problem) and EVALUATION (the unit of information that sheds light on what is thought about the fact) are the fundamental units in a P/S pattern. PROBLEM, RESPONSE, RESULT are elements which are built around situation-evaluation units of information.

Jordan's work (1984) on the analysis of the P/S structure is rooted on Winter's and Hoey's theoretical and analytical work. The author suggests that the instruction of the P/S model should be developed by focusing on the four basic units of information that constitute a complete P/S structure. He proposes a Question-Answer pedagogical procedure that consists of a set of 4 basic questions that should be answered according to the interpretation of interrelated chuncks of information contained in a text that contains a complete P/S structure. Each question will elicit one of the 4 parts that forms the P/S Metastructure (see figure 7).

ଉପରେ ପ୍ରତ୍ୟର ପ

QUESTIONS

READER IS REQUIRED

ଉପ୍ୟସ୍ତର ପ୍ରତ୍ୟର ପ୍ରତ୍ୟ

a. What's the situation ? To identify the specific fact or ----- circumstance that contextualizes the occurrence of a problem.

b. What's the Problem?

To identify any form of dissatisfaction or other stimulus. For example, a need, a decision, a dilemna, a disease, a danger, etc. that asks for improvement, replacement, deletion, addition or any other desire, behaviour or state that can cease the stimulus that generated a difficult or bad situation.

c. What's the Response?

To identify what sort of answer is given to the stated problem.

d. How well did the response overcome the problem?

To verify whether this solves the problem or not in an evaluative way.

The reader's answering of the basic set of questions will provide background, significance and effectiveness of what is being described in a P/S text (cf. Jordan, 1984). Jordan agrees with Hoey (1983) that the connection of the P/S structure to real - world gives room to some typical complications that can occur in P/S texts; however, he belives that the reader's understanding of the model as a scheme may help him to interpret relationships in each new P/S text and to detect what parts of the P/S model are present or absent in the text, and this way to make it easier to understand. For Jordan, clear information structuring of the P/S model involves appropriate selection of highinformation with a meaningful ordering (that can be elicited through the answering of the basic questions) and effective use and identification of signalling. For him, signals will help a reader to identify what part of the P/S metastructure is being presented in the P/S text and how this identified part may be related to other parts of information within the overall P/S structure.

The F/S texts that were used in Pretests/Posttests were analysed based on Jordan's basic questions in order to provide criterion for data analysis. Jordan's questions were also used along the Reading Instruction to which I turn next.

2. 3. READING INSTRUCTION

The reading instruction (see Appendix F) was developed according to three main stages: WARM-UP, TRAINING FOCUS and FOLLOW-UP.

2. 3. 1. WARM-UP

This preliminary stage was designed with the purpose of introducing to the students basic notions of an interactive reading approach such as a) the influence of schemata in reading, and b) how to follow a set of interactive procedures in reading in a hypothesis-testing way.

In an attempt to illustrate the influence of schemata in reading, two short passages were selected — text "a" and text "b". These short-texts were suggested in Text Linguistics I (1987) as an adaptation of a mini-text introduced in Rumelhart, 1981.

TEXT "a": " Mary ouviu o carro do sorveteiro descendo a rua. Lembrou-se do dinheiro de seu aniversario e correu para dentro de casa."

TEXT "b": " Mary ouviu o taxi descendo a rua. Lembrou-se de seu revolver e correu para dentro de casa."

After reading passage "a" the students were requested to answer a set of questions (Who is Mary? How old is she? What is her aim? How is she feeling?) and they were also asked to justify their answers. Later on, the students were

asked to read text "b" and once more they were asked to answer the same questions which were presented in text "a". After this, the students were asked to compare both texts, and the answers they had provided to each of them as well. Finally, there was a group discussion.

After the discussion, the students came to the conclusion that in spite of the fact that both passages present similarities in their linguistic context their semantic context presented dissimilarities. The schemata they had activated when reading the texts had influenced text meaning. In passage "a" the presence of "ice-cream car" and "birthday money" led them to build a context where there was a little girl who wanted to buy ice-cream. In passage "b" the presence of a "taxi" and a "gun " led them to reconstruct the passage by identifying a scared woman who was in danger and was trying to protect herself. Therefore, the students were led to perceive that the reason why they built different contexts was concerned with the schemata they had activated when reading each passage, and this activation had influenced the meaning of each text.

A set of interactive procedures of reading were proposed to the experimental group with the goal of providing an interactive approach of reading within the development of text structure instruction.

Three initial steps were suggested: a) Prepare yourself for the reading task and determine what is your objective of reading; b) Survey the text, read the title, its source of information, the first and the last sentence

of each paragraph in order to have an idea what the text is about; c) Build expectations about text content. All these steps have to do with the idea of activating pertinent and available background knowledge. Next, a set of questions (see appendix F) was proposed with the aim of helping the students to interact with the text. The set contained three questions which were given with the purpose of preparing the students to take into account organizational aspects of the text (e.g., What is relationship of the ideas conveyed in the passage? How are these ideas organized? Do they follow any organizational pattern?). Finally, the students were asked to ponder over the general content of the given text, to evaluate the relevance of the ideas presented, and to evaluate if their expectations were fulfilled or not after reading the passage. All of these aspects were expected to be focused on the students' answers because the suggested set of questions would function as a guide to be followed. The set of questions were suggested by Self-Questioning reading technique proposed in Anderson (1978).

2. 3. 2. TRAINING FOCUS

The second training stage was developed with the goal of instructing G1 students how to use stored knowledge of text structure as a reading strategy, that is, to use a systematic plan for processing text which focuses on textual organization and involves selection and identification of overall textual relationships of the expository structures of Comparison-Contrast and Problem-Solution. Accordingly, G1 subjects were instructed to take into account the overall

information of the texts, by searching for units of information that were hierarchically distributed and organized according to organizational principles that govern the textual organization of the texts they were assigned to read. Figure 8 and 9 represent the possible distribution of interrelated information according to each of the target models focused upon instruction through diagrams that present a visual spatial representation for the description of the expository structures.

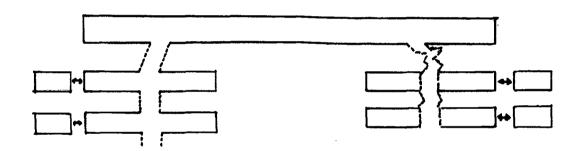


FIGURE 8- INTERRELATION OF UNITS OF INFORMATION (COMPARISON/CONTRAST MODEL)

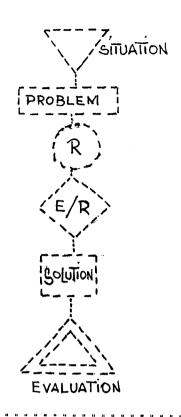


FIGURE 9 - INTERRELATION OF UNITS OF INFORMATION (PROBLEM/SOLUTION MODEL)

The diagram (Fig. 8) displays elements about persons, things, places etc. that are concerned with the topic (displayed at the top) being compared and contrasted. The arrow path drawn between nodes on straight the left represents similarities. The jagged arrow path to the right differences. in each side are represents Extra boxes provided for each different node in order to highlight what "aspect" OΫ́ the topic is being compared contrasted. A network of information is depicted by a graphic arrangement that shows how similarities and differences are interrelated in the overall structure.

The diagram (Fig.9) displays nodes in different formats with the aim to highlight each component of the 4-Part Meatastructure. For example, Part 1 which refers to situational aspects is represented by an upside down triangle. Part 2 that refers to the stated problem is represented by a

rectangle. Part 3 is represented by three geometric figures: the identified response to the stated problem is represented by a circle, the information that refers to the evaluation of the response is represented by the shape of an isosceles and the response evaluated as solution is represented by a square. Part 4 which refers to the final evaluation is represented by a double triangle. The dynamism of the P/S pattern is represented by connecting links and arrows drawn between the nodes that suggest a cycling (and possible recycling) of information. A network of information is hierarchically distributed to compose the overall textual relationship that identify the pattern.

Basic Self-Questioning and Textual Structured Organizer were the reading techniques used during instruction because these techniques seem to be helpful to the development of text structure instruction. Both of them, require an analytical and evaluative position from the part of the reader, in a decision-making process, since he needs to decide and to evaluate what information should be included or excluded in a semantic network of information in order to depict superordinate textual relations.

Basic-Self Questioning reading technique Was introduced according to two different sets of questions that were built according to the target organizational pattern. For the Comparison-Contrast passages the following set of questions was proposed: a. WHAT ASPECTS ARE BEING COMPARED ARE THERE ON THE TEXT? (ideas, events, features etc.); b. ARE THERE SIMILARITIES BETWEEN THEM? WHAT ARE THEY?; c. DIFFERENCES THEM? ARE THEY? For BETWEEN WHAT the following questions the were Problem-Solution passages

suggested: a. WHAT SITUATION IS BEING FOCUSED ON THE TEXT? (identification of specific circumstance the text): WHAT THE generated the ь. 13 PROBLEM? Kidentification of any form of dissatisfaction that generated problem): c. IS. THERE ANY RESPONSE TO THE IDENTIFIED PROBLEM? (identification of a new situation that may overcome the problem); d. WHAT SORT OF SOLUTION IS BEING PRESENTED? IS IT NEGATIVE OR POSITIVE? (identification of a particular response that can be evaluated as successful or not).

pointed out in Chapter I. Textual Structure As Organizer is the label of a form of Cognitive Organizers which was used during instruction as an organizational help strategy to the students structure information, by creating a framework to guide the flow of textual information when answering reading exercises (see F).

Therefore, G1 students were led to connect the idea relationships that existed in reading selections by interpreting textual relationships that refer to an organizational representation of text structure with goal of facilitating the identification, interpretation and evaluation of information by considering it within overall textual structure by means of a Text Structure Strategy.

The last instructional stage was provided to G1 students as a short review where Text Structure Strategy should be used within an interactive reading approach.

The final reading task was developed as a group work activity. The whole class was divided into 4 groups. Four written texts were assigned to the students. Two of them were organized in a Comparison/Contrast model and t he others in a Problem/Solution model. Each group read one of the given texts. Next, after reading the text, the subjects were asked to pursue individual answers to the following questions: 1) What have you hypothesized about the text ater reading its title and source? Were your hypothesis(es) confirmed after reading the passage? 2) What is the crucial information of the text? 3) How are the ideas presented in the text related? Do they follow an organizational model? Explain. 4) Have you got "new" information from the text after reading it? What information? 5) Evaluate the importance of the information presented in the text. Is it clear? Is it convincing? Does it match to what you already know about the topic?

Finally, each of the students selected a classmate that had read a different text. He/she was told to state to his/her classmate (in an alternate way) what had happened in the text he/she had read. During this oral activity the students were requested a) To explain whether his/her hypothesis(es) was/were confirmed or not; b) To focus upon the organizational

model contained in the text as a reading device; To of illustrate the main features the identified organizational model that were present in the text; d) point out what sort of lexical signalling had helped them to locate the textual segments of the identified model; e) state the central idea of the text; f) To explain in an evaluative way what was the "new" information (if there was any); g) To evaluate the efficacy and appropriatness of the information conveyed in the text by answering a set of questions which were the focus of a group work discussion. After the completion of this interactive activity, G1 students were informed that the reading instruction had come to an end.

In summary, text structure instruction was devised, presented, developed and practiced according to three associated stages. The first stage, WARM-UP, was a preparatory stage devised to acquaint G1 students with interactive procedures in reading by emphasizing the skills of predicting, hypothesizing and questioning with the goal of helping them to activate prior-knowledge and to match this knowledge to text The second stage, TRAINING FOCUS, was information. interconnected to the first stage as a reading device that help readers to interact with the text. At this stage the main focus of instruction was proposed and it consisted of providing explicit instruction about principles of textual organization that govern the interrelationships of thre target top-level stuctures and to stimulate the students not only to focus upon the organization and distribution of ideas but also to make them aware that the use of knowledge of text structure as a reading device within an interactive approach may facilitate

1

the understanding of the text as a whole. The third stage, FOLLOW-UP, was proposed with the goal of providing feedback and to integrate the instructional activities proposed in the previous stages. In order to integrate the instructional activities as a whole, clarification and self-reviewing were required from the part of the reader.

In short, the development of the reading instruction was influenced by a schema theoretical view of reading and by the view that reading comprehension is the result of an interactive-compensatory process between reader's background knowledge as far as a reader possesses, integrates and activates pertinent and available schemata. In fact, the instructional design was devised based on the general belief that in much the same way human mind stores schemata for sequential events that normaly take place in routinized situations (Rumelhart, 1981), it stores schemata for the structural or rhetorical organization of texts (Meyer & Rice, 1984).

As mentioned before, all subjects (G1%G2) were submitted to experimental tests in different situations: before and after training (experimental group) and before and after no special training (control group). Both testing situations provided relevant data which were analysed and evaluated in the light of the hypotheses proposed. This is the topic of the next chapter.

CHAPTER III

RESULTS, AND DISCUSSION

3. 0. PRELIMINARIES

The purpose of this study was to investigate the effect of text structure instruction on EFL readers as a factor of improvement in understanding and recall.

This chapter presents the following results obtained: global results between and within groups, results on the students' performance on Comparison/Contrast and Problem/Solution passages, and discussion.

Results were obtained in four measures: 1) scores on comprehension-questions, 2) scores for the presence of T-units level 3 and 4, which represent macro-information in recall protocols, 3) scores for the presence of matching relations (in comparison-contrast passages) and the problem-solution metastructure (in problem-solution passages) in recall protocols and 4) scores for the presence of top-level structures in summary protocols. The scores obtained by each group (G1 and G2) were analysed according to difference of means (Raw scores are available in Appendix H).

Calculations for the Difference of Means Test were performed for the following conditions: a) G1&G2 in pretest condition; b) G1&G2 in posttest condition; c) G1 in pretest & posttest condition, and G2 in pretest & posttest condition. The results were subsequently analysed for statistical meaningfulness using a "T" test.

3. 1. GLOBAL RESULTS BETWEEN GROUPS

Results from the calculations for difference of means for text structure instruction main effects reveal that the null hypothesis, that the probability of differences between means within and between groups would not be significant, is rejected.

As shown in table 3.1., when G1 subjects (the experimental group) read the passages after treatment they performed better than G2 subjects (the control group) that read them in identical testing condition (posttest) without having any instruction on text structure.

TABLE 3.1. - Global difference of mean scores between groups on the comprehension question test, recall test and summary test in pretest and posttest condition.

							
!		P	RETE		• – –	TTE	
2 3 3			G2				
 Comprehension questions		: :3.90	1 4.0	0.10	6.19	3.80	 2.39
; ; ;	macro- information		3.54	10.11	6.56		; ;3.12;
Recall	isets of irelations	14.64	5.40	10.84	7.75		 2.19
Summary	; use of top- level structure	1	6.42	!			

(*) The tests consisted of two discourse types:Comparison/Contrast Max: 10.0 and Problem/solution.

Calculations for the probability of difference between means for (G1&G2) in pretest and posttest condition were subsequently analysed with "T" test. Results obtained indicate that text structure instruction had a meaningful effect on comprehension and recall.

The results displayed in table 3.1.1. show that all comparisons between G1 and G2 in posttest condition were significantly different at p<. 05. On the other hand, all comparisons between G1 and G2 in pretest condition were not statistically significant.

TABLE 3.1.1. - "T" test for the probability of significance between groups (G1&G2) in pretest and posttest condition.

	and the time that the same and the cost of the time that the same	PRETEST	POSTTEST		
Comprehension questions test		. 55	.000003 :		
	macro- information	.79	.000001		
¦ test ¦	; sets of ; relations	. 23	.0008		
=	l use of top- l level l structure	.92	.007		

p<.05 df: 18

3. 2. GLOBAL RESULTS WITHIN GROUPS

Results from the calculations for the difference between means (diff) within groups, when pretests (PRE) are compared to posttests (POST), performed on the scores of the Comprehension Questions Test, Recall Test and Summary Test indicated that significant differences of means are due to experimental effects. Text structure training had a statiscally significant effect on comprehension and on recall of macro-information. (In reported differences that follow the sign -> indicates a significant difference between means; the sign ^ indicates no significant difference of means).

Table 3.2. shows that a) G1 subjects had better understanding of the expository passages after training on text structure (PRE -> POST diff= 2.29) when compared to G2 subjects (PRE ^ POST diff= 0.28); b) G1 subjects' recall of macro-information increased (PRE -> POST diff= 2.91) when compared to 82 subjects (PRE ^ POST diff= 0.1); c) 81 subjects' recall of sets of textual relations of the overall patterns of Comparison/Contrast and Problem/Solution increased after treatment (PRE -> POST diff= 3.11) when compared to G2 subjets <PRE ^ POST diff= 0.16); d) G1 subjects scored higher for</pre> the presence of the top-level structures in their summaries (PRE -> POST diff= 1.46) when compared to G2 subjects (PRE ^ POST diff= 0.97).

TABLE 3.2. -Global difference of mean scores on the Comprehension Questions Test, Recall Test and Summary Test within groups in pretest and posttest condition.

		G1		<u></u>		
	(*)PRE		•			diff
Comprehension Questions	3.90	6.19	: 2.29 	4.0	3.8	0.2
Recall of macro-informat	ion		1			0.1
Recall of sets of relations		7.75	•			0.16
Use of top- level structure	5.79	7.25	1.46	6.42	5.45	-0.97

^(*) The tests consisted of two discourse Max: 10.0 types: comparison/contrast and problem/solution.

In the same manner than in the global results, the between groups "T" test for probability of difference of means for all comparisons within groups were significant at the p<.05 level.

As shown in table 3.2.1. the comparison of the results before and after treatment within groups indicates that there is a statiscally difference of means for G1 students when their pretests are compared to their posttests. Again, no statiscally difference was found when the control group results in pretest condition were compared to the results obtained in posttest condition.

3.2.1. - "T" test for the probability of significance within groups by comparing pretests to posttests.

PRE	TEST &	POSTTEST	¦
 	G 1	G 2	 !
Comprehension Questions 	.000001	.29	; ; ;
Recall of macro-information	.000002	.66	; ;
Recall of sets of relations	.001	. 64	; ;
 Use of top- level structure	0.03	. 56	i

3. 3. RESULTS OF THE SUBJECTS' PERFORMANCE ON TEXT TYPES

Comparisons between groups, in each text type, show that there is a statistical difference due to treatment effects.

As shown in table 3.3. results of subjects' performance in each expository text type indicate that the subjects represent homogeneous samples before treatment and that G1 students outperformed G2 students in all comparisons in posttest condition.

TABLE 3.3. - Results of the subjects'performance on Comparison/Contrast (C/C) and Problem/ Solution (P/S) text types.

]	PRETESTS			POSTTESTS			
;	Comparison /		Contras				
i i	G1	G2	df	G1	G2	df	
. C. Q.	4.30	4.70	0.3	5.10	3.60	1.5	
R. M.	3.00	3.20	0.2	5.70	3.10	2.6	
S. T. R.	3.70	3.80	0.1	6.50	3.70	2.8	
T. L.	5.40	5.20	0.2	6.00	4.40	1.6	
1		1	Problem -	Solutio) ři	·	
C. Q.	4.20	3.40	0.7	6.20	3.30	2.9	
R. M.	3.80	3.90	0.1	7.40	4.30	3.1	
S. T. R.	6.20	7.00	0.7	9.00	7.00	2.0	
T. L.	6.30	6.50	0.2	8.50	6.50	2.0	

C.Q . = Comprehension questions

R.M . = Recall of macro-information

S.T.R. = Sets of textual relations

T.L. = Use of the top-level structure

Results in table 3.3.1. show that there is no meaningful difference between the two groups performances in pretest condition on the two text types (C/C and P/S) but that there is a significant statistical difference of means in posttest condition.

3.3.1. - "T" test for the probability of significance between G1 and G2 performance on different text types in pretest and posttest condition.

	PRETEST		POSTTEST		
	CVC	P/S	C/C	P/S :	
Comprehension questions	. 15	. 26	.0001	. 00008	
Recall of	.19	.19	. 0004	. 000006	
	.11	. 25	. 004	.01	
Use of top-level structure	.83	.127	.02	-01	

p<.05 df: 18

Again, reading performance of each group (experimental and control) on different text types was examined by comparing intra-group results in pretest condition to the results obtained in posttest condition. The results were analysed for significance with a "T" test at the .05 level of significance.

Data analysis within groups confirmed the main effects of treatment on comprehension and recall. Results show that G1 students scored higher in posttests than in pretests. There is a significant statistical difference of performance in all comparisons, except for the use of the top-level structure of comparison/contrast in summary protocols. This result suggests that C/C text type produced a constraint on students' performance.

Table 3.3.2. shows G1 and G2 intra-group results on different text types. G1 results in the Comparison/Contrast text type indicate that there is a significant difference of means in comparisons (C.Q., R.M., S.T.R.), however, the use of the top-level structure (T.L.) in summary protocols does not show statistical difference when pretest and G1 posttest results are compared. results in Problem/Solution text type indicate that there meaningful statistical difference after treatment in comparisons. 62 subjects' results in three measures (R.M., S.T.R. and T.L.) were not statistically significant when they read each text type and pretests are compared posttests, except for the results of the comprehension concerned with Comparison/Contrast questions test type that present a significant statistical difference (p<. 01).

M= 10.0

TABLE 3.3.2. -Results of the individual performance of each group on different text types comparing pretest to posttest results.

<u>.</u>	EXPERIMENTAL				GROUP			
	C/C			P/S				
				"T" test	PRE :	POST		"T" test
	4.37	15.1	0.73	.00002	4.2	6.23	12.031	.000009
	13.0	15.72	2.72	.0004	3.83	7.47	13.641	.000009
S.T.R.	3.72	6.57	2.85	.005	6.25	9.00	12.75	.0004
='	•	•		.40	•			
		CON	roL		GROUP			
•				.01				
R.M.	13.2	3.11	0.09	.38	3.93	4.37	10.04	. 94
S.T.R.	3.85	13.77	0.08	.38	17.0	7.0	10.0	.100
				.36				

C.Q. = Comprehension questions

p<.05

R.M. = Recall of macro-information

S.T.R= Sets of textual relations
T.L. = Use of the top-level structure

Df= 9

3. 4. DISCUSSION

Results will be interpreted in the light of the research question and hypotheses proposed in the Introductory Chapter.

3. 4. 1. RESEARCH QUESTION

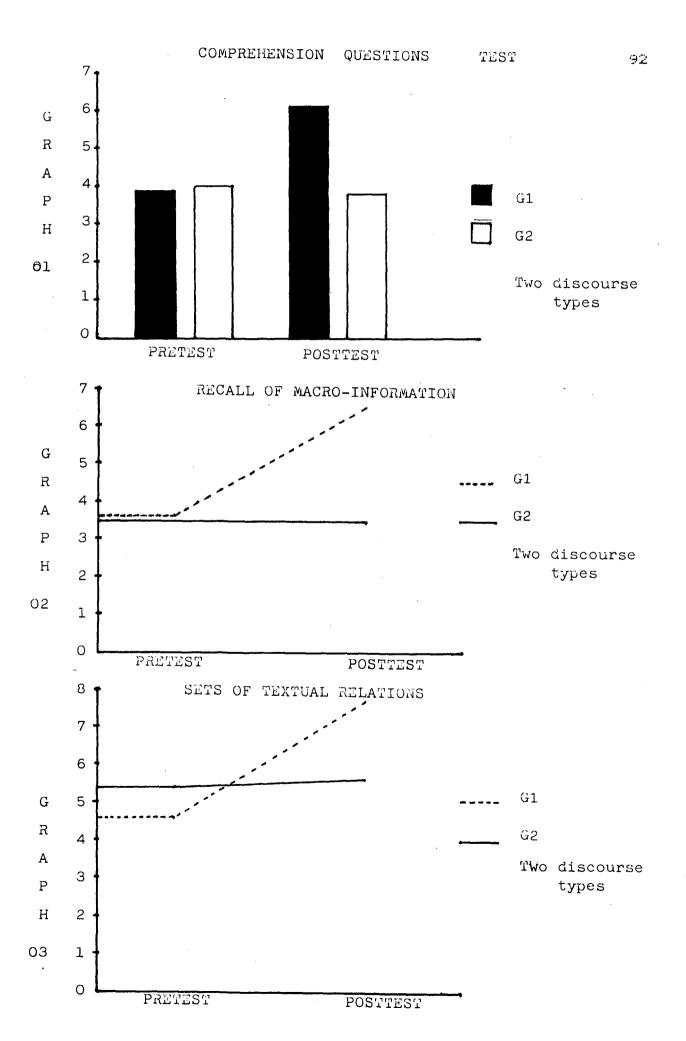
Will explicit instruction about textual organization influence EFL students' performance on reading expository passages that contain the overall pattern of comparison/contrast and problem/solution as measured by means of reading comprehension questions and recall?

As the results indicated, the answer is yes. Text structure instruction exerted a meaningful influence on the reading performance of the students that participated in the experiment reported in the present study.

The findings of the present study suggest that to provide reading instruction taking into account a macrostructural analysis of the text and to teach students to use text structure knowledge as a reading strategy is efficient and it provides students with a tool that can help them construct meaning. As shown by the analysis of questions/answers, recall and summary protocols, text structure seems to have interacted with readers' reading skills and contributed to the perception of global coherence when reading comparison/contrast and problem/solution expository passages.

- A) EFL students have better understanding of expository texts when they are taught about text structure organizational principles of expository structures, than when they read the passages without any explicit text structure instruction.
- B) EFL students recall better the macro-information of expository texts when they are instructed to use text structure knowledge as a reading strategy than when they simply read the texts.

The prediction that text structure instruction would the recall of understanding and affect overall macro-information of the text was confirmed. There is a experimental significant statistical difference of the all in all measures and i n performance to the comparisons, after treatment, when compared control group reading performance in identical posttest to conditions. Formal schemata activation seems contributed to the interpretation of interrelations among sets of textual relations of the overall expository patterns that configurate a representation of text macrostructure as a factor of improvement in overall understanding and recall of macro-information. (see graphs 01, 02 and 03).



As shown in graph 01. G1 results of the comprehension test, after instruction, indicate a meaningful questions statistical difference both in inter-groups (G1 Posttest & intra-group (G1 Posttest) analyses. G2 Posttest) and Graph 02 shows that the analysis of G1 subjects' recall protocols presented an increase of T-units that contained the macro-information of the passages, in both text structure types, when compared with G2 subjects' recall protocols in posttest condition. Similarly, graph 03 shows that G1 subjects' recall of sets of textual relations that identify the distribution of information that fits the organizational patterns highlighted in text structure **G2** instruction increased significantly when compared to subjects' recall in an identical posttest condition.

The following explanations may account for the positive results:

When the experimental subjects recognized the overall plan organization of the texts, they activated a formal schema via bottom-up processing and they used this а. top-down strategy to answer comprehension plan as questions and to organize their recall protocols. In other words, experimental subjects outperformed the control subjects because formal schemata activation brought to their minds specific components that were compatible to existing organizational framework of information related to comparison/contrast and problem/solution text types. To make predictions about the information conveyed according to this framework, offered a coherent account for the aspects of the text and guided the flow of information that functioned as a basis for understanding and recall. This view is supported

by research in reading. Bartlett 1932 cited in Lebauer (1985) also claims that when a passage is recalled, it is not reproduced exactly, but it is reconstructed in light of reader's schema at the time of the recall. Meyer and her associates (1980) and Meyer (1984) claim that awareness of top-level expository structures is particularly important for facilitating a top-down retrieval strategy. Meyer (1984) says that top-level structure of texts contains the superordinate information of the text. Similarly, Armbruster & Anderson & Ostertag (1987) and others, corroborated further evidence showing that the use of text structure as organizational framework of information facilitates macrostructure formation and exerts influence on understanding and recall. Blanton (1984) also concluded that the existence of a framework for organizing incoming information permits readers to perceive hierarchical levels of information distribution in controllable chuncks, this way, understanding and recall are facilitated. This view is shared by Carrel (1985, 1987); Slater et al (1985); Brown and Smiley (1977); Stanley (1984) and others whose studies indicate that text structure knowledge interacts with comprehension skills and contributes to overall understanding of the text.

In short, the results obtained in this study suggest that text structure instruction produced a positive effect on G1 subjects' understanding and recall. They created a framework of information that seemed to facilitate the identification and selection of sets of textual relations that contained the superordinate information of the text, in turn, this type of identification

influenced macrostructure formation; as a result, G1 subjects had better understanding and recall of the texts, after treatment, than G2 subjects in identical testing conditions.

The analysis of G1 subjects' summary protocols related to C/C text type show that 50% of the students used the top level structure in pretests and 60% of them used it in posttests. The percentages show that to some extent the students were familiar with the C/C pattern, what is not a surprise, since this pattern is a culturally accepted pattern in western countries in the same manner that the P/S pattern is. However, there is another factor that mau explain the unexpected result. Both C/C texts used in testing condition, present an introduction which represents a thesis statement that contains explicit signalling of the structure of the text by introducing to the reader the theme of the text. Most subjects had no difficulty in recalling this statement when producing their summaries. Their protocols were scored positively in the sense that the top-level structure was there (a reference that ideas are being compared and contrasted). After treatment, the thesis statement was also present in students' protocols, however, most students added information as exemplifications of the relations that matched for compatibility and contrast highlighting to some extent the gist of the text. As I have already mentioned in Chapter II, two texts of each discourse type (C/C and P/S) were available and used both in pretests and posttests with the goal of reducing text effect (one text could be easier than the other and this way

the results obtained would be affected since the same text was available in both testing conditions— Pretest and Posttest). Thus, Comparison/contrast text type seemed to have exerted certain influence on subjects' performance, however, the data is not enough to explain which of the C/C texts produced the major effect on performance or if both of them produced the same effect. In terms of percentage, G1 scored better in the summary test when pretests were compared to posttests, but this difference was not statiscally significant.

With respect to G2 subjects' performance, the data analysis shows that there are no statistical significant differences, in any of the comparisons of each text type, except for the comprehension questions test related to C/C texts, when pretests are compared to posttests.

Two possible explanations may account for the positive result: a) Pretests and posttests contained identical type questions. In the posttest condition, G2 subjects encoutered a familiar type of test which would not be considered in the final evaluation of the regular English course and "test anxiety" might be minimized; b) The students might be familiar to the topic of one of the texts, this factor may have facilitated understanding. and Possibly, these variables may have exerted influence on G1 students' performance, but treatment effects seem to be more a substantial significant powerful because there is difference that favored G1 results when compared to G2results by the analysis of the same C/C text type in identical posttest conditions.

CHAPTER IV

CONCLUSION

This chapter presents some final comments on the results obtained in this investigation, discusses implications for teaching, comments on the limitations of the study and makes recommendations for further research.

4.1. COMMENTS AND TEACHING IMPLICATIONS.

Results obtained in the present study provide empirical evidence that the Brazilian EFL students who participated in the experiment had better understanding and recall when they received instruction on the organizational principles of comparison/contrast and problem/solution expository structures than when they did not receive this type of instruction.

The better results of the treatment group have shown the beneficial effects of activating formal schemata in reading tasks, and lead me to conclude, providing further support to recent literature (Rumelhart, 1981; Stanovich, 1980; Carrel, 1985; Meyer, 1984 and others) that linguistic knowledge alone does not enable EFL readers to

understand and recall a passage and that they profit when they use text structure knowledge as a reading strategy. Text understanding depends upon an interaction of readers' and authors' schemata when cultural aspects, personal, ideological, religious, phylosophical beliefs, scientific view points, presuppositions, possible knowledge of the world and others need to interact in spite of a spatial/temporal distance that generally occurs between readers and authors. On the other hand, effective comprehension also depends upon readers' activation of content and formal schemata, readers' attributions that interact with linguistic, semantic and discoursal aspects of the text.

Being aware of these important aspects, that are concerned with an interactive reading process, reading teachers should include reading strategies that will help EFL readers gradually to become successful and independent readers by bringing to the reading activity pertinent schemata.

One of the ways to achieve this, is suggested by the results of this study: to provide explicit instruction about when, where and how to use text structure knowledge as a reading strategy within an interactive context. To instruct readers to consider the textual structure of a passage by relying on organizational aspects of the text enables them to understand text interrelations in a global way, by hypothesizing and confirming predictions in the light of a formal schema that once activated can help these readers to contextualize information in the same way they activated schemata for contextualizing routinized events.

A more positive attitude toward text comprehension was apparent after text structure training, in the sense that it made readers participate more actively in the process of reading. Readers seemed to be encouraged to interact with the text in the light of a text structure approach when the anxiety of knowing every word of the text to capture its meaning was minimized.

4. 2. LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FURTHER RESEARCH.

Recent research on the activation of formal schemata in reading has been carried out in English as L1 and second language, but there have been few studies in English as a foreign language. Consequently, more research is needed before the whole field is covered and generalizations can be made.

With respect to this study, three limitations must be noted: First, knowledge of textual organization is necessary but, it is not the only and sufficient guide to overcome readers' problems with understanding. Texts do not always have unitary patterns and their meaning is not pottentially acessible to all readers. A stable stock of information on a text allows a variety of interpretations by different readers according to their attributes, purposes of reading and interests. The second limitation is concerned with the sample studied in terms of size, which may not be representative for generalizations of results. The third

limitation relates to measurement criteria. Summaries seem not to be an adequate instrument to measure the use of top-level structure, since summarization is a process of reduction where information is judged important or unimportant based not only on indications from text structure, but also according to purposes, interest, background knowledge of the summarizer and his ability in summarizing.

The limitations encountered and the experience of developing this study allow me to make some suggestions for further research:

- a) TESTING -Testing measures should be investigated in the sense of their adequacy and effectiveness for evaluating the use of top-level structures. In this study recall protocols provided more consistent data than summaries.
- b) SCHEMATA The data obtained in this study do not solve the problem to what extent the combined effects of content and formal schemata would affect EFL readers' performance. According to Carrell (1987) content and formal schemata play significant, but different roles in understanding, however, empirical evidence of the combined effects of content/formal schemata in EFL reading is still required.
- c) TEXT STRUCTURE This study examined the effect of text structure in EFL intermediate readers' understanding and recall based on comparison/contrast and problem-solution text types. Other studies may investigate differential

effects of text structure: according to different levels of reading proficiency in the foreign language, with different discourse types, by comparing the use of text structure knowledge between languages (e.g. English and Portuguese).

- d) TEXT STRUCTURE TRAINING This study made use of Self-Questions and Textual Structure Organizers as reading techniques. Other studies may refine reading techniques. The optimal length of training still needs to be further investigated.
- e) RECALL OF MACRO-INFORMATION Another study could investigate the effects of text structure on EFL students' delayed recall. The data obtained in this study are concerned with immediate recall.
- f) CONTENT AREA READING Many studies have examined the effects of text structure knowledge in content area reading in English as L1 and ESL. The effectiveness of this type of instruction may also be investigated in content area reading in Portuguese.

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APPENDIX A

TESTS OF LANGUAGE AND READING PROFICIENCY

READING COMPREHENSION

TEXT I

The law is a great mass of rules, showing when and how far a man is liable to be punished, or be made to hand over money or property to his neighbors, and so forth. These rules are contained in books. A lawyer learns them in the main by reading books.

He begins by doing little else than read, and after he has prepared himself by, three years' study to practice, still, all his life long and almost every day, he will be looking into books to read a little more than he already knows about some new question which he has to answer.

The power to use books, then, is a talent which the would-be lawyer ought to possess. He ought to have enough flexibility and fineness of mental fibre to make it easy for him to collect ideas from printed words. He ought to have some readiness in finding what a book contains, and something of an instinct for where to look for what he wants.

But although this is the power of which he will first feel the need, it is not the most important. A lawyer does not study law to recite it; he studies it to use it and act upon the rules which he has learned in real life. His business is to try cases in court and to advise men what to do in order to keep out or get out of trouble. He studies his books in order to advise and to try his cases in the right way.

- A) AFTER READING THE PASSAGE DECIDE ON THE ONE BEST ANSWER FOR
 EACH QUESTION ACCORDING TO THE MEANING OF THE PASSAGE.
 - MARK (imes) BESIDE THE BEST OPTION.
- 1) The first thing a law student has to do is...
 - () read books
 - () hand over money
 - () practice law
 - () answer questions
- 2) After three years of reading,
 - () he can study law
 - () he can stop reading
 - () he still has to continue reading
 - () he is able to give intelligent answers
- 3) The principal business of a lawyer is...
 - () to discuss the material he has read
 - () to advise people who have legal problems
 - () to learn about real life
 - () to study the law
- 4) A good lawyer should know how to...
 - () be flexible in all things
 - < > collect ideas
 - () analyse and interpret what he reads
 - () be powerful

TEXT II

Anton van Leeuwenhoek had one consuming passion: the grinding of lenses. In all he made over 400 magnifying glasses, most of them less than one-eight of an inch in diameter. They have yet to be surpassed in quality.

With his lenses Leeuwnhoek made simple but remarkable microscopes. With these instruments he examined everything he could find - animal hairs, the head of a fly, skin fibers. One day he placed a drop of rain water under his microscope and was held spellbound by what he saw - little animals a thousand times smaller than one can see with the naked eye. Later he discovered the red blood corpuscles by cutting his finger and examining a drop of his own blood.

At a time in history when superstition abounded and the common belief was that certain forms of life, such as fleas, were produced spontaneously, Leeuwenhoek was able to prove that even the lowest form of life reproduces.

In 1680 this German storekeeper was elected a Fellow of the Royal Society of London for his discoveries.

B>	AFTER READING THE PASSAGE DE	CIDE ON THE ONE BEST ANSWER FOR
	EACH QUESTION ACCORDING TO	THE MEANING OF THE PASSAGE.
	MARK (x) BESIDE THE BEST	OPTION.
1>	Leeuwenhoek was originally	•
	() a scientist	() a Fellow of the Royal Society
	() a lens maker	() the proprietor of a shop
2)	More than anything else Leeu	wenhoek liked to
	() make lenses	() play with his microscope
	() examine his own blood	<pre>< > look at little animals</pre>
3>	His lenses have never been .	••
	() qualified () improved	upon () broken () appreciated
4>	In those days people believe	ed in
	() certain forms of life	() magic and the supernatural
	() spontaneity	() fleas

UFSC - CCE - DLLE CURSOS . EXTRA. CURRIC	ULARES
STUDENT:	
TESTE DE NIVELAMENTO - INGLÉS	•
PART I - CHOOSE THE BEST ALTERNATIVES	militario de la companio de la comp
1) Her name is Ann Margareth Elack Freeman.	
 a) Her surname is Elack. b) Her first name is Margareth. c) Her maiden name is Ann. d) Her full name is Ann Margareth e) Her surname is Freeman. 	
2) is your teacher? She	's here.
a) How c) where b) What d) Why	who
3) What does Mr Jones do?	
	l) He is a film director.
4) I Brazilian and Janet . Canadian and they in Toronto.	
	d) am - is - are - live b) is - am - are - live
5) Sally is Melbourne but,	livesManchester
•	d) from - he - on - with - her e) from - she - at - of - her
6) is a sandwich? It 's all	L.00.
w/ === = 	l) How much a) Where
7) Murray orders something to drink. He asks	the waiter:
 a) Would you like a coke? b) Can I have a glass of beer? o) Would you like a piece of cake? d) Can I have a sandwich? e) Would you like a glass of orange juice? 	
8) Ask what time the plane leaves Florianopolia a) What time do they depart? b) What time does he leave Florianopolis? c) What time does it arrive in Florianopolid when do they leave? e) What time does the plane leave Florianopolic	is?

		22		, <i>'</i> 9		
9)	Which oranges would you like?		o de la constitución de la const	 Separation of a condition Eq. Separation of a condition Separation of a condition of a co	was seen to be seen with	we will be a second
	This one over there That one here.	7 - 11 t ·	e e e e e e	1	. Judikania	
	Those ones.			3 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	And the second	
	These ones.					
e)	C and D are correct.	•				
10)) When's your birthday?					
(£	It's on November 3rd		* .	•		
•	It's here.					.5 5
	It's Monday. The party was good	•				
	It isn't in my parent's house.			ks ik iii k	A PART TAR	e
,		÷				
11)	Would you like some wine?			\$,	east of
a)	Nobody					:
	•					
3)	Yes, I like.				,	
크)	Yes, please.					5 1 V
0)	Just a few.					
12	Ask your friend where he went	last nigl	ht.	•••		
	Did you go there?	, -				
	Where did you go last night?				÷	
					-	e re .
-	Where did she go last night?					
e)	Where did he go?		· inn a			www.
) How do you get to the Univers		•			was a second of the second
	Some people cycle.			e Jane	·	-
a)	No, never	,			1	
	It's very far.				and the state of	
-	He walks.		1			and the second second
ာ)	On foot.			•		
	\			1.0		•
14) It's your mother's birthday	today. Wha	t shall	we do:		·
	Shall we stay?					
	I will go there.	14 y 3				$\mathcal{D}_{\mathcal{F}} = \mathcal{D}_{\mathcal{F}} = \mathcal{F}_{\mathcal{F}} = \mathcal{F}_{\mathcal{F}}$
	Yes, let's let's go to a cafe.					
	No, I can't.					
- ,	,				5 18 14	
15) My house is downtown, but	is i	n the su			
a)	Their				F.,.	
	your				o olgoni. Physidal	
	his	,.e [™]	g system to		in tracy dig 40cm - Local	
	them	Tails				
<i>е)</i>	mine					

GTX. 2

16) Do you mind?	
a) cooking	
b) to cook	\$ 10 Section 2
c) work	and the second of the second o
d) to do exercises	•
e) worked	
17) It's time to have dinner, children!	· · · · · · · · · · · · · · · · · · ·
	we the same of
a) Yes, it's 9 a.m.	
b) Yes, it's midday	
c) Yes, it's 7 p.m.	
d) Yes, it's 2 p.m.	
e) Yes, it's ll a.m.	
18) Did you have a good time.yesterday?	and the second of the second o
10) Ind you have a good time. yesterday:	
a) Yes, I went dancing last night	
b) Yes, I do.	+ 4 × 1 ²
c) Yes, I got a temperature.	
d) Yes, I felt ill.	
e) Yes, Ilovo it.	
19) I studied all morning yesterday, I went	to the cinema.
a) Because	e di la la mangantan kangangtan di katika di la
b) or	and the second second
c) Just	•
d) Then	
e) St112	
20) In Florianopolis there is a bus station, but	a railway station.
a/ 111010 13	
d) exists	
·	
21) a disco there is no other entertai	nment in this suburb.
a) As well as	e grande de la companya de la compa
b) Just	
c) Also	
d) Except for	
e) But	
	·
22) You won't forget to lock all the doors	
	····?
n) Do real	
a) Do you b) Won It would	
b) WonIt you	en e
b) WonIt you c) Will you	n de la companya de La companya de la co La companya de la company
b) WonIt you c) Will you d) Don't you	en e

23) Have you been to the cinema, recently?	
a) Yes, I did.	·
b) Yes, Iam.	
c) Yos, I have.	
d) Yos, I beens	
e) Yes, I do.	e para la composition de la composition della co
c) 105, 1 400	· · · · · · · · · · · · · · · · · · ·
24) Do you know where John now?	Sugar Salar
a) was living	
b) has lived	e di Lington
c) livod	•
d) had livod	e e e
e) is living	• 1× 2
25) Barbara has been singing professionally she has been singing many years.	•• she was a child.
a) when - since	en e
b) sinco - for	
c) for - until	
d) until - for	
e) since - at	
26) After some magazines, she	·
	4 2 3 3 3 3 3 3 3 3 3 3
\ 1	
a) buying - went	
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b) to buy - to go c) buys - goos d) buying - go o) having bought - gone 27) How long are you going to spend in Groece? a) I am going to Greece in May b) I am going to Greece for a week in May. c) I am going to Greece to visit some friends in May. d) I am going to Greece by plane. e) I am going to work in Greece next May. 28) This cake is	••• tham the other one.
b) to buy - to go c) buys - goos d) buying - go o) having bought - gone 27) How long are you going to spend in Groece? a) I am going to Greece in May b) I am going to Greece for a week in May. c) I am going to Greece to visit some friends in May. d) I am going to Greece by plane. e) I am going to work in Greece next May. 28) This cake is	••• tham the other one.
b) to buy - to go c) buys - goos d) buying - go o) having bought - gone 27) How long are you going to spend in Greece? a) I am going to Greece in May b) I am going to Greece for a week in May. c) I am going to Greece to visit some friends in May. d) I am going to Greece by plane. e) I am going to work in Greece next May. 28) This cake is	tham the other one.

30) I have a brother is a teen-ager and girlfriend is a teen-ager too.
a) who on whe b) whose - which c) which - that d) who - whose
o) that - that
31) Yos, if I school so carly, things different.
a) have left - has been
b) hadn't left - will bo c) hadn't left - would have been
d) had left - word
o) have loft - have been
32) If Ithis house
a) was you - would buy
b) were you - would buy
c) was you - will you d) were you - will buy
e) am you - would buy
33) That is Barbara book and this is
a) 's - my
b) 's - your
b) 's - your c) her - hor
b) 's - your
b) 's - your c) her - hor d) hor - their
b) 's - your c) her - hor d) hor - their e) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some choese in the cupboard.
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence?
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some cheese in the cupboard. a) need b) have got c) should have
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some choese in the cupboard. a) need b) have get c) should have d) might have
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some cheese in the cupboard. a) need b) have got c) should have d) might have o) ought to have
b) 's - your c) har - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some choese in the suppoard. a) need b) have got c) should have d) might have o) ought to have
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some cheese in the supboard. a) need b) have got c) should have d) might have o) ought to have 35)
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some choese in the cumboard. a) need b) have got c) should have d) might have o) ought to have 35)
b) 's - your c) her - hor d) hor - their o) 's - mine 34) What is the synonym for HAVE in the following sentence? We have some cheese in the supboard. a) need b) have got c) should have d) might have o) ought to have 35)

APPENDIX B

PRETESTS & POSTTESTS

PROBLEM-SOLUTION TEXT TYPE : TEXT I AND III

COMPARISON-CONTRAST TEXT TYPE : TEXT II AND IU

TEXT I

SKIRTING WITH DISASTER

- I always seem to have trouble when painting skirting boards with either the carpet flapping back on to the 3 wet paintwork or being left with a crease if folded back too firmly and held in place whilst the paint dries.
- I now fold the carpet back, paint the skirting and then place scrap pieces of wood diagonally (at approx. 30 degrees) from the floor to wall. The carpet happily leans against these until the paint has dried. Whilst correct 9 practice is to remove carpets completely before decorating, I do accept that it is not practical.

(Practical Householder, May 1980)

TEXT III

HAIR COLOUR

- 1 Whatever the colour of our hair, most of us fancy a change now and then. The trouble is that most chemical dyes 3 will probably harm your hair to some degree, quite apart from the increasing number of links now being discovered between 5 certain hair dyes and carcinogenic and allergic reactions.
- Hatural camomile and henna have been used for centuries to improve hair colour and condition, and you can use them too. Camomile will gently lighten fairer heads of hair and henna will add red highlight. You could use the old-fashioned method both camomile flowers and natural henna are still obtainable but there are some non-synthetic shampoos incorporating natural plant dyes available from Klorane, and if used regularly, these should achieve the desired effect gently, gradually and without harming your hair...

VOCABULARY

TEXT I - Skirting with disaster

CREASE friso, marca

DRIES seca

FLAPPING BACK desenrolando FOLDED BACK enrolado

HELD IN PLACE mantido em um lugar

LEANS AGAINST deita sobre

SCRAP PIECES OF WOOD gravetos, pedaços de madeira

SEEM TO HAVE A PROBLEM parece ter problemas

SKIRTING BOARDS rodapés
WET PAINTWORK tinta fresca
WHILST enquanto

UNTIL até

VOCABULARY

TEXT III - Hair Colour

ACHIEVE alcançar
ADD acrescentar
APART FROM além de
AVAILABLE disponível

CAMOMILE camomila (chá / é usado para alterar o tom

de cabelos alourados)

CARCINOGENIC cancerigeno

CHANGE trocar
DYES tinturas

FAIRER alourado (cabelo)
FANCY ter vontade de

HAIR cabelo

HARM danificar, prejudicar

HEAD cabeça

HENNA hena (tinta extraida das folhas de um arbusto

asiático que é usada para alterar o tom

dos cabelos castanhos)

IMPROVE melhorar
INCREASING crescente
LINKS ligações
LIGHTEN clareia

NOW AND THEN de vez em quando OLD-FASHIONED fora de moda

OBTAINABLE adquirível

QUITE seguramente, certamente RED HIGHLIGHT realça o tom avermelhado

SOME DEGREE até certo ponto

TROUBLE problema WHATEVER qualquer

	COMPRE	HEMSION TEST (TEXT I)
I.ASSINALE	E A OPÇÃO QU	E MELHOR EXPRESSA O CONTEÚDO GERAL DO TEXTO.
O autor	a t	dita que o meio mais prático de executar arefa não consiste em remover totalmente pete;
	ser	belece um sistema de trabalho que julga o mais prático para a realização de uma fa complicada;
	enco	rma que é eficiente deixar o tapete stado na parede até que a pintura esteja letamente seca;
	que	re a utilização de um artifício prático ajuda a preservar o tapete e não danifica ntura;
		ssita realizar uma tarefa caseira com iência e rapidez.
II.RESPONO	OA DE ACORDO	COM O TEXTO:
a) 0 <	que está sen	do comentado pelo autor?
	autor do tex stifique.	to apresenta alguma sugestão? Explique e
		nta algum fato, alguma situação que ele atisfatória"? () SIM — () NÃO
Em caso d afirma	de resposta ativa:	c.1.Justifique. c.2.Determine uma palavra ou expressão que o auxiliou na identificação da situação insatisfatória.
d) 0 a	autor apres nsidera "sat	enta algum fato, alguma situação que ele isfatória"? () SIM () MÁO
Em caso o afirma	de resposta ativa:	d.1.Justifique. d.2.Determine uma palavra ou expressão que o auxiliou na identificação da situação satisfatória.

III. FAÇA UM RESUMO QUE EXPRESSE AS IDÉIAS PRINCIPAIS DO TEXTO.

(Escreva no máximo 6 frases).

COMPREHENSION	TEST	< TEXT	III >
	1 1 1	1. I had 1.1	4.4.4.

		~				*			
I.ASSINALE	A	OPÇAO	QUE	MELHOR	EXPRESSA	CONTEUDO	GERAL	DO	TEXTO.

- O autor () informa que os produtos químicos usados para tingir o cabelo, não apenas o danificam, mas tambem prejudicam a saúde;
 - () informa que a camomila e a hena sao produtos extraidos de plantas naturais que alteram a cor dos cabelos e não prejudicam a saúde;
 - () propõe o uso regular de produtos naturais, porque eles permitem que a cor do cabelo seja alterada sem por em risco a saúde;
 - () sugere o uso gradual das flores de camomila e da hena natural, as quais, mantêm os cabelos brilhantes e não provocam câncer;
 - () acredita que vários produtos químicos podem ser usados para tingir os cabelos; porém, estes produtos podem causar alergias.

II. RESPONDA DE ACORDO COM O TEXTO:

- a) O que esta sendo comentado pelo autor?
- b) O autor do texto apresenta alguma sugestão? Explique e justifique.
- c) O autor apresenta algum fato, alguma situação que ele considera "insatisfatória"? () SIM () NÃO

Em caso de resposta afirmativa:

- c.1. Justifique.
- c.2. Determine uma palavra ou expressão que o auxiliou na identificação da situação insatisfatória.

Em caso de resposta afirmativa:

- d.1. Justifique.
- d.2. Determine uma palavra ou expressão que o auxiliou na identificação da situação satisfatória.
- III. FAÇA UM RESUMO QUE EXPRESSE AS IDÉIAS PRINCIPAIS DO TEXTO. (Escreva no máximo 6 frases).

TEXT II

universities

UNIUERSITIES

British and American universities agree in their 1 pursuit of knowledge as a goal but their organization 3 and operation are dissimilar.

English universities and colleges because of their 5 selective intake, are relatively small. American universities which combine a number of different colleges and professional schools, are large, sometimes with 20.000 to 25.000 students on one campus. Teacher training colleges and polytechnics are alternatives to the university course for some students in England, being stablished for specific purposes. 11 In contrast, virtually all schools of education, engineering and business studies are integral parts of 13 in the United States.

15 In England, universities receive about 70 % of their financial support through Parliamentary grants. Similarly, in the United States, public institutions 17 receive about 75% of their funds from local, state, and 19 federal sources, but private colleges and universities receive little or no government support. In England, 21 personal financial aid is provided by the government to over 80% of the students, through local education authorities, according to the parents'income. In the 23 U.S., student aid is administered by the university or the sponsoring agency and is provided by private 25 organizations and the state federal governments.

(Extracted from "From Paragraph to Essay")

TEXT IU

RESPECTED LEADERS

Two twentieth-century leaders who have continued to influence contemporary thought and social movements are Mohandas Gandhi and Martin Luther King, Jr.

Gandhi was a Hindi of the Baniyu Caste.He 5 with the tradition of his family and went to study Law in England at the age of 19, where he had his first contact with western culture. King was a black American born into a family of Christian ministers. His father was the pastor of a church founded many years before. Unlike Ghandi, King decided in the footsteps of his father and study for the ministry. Both Ghandi and King believed that their aims could 11 be achieved through non-violent means. This common ideology of 13 non-violence was not to be understood as a failure to act. It should be understood as direct resistance which is grounded 15 in love force or "agraha".

An investigation of the plans for social action of 17 Gandhi and King yields several points of agreement as well as numerous divergences. Gandhi's main concern was to stablish 19 India as an independent nation. He wanted to free the people to build and govern India for Indians and not for the use and 21 development of an external power.On the other hand, King's conflict was internal. He sought to achieve justice and 23 equality for Blacks in accordance with the ideals of American democracy. Both men saw the necessity of some kind of economic programme which would make the masses of the 25 poor self-supporting. Ghandi tried to encourage the poor villagers in India 27 to learn to hand-spin clothes one means of achieving economic independence and cultural 29 solidarity .In the same way, King urged Blacks to stablish transportation and food services which would be supported by 31 the Black community.

(Extracted from "From paragraph to Essay")

VOCABULARY

objetivos

através

virtualmente, práticamente

TEXT II - Universities

AIMS
ACHIEVING
BUSINESS STUDIES
COLLEGES
FINANCIAL AID
FUNDS
GOAL
IN CONTRAST
INTAKE
INTEGRAL
KNOWLEDGE
LOCAL EDUCATION AUTHORITIES

MEANS
PARLIAMENTARY GRANTS

PARENTS'INCOME POLYTECHNICS

PRIVATE
PURPOSES
PURSUIT
QUITE DIFFERENT
TEACHER TRAINING COLLEGES
SOURCES
SPONSORING AGENCY
TO OVER
THROUGH
VIRTUALLY

atingir, alcançar escolas de comércio faculdades auxílio financeiro capital.fundos (financeiro) objetivo, meta em contraste admissão, ingresso integrante, essencial conhecimento autoridades educacionais locais (ex.Secretaria de Educação) subsídios fornecidos pelo Parlamento renda familiar escola politécnica (instrui em artes técnicas ou ciências aplicadas) particular, privada objetivos busca, procura bastante diferente faculdades que preparam professores fontes, origens agências patrocinadoras mais de

VOCABULARY

produz

TEXT IV - Respected Leaders

AIMS AS. ACHIEVED AGREEMENT BORN BUILD BROKE CONCERN CONTEMPORARY CHIEF CHRISTIAN MINISTERS CLOTHES ENCOURAGE FAILURE FOLLOW FOOTSTEPS GROUNDED HAND-SPIN HINDI LAW MASSES OF THE POOR MINISTER MEANS MINISTRY SELF-SUPPORTING SOUGHT SUPPORTED THROUGH THOUGHT UNLIKE UNDERSTOOD URGED WESTERN CULTURE

YIELDS

objetivos como atingidos, alcançados concordancia, acordo nascido construir rompeu preocupação contemporâneo chefe pastores cristãos (religiosos) roupas encoraja fracasso sequir pegadas fundamentadas tecer a mão hindu Direito as populações pobres ministro (política) meios sacerdócio independentes (financeiramente) procurou, buscou financiada através pensamento, idéia diferente compreendido impeliu, estimulou cultura ocidental

COMPREHENSION TEST (TEXT II >

I.ASSIMALE A OPÇÃO QUE MELHOR EXPRESSA O CONTEÚDO GERAL DO TEXTO.

O autor informa

que

- () as universidades americanas são geralmente maiores do que as britânicas, porque elas concentram em média de 20.000 a 25.000 alunos em apenas um campus universitário.
- () os objetivos educacionais das universidades americanas e britânicas são os mesmos, embora apresentem número de alunos e qualidade de ensino diferentes.
- () tanto as universidades americanas como as britânicas recebem auxílio financeiro do governo numa estimativa de 70 % ,os quais,são destinados as escolas Politécnicas.
- () as universidades americanas proporcionam auxílio financeiro aos seus alunos através de agências patrocinadoras, organizações particulares e governos estaduais.
- () as universidades americanas e britânicas estabelecem objetivos educacionais comuns; porém, apresentam características organizacionais e operacionais desiguais.

II.RESPONDA DE ACORDO COM O TEXTO:

- a) Como se apresenta a organização da universidade americana em relação aos cursos que oferece?
- b) Fale sobre a universidade britânica em termos de auxílio financeiro.
- c) Em relação as universidades focalizadas :
 - c.1.0 que apresentam em comum?
 - c.2.No que divergem?

- III. LEIA COM ATENÇÃO OS SEGUINTES TRECHOS EXTRAÍDOS DO TEXTO E RESPONDA:
 - a) Quando o autor informa:
 - "...universities agree in their pursuit of knowledge as a goal but their organization and operation are dissimilar". (L.2,3)
 - a.1. A que o autor está se referindo?
 - b) Observe as palavras que estão sublinhadas nos seguintes segmentos do texto e responda: A QUE SE REFEREM AS PALAVRAS SUBLINHADAS? O QUE ELAS ESTÃO INDICANDO AO LEITOR?
 - Linha 16: "...grants.Similarly, in the United States, public public instituitions..."
- Linha 12: "...for specific purposes. In contrast, virtually..."
- IV.FAÇA UM RESUMO QUE EXPRESSE AS IDÉIAS PRINCIPAIS DO TEXTO. (Escreva no máximo 6 frases).

COMPREHENSION TEST (TEXT IV)

I.ASSIMALE A OPÇÃO QUE MELHOR EXPRESSA O CONTEÚDO GERAL DO TEXTO.

O autor informa

- que () Apesar de pertencerem a culturas diferentes, King e Gandhi ,foram líderes do século XX que procuraram equacionar problemas políticos, econômicos e sociais em seus respectivos paises, seguindo uma ideologia de não-violência.
 - Os líderes, Gandhi e King, pretenderam melhorar a qualidade de vida de seus povos através de meios não-violentos, encorajando-os a desenvolver trabalhos manuais e serviços de distribuição de alimentos.
 - () Gandhi e King acreditavam que poderiam atingir seus objetivos políticos, isto é, libertar seus países das forças externas opressoras de um modo pacífico.
 - () Gandhi e King pertenceram a culturas e raças diferentes e pretenderam proporcionar soluções pacíficas aos conflitos existentes em seus países neste século.
 - () King e Ghandhi são líderes internacionais do século XX que seguiram uma filosofia pacífica, tradicional, cristã e que ainda influenciam os movimentos sociais contemporâneos.

II.RESPONDA DE ACORDO COM O TEXTO:

- a) Qual era a maior preocupação de Gandhi?
- b) Que ideal era almejado por King?
- c) Em relação aos líderes focalizados:
 - c.1. O que apresentam em comum?
 - c.2. No que divergem?

- III. LEIA COM ATENÇÃO OS SEGUINTES TRECHOS EXTRAÍDOS DO TEXTO E RESPONDA:
 - a) Quando o autor informa:
 - "...yields several points of agreement as well as numerous divergences." (L.16,17,18)
 - a.1. A que o autor está se referindo?
 - b) Observe as palavras que estão sublinhadas nos seguintes segmentos do texto e responda: A QUE SE REFEREM AS PALAVRAS SUBLINHADAS? O QUE ELAS ESTÃO INDICANDO AO LEITOR?
- Linha 24: "...democracy. Both men saw the necessity of some kind of economic programme..."
- Linha 9: "...many years before. Unlike Ghandhi, King decided ..."
- IV. FAÇA UM RESUMO QUE EXPRESSE AS IDÉIAS PRINCIPAIS DO TEXTO. (Escreva no máximo 6 frases).

RECALL TEST

APPENDIX C

M A S T E R S C O R E K E Y

TEXT I : SKIRTING WITH DISASTER

TEXT II : UNIVERSITIES

TEXT III : HAIR COLOUR

TEXT IV : RESPECTED LEADERS

		MASTER SCORE KEY
TEXT	LEVEL	T-UNITS
	3	I ALWAYS SEEM TO HAVE TROUBLE
i ; i	4	:I HAVE TROUBLE WHEN PAINTING SKIRTING BOARDS :
1 1 1 1 1	; 4 ;	: HAVE TROUBLE WHEN PAINTING SKIRTING BOARDS : WHERE THERE IS A CARPET :
i . ! ! !	1 3 1 3	: HAVE TROUBLE WHEN THE CARPET FLAP BACK ON TO THE: : WET PAINTWORK
i ! ! !	2	If have trouble when there is a crease in the Carpet :
; t a		If the carpet is folded back to firmly
} } } 1	2	If the carpet is held in place whilst the paint : dries
1 1 1	1 2	!It's being left with a crease !
i I	1.	Now, I fold the carpet back
} } !	NOW, I PAINT THE SKIRTING BOARD	
; ! }	3	!NOW, I PLACE SCRAP PIECES OF WOOD :
1	; 4 !	!NOW, I PLACE SCRAP PIECES OF WOOD DIAGONALLY :
1	1 1	The angle is approximately 30 degrees
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	The angle is approximately 30 degrees from the : floor to the wall
1 1 1	1 2	The carpet leans against the pieces of wood
1 1 1	3	THE CARPET LEANS HAPPILY AGAINST THE PIECES OF WOOD
1	1 c4	THE CARPET LEANS HAPPILY AGAINST THE PIECES OF WOOD : UNTIL THE PAINT DRIES :
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	There is a correct practice of painting skirting ; boards
1 1 1 1	1 2	The correct practice consists in removing the whole carpet
1 1 1 1	1 4	THE CORRECT PRACTICE CONSISTS IN REMOVING THE : WHOLE CARPET BEFORE DECORATING :
i i i	1 3	:I ACCEPT THAT TO REMOVE THE WHOLE CARPET IS NOT : PRACTICAL :

- B.U. = BRITISH UNIVERSITY A.U. = AMERICAN UNIVERSITY

1	: 2	(B.U. goal is pursuit of knowledge						
1	1 2	A.U. goal is pursuit of knowledge						
; ! !		B.U. AND A.U. AGREE IN THEIR PURSUIT OF CONTROL CONTRO						
i !	1 3	B.U. ORGANIZATION IS DIFFERENT FROM A.U.ORGANIZAT.						
1	1 3	-{						
j !	2	B.U. are small						
i 1	3	B.U. HAVE SELECTIVE INTAKE						
i 1	; } 4	BECAUSE OF THEIR SELECTIVE INTAKE B.U. ARE SMALL						
i !	3	:A.U. COMBINE A NUMBER OF DIFFERENT COLLEGES						
i i i] 3	:A.U. COMBINE A NUMBER OF DIFFERENT PROFESSIONAL : : SCHOLLS :						
1 1.1.	2	E.U. are large						
\$		SOMETIMES THERE ARE 20.000 TO 25.000 STUDENTS IN SOME A.U. CAMPUS						
; ; ;	3	:TEACHER TRAINING COLLEGE IS AN ALTERNATIVE TO THE : : BRITHISH STUDENTS						
1	3	POLYTECHNICS IS AN ALTERNATIVE TO B.U. STUDENTS						
i - -		Teacher training college is stablished for specific purposes in B.U.						
i !	2	Folythecnics are stablished for specific purposes in B.U.						
i 	3	BOTH TEACHER TRAINING COLLEGES AND POLYTHECNICS ARE STABLISHED FOR SPECIFIC PURPOSES IN B.U.						
i 	2	Both Teacher Training Colleges and Polythecnics are alternatives to B.U. students						
1	4	ALL SCHOOLS OF EDUCATION ARE INTEGRAL PARTS OF THE						
1 1 1	1	Engineering studies are integral part of the A.U.						
i 1	1 1	-:::						

!		
1	2	IB.U. receive financial support
1	3	B.U. RECEIVE FINANCIAL SUPPORT THROUGH PARLIAMENTARY GRANTS
1 1 1 1	4	B.U. RECEIVE 70% OF FINANCIAL SUPPORT THROUGH PARLIAMENTARY GRANTS
1 1 1)]	A.U. receive financial support
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4	:A.U. PUBLIC INSTITUTIONS RECEIVE 75% OF THEIR : FUNDS FROM SEVERAL SOURCES
; ; ;	1 2	A.U. public instituitions receive funds from local sources
i !		AA.U. public instituitions receive funds from trom trom state sources
II		A.U. public instituitions receive funds from the federal sources
i ! !		HAMERICAN PRIVATE COLLEGES RECEIVE LITTLE OR NO HOR GOVERNMENT SUPPORT
		IN ENGLAND PERSONAL FINANCIAL AID IS PROVIDED : BY THE GOVERNMENT
1	;	IN ENGLAND PERSONAL FINANCIAL AID IS PROVIDED : TO 80 % OF THE STUDENTS
1	;	IN ENGLAND PERSONAL FINANCIAL AID IS PROVIDED : THROUGH LOCAL EDUCATION AUTHORITIES
i ! !	;	IN ENGLAND PERSONAL FINANCIAL AID IS PROVIDED : ACCORDING TO PARENTS' INCOME
1 1 1 1		In the U.S. student aid is administered by the aniversity
i i i i	2	In the U.S. student aid is administered by the Sponsoring agency
1 2 1 2 3		In the U.S. student aid is administered by Private organizations
1	1 2	: In the U.S. student aid is administered by : the state federal government :

1	;	:::: :Whatever the colour of our hair					
!		!					
1 1 1 1		::: :THERE IS A TROUBLE IN CHANGING THE COLOUR OF YOUR : !HAIR					
i : :	;	CHEMICAL DYES HARM YOUR HAIR TO SOME DEGREE					
i i i	3	:IT'S BEING DISCOVERED A NUMBER OF LINKS BETWEEN :HAIR DYES AND CARCINOGENIC REACTIONS :					
i 1 1 1	3	:IT'S BEING DISCOVERED A NUMBER OF LINKS BETWEEN : HAIR DYES AND ALLERGIC REACTIONS					
1	2						
j 1 1							
: : :	; ———— ; 4	:NATURAL CAMOMILE HAS BEEN USED TO IMPROVE HAIR :COLOUR					
III	4	 NATURAL CAMOMILE HAS BEEN USED TO IMPROVE HAIR CONDITION					
; ;	1 1	: !We can use natural camomile :					
i ;	1 2	Henna has been used					
i ! .	1 27	Henna has been used for centuries					
1	4	HENNA HAS BEEN USED TO IMPROVE HAIR COLOUR :					
1	1 4	HENNA HAS BEEN USED TO IMPROVE HAIR CONDITION :					
1	2	We can use henna					
i } !	1 3	CAMOMILE LIGHTEN FAIRER HEADS OF HAIR					
1		CAMOMILE LIGHTEN FAIRER HEADS OF HAIR IN A GENTLE :					
i	1 3	; ;HENNA WILL ADD RED HIGHLIGHT ;					
i ! !	1 1	There is an old fashion method of changing hair : colour					
1	1 1	There is an old fashion method of improving hair : condition					
1	1 2	To use henna is an old fashioned method					

		were that that the time the were the time the west and the time the west and the time time the time time the time time the time time time the time time time time time time time tim
1	<u> 2</u> 	To use camomile flowers is an ols fashion method
	2	Camomile flowers are still obtainable
	2	Natural henna is still obtainable
1 1	2	There are non-synthetic shampoos
	3	NON-SYNTHETIC SHAMPOOS INCORPORATE MATURAL PLANT
	4	: NATURAL PLANT DYES INCORPORATED IN NON-SYNTHETIC : SHAMPOOS ARE AVAILABLE FROM KLORANE
1 1	1 1	
1 1 1	3	IF NON-SYNTHETIC SHAMPOOS ARE USED REGULARLY THEY : ACHIEVED THE DESIRABLE EFFECT WITHOUT ANY HARM
	2	The desirable effect of changing the colour of the sour hair
1 1 1	2	The desirable effect of improving your hair
i }	1 1	The desirable effect is achieved in a gentle way
) } }	;	The desirable effect is achieved in a gradual way :
		:THE DESIRABLE EFFECT IS ACHIEVED WITHOUT HARMING : YOUR HAIR

1									
	3	GHANDI IS A LEADER OF THE XX CENTURY							
	3	KING IS A LEADER OF THE XX CENTURY							
	 4 	GHANDI AND KING CONTINUE TO INFLUENCE CONTEMPORARY THOUGH							
	: 4 : 4 :	GHANDI AND KING CONTINUE TO INFLUENCE SOCIAL MOVEMENTS							
i :	1 2	Ghandi was a Hindi							
1 1	, ————— ! 1	: Ghandi belonged to the Baniyu Caste							
1	1 3	GHANDI BROKE WITH THE TRADITION OF HIS FAMILY							
i !	: ! 3	GHANDI STUDIED LAW							
; ;	 3	GHANDI STUDIED LAW IN ENGLAND							
i !	1 1.	'Ghandi studied Law in England at the age of 19							
; ; IU	; ;;	!							
i ; i	1 2	King was a black American							
1	1 3	KING WAS BORN INTO A FAMILY OF CHRISTIAN MINISTERS							
1 1	1 3	'KING'S FATHER WAS A PASTOR OF A CHURCH							
1	1 2	The church was founded many years before							
i 1	1 2	King decided to follow the footsteps of his father							
1		KING STUDIED FOR THE MINISTRY							
i t i	!	GHANDI BELIEVED THAT HIS AIMS COULD BE ACHIEVED THROUGH NON-VIOLENT MEANS							
i ! !	4 	KING BELIEVED THAT HIS AIMS COULS BE ACHIEVED THROUGH NON-VIOLENT MEANS							
i 1 i	. 4	:THERE IS A COMMON IDEOLOGY OF NON-VIOLENCE							
i ! !	3 	: THERE IS A COMMON IDEOLOGY OF NON-VIOLENCE : WHICH CANNOT BE UNDERSTOOD AS A FAILURE OF ACT							
1	•	: THERE IS A COMMON IDEOLOGY OF NON-VIOLENCE : THAT SHOULD BE UNDERSTOOD AS A DIRECT RESISTENCE							

<u> </u>	 4	::: THE DIRECT RESISTENCE IS GROUNDED IN LOVE FORCE							
1 1 1	i 4								
† 1 1] 2 	Love force is "agraha"							
1 1 1 1	2 	Ghandi's plans for social action has been							
1	1 2	King's plans for social action has been tinvestigated							
1 1 1	;	THE INVESTIGATION YIELDS SEVERAL POINTS OF AGREEMENT '							
1	3	THE INVESTIGATION VIELDS NUMEROUS DIVERGENCES							
i ! !	; 4 !	GHANDI'S MAIN CONCERN WAS TO STABLISH INDIA AS AN : INDEPENDENT NATION							
) ! !	 ! 2	Gandhi wanted to free people							
1 1	1 3	GHANDI WANTED TO BUILD INDIA FOR INDIANS							
i ! !	1 3	GHANDI WANTED TO GOVERN INDIA FOR INDIANS							
IU	2	Ghandi didn't want India used for external power							
i i i	1 2	Ghandi didn't want India to be developed for an external power							
1 1 1	1	Ghandi's conflict was external							
; ; 1	1 3	KING'S CONFLICT WAS INTERNAL							
1 1 1 1 1 1	1	KING SOUGHT TO ACHIEVE JUSTICE FOR BLACKS WITH THE IDEALS OF AMERICAN DEMOCRACY							
i ! !	;	KING SOUGHT TO ACHIEVE EQUALITY FOR BLACKS : WITH THE IDEALS OF AMERICAN DEMOCRACY :							
1 1 1 1	2	Ghandi and King saw the necessity of							
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
1	4	GHANDI AND KING AIMED TO DEVELOP AN CONTROL PROGRAM WHICH WOULD MAKE THE COMMIC PROGRAM SELF—SUPPORTING							
1		GHANDI TRIED TO ENCOURAGE POOR VILLAGERS TO : LEARN HOW TO HAND SPIN CLOTHES :							

1 1

1	4 	GHANDI TRIED TO ENCOURAGE POOR VILLAGERS : TO LEARN HOW TO HAND SPIN CLOTHES AS A MEANS OF : ACHIEVING ECONOMIC INDEPENDENCE :
	4	GHANDI TRIED TO ENCOURAGE POOR VILLAGERS TO LEARN ; HOW TO HAND SPIN CLOTHES AS A MEANS OF ACHIEVING ; CULTURAL SOLIDARITY
1 1 1 1	; ; ;	KING URGED BLACKS TO STABLISH FOOD SERVICE :
; ; ; ;	4	KING URGED BLACKS TO STABLISH FOOD SERVICE : TRANSPORTATION AS A MEANS OF ACHIEVING : CULTURAL SOLIDARITY :
\	4 4 	KING URGED BLACKS TO STABLISH FOOD SERVICE ; TRANSPORTATION AS A MEANS OF ACHIEVING ; ECONOMIC INDEPENDENCE ;
) 	2	! The food service would be supported by : ! the black community :

APPENDIX D

DESCRIPTIVE AMALYSIS WITHIN THE OVERALL PATTERN OF

MATCHING RELATIONS.

```
(*) signalling
           (=) match for compatibility
            (#) match for contrast
(. .)is related (interplay) match for (=) and (#)
       TEXT II - UNIVERSITIES -
                              : SYMBOLS
(P1)
                               lA - American
                               lg - goal
     bu t.
. !
                   and
agree
                               for- organization
 i
                               lop- operation
                               ls - size
        1
                  1
                               ic - course
                               Ifs- financial
                               : support
                               11- public
                               isa- students'
           interplay
                               ?
1
                               ipi- parents'
                               income
(P2)
                               iss- several
            i. Fi
                               ) sources
repetition contrast
            1
    Bs # As . . * Bc * Ac
    1
(P3)
similarly but
               repetition
           1
11
            1
                        1 1
     interplay
```

interplay

```
TEXT IU - RESPECTED LEADERS -
(P1)
                         G = Ghandi
                                            Ia = influence tought
                         K = King
                                           Ib = influence social
Two leaders
                                                movements
relationship
           G Ia = K Ia . . G Ib = K Ib
 1
 ф.
           }
(P2)
repetition unlike both
                                           this
            1
                                           u !
                          . 1
 * Go # Ko . . * G tr # K tr . . * G maa = K maa . . * G ideo = K ideo
                                 III cas cas
   1 1
               !
```

interplay

```
(P3)
               al E
              \omega = 1.1
agreement
              as divergences
               i i i
* G psa = K psa . . * . . * G psa # K psa
           interplay
                            in the same
 ion the other
                            way repetition
 | hand
              booth
  1
              1
                            u !
                                         u i
  * Gg,Gc # Kc,Kg * Gnec = Knec . .* Gmcep = Kmcep. . * Gmaec # Kmaec
     1 1
                   ; ;
          interplay
                                    interplay
               interplay
```

psa= plains for social action
g = goal
c = conflict
nec= need of an economic program
mcep= means to create an economic program
maep= means to achieve an economic program

APPENDIX E

DESCRIPTIVE ANALYSIS WITHIN THE OVERALL P/S METASTRUCTURE

TEXT I - SKIRTI	NG WITH DISASTER
and the control of th	>> EVALUATION
! !	
SOLUTION	. NEW METHOD WORKS . AND IT IS PRACTICAL
->>. TO ADOPT THE . ! NEW METHOD . !	 * don't need to remove the whole carpet * paintwork is preserved * the carpet is not damaged
Positive Evaluation (The carpet happily of leans against the Response scraps of wood until the paint dries) !	
M E A M C scrap of woods diagonally placed for the carpet to lean against them >	
Response (The new method)	SITUATION
PROBLEM	TO PAINT A SKIRTING BOARD
IT IS A TROUBLE TO PAINT A SKIRTING BOARD WHEN THERE IS A CARPET	
G Q A L	
<pre>C To paint the skirting </pre>	carpet

IEST III	- HAIR COLOUR
SOLUTION SOLUTION TO ACCEPT THE . SUGGESTION . !	THE SUGGESTION IS USEFUL * Non-synthetic dyes can achieve the desired effect without harming either your hair or health
Positive Evaluation (non-synthetic shampoos	
MEAN (to use non-synthetic shampoos incorporating plant dyes)	
Response (to use natural dyes to change hair colour)	SITUATION
PROBLEM	THE DESIRE OF . CHANGING HAIR COLOUR
: TO USE CHEMICAL DYES . : TO CHANGE HAIR COLOUR IS DANGEROUS . ; G O A L { To change hair colour with	<<

APPENDIX F

INSTRUCTIONAL

MATERIAL

 $\bar{\mathbf{a}}$ i \mathfrak{D} ä üi $\bar{\mathbf{g}}$ Caro (a) aluno (a), üi \mathbb{G} 11 Você está participando de uma atividade ī. Ξi <u>.</u> \mathbf{i}^{\dagger} ũ experimental que versa sobre Leitura. Esta insij. $\hat{\mathbf{a}}$ i (2) ij, trução faz parte de um projeto que está sendo ij. ξį 1 ä desenvolvido tese de Mestrado, e tem o $\tilde{\omega}$ como ā 3 ā objetivo de proporcionar-lhe informações que σı ā \mathbb{G} venham a auxiliá-lo a atingir uma $\tilde{\mathbf{g}}$ Gi melhor T $i_{\rm II}$ a compreensão de textos expositivos em Inglês. ű. (J \mathbb{G} ā A responsabilidade e a cooperação $\bar{\mathbf{u}}$ $\bar{\omega}$ ijί \mathfrak{J} fatores decisivos para que os objetivos propos- $\overline{\mathbf{u}}$ \mathbb{G}^{1} āi \mathbb{G} tos sejam alcançados. (\overline{x}) a $|\tilde{\mathbf{r}}|$ a Antecipadamente, agradeço a sua Ξ^{i} a participação. ij, ā T ø

PROCEDIMENTOS BÁSICOS NUMA LEITURA INTERATIVA

Os procedimentos aqui sugeridos, deverão serutilizados, conforme a indicação, ANTES, DURANTE E DEPOIS da leitura do texto-exemplo "SMOKE".

- A) PREPARANDO-SE PARA LER O TEXTO.
 - 1. Determine o OBJETIVO da leitura.

Por exemplo, voce irá ler o texto porque:

- a. precisa estudar o conteúdo do texto tendo em vista (testes, trabalhos academicos, etc.) ?
- b. precisa executar uma tarefa específica que envolve um processo (cozinhar, montar um aparelho, as regras de um jogo, a apresentacao do conteúdo do texto em sala de aula, etc.) ?
- c. se propoe a avaliar um determinado assunto de informação geral (Sou contra ou a favor? Isto é vantajoso ou não ? Qual é a pessoa mais indicada para o cargo "X"? A informação proposta no texto é adequada ou nao?
- d. precisa encontrar um informação bem específica < um número no guia telefônico, um enderêço, local em um mapa, os dados em um gráfico, uma data , uma denominação ?
- e. quer "captar" a informação geral do texto com eficiência sem a preocupação de uma aplicação do conteúdo do texto a curto prazo ?
 - 2. EXAMINE O TEXTO-EXEMPLO.
- a.Leia o título.
- b.Leia a fonte.
- c.Leia a primeira frase e a última frase de cada parágrafo.
 - 3. PROCURE LEVANTAR EXPECTATIVAS.
- a.Que expectativas voce tem em relação ao texto lendo o título e a fonte?
- b.Você tem algum conhecimento prévio sobre o assunto do texto?
- c.Levante uma hipótese sobre o PROVÁVEL conteúdo do texto.

B) PROSSIGA A LEITURA.

Procure INTERAGIR com o texto. (Imagine a página escrita como se o autor estivesse falando, tente dar contribuições, procure antecipar informações).

Por exemplo, QUESTIONE-SE MENTALMENTE:

- a. Existem palavras desconhecidas no texto?
- b. Utilizo o contexto para tentar compreendé-las?
- c. Estas palavras podem ser consideradas palavras "chaves" no texto?
- d. Estas palavras apresentam alguma semelhança com palavras em Portugues? Em caso positivo, tenho certeza de que não são "falsos cognatos"?
- e. Preciso olhar o significado das palavras em questão no dicionário?
- f. Sobre o que está o autor falando?
- g. Aonde ele quer chegar?
- h. Faz sentido o que ele diz?
- i. Como se relacionam as idéias que ele propoe?
- j. Como estao organizadas estas idéias? Elas seguem um padrão de organização? (Seguem um modelo de organização, como por exemplo, padrão cronológico, causa e efeito, problema e solução, comparação, conjunto de descrições, etc.).
- k. O que o autor propõe está relacionado com o que eu sei sobre o assunto do texto?

C) APÓS A LEITURA DO TEXTO.

Procure responder as seguintes perguntas:

- a.Qual é a idéia central do texto?
- b.A minha hipótese foi confirmada ou não?
- c.Como estão fundamentadas as idéias (exemplos,fatos, gráficos,ilustracoes,etc.)
- d.Houve algum acréscimo ou esclarecimento em relação ao que eu jásabia antes de ler o texto? Qual foi a informação "nova" que captei como resultado da leitura?
- e.Qual a importância das idéias colocadas no texto? Sao claras? Convincentes? Eficases? Justifique.
 - *** Caso você nao consiga responder o último conjunto de perguntas e aconselhável reler o texto.

WHAT DOES CIGARETTE SMOKE CONTAIN?

Smoke formed by a burning eigarette contains more than five hundred different materials. Many of these are known *carcinogens*; that is, they cause cancer. Others are *cocarcinogens*. This means they may be harmless in themselves, but they help to increase the harmful effects of carcinogens.

More than 90 percent of cigarette smoke is made up of twelve gases that are known to be health hazards. The most dangerous gas in cigarette smoke is carbon monoxide. In the body, carbon monoxide takes the place of some of the oxygen in the blood. The heart must work harder to circulate blood so that all body tissues get the necessary amounts of oxygen.

Cigarette smoke also contains nicotine, the material that causes an intense desire to smoke. Nicotine is a stimulant. Cigarette smoking causes blood pressure to go up and heart rate to increase. Taken in large doses, nicotine can be poisonous. For example, 60 milligrams of nicotine taken all at once will cause the respiratory system to stop working. Death could occur. This is the amount of nicotine a person would receive by smoking twenty eigarettes all at once.

When the particles in cigarette smoke are cooled, they form a brown, sticky material called *tar*. The majority of known carcinogens in cigarette smoke are found in tar. Tar builds up in the body, along the air passages leading to the lungs and in the lungs themselves. A pack-a-day smoker inhales about one full cup of tar each year.

Source: Marion B. Pollock, Candace O. Purdy, and Charles R. Carroll, *Health*: A Way of Life (Glenview, Ill.: Scott, Foresman, 1979), p. 232.

Compounds judged most likely to e inte to health hazards of smoking Carbon monoxide Nicotine Compounds judged as probable o pected contributors to health his smoking Acetaldehyde Acetone. Acetonitrile Acrolein Acrylonitrile Hydro Ammonia Benzene 3-Butadione Butylamine Carbon dioxide Cresol (all isomers) Crotononitrile Dimethylamine DDT Phenol Pyridin

Some of the harmful materials that have been identified in cigarette smoke are shown here. They include nicotine, a liquid used as the poison in insecticide sprays; hydrogen cyanide, a poisonous gas; formaldehyde, used as a strong disinfectant and a preservative; ammonia, a strong-smelling gas; and carbon monoxide, a poisonous gas also found in automobile exhaust.

O texto abaixo fala de uma situação que provávelmente você já estêve envolvido! Vamos conferir?

, POCKET-CALCULATORS

Let's suppose that you are a college student and you need to buy a pocket-calculator. So, you need to select the one that will fulfil your needs. Study the following table. It gives information about five types of pocket-calculators. Which of them will be the right one for you?

CALCULATOR	PRICE	GUA	RANTEE	FACI	LIT	IES	RELIABILITY	WEIGH	-T
Oxford	52.00	1	year	£M3	# 		3	230	9
Rapidman	37.00	6	months	74	IJ		3	290	9
Florida	65.00	2	years	CM	2.	IJ	4	95	9
Dixson	30.00	S	months	: 	IJ		2	230	9
Magnus	17.00	3	months	**			1	125	9

}~	9		T	7	٦	4	~
ļ.,	1	poor	5=e×	I 62 J.	1 ===	TI U	.J

77.5	POCT	COST	JAMES TO STANK	C'COM	1"1	TEXTO.
- Carlot	THUL	LILLI	31413121	1	11	TEXTU.

Z2 KHCIOCIMHM	DO CON O TEXTO.			
	vários elemento: is assinale s.			
	() preço	() co	anfishilida	d∍
	() tamanho	() re		
	() peso		empo de gar	antia
b)Destaque	a calculadora q	ue você cons:	idera:	
	s cara			
* a mai	s leve			
* a men	os confiável		4 # # B R H	
c)Destaque	a calculadora qu	ue:		
* apres	enta mais recur:	SCS-1		, , , , , , , , , , , , , , , , , , , ,
* apres	enta mais tempo	de garantia-		
	enta o menor te			
3> AGURA, RESP				
- Which	calculator wou	ld you buy? E	Explain.	

[[] C= constant / M= memory / %= per cent / V= square root]

OBSERVANDO A ORGANIZAÇÃO DE UM TEXTO

De acordo com os "Procedimentos Básicos de Abordagem de Texto", voce pode ater-se ao padrão de organização das idéias apresentadas e utilizar esta identificação como um dos subsídios que facilitam a compreensão do texto de uma forma global. Quando você lê um texto e procura observar a sua organização, faz-se necessário que a presença ou a ausência dos componentes de determinado modelo de organização, que você ja esta familiarizado, seja testada.

Por exemplo, no caso do modelo de organização "COMPARAÇÃO / CONTRASTE, voce deverá proceder um auto-questionamento, tendo em mente atingir dois objetivos principais:

- a) a focalização do que está sendo comparado (pessoas, objetos, pontos de vista etc.)
- b) a constatação da presença de semelhanças e / ou diferenças (de forma isolada ou combinada) em relação ao que está sendo focalizado.

SUGESTÃO: A formulação das seguintes perguntas básicas tem por finalidade auxiliá-lo na identificação dos componentes do modelo de organização citado. São elas:

> 1. EXISTE ALGUM TIPO DE COMPARAÇÃO NO TEXTO? O QUE ESTÁ SENDO COMPARADO?

No caso da resposta ser positiva:

- 2. QUAIS SÃO AS SIMILARIDADES?
- 3. QUAIS SÃO AS DIFERENÇAS?
- 4. O QUE ESTÁ SENDO MAIS FOCALIZADO? AS SIMILARIDADES?

 AS DIFERENÇAS? OU SIMILARIDADES E DIFERENCAS ESTÃO

 COMBINADAS?

LEIA O TEXTO ABAIXO E OBSERVE COMO DOIS ESPORTES PODEM SER IDENTIFICADOS DE UM MODO BASTANTE SIMPLES.

- * Voce já ouviu falar em "European Football"?
- * Existe alguma ligação entre "Soccer" e "American Football"? Qual?
- * Você sabe qual é o esporte mais popular no mundo?

FOOTBALL

1 Although European football is the parent of American football, the two games show several differences.European football,sometimes called Association footbal or Soccer, is played in 80 countries, making it the most widely played sport in the world.American football, on other hand, is popular only in North America (the United States and Canada). Soccer is played by eleven players with a round ball.Football.also played by eleven players i n different positions on the field, is played with an elongated round ball. Soccer has no little body contact between players 11 and therefore requires no special protective equipment. Football, in which players make maximum use of body contact 13 block a running ball-carrier and his team-mates, special headgear and padding. In Soccer, the ball is advanced 15 toward the goal by kicking it or by hitting it with the head . In Football, on the other hand, the ball is passed from hand to 17 hand or carried in the hands across the opponent's field. These are just a few of the features which distinguish — Association 19 and American football.

> "From paragraph to essay" Imhoof & Herman, 1987 p. 26

DESTACANDO A ORGANIZAÇÃO DO TEXTO

O QUE ESTÁ	OS ESPAÇOS PONTILHA 		render wheat failter troops states which appen popula ballers states accept global traces below that an
SENDO FOCALIZADO?	# SIMILARIDADES?	DIFERENÇA: E. F.	
COUNTRIES WHERE THEY ARE PLAYED	## ## ## ##	 	# # U.S.and Canad: #
POPULARITY	# # # #	# The most widely : # played sport in :	 # #
NUMBER OF PLAYERS	#Both are played: # by eleven :	 	# # # #
INSTRUMENT	# Both games are # played with # # a ball		# an elongated # round ball #
PLAYERS' POSITION	# # # #		#
BODY CONTACT BETWEEN PLAYERS	·· · · · · · ·	# Little body : # contact : # :	# #
PROTECTIVE EQUIPMENT	#	#	# requires # headgear and # padding
THE WAY THE BALL IS CONDUCTED	# # # # # # # # # # # # # # # # # # #	# advanced toward : # the goal by # kicking it or : # by hitting it	# # #
PLACE WHERE THE GAME IS PLAYED	#	# : # : # :	# # #
OBJECTIVE OF THE GAME	#	# # #	#

- B) RESPONDA DE ACORDO COM O TEXTO "FOOTBALL".
 - 1) "European Football" (1.1) is identified in the text by more than one name. What are they?
 - 2) What's the relation between the number of countries where football is played and the statement "making it the most widely played sport in the world"? (L. 5)
 - 3) Do you have enough information about the players' position in both games? Explain.
 - 4) Select from the text two aspects that link the two games. Explain them.
 - 5) Select from the text three aspects that distinguish the two games.
 - 6) What are the underlined words signalling in the text?
 - a. "Football, also played by ... " (1.8)
 - b."...on the other hand, the ball is..." (1.16)

O TEXTO ABAIXO DESTACA DOIS FILMES
QUE LEVARAM "MULTIDÕES" AO CINEMA
E AINDA FAZEM SUCESSO NOS VIDEOS
DA NOSSA CIDADE. O QUE SERÁ QUE O
AUTOR ESTÁ "FALANDO" SOBRE ESTES
FILMES?

- * O que você sabe sobre os filmes "Jaws" e "The Exorcist"? Já assistiu a estes filmes?
- * Você sabe o que existe em comum entre estes filmes?
- * Você é capaz de apontar alguma diferença entre eles?

The movie business has traditionally been one in which the secret of box-office success is elusive. Recently , moviemakers have found the public's taste to be more and more unpredictable -so much no single formula for success seems to exist anymore.

Two seemingly dissimilar successes — JAWS and THE 7 EXORCIST — reveals some general characteristics that can make movies popular. Widely separated in their locale, characters and theme, both films portray an uncontrollable evil force that arbitrarily preys upon innocent victms. Both films celebrate the exceptional men who overcome it, although the resolution they bring about is only temporary.

In both films ,an evil force preys upon innocent people. In JAWS the evil force is a great white shark that snacks on bathers at a seaside resort. In THE EXORCIST the evil force is Satan himself; he decides to possess a young girl and forces her into all kinds of unnatural and grotesque acts. Despite their dissimilarities - one an actual animal and the other a supernatural being lacking any stable physical form - both the shark and the devil represent forces that people cannot control, and these forces terrify us.

Because these evil forces are so mysterious, only 23 the strongest and most exceptional people can deal with them. In JAWS the shark hunter, the oceanographer, and the police chief are the only men in the community perceptive enough to

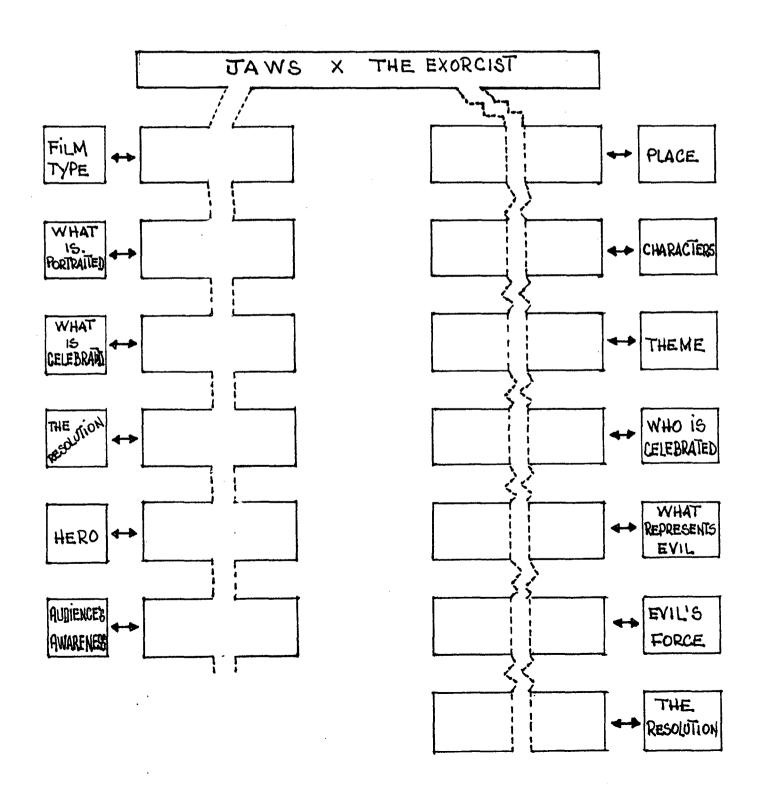
- understand the danger and courageous enough to seek it out.

 27 In THE EXORCIST only the priest recognizes that the girl does not have a psychological or physiological disorder; he alone 29 is courageous enough to seek out the devil that has possessed her.
- Despite the heroism of the individual men, the resolutions in both movies are far from final. In JAWS one shark is destroyed but others clearly lurk in the ocean. In THE EXORCIST the devil apparently leaves the girl, but is in no way killed or banished from the earth. Audiences leave both films with an awareness of the possibility that malevolent powers exist in the world.
- Why are JAWS and THE EXORCIST such great box office successes? The simple answer is that, despite their 39 dissimilarities, they scare people. Both movies prey upon our 41 basic fears and insecurities, even as they reassure us heroic, wise individuals can win temporary victories evil.More specifically, these two movies scare - us - because 43 they portrait evil forces that are mysterious - that strike unexpectedly, uncontrollably, and irrationally. These films scare us because they portrait only the most heroic of us as 47 capable of dealing with evil forces. Many people feel that THE EXORCIST is an even more horrifying movie than JAWS. But 49 whichever film is scarier, the combination of mysterious evil, brave heroes, and partial resolution of the conflict produced 51 long lines, record box-office receipts, and prosperity for the makers of both films.

VIDEO NEWS , March 1986 p. 16

VOCE IDENTIFICA O MODELO DE ORGANIZAÇÃO DO TEXTO QUE ACABOU DE LER? VAMOS OBSERVAR COMO AS INFORMAÇÕES QUE O AUTOR NOS PROPORCIONOU ESTÃO DISTRIBUIDAS:

A) PREENCHA OS ESPAÇOS DE ACORDO COM O TEXTO:



B) VAMOS OBSERVAR O VOCÊ APREENDEU DO TEXTO:

- 1) Point out two similarities and two differences that you consider relevant in the passage.
- 2) Can you find any formula to box-office success in the text? Explain.
- 3) Have you found any "extra" aspect in the text that you consider relevant?
- 4) How are similarities and differences between the two movies signalled in the text?
 - a. UNDERLINE the words that tie the two movies based on their SIMILARITIES.
 - b. CIRCLE the words that tie the two movies based on their DIFFERENCES.
- 5) What do you think would be the best title to the passage?
- 6) Do you agree with the author's opinion about the films?

ACREDITO QUE MUITAS VÊZES VOCÊ JÁ ESTÉVE ENVOLVIDO NUMA SITUAÇÃO "INTRIGANTE", "CONFUSA", "PROBLEMÁTICA", NÃO É MESMO? QUEM JÁ **NÃO** ESTÉVE! APROVEITE A SUA EXPERIÊNCIA! VOCÊ ESTÁ DESAFIADO A "SOLUCIONAR" O SEGUINTE PROBLEMA:

COMPETITION

After the cycling competition that had taken place in Winchester, the jury didn't know what to do. The fog had been so thick that they couldn't possible tell who was first. So they decided to ask three of the cyclists, Alan, Bertie and Cedric what they have seen. Each of them made two statements but unfortunately one of the three men lied in his statements. The other two told the truth. Here is what each of them said. Can you help the jury to find who the first three cyclists were?

Alan said," I was first, the last one was Cedric."

Bertie said, "Alan wasn't first. The second was Cedric."

Cedric said, "I was just before Alan. Bertie wasn't second."

A) RACIOCINANDO COM O TEXTO:

- a) Alan e Bertie estão falando a verdade sobre a posição que Cedric ocupou no final da competição?
- b) Portanto,Cedric mentiu ou falou a verdade?
- c) Agora que você já sabe se Cedric mentiu ou não, considere o que foi dito por ele e compare com o que foi dito por Alan e Bertie . Qual dos dois ciclistas falou a verdade? Alan ou Bertie?
- B) AGORA, RESPONDA AS SEGUINTES PERGUNTAS SOBRE A ORDEM DE CHEGADA DOS CICLISTAS.
 - a) Who was the second ?
 - b) Who was after him ?
 - c) Therefore, who must have been the first ?

COMO IDENTIFICAR O MODELO DE ORGANIZAÇÃO DE UM TEXTO EXPOSITIVO QUE APRESENTA UMA SITUAÇÃO PROBLEMÁTICA? OU A SOLUÇÃO DE UMA SITUAÇÃO PROBLEMÁTICA?

SUGESTÃO: Você pode detectar o modelo de organização PROBLEMA-SOLUÇÃO, através de quatro perguntas básicas. São elas:

- 1.QUAL É O FATO, A SITUAÇÃO QUE ESTÁ DETERMINANDO O CONTEXTO DO TEXTO?
- 2.QUAL É O PROBLEMA QUE ESTÁ SENDO FOCALIZADO?
- 3.0 TEXTO APRESENTA UMA SOLUÇÃO AO PROBLEMA PROPOSTO?
- 4.A SOLUÇÃO APRESENTADA É POSITIVA (TOTALMENTE EXECUTÁVEL) OU É NEGATIVA (PARCIALMENTE EXECUTÁVEL OU INEXECUTÁVEL)?

A formulação destas perguntas pretende auxiliálo a localizar no texto, a informação que contem respectivamente os componentes do modelo P/S, os quais, podem estar totalmente ou parcialmente presentes no texto. Portanto, você deve formular as perguntas acima tendo em mente:

- a) a identificação da circunstância que está sendo apontada no texto (SITUAÇÃO);
- b) a idenficação de uma circunstância insatifatória (a existência da necessidade de "algo" ser melhorado, aperfeiçoado, substituído, eliminado etc.) (PROBLEMA);
- c) a identificação de uma RESPOSTA ao que foi determinado como problema (nem sempre esta resposta resolve o problema) (SOLUÇÃO);
- d) avaliar a eficiência da solução dada ao problema (AVALIAÇÃO).

OBSERVANDO A ORGANIZAÇÃO DE TEXTOS QUE APRESENTAM O MODELÓ P/S

OS TEXTOS ABAIXO ESTÃO REPLETOS DE SITUAÇÕES PROBLEMÁTICAS, SOLUÇÕES (ATÉ QUESTIONÁVEIS!) QUE FAZEM PARTE DO MUNDO QUE VIVEMOS.

" READING PASSAGES "

- (a) Deaths among elderly people involving eletric blankets have increased this Winter so a six-point safety check-list issued by the Minister of State for Prices and Consumer Protection last November is being published again.
- (b) The only man-made structure on earth that you can see from the moon is the 1,500-mile Great Wall of China. But what you can't see from up there is the damage that has been done to it. People have chipped off bits for souvenirs and stones have been used for building. Now new laws are being demanded to protect the wall.
- (d) Help is at hand for those whose dentures let them down at the discotheque. The problem is that while normal teeth fluoresce (that is they shine bright white in ultraviolet discolight) false teeth don't. Now a health care firm, Johnson and Johnson of New Brunswick, have patented false teeth that contain cerium and terbium salts which gleam as white as a newly-washed shirt front on the disco dance floor.
- (e) Police were baffled when they were called to a house in which every window had been smashed. They could find no stones or any other missiles inside the home. At last they got a clue. The girl who lived there had just fallen out with her boyfriend. He was John Mitchell, 17, of Canberra the local boomerang champion. He confessed.

(HOMEY, March 1980)

PREENCHA O QUADRO ABAIXO,INDICANDO QUAIS AS PALAURAS OU FRASES QUE SERVIRAM DE PISTA PARA A IDENTIFICAÇÃO DOS COMPONENTES DO MODELO P/S NOS TEXTOS APRESENTADOS.

	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	P/S M O I) E L	
TEXT		I I	SOLUTION	: EVALUATION
	11 11 11 11 11 11 11 11 11 11 11 11 11	11 11 11 11 11 11 11 11 11 11 11 11 11	13	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
٠	n H	u .		ta 11
(a)	5	11 40	3 1	
	n 0	") 0 11	и #
	13 14	11 21		u
	ii N	;; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	77 1 1 1	u n
***************************************	14 #	T 15	100 1,33 300 100 100 100 100 100 100 100 100 1	11
		2	** *** &F	o .
	11 44	#	th De	15 A
	ii 11 12	ii u	# !	14 C.
(b)		u u	74 41	u,
	**	u n	n #	n el
	n u	ii U	u n	11. 4
	u rr	u A	n n	" "
	u #	# #	si H	u u
	11 14		15 gr 20 mm	
	u u	#	1 1	u #
	K U	n a	55 34	15 44
	u 1)	"	tt H	4
(-c)	it re	4 #	<u></u>	H.
	u II	n 11	u n	a a
	11 #	14 11	n "	4; 4
	15	1) #	n n	n n
	11 #1 	N tr	11 H	
	11	u a	N1 34	u u
	π #	11 #		u u
	11 11	u 11	<u>"</u>	"
	n a	is 11	u II	u a
(d)		u u	u u	
	u 4	u	u u	ប អ
	ss 14	u u	u u	11 49
	nt ns	u n	tt tr	11 48
	· 11	14 4	u II	u u
	4	# #	M	u.

ERA MODERNA! TECNOLOGIA! ESTAMOS NOS ANOS 90!
MAS... O QUE ISTO TEM A VER COM "ELEVADORES"???
LENDO O TEXTO VOCÊ IRÁ DESCOBRIR QUE...

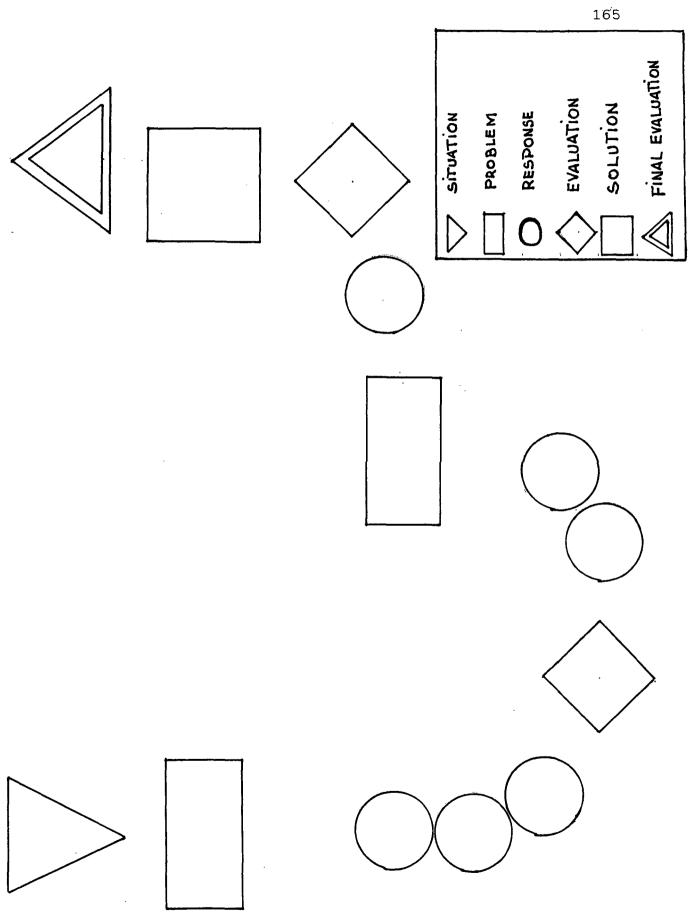
LIFTS

The manager of a large office building had received many complaints about the lift service in the building. He engaged a group of engineers to study the situation and make recommendations for improvement. The engineers suggested two alternative solutions: a) adding more lifts of the same type; b) replacing the existing lifts by faster ones.

The manager decided that both alternative solutions were too expensive. So the firm's psychologist offered to study the problem. He noticed that many people arrived at their offices 10 feeling angry and impatient. The reason they gave was the lenght of the time they had to wait for the lift. However, the psychologist was impressed by the fact they had only to wait a relatively short time. It occurred to him that the reason for their annoyance was the fact thay had to stand by the lifts innactive. He suggested a simple, inexpensive solution to the manager. This was adopted and complaints stopped immediately. The solution was to place a large mirror next to the lifts.

"Reading and Thinking in English" BOOK 3 P. 65

- A) PRIMEIRAMENTE, VAMOS RELACIONAR AS IDÉIAS APRESENTADAS NO TEXTO NO DIAGRAMA ANEXO:
 - a.Observe a distribuição das informações propostas no texto "Lifts" no diagrama a seguir.
 - b. Relacione as informações apresentadas no diagrama através de setas (---->1.
 - c.Localize no diagrama os componentes do modelo P/S e os nomeie no espaço correspondente.



B) AGORA, RESPONDA AS SEGUINTES PERGUNTAS: 1.What was the subject of the text? 2.According to the engineers: What was the relationship between the user's complaints and the lift service? Explain. 3. Why did the psychologist decide to analyse the reason of the complaints? According to him what was the relationship between the user's complaints and the lift service? 4. What kind of problem was presented in the passage? 5. How did the manager overcome the problem? 6. Was the solution effective? Explain. 7. What do you think about the solution proposed? Was it

the best solution?

- 1 Chinese writing utilizes a system of characters, ea which represents the "meaning" of a word, rather the
- 3 sounds.Chinese dictionaires and rhyme books contain thousands of these characters, but to read a newspap
- 5 needs know "only" about five thousand. It's not ea become a scholar in China! In 1956, the difficulties pr
- 7 the government of the People's Republic China to sittle the characters. They also adopted a spelling system usi
- 9 Roman alphabeth, to be used along with the regular a system.
- 11 It's doubtful whether it will replace the tradi writing, which is an integral part of Chinese cultu 3 China, writing is an art - calligraphy - and thousand years of poetry and literature and history are pres in the old system.

("An introduction to langua

The study of mathematics may be likened to the aglish. In fact, mathematics is a language, the langua and size. Just as the rules of grammar must be studit to master English, so must certain concepts, definite erms, and words be learned in the pursuit of mathemate. These form the vocabulary or structure of

TEXT 3: ALCOHOLISM

- Alcoholism can be caught and successfully treated long before it reaches final phases. For specific information, one can consult the local Medical Association, the local branch of Acoholics Anonymous or the Yale Center of Alcohol Studies. In general, the first step in treatment is to stop the patient's drinking. Next, his personality must be rebuilt to exclude the maladjustive mechanism of drinking, and to include the adjustive mechanism of direct problem-solving.
- 9 Voluntary associations like Alcoholics Anonymous often can help with the first and second step, an interview 11 therapists with the third step. Thus far, however, no method has been successful in every case.

(Pshychology Made Simple)

TEXT 4 : GIANTS OF BIOLOGY

- In their original work both Darwin and that other great innovator who followed him, Gregor Mendel, used deductive reasoning to great effect. Both these giants of biology had been trained in theology. As a result, they were well acquainted with an intellectual tradition based on deduction. And since induction is difficult to apply in a field where so little can be directly observed, perhaps theology provided some of the essential intellectual tools both men needed to develop a viewpoint so different from prevailing theological thinking.
- 11 Darwin and Mendel are linked in another fundamental way.Darwin could not explain how successful traits are 13 passed on to successive generations, exposing his theory selection to growing criticism. When Mendel was 15 rediscovered, geneticists were paying a lot of attention to mutations. They still felt that na tura 1 selection of 17 variants had a minor part in evolution. The major factor, they believed, was sudden change introduced by mutation. Not 19 until the 1930's did biologists realize, at last, that Darwin's theory of natural selection and Mendel's laws of
- 21 genetics were fully compatible. Together the two form the basis of population genetics, a major science today.

APPENDIX 6

RESULTS OBTAINED BY THE SUBJECTS ON THE TESTS OF LANGUAGE AND READING PROFICIENCY

SUBJECTS	CONTROL GROUP	EXPERIMENTAL GROUP
1	74.1	70.0
2	85.5	84.2
3	71.2	76.8
4	79.8	74.2
5	31.0	
6	65.5	68.2
7	76.9	75.0
8	94.0	78.0
9	76.9	74.2
10	88.3	76.0
MEAH	79.3	75.6

APPENDIX H

RAW SCORES OBTAINED BY THE SUBJECTS IN TWO DISCOURSE TYPES IN PRETEST AND POSTTEST CONDITIONS

RAW SCORES OBTAINED BY SUBJECTS ON THE COMPREHENSION QUESTIONS TEST

	···			··· ··· ··· ··· ··· ··· ··· ··· ··· ··				
GROUP	>	EXPERI	MENTA	AL GROUP	1	CONTROL	GF	ROUP
SUBJECTS	1	PRETEST	'S F	POSTTESTS	;	PRETESTS	}	POSTTESTS
1		3.6	}	5.8	;	2.7	! !	3.0
2	}	4.3	}	5.7	;	3,2	}	2.6
1 3	1	3.4	1	5.0	:		1	
4	}	3.7	1	6.2	;	7,1	1	
5		3.6	;	5.2	1	2.3	1	2.9
6	1	4.3	}	5.8	ļ	3.5		Z, T
7	1	4.8	1	5.7	!	5,2	1	4.7
8	1	5.6	1	7.2	1	3.2		2.4
9	1	2.7	1	4.5	1	4 . ;;	 	4.1
10	}	3.0	1	5.4	1	5.3		4.3
'MEAN	1	3.9	1	6.1	!	4.0	;	3.0

RAW SCORES OBTAINED BY THE SUBJECTS ON RECALL OF MACRO-INFORMATION (T-UNITS LEVEL 3 AND 4 ACCORDING TO THE MASTER SCORE KEY \gt

	E	XPEF	? I	M E H 7	- A	L GF	. o u	I P
SUBJECTS	1	FRE	Т	EST	<u> </u>	P 0 8	TT	E S T
		-units vel 3/4						
1	!	2.2		1.6	}	3,8	}	5.5
2	1	5.6	1	3.8	1	6.4	1	6.5
3	}	Z. Z.	}	2.3	;	5.4		<u> </u>
4	1	2.8.	1	1.9	}	5.8	;	8.1
5	}		;	1.4	}	7.4	!	1 3 2
6	1	3.4	}	1.6	1	6.4	1	1 4 1
7	!	4.0	}	4.5	;	5,3	† 1	6.7
8		3.8	!	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	!	7.2	!	£, 2
9	1	2.4		2.0	;	6.1	1	1 4 1
19	†	3.6	}	3.8	}	5.8	1	3.1
MEAN	1	3.65	!	2.65	; ;	6.56	1	7.62

<u> </u>		CONT	K U	i	l.::i	ROUF		•
SUBJECTS	1	FRET	E	5 T S	1	P O S T	ΤI	E
		T-units evel 3/4						
1		2.7	¦	1.4	}	2.8	!	Ø. 7
2	;	2.8	;	2.1	!	3.0	¦	1.0
3	}	2.8	1	1.8	l	3.3		2.4
4	1 7	2.6	1	1.7	!	4.0	;	3. 8
5	;		1	3.4	1	2.5	;	1.5
6	1	5.2	1	4.6	1	4.7	1	3.5
7	;	3.3	1	2.5	1	3.6	;	1.7
8	1	4.8	;	2.5	1	4.7	1	4.3
9	!	4.8		4.0	!	2.0	!	3.8
10		3.7	!		!	3.8		4.8
l MEAN	; ;	3.54	1	2.63	1	3.44	} }	2.67

- RAW SCORES OBTAINED BY SUBJECTS FOR THE PRESENCE OF SETS OF TEXTUAL RELATIONS VIA IMMEDIATE RECALL.

	¦	EXPERIMEN	1TAL	_ GROUP		CONTROL	Gł	ROUP
SUBJECTS	;	PRETESTS	¦ F	POSTTESTS	!	PRETESTS	¦	POSTTESTS
1	1	2.8	}	5.5	1	3.3	;	4.0
2	;	4.0	1	9.1	1	4.6	1	4.0
3	1	3.6	;	7.8	1	4.5	;	5.2
4	1	6.6	1	7.2	!	3.1	1	
Ę	1	4.5	1	7.9	;	4.8	;	5.6
6	;	4.7	1	6,9	}	6.8	}	8.2
7	!	5.3	1	7.3	!	EII. 17.	1	S
3	1	5.6	: :	8.8	;	6.7	}	4.8
9	{	3.5	1	8.8	ł	8.0	;	6.4
10	1	5.8	}	5.2	;	6.4	;	6. 7
MEAN	1	4.64	1	7.75	!	5.40	;	5.56

RAW SCORES OBTAINED BY SUBJECTS FOR THE PRESENCE OF THE TOP-LEVEL STRUCTURES VIA SUMMARY PROTOCOL.

, 					· · · ·			,
	; E	XPERIMEH	TAL	GROUP	!	CONTROL		GROUP
SUBJECTS	; PI	RETESTS	1	POSTTESTS	; ;	PRETESTS	ì	POSTTESTS
1	1	5.1	1	8.8	;	5.8		E. 1
2	1	7.5	1	8.2	;	4.9	1	4.4
3	1	5.2	}	5.8	}	4.8	;	6.4
ė‡	1	6.1	<u> </u>	5.2	1	4.5		2.4
5	1	6.6	1	8.3	!	5.1	·	4.0
Ë		5.8	1	6.4	;	7.2	1	6.1
77	1	6.7	1	7.3	!	6.7))	
8	1	6.8	<u> </u>	6.1	;	5.4	<u> </u>	4. ()
9		3.6	1	8.0	[8.8	;	4.5
1.0	1	4.5	}	8.4	}	6.8	1	2.00 1 day
MEAN	1	5.79	1	7.25	1	6.42	· •••• · ••• · ••	

- - -

APPENDIX I

RAW SCORES OBTAINED BY THE SUBJECTS IN DIFFERENT DISCOURSE TYPES IN PRETEST AND POSTTEST CONDITIONS

RAW SCORES OBTAINED BY THE SUBJECTS ON THE COMPREHENSION QUESTIONS TEST IN COMPARISON/CONTRAST AND PROBLEM/ SOLUTION DISCOURSE TYPES.

			1	PRE	Т	E S	T		}	F	0	3 T T	E	S T		
SUBJECTS	1 0	CHT	RA:	ST	!	SOL	UT	ION	1	COMPAI CONTRI	4ST		!	SOL	UT	ION
																ONTROL
1	1 3	.4	1	3.1	1	3.8	}	2.3	}	4.8	!	3.1	;	6.8	;	3.0
2	4	.3	}	2.5	1	4.3	1	2.1	<u> </u>	5.1	;	4.3	<u> </u>	6.3	\ \	2.7
3	1 3	.8	ļ	3.1	; ;	3.8	}	3.8	!	5.3	-	3.6	į	4.7	;	3.4
4	1 3	.8	 	4.3	1	3.7	¦	2.1	!	5.3	1	4.1	;	7.1	}	2.7
5	4	. 1	}	3.7	;	3.1	!	1.3	ļ	5.8	1	3.4	!	4.7	<u> </u>	2.1
6	4	. 6	!	3.4	; ;	4.1	}	4.0	}	5.0	}	3.1	;	6.6	1	5.0
	: 4	3	!	4.9	; ;	5.3	¦	4.8	!	5.0	1	5.6	;	6.5	!	4.6
3	¦ 4		!	3.0	;	6.6	¦ 	2.0	}	5.4	1	4.4	1	9.0	;	1.8
9	13	. 7	}	4.7	1	1.7	}	3.8	}	5.1	1	5.7	!	4.0	1	3.6
10	3	. 4	¦	4.3	1	2.6	1	5.0	}	4.3	¦	5.7	}	6.6	}	4.4
1 E A N	1 3	i . 6	}	3.6	1	3.8	;	3.1	;	5.1	! !	4.72	1	6.2	}	3,3

RAW SCORES OBTAINED BY THE SUBJECTS ON RECALL OF MACRO-INFORMATION (T-UNITS 3 AND 4 ACCORDING TO THE MASTER SCORE KEY) IN COMPARISON/CONTRAST DISCOURSE TYPE.

	* time opin 10,000 litera ocine ocine	F R I	ETES	T	; POSTTEST						
SUBJECTS!	T-uni level		T-un lev		T-u level	nits 3/4	T-units				
; ;	EXPE	CONTROL	: EXPE	 CONTROL	EXPE	: CONTROL	: EXPE	: :CONTROL			
1 !	2.0	1.9	3.3	2.8	2.6	1.5	4.3	0.0			
2 1	5.0	1 1.9	1 5.0	1 2.8	5.8	1 2.6	6.4	1 0.0			
7 1	2.5	1 2.0	1 8.6	1.6	5.8	i dia di	1 5.0				
4 1	2.6	1.6	1 2.1	1.4	4.5	1 3.0	1 6.6	1 3.3			
5 1	3.9	1.9	1 2.2	2.8	8.8	1 2 = -	1 8.3	1 1.6			
6 3	2.3	1 5.8	1 2.1	1 3.3	5.0	1 4.5	1 8.3	1 4.2			
7 1	3.5	1 4.0	1 3.4	1 5.6	4.2	1 3.5	7.1	1 2 1			
8 !	4.8	4.1	1 5.0	1 3.6	6.1	1 4.5		1 6.6			
T	1.7	4.1	1 1 5	1 6.6	5.5	1 2.0	1 6.6	3.6			
10 ;	2.9	15,5	1 4.3	1 17 m	4,5	1 2.6	1 8.3	1 2.1			
M E A H	3.0	1 3.2	1 2.89	3.71	5.72	1 3.11	; ; 7.32	1 2.82			

RAW SCORES OBTAINED BY THE STUDENTS ON RECALL OF OF MACRO-INFORMATION (T-UNITS LEVEL 3 AND 4 ACCORDING TO THE MASTER SCORE KEY) IN PROBLEM/SOLUTION DISCOURSE TYPE.

		P	· F.	ETE	S	T			POSTTEST, A. C. C.								1
	;	level	Ξ	· · -		T-uni level				T-uni level	,		; ;	T-unit level			j
JEUIS	1	EXPE	1	CONTROL		EXPE	10	ONTROL	1	EXP	ŀ	CONTROL	· ; -	EXPE	; [C	ONTROL	i
1	- ;	2.5	' i	3.6	1	0.0	;	0.0	;	7.3	; ;	3.1		10.0	; !	1.4	-:
2	;	6.2		3.7	1	2.9		1.4	}	8.1	}	4.8	1	ଞ.ଡ	!	2.0	
7	1	1.9	}	3,6	;	4.2		2.0	;	4.5	!	4.4	; ;	8.0	!	2.8	;
:4	<u> </u>	3.1	}	3,5	}	1.4	;	2.0	;	8.4	;	5.0	}	10.0	}	4.3	
5	! !	2.5	1	3.6	1	0.0		4.8	}	6.3	1	2.5	1	6.0	<u> </u>	1.4	- ;
6	;	4.5	¦	5.4	;	0.0	1	6.0	<u> </u>	8.1	1	5.0	1	7.1		.,2.8	i
7	 	4.5	!	2.7	;	6.8	1	0.0	}	7.5	1	3.7	;	5.8	1	1.4	i
8	1	3.6	}	5.6	1	2.0	1	1.4	1	9.4	;	5.0	}	7.1	; ;	2.8	-; ;
9	;	4.5	}	5.6	1	4.0	1	1.4	;	6.9	!	2.8	;	8.6	1	4.0	····· i
10	! 1	5.0	}	1.9	1	2.8	1	1.4	;	8.2	1	5.0	•	8.0	1 .	6.0	- i
EAN	1	3.8	:	3.9	!	2.3	;	1.9	; !	7.5	!	4.0	;	7.8	1	2.8	- i

RAW SCORES OBTAINED BY THE SUBJECTS FOR THE PRESENCE OF SETS OF TEXTUAL RELATIONS IN COMPARISON/ CONTRAST AND PROBLEM/SOLUTION DISCOURSE TYPES VIA IMMEDIATE RECALL.

		PRET	E	POSTTEST					
	COMF	PARISON TRAST		OBLEM _UTION	COMPAR CONTRA		PROBLEM SOLUTION		
	EXP	CONTROL	EMP	CONTROL	EXP	CONTROL	EXP	CONTROL	
1	7.0	2.9		5.0	7.0	3.6	10.0	5.0	
2	3.0	1.7	15.0	7.5	8.2	3.0	10.0	5.0	
3	12.3	1.5	5.0	7.5	8.2	2.9	7.5	7,5	
4	5.8		17.5	5.0	7.0	3.0	7.5	7.5	
5	4.1	•	5.0 	5.0	8.4	3.8	7.5	7.5	
6	2.0	6.1) 7.5	7.5	1 3.9	6.5	10.0	10.0	
70		3.0	7.5	7.5	4.7	3.5	10.0	7.5	
8	3.8	5.9	17.5	7.5	7.6	4.6	10.0	5.0	
9	12.0	6.1	15.0	10.0	7.7	5.3	10.8	7.5	
10	;	5.4	17.5	7.5	3.0	= 9	6	7.5	
меан	13.72	3.85	16.25	7.0	6.57	3.77	9.0	7.0	

RAW SCORES OBTAINED BY THE SUBJECTS ON THE USE OF THE TOP-LEUEL STRUCTURES IN COMPARISON/CONTRAST AND PROBLEM/SOLUTION DISCOURSE TYPES IN SUMMARY PROTOCOLS.

		- FETE	EST		POSTTEST					
SUBJECTS	COMP		PRO		COMPARISON : PROBLEM CONTRAST : SOLUTION					
	: :EXP	CONTROL	EXP	CONTROL	EXP	CONTROL	 EXP 	CONTROL		
1	1 5.3	4.1	5.8		7.6		10.0	5.0		
22	7.6	1 22 4 2	7,5	* 7.5	6.5	3.8	10.0	*5.0		
3	1 5,4	4.6	*5.8	5.0	4.1	E.3	7.5	7.5		
	4.7	4.1	7.5	5.0	5,4	77	5.8	10.0		
5	5.8	1 00 2	7.5	5.0	9.2	3.1	7.5	5.0		
6	4.1	6.9	1 7.5	7.5	5.4	4.7	. 7.5 I	· Pu		
7	8.4	8.4	5.0	5.0	4.7	2.9	18.8	7.5		
8	6.1	5.9	7.5	*5.0	4.7	4.6		5.0		
9	2.3	6.1	*5.0	10.0	6.1	4.1	10.0	*5.0		
10	4.1	4.6	5.0	7.5	6.9	2.9	110.0	7.5		
MEAN	5.4	5.2	6.3	6.5	6.8	4.4	8.5	6.5		

^{*} Subject's protocol does not match the organization of the original P/S texts.

APPENDIX J

"T" TEST

G L O B A L R E S U L T S

COMPREHENSION QUESTIONS TEST

THE BUT ONE HOLD THE TIME THE THE THE THE THE THE THE THE THE TH	and their case case case case case case case case
G1 PRETEST & G2 PRETEST	; G1 POSTTEST & G2 POSTTEST
T STUDENT: 6.0496024735E-01 DEGREE OF FREEDOM: 18 PROBABILITY: 5.5275635633E-01	T STUDENT: 6.6536625780E+00 DEGREE OF FREEDON: 18 PROBABILITY: 3.0392420740E-06
G1 PRETEST % G1 POSTTEST	G2 PRETEST & G2 POSTTEST
T STUDENT: 1.1283149774E+0 DEGREES OF FREEDOM: 9 PROBABILITY:1.2989203242E-06	; T STUDENT: 1.1219363880E+00 DEGREES OF FREEDOM: 9 PROBABILITY: 2.9092907118E-01

RECALL OF MACRO-INFORMATION

make their tree than their tree care their c	
G1 PRETEST & G2 PRETEST :	
T STUDENT: -2.6553987546E-01;	T STUDENT: 7.1615247901E+00
DEGREES OF FREEDOM: 18	DEGREES OF FREEDOM: 18
PROBABILITY: 7.9361097479E-01:	PROBABILITY: 1.1423981050E-06

PRESENCE OF SETS OF RELATIONS

G1 PRETEST % G2 PRETEST	G1 POSTTEST % G2 POSTTEST
T STUDENT: -1.2448798068E+00 DEGREES OF FREEDOM: 18 PROBABILITY:2.2914047728E-01	
G1 PRETEST & G1 POSTTEST	G2 PRETEST & G2 POSTTEST
T STUDENT: 4.7323838109E+00 DEGREES OF FREEDOM:9 PROBABILITY: 1.0703095031E-03	DEGREES OF FREEDOM:9

PRESENCE OF THE TOP-LEVEL STRUCTURES

that after a ten total the most time and and and and and and time and tim	والمراه الهادة المهامة المنافع
G1 PRETEST & G2 PRETEST	G1 POSTTEST & G2 POSTTEST
T STUDENT : -9.5650116682E-02 DEGREES OF FREEDOM: 18 PROBABILITY: 9.2485530387E-01	T STUDENT : 3.0201077771E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 7.3563966162E-03

 RESULTS ON DIFFERENT
TEXT TYPES

COMPARISON-CONTRAST TEXT TYPE

COMPREHENSION QUESTIONS TEST

COME AND CAME WERE BOM MADE AND AND THAT WITH WITH AND AND ADDRESS THAT THE THAT AND AND AND AND AND THAT THE CAME AND AND ADDRESS THAT THE CAME AND	والمرافقة المرافقة ال
G1 PRETEST & G2 PRETEST	: G1 POSTTEST & G2 POSTTEST -
DEGREES OF FREEDOM: 18	: T STUDENT: 4.8265287449E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 1.3533449055E-04

RECALL OF MACRO-INFORMATION

	til dett som stort bles sjele side dette stort bles bles dept aller plane avide stort bles store bl
G1 PRETEST % G2 PRETEST	: G1 POSTTEST & G2 POSTTEST
T STUDENT:-2.7944785971E-01 DEGREES OF FREEDOM: 18 PROBABILITY: 1.9880224314E+00	T STUDENT: 4.2489618326E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 4.8277384121E-04
G1 PRETEST % G1 POSTTEST	G2 PRETEST & G2 POSTTEST
DEGREES OF FREEDOM: 9	T STUDENT: 9.1735537190E-01 DEGREES OF FREEDOM: 9 PROBABILITY: 3.8288109555E-01

PRESENCE OF SETS OF RELATIONS

G1 PRETEST & G2 PRETEST	; G1 POSTTEST & G2 POSTTEST
T STUDENT: -1.5860867755E-01	! T STUDENT: 3.2171168685E+00
DEGREES OF FREEDOM: 18	! DEGREES OF FREEDOM: 18
PROBABILITY: 1.1242568573E+00	! PROBABILITY: 4.7791622619E-03
G1 PRETEST & G1 POSTTEST	; ; G2 PRETEST % G2 POSTTEST ;
T STUDENT : 3.6502148111E+00	; T STUDENT : 9.0913729010E-01
DEGREES OF FREEDOM: 9	; DEGREES OF FREEDOM: 9
PROBABILITY: 5.3157518014E-03	; PROBABILITY: 3.8697585731E-01

PRESENCE OF THE TOP-LEVEL STRUCTURE

G1 PRETEST & G2 PRETEST	 G1 POSTTEST & G2 POSTTEST
T STUDENT: 2.0665097710E-01 DEGREES OF FREEDOM: 18 PROBABILITY: 8.3860203694E-01	T STUDENT: 2.4058266760E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 2.7100913841E-02
G1 PRETEST & G1 POSTTEST	: G2 PRETEST & G2 POSTTEST
T STUDENT: 8.6799866446E-01 DEGREES OF FREEDOM: 9 PROBABILITY: 4.0794341227E-01	T STUDENT: 9.6225435388E-01 DEGREES OF FREEDOM: 9 PROBABILITY: 3.6106096755E-01

PROBLEM-SOLUTION TEXT TYPE

COMPREHENSION QUESTIONS TEST

G1 PRETEST & G2 PRETEST	: G1 POSTTEST & G2 POSTTEST
	T STUDENT: 5.0963538662E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 7.5400874266E-05
G1 PRETEST & G1 POSTTEST	: G2 PRETEST & G2 POSTTEST
DEGREES OF FREEDOM: 9	: T STUDENT: 1.1409374544E+00 : DEGREES OF FREEDOM: 9 : PROBABILITY: 2.8334508900E-01

RECALL OF MACRO-INFORMATION

G1 PRETEST & G2 PRETEST	 G1 POSTTEST & G2 POSTTEST
T STUDENT: -1.7308396436E-01 DEGREES OF FREEDOM: 18 PROBABILITY: 8.6451688626E-01	T STUDENT: 6.301789625E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 6.1105474742E-06
G1 PRETEST & G1 POSTTEST	G2 PRETEST & G2 POSTTEST
T STUDENT : 8.9030943537E+00 DEGREES OF FREEDOM: 9 PROBABILITY: 9.3278686109E-06	T STUDENT : 7.1428571428E-02 DEGREES OF FREEDOM: 9 PROBABILITY: 9.4461876306E-01

PRESENCE OF SETS OF RELATIONS

G1 PRETEST % G2 PRETEST	G1 POSTTEST % G2 POSTTEST
T STUDENT: 1.1596724559E+00	; T STUDENT: 3.2171168685E+00
DEGREES OF FREEDOM: 18	; DEGREES OF FREEDOM: 18
PROBABILITY: 2.5133443215E-01	; PROBABILITY: 4.7791622619E-03
G1 PRETEST & G1 POSTTEST	: G2 PRETEST & G2 POSTTEST
T STUDENT: 5.3186269889E+00	T STUDENT: 0.0000000000E+00
DEGREES OF FREEDOM: 9	DEGREES OF FREEDOM: 9
PROBABILITY: 4.8185645392E-04	PROBABILITY: 1.00000000000E+00

PRESENCE OF THE TOP-LEVEL STRUCTURE

وروع الله والله والل	
G1 PRETEST & G2 PRETEST	G1 POSTTEST & G2 POSTTEST
T STUDENT: -3.6115755926E-01 DEGREES OF FREEDOM: 18 PROBABILITY: 1.2778141744E+00	T STUDENT: 2.5584085963E+00 DEGREES OF FREEDOM: 18 PROBABILITY: 1.9749324447E-02
G1 PRETEST & G1 POSTTEST	 G2 PRETEST & G2 POSTTEST
T STUDENT: 2.5861309701E+00 DEGREES OF FREEDOM: 9 PROBABILITY: 2	T STUDENT : 0.000000000E+00 DEGREES OF FREEDOM: 9