

THE UNIVERSITY OF MANITOBA

THE EFFECTS OF INSTRUCTION IN TEXT STRUCTURE  
ON READING COMPREHENSION, RECALL, AND WRITING

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## ABSTRACT

The purpose of this study was to investigate the effects of instruction in expository text structure on reading comprehension, recall, and writing. The comparison/contrast pattern of expository text structure was chosen for this study, because it is one of the most difficult structures for elementary students to identify and produce. Two groups of grade six students were given instruction in text structure. A third group of grade six students used the same instructional materials, but instruction focused on content rather than structure. The results suggest positive effects for instruction in text structure, but these effects were not verified statistically. The study demonstrates the difficulty of separating structure from content.

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## CHAPTER 1

### PURPOSE AND SIGNIFICANCE OF THE STUDY

#### PURPOSE

As students reach the upper elementary and secondary grades they encounter an ever increasing amount of expository writing in content area textbooks. Not only must students be able to comprehend this expository material, but they are expected to produce similar clear, well organized compositions in the expository mode (Taylor and Beach, 1984). The comprehension and production of expository text requires some awareness and understanding of text structure (McGee and Richgels, 1986). The purpose of this study was to examine the effect of direct instruction in text structure on the comprehension, recall and production of expository text with grade six students.

Systems for the classification of expository text structure have been devised (Meyer, 1975; Kintsch and van Dijk, 1978), and have been used to identify and classify organizational patterns in expository text (Meyer, Brandt, and Bluth, 1980; Meyer and Freedle, 1980; Kintsch, 1982). These systems include variations of the following patterns:

1. Description. A text structure that specifies an object's, person's, animal's, or event's characteristics.

2. Enumeration. A text structure in which a series of facts, details, or components related to a given topic is presented as a list of points.
3. Sequence. A text structure in which a series of events related to a process is presented in chronological order.
4. Comparison/contrast. A text structure in which two or more events, objects, individuals, and so forth, are compared according to their likenesses and differences on one or more attributes. (Englert and Hiebert, 1984)

This study attempted to determine if direct instruction in one of these patterns, comparison/contrast, could improve reading comprehension and recall. And further, could the structure of student compositions be influenced by instruction in the comparison/contrast structure. The specific research questions addressed in the study were:

1. Does one of two patterns of instruction in comparison/contrast text structure result in better comprehension than instruction which focuses on content?
2. Does one of two patterns of instruction in comparison/contrast text structure result in a written product with the same or similar structure?

3. Does one of two patterns of instruction in comparison/contrast text structure result in better immediate recall than instruction which focuses on content?

Comprehension was measured by a modified cloze text and by unaided written recall of a reading passage. Samples of student writings were also analyzed in terms of length, vocabulary, fluency, coherence, elaboration, and focus.

#### SIGNIFICANCE

The processing of textual material has become a popular topic of research. Many questions have been answered, and various models of comprehension and cognitive processes have been validated (Mandler and Johnson, 1977; Stein and Glenn, 1979; Drum, 1984). However, previous studies have focused primarily on only narrative rather than expository text (Thorndike, 1977; Whaley, 1981; Singer and Donlan, 1982; Braun and Gordon, 1984). The comprehension of narrative text, in these studies, is discussed in terms of schema theory. Narrative schema develops early (Umiker-Sebeok, 1979; Mervis, 1980), and is well established by age eight or nine (Bereiter, 1980). Expository schemata develop later, and children experience greater difficulty in the comprehension and recall of expository material (Taylor and Berkowitz, 1980; Williams, Taylor and Ganger, 1981; Alverman and Booth, 1982).

Other studies have focused on text analysis, describing

various text structures, and the relationship of structure to comprehension (Kintsch and van Dijk, 1978; Meyer, Brandt, and BLuth, 1980; Meyer and Freedle, 1980). This line of research was followed by studies which examined student awareness of text structure (Englert and Hiebert, 1984; Williams, 1984; Winograd and Johnson, 1982). More work has been done in describing text features and in describing text differences than in creating strategies for processing different text types (Pincus, Geller and Stover, 1986). There have been studies which examined instructional strategies based on text structure, but most of these studies have used high school or college students as subjects (Meyer, 1975; Taylor, 1982; Anderson, 1980; Marshall and Glock, 1978-79; Kintsch and Yarbough, 1982).

The organization of text can be described in terms of conceptual structures, such as macro- and micropropositions, or it can be described in terms of textual structures (van Dijk, 1979). Previous studies have focused more on examining conceptual rather than textual structures (Kintsch and van Dijk, 1978; van Dijk, 1977; Williams, 1984).

#### THEORETICAL FRAMEWORK

While the stated purpose of this study was to examine the effects of instruction in text structure on reading comprehension, writing, and recall, an underlying purpose was to interpret the results in terms of cognitive theory. This theory defines reading

as a constructive process. Meaning is constructed from the interaction of the reader with the text. Schemata provide the semantic frameworks within which this process operates. Prior knowledge is required for schemata to be activated. This prior knowledge includes not only specific knowledge (i.e., of the subject content), but a general knowledge of language and how language represents the content (Spiro, 1980; Rumelhart, 1980).

It has been theorized that in written language, meaning is represented by text structure (Meyer, 1975; Kintsch and van Dijk, 1978). Semantic structures are described in terms of macro- and microstructures, and specific content is represented by specific organizational structures (e.g., enumeration, cause and effect, time-order, comparison/contrast). The better these structures are understood, the more prior knowledge is brought to the reading task, and the reader is more effective in constructing meaning. An awareness of text structure can aid in comprehension by defining the relationships between the various elements which comprise a specific content.

Previous studies have focused on conceptual or semantic structures rather than organizational or textual structures. This study was an attempt to determine whether or not direct instruction in organizational text structure is an effective instructional strategy for elementary school children. Another line of inquiry was to determine to what extent could an

understanding of text structure be taught, and to what extent is such understanding dependent on the development of cognitive processes in general.

#### DEFINITION OF TERMS

The following operational terms have been used throughout this study. The definitions of these terms are as follows:

Schema. A schema is a representation of a concept stored in memory. A schema can represent an object, situation, event, or a sequence of events or actions (Rumelhart, 1980).

Schemata. The plural of schema.

Microstructure. One of two levels of the semantic structure of discourse. "The microstructure is the local level of the discourse, that is, the structure of the individual propositions and their relations" (Kintsch and van Dijk, 1978:365).

Macrostructure. "The macrostructure is of a more global nature, characterizing the discourse as a whole" (Kintsch and van Dijk, 1978:365).

Narrative Text. A text which conforms to a story grammar. "In general, the grammar defines a story as a series of problem solving episodes centering on the main character's (or characters') efforts to achieve a major goal" (McConaughy, 1980: 158). The components of story grammar include: character, setting, plot, episode(s), and resolution.

Expository Text. The kind of writing typically found content

textbooks. Expository text is organized according to a hierarchical pattern of main ideas and supporting details. Specific organizational patterns include: description, enumeration, cause and effect, time order, sequence, comparison/contrast, and problem/solution (Taylor, 1982).

Signal Words. Words which suggest a particular organizational pattern of expository text. For example, the following signal words suggest a comparison/contrast pattern: however, but, as well as, on the other hand, not only...but also, either...or, while, although, unless, similarly, yet (Readence, Bean and Baldwin, 1981).

Cloze Test. A technique in which specified words in a passage are deleted. The student's task is to supply the missing words.

Immediate Recall. The written production of all the reader can remember immediately after reading the text.

Delayed Recall. The written production of all the reader can remember of a text read a day or two previously.

#### LIMITATION OF THE STUDY

1. The investigation was limited to analyzing data for grade six students in three inner-city Winnipeg schools and cannot be generalized beyond this setting.

2. Only one type of expository text structure, comparison/contrast, formed the basis for instruction. The results cannot be

generalized to other types of text structure.

3. The study was designed to investigate a classroom teaching strategy. All instructional sessions were conducted by the classroom teachers. This resulted in some uncontrolled variables, namely, differences in individual teaching styles, differences in methods of classroom management, and differences in the length of teaching experience.

4. Measurement of the students' performance was limited to the accuracy and validity of the cloze tests, recall protocols, and writing protocols used as measurement instruments.

#### OVERVIEW OF THE STUDY

This study examined the effect of instruction in text structure on reading comprehension and writing.

Chapter 1 has stated the purpose of the study, discussed the significance of the problem, described the theoretical foundations for the study, defined terms of importance to the study, and listed the limitations of the study.

Chapter 2 will review the literature and research related to the study.

Chapter 3 will present a description of the sample, the design of the study, and the research procedure and materials used in the study.

Chapter 4 will present an analysis of the data.

Chapter 5 will present a summary of the findings, conclusions

drawn from the findings, implications for educational practice,  
and suggestions for further research.

## CHAPTER 2

## REVIEW OF RELATED LITERATURE

The purpose of this study was to investigate the effects of instruction in text structure on reading comprehension, writing, and recall. The purpose of this chapter is to discuss the reading process, comprehension, and reading/writing relationships within a framework that has theoretical and pedagogical relevance. The first section of this chapter will review literature which describes reading as a cognitive process. Next, literature related to text structure will be discussed. And finally, literature which is relevant to the purpose of this study, comprehension instruction and instruction in text structure, will be discussed.

## READING AS A COGNITIVE PROCESS

The history of building process models of reading does back only little more than 30 years. Not until the 1950s was there any attempt to conceptualize knowledge and theory about reading into explicit process models. The years following World War II saw reading, as related to other areas of language, come under study. At the same time, reading became a topic of interest to people other than educators. Investigators today include cognitive psychologists, sociologists, linguists, and computer scientists.

The major strands of research have woven together, and a common conceptual framework has been established. This conceptual framework sees reading as:

... a multilevel interactive process: that is, text must be analyzed at various levels, with units of analysis going from the letter to the text as a whole. In addition to processing the explicit features of text, the reader must bring considerable pre-existing knowledge to the reading comprehension process. The interaction of text-based and knowledge-based processes and of levels within each is essential to reading comprehension (Spiro, Bruce, and Brewer, 1980:3).

Adam (1980) describes reading as simultaneous bottom-up and top-down processing. Bottom-up processing begins with letter and word recognition which establish probable syntactic and semantic structures. The top-down processes alert the reader to any information that does not fit into the reader's ongoing hypotheses as to the content of the text. In skilled readers, these simultaneous processes flow almost automatically.

Although text can be analyzed in terms of various levels of processing, an incomplete understanding of how text carries meaning results if these levels are considered in isolation. The text merely provides a blueprint which the reader uses to "construct" meaning. "Constructed meaning is the interactive

product of text and context of various kinds, including linguistic, prior knowledge, situational, attitudinal, and task contexts, among others (Spiro, 1980:246).

The most widely accepted process models of reading have been outlined and compared by Samuels and Kamil (1984). Each of the models described has a specific focus. Emphasis is either on strictly linear processing or varying degrees of interactive processing. While direct comparison of the various models is difficult, each model provides unique information about the reading process not found in the other models. Nevertheless, the models are incomplete. New information about how comprehension takes place and the role of metacognition have yet to be incorporated into the models. This study examined the relationship of comprehension to text structure in terms of an interactive model of reading.

#### TEXT STRUCTURE

The relationship between an awareness of text structure and reading comprehension was suggested by Thorndyke (1917, p. 323; reprinted 1971, p. 425) almost seventy years ago:

... reading is a very elaborate procedure, involving a weighing of each of many elements in a sentence, their organization in the proper relations one to another, the selection of certain of their connotations and the rejection of others, and the cooperation of many forces to determine

final response. (emphasis added)

Since Thorndyke's time schema theory has become a popular field of study. Schema theory describes how knowledge is represented. A schema is the data structure which represents our knowledge of a particular concept. Our knowledge of the world is an interrelated network of schemata. "There are schemata representing our knowledge about all concepts: those underlying objects, situations, events, sequences of events, actions, and sequences of actions" (Rumelhart, 1980:34).

Schema theory has been used to describe and explain the organization and comprehension processes in young readers and adults (Mandler and Johnson, 1977; Stein and Glenn, 1978; Thorndyke, 1977; Black and Seifert, 1985). As a representation of the form and content of internal knowledge, and how this knowledge is implicated in comprehending the world, schema theory is useful. However, as a theory to describe or explain the growth and change of knowledge, it has not been fully developed (Shallert, 1982). The reality of structural schemata have been demonstrated, particularly with respect to narrative discourse (Gordon and Braun, 1982; Mandler and Johnson, 1977; Rumelhart, 1978; Stein and Glenn, 1978; Thorndyke, 1977; Whaley, 1981).

Macrostructure formation is related to schema theory, coming as it does from cognitive theorists. The reader establishes macrostructures, models of discourse, by applying macro-rules to

the micropropositions of the text. Deletion, generalization, and integration are the rules, or processes, by which text elements are converted into propositions. The application of these rules is constrained only by the goals of the reader and by the schemata that the reader uses to establish the relevance or irrelevance of text elements (Kintsch and van Dijk, 1978; van Dijk, 1977).

Williams' (1984) study supports the macrostructure development model of expository text processing. Macrostructures can be seen as structural schemata within which information is processed to form conceptual schemata.

Young children are proficient at making sense of their world. Story schema develops early (Mervis, 1980). Story structure is evident in the conversation of children as young as three years old (Umiker-Sebeok, 1979). Second and third grade students can identify main ideas, but the ability to recognize related details and to organize information into topical groupings develops more slowly (Danner, 1976; Brown and Smiley, 1977). By the age of eight or nine years the narrative schema is well established (Bereiter, 1980).

Expository schema develops later. Students as old as thirteen years lapse into the narrative mode when faced with tasks requiring them to theorize (Kantor and Rubin, 1981). Several studies show that children experience greater difficulty in the comprehension and recall of expository rather than narrative

material (Taylor and Berkowitz, 1980; Williams, Taylor, and Ganger, 1981; Alvermann and Booth, 1982). It is apparent that expository schemata does not develop incidentally as does narrative schema. Teachers, therefore, must provide students with mediated experiences with various types of expository text to aid in the development of expository schemata.

Some of the difficulty children experience can be attributed to the differences between expository and narrative text, and the differences among the various types of expository texts. These differences in organizational components and stylistic differences can be expected to require differences in the processing of text (Meyer and Rice, 1983; Carroll and Drum, 1982). Longacre (cited by Kent, 1984) describes four features which differentiate narrative from expository discourse: person, orientation, time, and linkage. Englert and Hiebert (1984) found sequence and enumeration structures the easiest for young children to identify, and description and comparison/contrast the most difficult.

Armbruster (1984) discusses comprehension in terms of textual coherence. The more coherent the text, the more easily the reader can construct meaning from the text, and the more easily the reader can integrate the textual information into existing schema. Textual coherence refers to both global and local coherence. Global coherence refers to text features that facilitate the integration of high-level information across the entire text.

Local coherence refers to links or ties that connect ideas between and within sentences. "The better organized the text and the more apparent the structure to the reader, the higher the probability that the reader will learn from reading" (Armbruster, 1984:205).

Lack of understanding of the structure of expository text becomes more apparent in high school and college when students are confronted with expository material almost exclusively. This might explain why most of the earlier instructional studies focused on older students and adults. These studies have resulted in the development of effective strategies for the teaching of text organization (Niles, 1965; Bartlett, 1979; Carrell, 1984).

#### COMPREHENSION INSTRUCTION

If reading is to be conceptualized as an interactive process then it follows that comprehension instruction should focus on strategies which enhance the interaction of the student with the text. In other words, the student must be taught to become a more active participant in the reading process. Tierney and Cunningham (1984) investigated the current state of comprehension instruction and identified effective interventions to improve students' ability to understand, recall, and integrate information from specific text. These interventions include prereading activities (preteaching vocabulary, enriching and activating background knowledge, and providing advanced organizers), guiding reader/text interactions during reading (including imagery, self-questioning,

and oral reading), and postreading activities (postquestioning, feedback, and group and whole class discussions). Instruction in text structure can be a component of prereading, guided reading, or postreading activities.

Another important element in the comprehension process is the role of metacognition. That is, knowing what you know and knowing what you need to know in order to understand the text. Effective readers must have both some awareness of the cognitive processes they use while reading, and control of those cognitive processes. Some of the metacognitive skills and activities involved in reading are:

(a) clarifying the purposes of reading ...; (b) identifying the important aspects of a message; (c) focusing on the major content ...; (d) monitoring ongoing activities to determine whether comprehension is occurring; (e) engaging in self-questioning ... and (f) taking corrective action when failures in comprehension are detected (Brown, 1980:456).

Awareness of, and the strategic use of, text structure could also be considered a metacognitive skill. For example, determining the organizational pattern of a particular text would help to focus on the important aspects of the content, i.e., comparison/contrast or cause/effect.

## COMPREHENSION AND COMPOSITION

Tierney and Pearson (1983) have pointed out the similarities between the processes of comprehending and composing. They argue that the writing processes of planning, composing, and revising have counterparts in reading processes: prereading (planning), the composition or construction of meaning, and the revision of meaning in accordance with new information from the text. Stotsky (1983), however, after an extensive review of the literature finds no clear-cut evidence that reading instruction improves writing, or that writing instruction improves reading comprehension.

Ferris and Snyder (1986) attempted to validate the claim that a process-oriented writing program would improve reading ability. The results were similar to the conclusion reached by Stotsky. Significant gains were made in writing ability, but there was no significant growth in either vocabulary or comprehension. The correlation of reading and writing scores showed that these language processes are related, but the relationship is not necessarily a causal one.

Odell (1977) has devised a system for analyzing text in terms of intellectual processes. He suggests that changes in intellectual processes can be measured by growth in writing. An analysis of the structure of text produced is a part of this system. Odell's system of text analysis, along with the provincial writing assessment guidelines, formed the basis for the

writing analysis protocol used in this study.

#### INSTRUCTION IN TEXT STRUCTURE

Story grammars have been developed to describe how a story schema is organized. And various instructional strategies have been developed based on these story grammars. Whaley (1981) investigated how and under what conditions does knowledge of story structure develop. If this knowledge develops incidentally through repeated exposure, students will have highly similar concepts of what constitutes a story, but some children will have more elaborate, complex variations to the basic structure such as flashbacks. Whaley suggests various strategies to enhance the understanding of story structure. These strategies include:

- 1) macro-cloze (an entire story category, rather than a word or phrase is omitted);
- 2) scrambled stories (a story is divided into story grammar categories and the student reorders the story);
- 3) retelling using story grammar categories as a guide.

The story grammars devised by Mandler and Johnson (1977) were derived from oral folktales and fairy tales. These grammars provide an adequate structure for elementary school children to process narratives, but they are inadequate for the processing, storage, and retrieval of information from more complex short stories and novels. Singer and Donlan (1982) taught students to generate story-specific questions based on story grammar categories. These students were better able to select information

from content and to assimilate this information under specific knowledge structures than students who merely answered teacher posed questions.

Story structure can also be the basis of questioning strategies: both prequestioning to access appropriate schemata, and postquestioning as a comprehension check (McConaughy, 1980).

Instructional strategies designed to help students develop an understanding of the structure of expository text have been devised. Raphael and Kirschner (1985) introduced sixth-grade students to a strategy for gathering and organizing information based on comparison/contrast text structures. Scaffolding procedures were used to help students identify the comparison/contrast structure, to determine what type of questions this structure can answer, and to recognize the key words and phrases that signal this type of text. Graphic representations of comparison/contrast structures were used to help students analyze passages, and later, as a guide in summarizing comparison/contrast information from various sources. As a result of this intervention students showed improvement in free recall of comparison/contrast passages, summarization skills, and writing ability.

Flood, Lapp and Farnan (1986) devised a strategy based on reading/writing relationships to guide students to an understanding of the nature of expository text. As students

learned to control text structures through writing, they became aware of the need to organize information and of organizational patterns. The technique not only guided students through the composing process, but provided practice in evaluative reading as well.

Pincus, Geller, and Stover (1986) concluded that more had been done to describe text differences than to create strategies for processing different text types. They developed a technique for creating a schema for expository prose by transferring already existing narrative schema.

McLaughlin (1987) describes a three-step writing strategy designed to develop an awareness of expository text structures. After determining a topic, three relevant questions are generated and answered. Then an outline is prepared using the questions as subheadings. Finally, a paragraph is composed by reviewing the questions and responses, and by generating a topic sentence. This strategy is particularly suited to producing comparison/contrast text.

Piccolo (1987) describes a strategy for teaching expository text structure based on repeated teacher modelling. The teacher first models the composition of expository paragraphs. Next, the analysis of expository passages is modelled. Students are guided through composition and analysis exercises using graphic organizers. The suggested instructional sequence for teaching the

various expository structures is: 1) sequence, 2) enumeration, 3) cause/effect, 4) description, 5) problem/solution, and 6) comparison/contrast. Sequential structures are taught first because this pattern is similar to the already familiar narrative pattern.

#### SUMMARY AND QUESTIONS REMAINING

If reading is conceptualized as the interaction of text-based and reader-based information, then it follows that an understanding of text structure would facilitate this interaction. An awareness of text structure enhances comprehension by activating the appropriate schema and by focusing the reader's attention on important ideas. An understanding of text structure can also enhance composition by providing a structural framework for the organization of ideas.

Children's understanding of story grammar suggests that a schema for narrative text develops almost spontaneously by repeated exposure to stories read to them and by beginning reading experiences. As students progress through the grades, and more complex narratives are read, their narrative schema becomes more elaborate. Since children's early reading experiences are primarily with narratives, they often have difficulty comprehending expository text. Specific instructional strategies are necessary to help children understand expository text structure and to develop schemata for expository text.

Instructional strategies which have proved effective in developing an understanding of expository text in elementary children have several features in common. These strategies have both a reading and a writing component, and usually a graphic representation of the text pattern is used. Students are introduced to various text structures with specially prepared passages; textbooks or other classroom materials were not used.

This study was concerned with whether instruction could be effective using textbooks and materials normally found in a grade six classroom. Another question examined was, after introducing the concept of text structure, would reading lessons followed by writing lessons be more or less effective than writing lessons followed by reading lessons? And lastly, does focusing on structure rather than content result in a better understanding of text structure?

## CHAPTER 3

### DESIGN AND PROCEDURE

The purpose of this study was to determine whether or not direct instruction in a specific text structure would result in improved comprehension and recall of textual material written in that structural pattern, and in writing produced in the same structure. Textual materials used in the instructional sessions were selected from textbooks and supplementary materials approved for use in grade six by Manitoba Education. In an effort to establish ecological validity, the instructional sessions were conducted by classroom teachers in the context of ordinary classroom activities.

### THE STUDY

**SAMPLE.** The sample consisted of 71 students from grade six classrooms from three inner-city Winnipeg schools. The 31 boys and 40 girls were a rich ethnic mix. Each classroom contained ESL students and recent immigrants from Southeast Asia, the West Indies, the Philippines, and Portugal. Each classroom also contained Native students, first generation Canadian students from various ethnic communities, and students whose families have lived in Canada for several generation.

Two classrooms received instruction in text structure. The

instructional plan was the same for both classrooms except for the sequence of instruction, i.e., reading first then writing, or writing first then reading. The third classroom used the same instructional materials, but the focus of instruction was question answering strategies. The instructional conditions were randomly assigned.

**METHODOLOGIES.** The methods used in the instructional sessions were guided-reading and guided-writing lessons. Since the 1970's research has consistently shown that teacher-directed instruction has resulted in better achievement gains than student-initiated activities (Rosenshine and Stevens, 1984).

Instructional Groups 1 and 2 received direct instruction in text structure. This instruction included both reading and writing activities. The instructional pattern was determined in part by similar studies, and in part by the classrooms available for this study. Instructional Group 3 used exactly the same textual materials, but instruction focused on question answering strategies. Group 3 also completed writing assignments. However, the production of a specific text structure was neither taught nor assigned. The students in this group were only told to write on a particular topic. (See Appendix A for lesson plans).

**INSTRUCTIONAL MATERIALS.** Passages were selected from texts approved for use in grade six by Manitoba Education. Each passage was approximately 300 words long. These included passages from

science, social studies, and health textbooks and supplementary materials. The passages selected served as examples of text written in a comparison/contrast organizational pattern.

Very little material written in the comparison/contrast pattern was found. Most texts surveyed were written in either descriptive or enumerative patterns. That is, most grade six expository material describes particular characteristics, or lists facts and details related to a given topic. This supports the research of Piccolo (1987) who found most expository text at the elementary level written in these patterns.

Some of the passages used were edited or rewritten, in part, in order to make the comparison/contrast pattern more obvious. The passages were examples of variations of the target structure. That is, there were comparisons and contrasts within sentences, within paragraphs, and between paragraphs. (See Appendix B for lesson passages).

Of the ten passages selected three were from science texts, four from social studies texts, and three from health texts. Six passages formed the basis of instructional sessions, and four passages were used as pre and post tests.

**INSTRUCTIONAL PROCEDURES: GROUPS 1 AND 2 (text structure).** Ten lessons were prepared, and detailed lesson plans written (Appendix A). The first two lessons served to introduce the general topic of text structure, and then to focus on comparison/

contrast patterns in particular. There followed four reading lessons using the comparison/contrast passages, and four writing lessons during which the students were to produce text written in the comparison/contrast pattern. The lessons for both treatment groups were the same with the exception of the sequence of the reading and writing lessons. After the introductory lessons, Group 1 received reading lessons followed by writing lessons. Group 2 received the writing lessons, then the reading lessons. In both instructional groups the lessons included teacher-directed class activities, teacher-directed small group activities, students working in pairs, and students working individually.

INSTRUCTIONAL PROCEDURES: GROUP 3 (content). Group 3 received instruction using the same reading passages, but the lessons focused on question answering strategies, described by Rapheal (1984), rather than text structure. Two lessons introduced and provided practice in recognizing three types of questions. The answer to a "Right There" question is contained in a single sentence. To answer a "Think and Search" question, information must be synthesized from different parts of the text. The student must go beyond the text to answer "On My Own" questions (Rapheal, 1984). Next, four reading lessons provided practice in identifying, answering, and producing these types of questions. Each reading lesson alternated with a writing lesson. The writing lessons consisted of a writing assignment based on the

reading passage. Topics for these writing assignments were suggested in the lesson plans. However, the actual assignment was decided upon by the teacher. Several types of writing were produced, including comparison/contrast.

TEACHER PREPARATION. Detailed lesson plans (Appendix A) were prepared for each of the instructional groups. Each teacher knew that he or she was taking part in a study, but they did not know how their particular instructional procedures differed from the other groups. Before the study began, the examiner met with each teacher individually to review the lesson plans and to clarify any points of misunderstanding. As the study proceeded, the examiner monitored the progress of the study by meeting with each teacher twice weekly until the study was completed.

#### TEXT INSTRUMENTS

READING: CLOZE. Pre and post treatment reading scores were obtained by administering a modified cloze test. Two tests were constructed; one from a social studies passage, the other from a health passage. Twenty deletions were made from each passage. The same number of content deletions (nouns, pronouns and verbs) and structure deletions (adjectives, adverbs, conjunctions, prepositions, and articles) were made from each passage. For half the sample, randomly chosen, the social studies cloze passage was the pretest and the health cloze passage the post test. The reverse was true for the other half of the sample. (See

Appendix C).

READING: RECALL. After the cloze tests were handed in a second social studies passage and a second health passage were distributed. Those students who had completed a social studies cloze passage now had a health passage. Those who had completed a health cloze passage now had a social studies passage. These passages were intact. Students were given ten minutes to read the passage. The passages were collected, sheets of footscap were distributed, and the students were asked to produce a written recall of the passage. The same procedure comprised the post test.

A recall protocol was prepared by outlining the reading passages into main ideas, major details, and minor details. Student written recalls were compared with the protocol, and each main idea and detail was scored. (See Appendix C).

WRITING. Pre and post treatment writing samples were analyzed and scored according to a process/product protocol. This protocol was constructed using the Manitoba Department of Education Writing Assessment Program, May 1982, as a model. The scoring protocol was adapted to reflect the comparison/contrast pattern of text organization. The protocol contained both product measures (number of signal words, total number of words, and number of T-units), and an analytic rating scale. (See Appendix C for protocol).

## ANALYSIS OF DATA

DESIGN. The sample consisted of three grade six classrooms from three inner-city Winnipeg schools.

The dependent variables were cloze scores, recall scores, and scores on the writing measures. The independent variables were group membership (Instructional Group 1, 2, or 3) and reading ability. Reading ability was rated as low, average, or high on the basis of the pretest cloze score.

STATISTICAL PROCEDURES. Multivariate and univariate statistical procedures were applied to the dependent variables. Data were analyzed by the SPSS-X statistical program. The 0.05 level of significance was selected for acceptance or rejection of all statistical measures.

HYPOTHESES. The research question and specific null hypotheses are as follows:

1. Does one of two patterns of instruction in comparison/contrast text structure result in better comprehension than instruction which focuses on content?

HYPOTHESIS 1: There is no difference between the reading comprehension scores of students who have had instruction in text structure and those students who have not had such instruction.

HYPOTHESIS 2: There is no difference between the reading comprehension scores of high, middle, and low reading ability students who have had instruction in text structure and those

high, middle, and low reading ability students who have not had such instruction.

2. Does one of two patterns of instruction in comparison/contrast text structure result in a written product with the same or similar structure?

HYPOTHESIS 3: There is no difference between the written product and process measures of students who have had instruction in text structure and those students who have not had such instruction.

HYPOTHESIS 4: There is no difference between the written product and process measures of high, middle, and low reading ability students who have had instruction in text structure and those high, middle, and low reading ability students who have not had such instruction.

3. Does one of two patterns of instruction in comparison/contrast text structure result in better immediate recall than instruction which focuses on content?

HYPOTHESIS 5: There is no difference between the recall scores of students who have had instruction in text structure and students who have not had such instruction.

HYPOTHESIS 6: There is no difference between the recall scores of high, middle, and low reading ability students who have had instruction in text structure and those high, middle, and low reading ability students who have not had such instruction.

## SUMMARY

The pre and post test data were gathered by the researcher. The ten instructional sessions were conducted by the classroom teacher. The students and the teachers knew that they were taking part in a research study, but they were not aware of the differences in instructional treatments. The instructional procedures were designed so that, as much as possible, the lessons and activities were similar to lessons and activities normally carried out in the classroom. It was for this reason that the lessons were conducted by the classroom teacher. The pre and post tests and the instructional sessions were completed during a six-week period between the beginning of November and the middle of December, 1986.

## CHAPTER 4

## ANALYSIS AND FINDING

The purpose of this study was to determine whether instruction in text structure would improve reading comprehension and unaided recall, and whether such instruction will be reflected in student writing. This chapter includes a description of the data analyses, a presentation of the results of the analyses, and a discussion of the results. The following questions were investigated:

1. Does one of two patterns of instruction in comparison/contrast text structure result in better comprehension than instruction which focuses on content?
2. Does one of two patterns of instruction in comparison/contrast text structure result in a written product with the same or similar structure?
3. Does one of two patterns of instruction in comparison/contrast text structure result in better unaided recall than instruction which focuses on content?

## DESIGN

Pre and post test data were collected for each subject on cloze, recall, and writing measures. The independent factors were instructional method (text structure: reading then writing; text

structure: writing then reading; and focus on content) and reading ability. A within subjects variable, time (pre and post test), was the third factor. Statistical significance was determined by applying multivariate and univariate procedures to the data.

The results of the multivariate analysis are summarized in Table 1. The multivariate analysis found significant differences between pre and post test measures for all groups: Hotelling  $T^2 = .41728$ ,  $F(6,57) = 3.96$  ( $p = .002$ ). An interaction between reading ability, and pre and post test measures was also found: Hotelling  $T^2 = .61223$ ,  $F(12,112) = 2.86$  ( $p = .002$ ). These analyses indicate where the significant interactions occurred, but they do not show the pattern of change. No significant interaction was found between group and time, or group, reading ability, and time.

Table 2 shows the F values for the various univariate statistics for the dependent measures. Significant differences between pre and post test measures were found for the writing measures of paragraphing:  $F(1,62) = 4.1762$  ( $p < .05$ ), and global rating:  $F(1,62) = 20.7368$  ( $p = < .001$ ). An interaction between reading ability and time (pre and post) was found in relation to cloze scores:  $F(2,62) = 10.5515$  ( $p < .001$ ), and signal words:  $F(2,62) = 3.8797$  ( $p < .05$ ).

TABLE 1

## SUMMARY MULTIVARIATE STATISTICS

Effect	Hotellings $T^2$	Approx. F	d/f	Sig.
Time	.41728	3.96	6,57	.002*
Group x Time	.14313	0.67	12,112	.779
Reading x Time	.61223	2.86	12,112	.002*
Group x Reading x Time	.45008	1.04	24,222	.415

\*Significant  $p < .05$ .

TABLE 2

## SUMMARY OF UNIVARIATE STATISTICS

Measure	Group x reading x times F(4,62)	Reading x time F(2,62)	Group x time F(2,62)	Time F(1,62)
Reading	.5819	10.5515*	.2907	.0692
Recall				
Main Idea	.5756	.6841	.3160	.3559
Total	1.9140	.1121	1.6984	1.4877
Signal words	1.8828	3.8797*	.3549	1.9080
Paragraphing	.6024	.7256	.6177	4.1752*
Global rating	.6134	.4874	.5709	20.7368*

\*Significant  $p < .05$

## RESEARCH QUESTIONS

These statistical results will be discussed in terms of the research questions and hypotheses.

Research Question 1. Does one of two patterns of instruction in comparison/contrast text structure result in better comprehension than instruction which focuses on content?

Hypothesis 1: There is no difference between the reading comprehension scores of students who have had instruction in comparison/contrast text structure and those students who have not had such instruction.

Hypothesis 2: There is no difference between the reading comprehension scores of high, middle, and low reading ability students who have had instruction in comparison/contrast text structure and those high, middle, and low reading ability students who have not had such instruction.

In terms of group means null hypothesis 1 is accepted. Table 3 gives the mean raw score for the pre and post cloze test for each group. Group 1 showed improvement. Group 2 and Group 3 did better on the pretest than on the post test. These differences, however, are not statistically significant. Figure 1 is a graphic representative of the mean pre and post treatment cloze scores for each group.

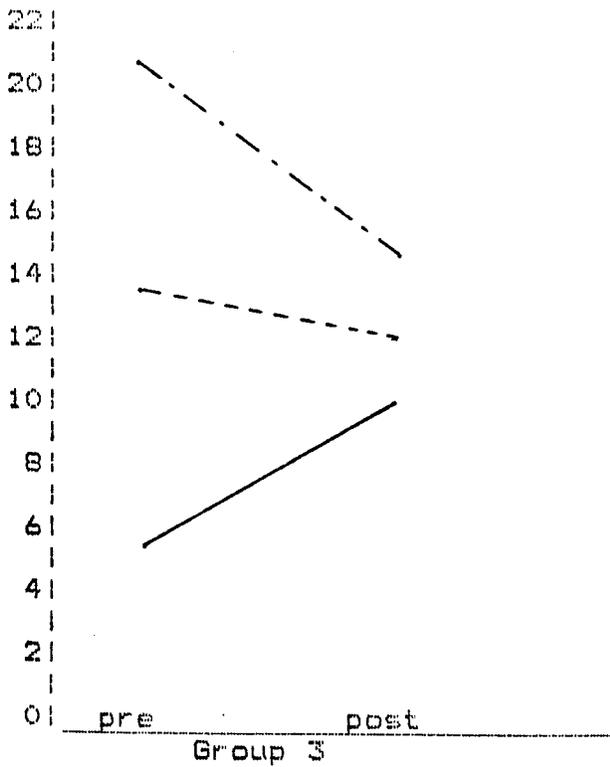
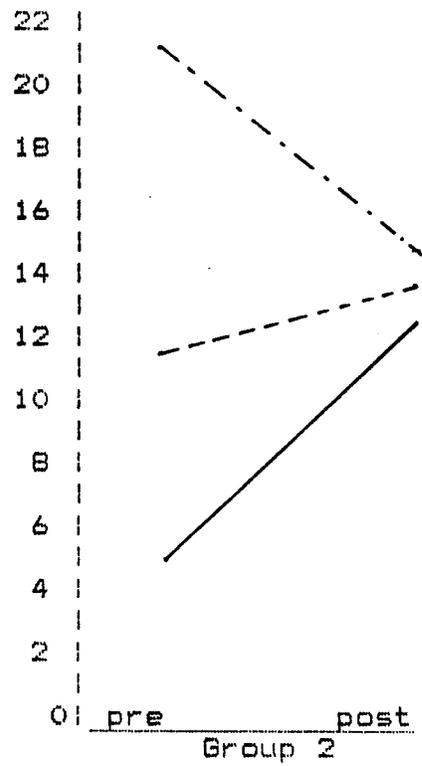
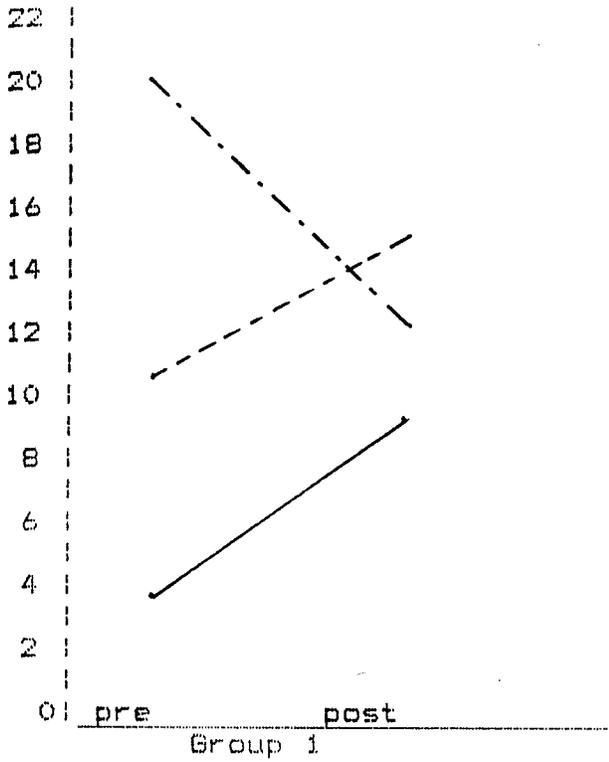
In terms of reading ability, on the other hand, null hypothesis 2 is rejected. Table 4 gives the mean cloze scores for

TABLE 3  
MEANS AND STANDARD DEVIATIONS OF PRE AND  
POST CLOZE SCORES (RAW SCORES)

	Pre	Post
Group 1 $\bar{X}$	3.85	4.35
(N=26) (SD)	(2.13)	(2.19)
Group 2 $\bar{X}$	4.95	4.82
(N=22) (SD)	(2.50)	(2.04)
Group 3 $\bar{X}$	5.35	4.39
(N=23) (SD)	(2.19)	(2.61)
Total $\bar{X}$	4.68	4.51
(N=71) (SD)	(2.33)	(2.27)

Figure 1

Pre & Post Cloze Scores by Group



Low \_\_\_\_\_  
Middle - - - - -  
High . . . . .

high, middle, and low reading ability students. Figure 2 is a graphic representation of these scores. Students of low reading ability in all three groups improved their reading scores no matter the type of instruction. Students of high reading ability did better on the pretest than on the post test. For students of high reading ability, instruction seemed to interfere with performance. For students of middle ability the results are mixed. Middle ability students in Group 1 and 2 (text structure) improved their scores, while Group 3 students (content) did poorly on the post test.

Research Question 2. Does one of two patterns of instruction in comparison/contrast text structure result in a written product with the same or similar structure?

Hypothesis 3: There is no difference between the written product and process measures of students who have had instruction in comparison/contrast text structure and those students who have not had such instruction.

Hypothesis 4: There is no difference between the written product and process measures of high, middle, and low reading ability students who have had instruction in comparison/contrast text structure and those high, middle, and low reading ability students who have not had such instruction.

Null hypothesis 3 is rejected for the writing measures analyzed. There were significant differences between pre and post

TABLE 4

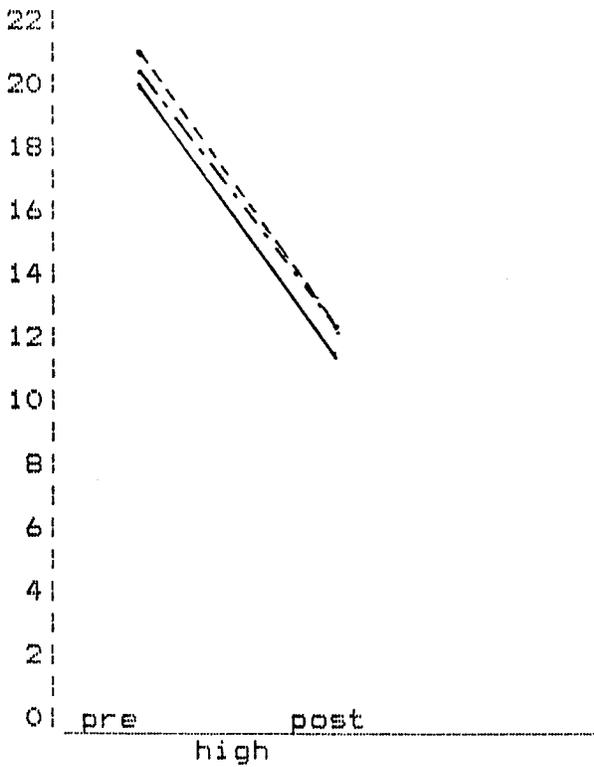
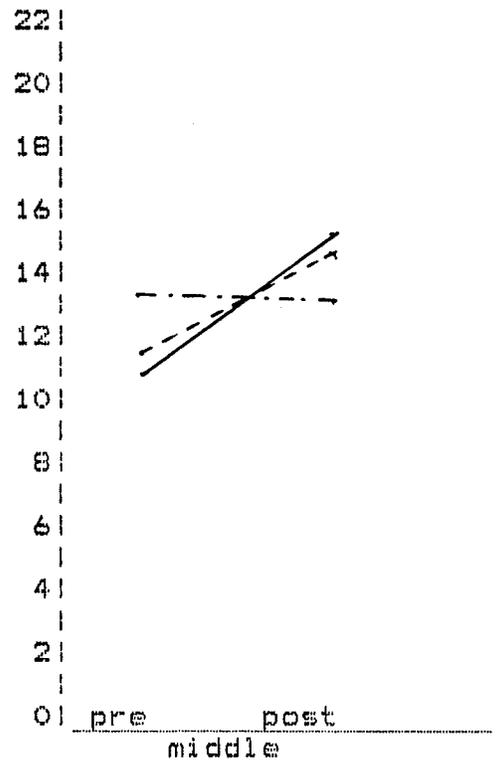
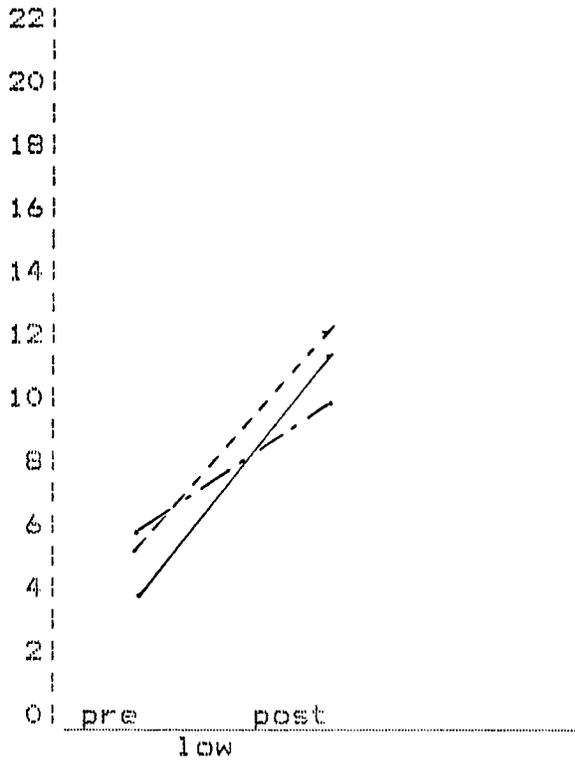
MEAN CLOZE SCORES EXPRESSED AS  
PERCENTAGES BY READING ABILITY

	Low		Middle		High	
	Pre	Post	Pre	Post	Pre	Post
Group 1						
$\bar{X}$	03.8	11.0	10.8	15.1	20.1	11.6
(SD)	(.022)	(.062)	(.017)	(.070)	(.047)	(.084)
N	7	7	12	12	7	7
Group 2						
$\bar{X}$	05.3	12.3	11.7	13.7	21.3	15.3
(SD)	(.018)	(.076)	(.039)	(.056)	(.052)	(.077)
N	5	5	6	6	11	11
Group 3						
$\bar{X}$	05.6	09.7	13.6	11.9	20.6	15.2
(SD)	(.011)	(.044)	(.060)	(.075)	(.044)	(.104)
N	3	3	9	9	11	11

For entire sample	Pre	Post
$\bar{X}$	14.0	13.4
(SD)	(.074)	(.075)
N	71	71

Figure 2

Pre & Post Cloze Scores  
by Reading Ability



Group 1 \_\_\_\_\_  
Group 2 \_\_\_\_\_  
Group 3 \_\_\_\_\_

treatment scores for all writing measures. Table 5 gives the means and standard deviations for the writing measures. Figure 3 is a graphic representation of these scores. As regards hypothesis 4, there was a significant interaction between reading ability, time, and the number of signal words produced. However, as Table 6 shows, the difference was not in the expected direction. In all groups the low and high ability readers produced significantly fewer signal words in the post treatment writing sample than in the pre treatment writing sample. The middle ability students in Group 2 (text structure) and Group 3 (content) produced more signal words. Figure 4 illustrates the mean signal word score graphically.

The paragraphing scores and the global ratings changed significantly from pre to post treatment. Again, as shown by Table 5, the change was not in the expected direction. The scores for all groups were lower for the post treatment writing sample.

Research Question 3. Does one of two patterns of instruction in comparison/contrast test structure result in better unaided recall than instruction which focuses on content?

Hypothesis 5: There is no difference between the recall scores of students who have had instruction in comparison/contrast text structure and students who have not had such instruction.

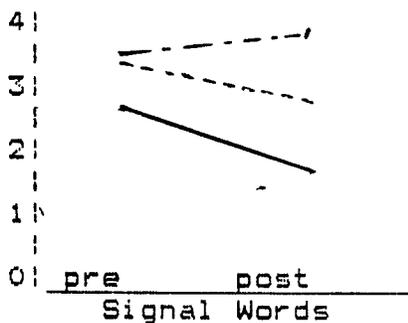
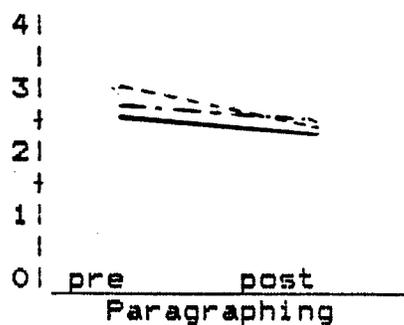
Hypothesis 6: There is no difference between the recall scores of high, middle, and low reading ability students who have

TABLE 5

MEANS AND STANDARD DEVIATION OF  
PRE AND POST WRITING MEASURES

	Group 1	Group 2	Group 3	Total
<b>Global</b>				
pre				
$\bar{X}$	2.92	3.02	3.15	3.03
SD	(0.80)	(0.76)	(1.11)	(0.89)
post				
$\bar{X}$	2.08	2.57	2.37	2.32
SD	(0.78)	(0.97)	(1.10)	(0.96)
N	26	22	23	71
<b>Paragraphing</b>				
pre				
$\bar{X}$	2.54	3.02	2.67	2.73
SD	(0.85)	(0.88)	(0.95)	(0.90)
post				
$\bar{X}$	2.35	2.43	2.50	2.42
SD	(0.60)	(0.88)	(0.93)	(0.80)
N	26	22	23	71
<b>Signal Words</b>				
pre				
$\bar{X}$	2.65	3.32	3.41	3.11
SD	(1.25)	(2.34)	(3.20)	(2.35)
post				
$\bar{X}$	1.60	2.84	3.95	2.73
SD	(1.13)	(1.58)	(4.10)	(2.73)
N	26	22	23	71

Figure 3  
Pre & Post Writing Measures  
by Group



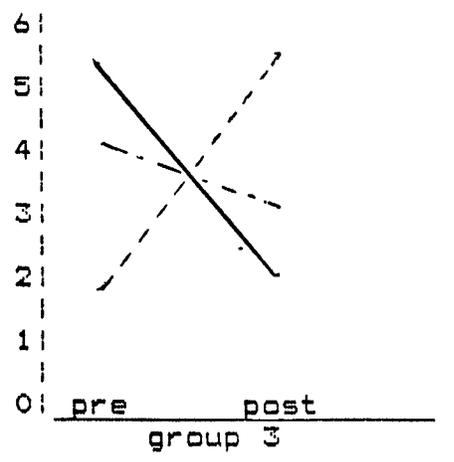
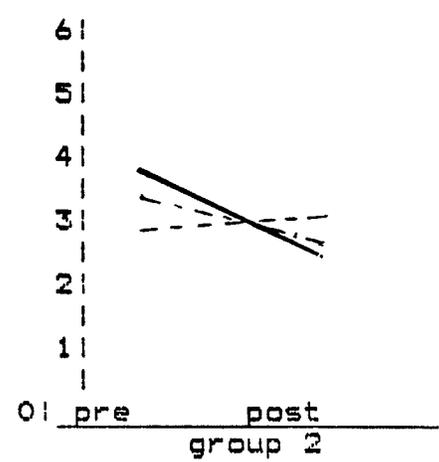
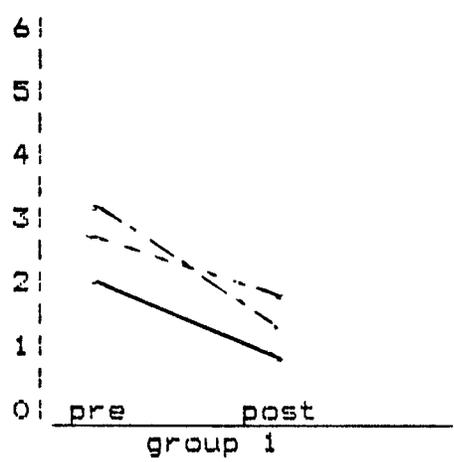
Group 1 \_\_\_\_\_  
Group 2 \_\_\_\_\_  
Group 3 \_\_\_\_\_

TABLE 6  
 MEAN SIGNAL WORD SCORES  
 BY READING ABILITY

	Low		Middle		High	
	Pre	Post	Pre	Post	Pre	Post
Group 1						
$\bar{X}$	2.00	0.93	2.75	1.96	3.14	1.64
(SD)	(1.08)	(0.35)	(1.29)	(1.10)	(1.21)	(1.49)
N	7	7	12	12	7	7
Group 2						
$\bar{X}$	3.80	2.50	2.83	3.08	3.36	2.86
(SD)	(2.49)	(1.87)	(1.72)	(1.74)	(3.11)	(1.48)
N	5	5	6	6	11	11
Group 3						
$\bar{X}$	5.33	2.00	1.89	5.61	4.14	3.05
(SD)	(6.11)	(1.73)	(1.45)	(6.04)	(3.11)	(1.65)
N	3	3	9	9	11	11

Sample	Pre	Post
$\bar{X}$	3.11	2.73
(SD)	(2.35)	(2.73)
N	71	71

Figure 4  
Pre & Post Signal Words  
by Reading Ability



low \_\_\_\_\_  
middle \_\_\_\_\_  
high \_\_\_\_\_

had instruction in comparison/contrast text structure and those high, middle, and low reading ability students who have not had such instruction.

The null hypotheses 5 and 6 are accepted. There was no interaction between recall scores and any independent variable. Table 7 gives the means and standard deviations of the recall measures. The sequence of instruction for the text structure groups (reading then writing, writing then reading) resulted in no significant differences in any of the dependent measures.

## DISCUSSION

### Reading

Measures. The instructional treatment focused on text structure, expecting that such instruction would improve reading comprehension. And this was the case with the low ability students in the sample, and the middle ability students in Group 2 (text structure). In the case of high ability students, instruction seems to have had an adverse effect on comprehension. These results can be explained by examining the method of assessing comprehension used in this study, and by considering several other uncontrolled variables.

The content of each passage was quite different. One passage was taken from a history book, and described the differences between officers and enlisted men in the British and French armies. The other passage, taken from a health text, dealt with

TABLE 7  
 MEANS AND STANDARD DEVIATION FOR  
 PRE AND POST RECALL MEASURES

<u>Main Ideas</u>				
	Group 1	Group 2	Group 3	Total
pre $\bar{X}$ SD	.150 (0.33)	.270 (0.46)	.390 (0.50)	.250 (0.44)
post $\bar{X}$ SD N	.080 (0.27) 26	.360 (0.49) 22	.440 (0.59) 23	.280 (0.48) 71
<u>Total Recall</u>				
pre $\bar{X}$ SD	3.27 (2.49)	5.18 (2.72)	6.22 (3.26)	4.82 (3.06)
post $\bar{X}$ SD N	3.15 (2.01) 26	5.82 (2.30) 22	8.78 (7.50) 23	5.80 (5.12) 71

making and keeping friends. Comprehension of these passages would be effected by the uncontrolled variables of interest in and familiarity with the content of each passage.

The cloze procedure is a recognized method of assessing comprehension (Guszk, 1976). Every fifth word is deleted from a passage of 250-300 words. The pupil's reading level is determined on the following scale:

Independent level -- the student correctly replaces 61 percent or more of the deleted words. (Thirty-three words or more correct).

Instructional level -- the student correctly replaces 41 percent or more of deleted words. (Twenty-two words or more correct).

Frustration level -- the student correctly replaces 40 percent or less of deleted words. (Less than 22 words correct) (Guszk, 1976:391).

Only the exact word is scored. Synonyms or words which are syntactically correct are not scored.

For the purpose of this study the cloze procedure was modified. Text structure is expressed, in part, by grammatical markers. Prepositions and conjunctions provide the framework for the organization of the content which is described by nouns, pronouns, and verbs. In the case of comparison/contrast text structure, adjectives and adverbs have a role in relating

contextual ideas (i.e. bigger than, faster than, etc.). The pre and post reading passages used to measure comprehension in this study were constructed by deleting 10 content words (nouns, pronouns, and verbs) and 10 structural words (prepositions, conjunctions, adjectives, and adverbs) from each passage. The first and last sentence were left intact, and the deletions were made in no regular pattern from the remaining text. Some sentences contained no deletions, some one deletion, and some several. See Appendix B.

The purpose of altering the cloze procedure was to develop an assessment instrument which would be sensitive to both the structural and contextual features of text. The discrepancy of the results, among the instructional and ability groups, raises questions about the validity and reliability of this method of assessment. However, an examination of student responses on the post test reveals some interesting patterns.

As part of the instructional treatment for Group 1 and 2 (text structure), students were taught to be aware of words which suggested a comparison/contrast structure. The students with low and middle ability focused on these signal words when completing the post test, while the high ability students focused on the content deletions. The higher ability students provided more responses, and more responses that were semantically and syntactically correct. But since only exact words were scored,

these contextually correct responses were not reflected in the scores of the higher ability students.

Since some signal words were included in the cloze responses of each student in the sample, the instruction did help to develop an awareness of the function of signal words in the processing of expository text. The students in Groups 1 and 2 knew they were studying text written in the comparison/contrast pattern. They would then expect signal words in the post test. The lower ability students seemed to do better at supplying the correct, exact response for a structural deletion. While the higher ability students seemed to do better at supplying a correct, but inexact response for content deletions, the results suggest that instruction interfered with the learning of the higher ability students. It appears, from an examination of actual responses, however, that the higher ability students actually improved their performance, but the method of assessment was not sensitive to this improvement. (See Appendix B for examples of student responses).

**Materials.** All lesson passages were selected from textbooks and supplementary material recommended by Manitoba Education for use in grade six. The passages, however, were not all at a grade six readability level. The readability of the passages was determined by computer using the readability program produced by the Minnesota Educational Computing Consortium, School Utilities,

Volume 2. For each passage a readability estimate was provided by three formulae: Dale-Chall, Fry, and Raygor. The readability of the various passages ranged from grade 5 to grade 12. (See Appendix B for passages and readability).

The readability of the pre and post passages were approximately at the midpoint of this range; grade 7, according to the Fry and Raygor formulae, and 7-8 and 5-6 according to the Dale-Chall formula. The remaining passages were arranged in order from lowest (5-6) to highest (10-12) readability, and then used in the instructional sessions in that order. In this way, the lessons would become increasingly more difficult, while the assessment passages were of approximately the same level of difficulty.

Classroom Differences. The three classrooms used in this study had some similar characteristics. All three classrooms were in inner-city schools, and each classroom represented a rich ethnic mix of students. Information on entering reading ability was not available for every student in the sample. Therefore, low, middle, and high reading ability, for the purposes of this study, was determined on the basis of the pre cloze test score. However, an examination of the information that is available strongly suggests that Group 1, as a whole, was much weaker in terms of reading ability as measured by the Gates-MacGinitie Reading Test. See Table 8.

TABLE 8

## Means and Standard Deviations

Gates-MacGinitie Reading Test, level D, form 1.

Group 1 (N = 24),  $\bar{x}$  = 5.33, S.D. = 1.88Group 2 (N = 18),  $\bar{x}$  = 6.32, S.D. = 1.36Group 3 (N = 10),  $\bar{x}$  = 6.14, S.D. = 1.10

Given the range of abilities in each of the classrooms, as the instructional sequence proceeded, more and more students were dealing with text beyond their instructional level. The lesson passages were from a variety of social studies, science, and health materials. There was no continuity of content. There was a plan for sequential development of understanding of text structure in the instructional sequence. But the content of each lesson was unrelated. Each lesson attempted to activate the appropriate schema related to the reading passage, but the lesson plans made no provision for assessing prior knowledge. It is quite probable that the later lessons in text structure were ineffective because the content was too difficult. The results of this study, in that case, do not show the effects of text structure on developing comprehension, rather the results show the effects of text structure on the comprehension of reading material beyond the capability of most of the students.

The low students in Group 3 also showed some improvement in their post treatment cloze score, though this improvement was not significant. However, there were only three students in that group. In that small a sample, there is a high probability that these scores occurred by chance. For the higher students the pattern was similar to that of the higher students in Groups 1 and 2. There were more responses to content deletions, but these responses were inexact.

Summary. In summary, in regard to the effect of text structure instruction on reading comprehension, there is some suggestion of a positive effect. However, because of a questionable assessment instrument, differences in readability of the reading passages, and differences in the abilities of the students, these positive effects have not been demonstrated conclusively statistically.

#### Writing

The results of the analysis of the writing data are questionable. The scoring protocol was not appropriate, the analytical guidelines were ambiguous resulting in a very poor inter-rater reliability (see Table 9), and the post test writing assignment was also ambiguous.

Scoring Protocol. The method of scoring the writing samples was based on the scoring protocol used for the 1982 Manitoba Provincial Writing Assessment. Process and product variables were analyzed and scored in terms of the comparison/contrast pattern of text organization. Each writing sample was also given a global rating (see Appendix C). Correlation coefficients were calculated for the global rating and the analytic ratings (see Table 10). These correlations (pre test:  $r = .5565- .8133$ ; post test:  $r = .5287- .8912$ ) suggest that the various process variables were not really discrete features, but combinations of similar sets of features. The process variable with the lowest correlation with

TABLE 9

## INTER-RATER RELIABILITY

Measure	<u>Pre-Test</u>		<u>Post-Test</u>	
	Correlation Coefficient	Spearman Reliability	Correlation Coefficient	Spearman Reliability
Global rating	.3154	.4795	.6424	.7823
Organization	.5051	.6712	.4787	.6475
Style	.3514	.5201	.5500	.7097
Focus	.2282	.3716	.5076	.6734
Ideas	.2937	.4540	.5060	.6720
Elaboration	.5047	.6708	.5656	.7225
Sentence structure	.4175	.5891	.6189	.7646
Paragraphing	.5193	.6836	.5243	.6879
Signal Words	.6668	.8000	.1392	.2443

TABLE 10  
 CORRELATION COEFFICIENTS FOR PRE AND  
 POST WRITING VARIABLES WITH PRE AND  
 POST GLOBAL RATINGS

	Global Rating	
<u>Process Variables</u>	<u>Pre-Test</u>	<u>Post-Test</u>
Organization	.7485	.8912
Style	.8073	.8711
Focus	.7494	.7889
Ideas	.6878	.7413
Elaboration	.8133	.8794
Sentence structure	.6295	.8479
Paragraphing	.5665	.5287
<u>Product Variables</u>		
Signal Words	.2802	.2810
Number of Words	.5174	.4093
Number of T-units	.3271	.4113

the global rating was paragraphing (pre:  $r = .5665$ ; post:  $r = .5287$ ). The corresponding product variable was signal words (pre:  $r = .2802$ ; post:  $r = .2810$ ). The data was reanalyzed using as dependent variables paragraphing, signal words, and global rating. Collapsing the data in this way, it seemed, would provide a better description of writing performance.

Inter-rater Reliability. The investigator and a colleague had worked together in a previous study, and at that time achieved a high degree of inter-rater reliability for scoring writing samples. Unfortunately, this was not the case in the present study. The inter-rater reliability for the global rating variable was better for the post test than for the pre test (pre: Spearman's  $r = .4795$ ; post: Spearman's  $r = .7823$ ). However, the reliability coefficients for the process variables ranged from Spearman's  $r = .3716$  to  $.8000$  for the pre test, and Spearman's  $r = .1392$  to  $.7646$  for the post test. The analytic rating guidelines, apparently, were ambiguous. And so, for the global rating, each rater was scoring different features of the writing sample. The focus of the investigator was on the overall text in terms of comparison/contrast text structure. The other rater assigned a score based on the overall quality of the sample with little regard to text structure. In short, each rater analyzed the writing samples from a slightly different point of view. Diederich (1974) has suggested that a reliability coefficient of

.80 is considered adequate in assessing written compositions. The inter-rater reliability in this study did not meet the criteria, therefore the results of the writing analysis are of little value.

Effects of Text Structure Instruction. Significant interaction were found for the number of signal words, reading ability, and pre and post measures. A significant interaction was also found for the paragraphing and global rating variables, and pre and post measures. The difference between the pre and post paragraphing and signal word measures, however, was not in the expected direction. All students in all groups did better on the pre test measures.

To assess the effects of instruction in text structure on writing, the students were assigned writing tasks before and after the instructional treatment. Students were assigned a topic for both the pre and post treatment writing tasks. The students were not directly instructed to produce the comparison/contrast pattern, but topics selected were thought to easily lend themselves to this pattern. The pre treatment writing assignment was: "How is the corner grocery store the same as Super-Valu? How is it different? Try to think of as many differences and similarities between the two stores as you can." The post treatment writing assignment was: "Which animal makes the best pet, a cat or a dog? Why?" This second assignment was not interpreted by the students as the investigator had anticipated.

Instead of comparing and contrasting dogs and cats, most of the samples were of the pattern, "I like dogs/cats because..." The written production of most students in all groups took the form of an opinion essay.

As was indicated in the previous section, the students in Groups 1 and 2 were taught the function and use of signal words. And just as these students were expected to use signal words in the cloze passages, they were expected to use signal words in their writing. However, only the middle ability students in Group 2 produced more signal words in the post treatment writing sample. If all the students in Group 2 produced more signal words on the post treatment writing sample this might be attributed to the differences in the reading abilities of the groups. A supplementary analysis of the writing samples failed to explain this anomaly.

Effects of Content Instruction. Writing lessons were part of the instructional plan for both the text structure and content groups. For the text structure groups, this instruction focused on producing comparison/contrast text. The writing topics for the content group were related in some way to the topic of the reading passages. The organizational pattern of the writing was left to the discretion of the teacher, or in some lessons, to the students. The comparison/contrast pattern was used as part of some content group lessons, though not suggested or discouraged by

the investigator. This would suggest that some types of materials and some types of lessons lend themselves easily to organization in the comparison/contrast pattern. An examination of the writing lessons from the text structure groups showed that some students were making more effective use of this pattern.

The method chosen to assess the effect of instruction in text structure on written production is sound. The analytic rating scale was flawed. But the primary factor which confounded these results was the topic assigned for the post treatment writing sample. The comparison/contrast structure could not be assessed, because, for most students, this structure was not produced. (See Appendix D for writing samples).

#### Recall Measures

It was hypothesized that instruction in text structure would help to develop the cognitive framework for the processing, storage, and retrieval of information. And that unaided recall would provide the means for assessing the level of development of these cognitive frameworks. For that reason each reading lesson for all groups had a recall component. There was no direct instruction or modelling for the task. Students were simply told to write as much as they remembered from the passages they had just studied. There was no critique or discussion of the recalls afterwards. The students came to see this as a rather meaningless task with little perceivable relationship to the main part of the

lesson. While some students worked conscientiously on all assigned tasks, many students took the recall task lightly. Several students turned in papers with only, "I don't remember anything" or "nothing" written on them. If the recall task had been an element of lessons in notetaking or summarization, for example, the results may have been different.

#### Sequence

Tierney and Pearson (1983) have described the similarities in the processes of reading and writing. Because reading and writing are both aspects of language, the head and tail of the same process, they cannot be effectively taught as separate and discrete subjects. In this study reading and writing were taught as separate lessons in an attempt to study the effects of the instructional treatment on reading and on writing separately. There was no significant interaction between sequence of instruction and any of the dependent variables. The results seem to support the idea of teaching reading and writing together in an integrated language program.

#### SUMMARY

The purpose of this study was to examine the effects of instruction in text structure on reading, writing, and recall. The effect of the sequence of instruction was also studied. In regard to reading, there were suggestions of positive effects, but

these effects could not be statistically verified. Again, in regard to writing, possible positive effects were noted, and again could not be statistically verified. There was no change in recall measures, but no recall strategies or techniques were directly taught. And finally, the sequence of instruction had no effect on any of the dependent measures.

## CHAPTER 5

## SUMMARY

The purpose of this study was to investigate the effects of instruction in expository text structure on reading comprehension, recall, and writing. The comparison/contrast pattern of expository text structure was chosen for this study, because it is one of the most difficult structures for elementary students to identify and produce (Englert and Hiebert, 1984; Piccolo, 1987). The effects of instruction using this pattern of expository text, it was felt, would be more clear-cut than if a pattern with which students might be familiar was used.

In a review of the literature, it was found that most studies dealing with text structure focused on narrative, rather than, expository text. Much of the literature related to expository text deals with classifying and identifying different text structures, rather than developing strategies for processing different patterns of expository text. Those studies that did examine instructional strategies, for the most part used secondary and college students as subjects. The present study compared the effects of text structure and content instruction with elementary school students. The instructional materials used in this study were taken from textbooks and materials normally used in grade six classrooms.

### RESEARCH QUESTIONS

Data were collected and analyzed to answer the following questions:

1. Does one of two patterns of instruction in comparison/contrast text structure result in better comprehension than instruction which focuses on content?
2. Does one of two patterns of instruction in comparison/contrast text structure result in a written product with the same or similar structure?
3. Does one of two patterns of instruction in comparison/contrast text structure result in better immediate recall than instruction which focuses on content?

### METHOD

Sample. The subjects in this study were grade six students from three inner-city Winnipeg schools. Pre and post treatment reading, writing, and recall data were collected by the investigator. The sources of these data were cloze test scores, recall scores, and an analysis of writing samples. Between the pre and post testing, ten instructional sessions were conducted by the classroom teachers.

Variables. The independent variables were instructional method (text structure: reading then writing; text structure: writing then reading; and focus on content) and reading ability.

High, middle, and low reading ability was determined on the basis of pre treatment cloze scores. A within subjects variable, time (pre to post treatment), was the third factor. The dependent variables were cloze, writing, and recall scores.

**Instructional Methods.** Group 1 and Group 2 (text structure) were given two lessons to introduce the concept of expository text structure. These introductory lessons were followed by four reading lessons in which comparison/contrast text was used, and four writing lessons during which students produced comparison/contrast text. After the first two lessons, Group 1 had the reading lessons first, then the writing lessons; Group 2 had the writing lessons, then the reading lessons. The students in Group 3 (content) used the same reading materials and also completed writing lessons. The focus of instruction for Group 3, however, was on question answering strategies. Topics were suggested for Group 3 writing lessons, but the organizational pattern was not specified.

**Data Analysis.** Multivariate and univariate statistical procedures were used to analyze the data. The dependent variables were analyzed using the SPSS-X statistical program.

Writing samples were initially analyzed in terms of various product and process factors. An examination of this analysis suggested that these factors did not represent discrete features of the written product. The data was reanalyzed using as dependent

variables one process factor (paragraphing), one product factor (signal words), and the global rating.

#### SUMMARY OF FINDINGS

The following is a summary of the study for each research question:

1. There was a significant relationship between reading ability and the instructional treatment. Low reading ability students improved their performance, while the instructional treatment seemed to interfere with the performance of high reading ability students. The results were mixed for middle ability students.

2. There was a significant difference between pre and post treatment scores for all writing measures. There was also a significant relationship between reading ability and the number of signal words produced. These differences, however, were not in the expected direction; all groups did better on the pre treatment writing measures than on the post treatment measures.

3. No significant relationship was found for recall measures and instructional method.

#### CLASSROOM IMPLICATIONS

On the basis of the present study the investigator has drawn the following implications for classroom use:

1. Although not statistically verified, the present study

suggests that direct instruction in text structure has positive effects on the comprehension, production, and recall of expository text. The results might have been significant if the students had had the opportunity to systematically study expository text structure proceeding from the easiest to the more difficult text patterns. Piccolo (1987) suggests the following instructional sequence: 1) sequence, 2) enumeration, 3) cause/effect, 4) description, 5) problem/solution, and 6) comparison/contrast.

2. Students in Group 3 (content) demonstrated some developing understanding of the comparison/contrast pattern of text structure even though this was not directly taught. This would suggest that content and structure cannot be separated. An effective instructional procedure might consist of instruction to introduce the concept of expository text structure and to provide examples of the various expository patterns. The content of specific science, social studies, and health lessons could then be taught in terms of text structure.

3. The textbooks and supplementary materials available do not provide good examples of the various expository text structures. Publishers and textbook writers need to produce materials giving more consideration to including good examples of the various patterns of text structure.

4. The readability of textbooks may not necessarily be at the level of students' reading ability. Teachers must keep this

in mind when preparing lessons. When the readability of a particular text is beyond the students' instructional level, emphasis on text structure may help in the comprehension of such text.

5. Teachers must insure that students have the conceptual background necessary for the comprehension of a particular topic. An awareness of different patterns of textual organization will be of little use if the student does not have the necessary conceptual framework for understanding the text.

6. Because of the lack of good examples of expository text structure in grade six reading materials, teachers would be more successful in developing an understanding of these structures through writing lessons rather than reading lessons.

7. An understanding of text structure should not be an isolated instructional objective, rather, instruction in text structure should be taught as one of a number of metacognitive strategies.

#### IMPLICATIONS FOR FUTURE RESEARCH

The results of this study suggest the following implications for future research:

1. This study should be replicated using different populations and more appropriate testing instruments.
2. Future instructional studies should attempt to determine the differential effects of various teaching methods and materials

on the understanding and awareness of the various expository text structures. For example, a study comparing the effects of writing-based instruction with reading-based instruction.

3. Future research involving written recalls should include a practical application for producing the recall, for example, summarizing or notetaking.

#### CONCLUSION

It is difficult to draw hard and fast conclusions from the results of this study. There are some indications that the instructional treatment had a positive effect on reading comprehension and writing. However, the reliability and validity of the reading measures are questionable. The analytic writing measures are also in question. The post treatment writing analysis, especially, did not reflect the instructional intervention.

That an understanding and awareness of expository text structure should result in improved comprehension, recall, and production of expository text seems to be a valid assumption. However, this assumption was not verified in this study.

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APPENDICES

## APPENDIX A

## LESSON PLANS

Groups 1 and 2, text structure, had exactly the same instruction. Except that after the first two introductory lessons, Group 1 had four reading lessons followed by four writing lessons. Group 2 had the same introductory lessons, then four writing lessons followed by four reading lessons.

Group 3, content, also had two introductory lessons in question-answer relationships. For the remaining eight instructional sessions reading and writing lessons were conducted alternately.

## LESSON 1, GROUP 1 and GROUP 2

## Objective of Lesson

1. Students will be able to identify the various patterns of expository text structure.
2. Students will generate a list of signal words suggesting the comparison/contrast pattern.

## Materials

1. Lesson passage "Plant-Eating Animals and Animals That Eat Animals".
  - a) a copy for each student, with signal words deleted.
  - b) an intact copy for overhead projector.
2. Examples of various organizational patterns for overhead projector.
3. A supply of foolscap.

## Instructional Sequence

1. Introduction (bold face indicates suggested teacher dialogue).

**YOU ARE ALL FAMILIAR WITH THE WAY STORYBOOKS ARE WRITTEN.**

**ALL STORIES HAVE A SETTING, CHARACTER, AND A PLOT. ALL**

**NARRATIVE, OR STORIES, ARE ORGANIZED IN A SIMILAR WAY.**

**SCIENCE AND SOCIAL STUDIES BOOKS ARE ORGANIZED IN A DIFFERENT**

**WAY. THESE ARE CALLED EXPOSITORY TEXTS. WE WILL NOW LOOK AT**

**SOME EXAMPLES OF DIFFERENT PATTERNS OF EXPOSITORY TEXT.**

2. The teacher will list the following patterns on the chalkboard and briefly describe each:

Simple Listing.

THIS PATTERN IS USED TO DESCRIBE PEOPLE, ANIMALS, THINGS OR EVENTS. FOR EXAMPLE, .... THIS PATTERN IS ALSO USED TO LIST A SERIES OF FACTS OR DETAILS RELATED TO A CERTAIN TOPIC. FOR EXAMPLE, ....

Time Order.

IN THIS PATTERN A SERIES OF IDEAS OR EVENTS IS PRESENTED IN CHRONOLOGICAL ORDER. RECIPES AND DIRECTIONS FOR SCIENCE EXPERIMENTS ARE EXAMPLES OF THIS PATTERN. Define chronological.

Cause/Effect.

THIS PATTERN DESCRIBES THE RESULT OF A PREVIOUS EVENT OR ACTIVITY. FOR EXAMPLE, ....

Problem/Solution.

THIS PATTERN IS SIMILAR TO THE CAUSE/EFFECT PATTERN. A PROBLEM IS IDENTIFIED, AND THEN A SOLUTION OR POSSIBLE SOLUTION IS OFFERED. FOR EXAMPLE, ....

Comparison/Contrast.

TWO OR MORE PEOPLE, ANIMALS, THINGS, OR EVENTS ARE COMPARED ACCORDING TO THEIR SIMILARITIES AND DIFFERENCES. FOR EXAMPLE, ....

3. The following passages will be placed on the overhead

projector. The teacher will point out the signal words in each passage. The students will use these signal words to identify the organizational pattern of each passage.

Lions are the largest members of the cat family. A large male may weigh up to 300 kg and reach almost 3 m in length. Lions are tawny yellow in color. Both males and females have a tuft at the end of their tail, but only the males have a mane. A group of lions living and hunting together is called a pride. (Simple Listing)

The building of a house goes through several stages. First, the plans have to be drawn up. Then the materials have to be purchased. Finally, the carpenters can go to work. (Time Order)

Years of drought destroyed the land. As a result, many farmers moved to the cities to find work. (Cause/Effect)

The alarming rise in the number of traffic accidents caused a public outcry. Strict enforcement of traffic laws, it was thought, would reduce the number of accidents in the future. (Problem/Solution)

All birds have feathers, but not all birds can fly. Some large birds, like eagles and condors, can stay aloft for hours. Penguin and ostriches, on the other hand, are incapable of flight. (Comparison/Contrast)

4. The cloze version of the lesson passage will be

distributed to the students.

**THE READING PASSAGE DISCUSSES MEAT-EATING AND PLANT-EATING ANIMALS. WHAT PATTERN DO YOU THINK THIS PASSAGE IS WRITTEN IN?** Discuss student responses, but do not identify the pattern.

**THE BLANKS ARE THE SIGNAL WORDS THAT WILL HELP WITH YOU TO IDENTIFY THIS PATTERN. READ THROUGH THE PASSAGE AND FILL IN THE BLANKS WITH WORDS THAT MAKE SENSE.**

5. After the students have completed the exercise, discuss student responses and compare with intact passage on overhead. From student responses and from discussion develop list of comparison/contrast signal words. Teacher will record responses on chalkboard. The list should include adjectives and adverbs which describe attributes such as size, shape, and movement, as well as the following words and phrases:

however

but

as well as

on the other hand

not only...but also

either...or

while

although

unless

similarly

yet

6. Students will reread the passage focusing on the signal words and organizational pattern.
7. Lesson passages will be collected and blank sheets of foolscap will distributed. Students will be asked to produce a written recall of the lesson passage.

## LESSON 2, GROUP 1 and GROUP 2

## Objective of Lesson

The teacher will demonstrate the development of a graphic representation of the lesson passage

## Materials

1. Lesson passage, "The First Canadian". One copy for each student.
2. A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and ask students to produce a written recall of the previous lesson passage.

2. Review comparison/contrast signal words.

3. Introduce lesson passage and provide purpose for reading.

**TODAY WE WILL READ A SHORT ARTICLE ABOUT THE FIRST CANADIANS. THE EUROPEAN EXPLORERS WERE NOT THE FIRST TO DISCOVER NORTH AMERICA.**

**THEY FOUND PEOPLE ALREADY LIVING HERE.**

**WHO WERE THESE PEOPLE?**

**WHERE DID THEY COME FROM?**

**READ THE ARTICLE AND TRY TO DETERMINE WHAT THESE FIRST CANADIANS HAD IN COMMON AND HOW THEY DIFFERED.**

4. After the students have read the passage, discuss it with them. Guide the discussion to bring out the following ideas:

- they came from Asia
- they were hunters
- they banded together
- different groups had contact with each other
- the different groups developed different cultures

After listing these points on the chalkboard or on the overhead, label the list **SIMILARITIES**.

5. Next, again through guided discussion, list the differences for each of the above points;

- some stayed in the north, others moved south
- later some became farmers
- into different groups: families, tribes, kingdoms, empires
- the hunters of the north, the Maya of Mexico

Label the list **DIFFERENCES**.

6. Point out to the students that organizing information in this way helps them to understand and remember the information.

7. Collect reading passages and distribute foolscap. Have students produce a written recall of the lesson passage.

LESSON 3, GROUP 1; LESSON 7, GROUP 2

#### Objective of Lesson

Given a set of attributes, the students will compare and contrast these attributes.

#### Materials

1. Lesson passage, "Our Star - The Sun". One copy for each student.
2. One outline worksheet for each student.
3. A supply of foolscap.

#### Instructional Sequence

1. Distribute foolscap and have students produce a written recall of previous lesson passage.
2. Introduce lesson passage and provide purpose for reading.

**WHAT STAR IS VISIBLE IN THE DAYTIME?**

After several responses, distribute lesson passages.

**TO US, THE SUN IS A VERY IMPORTANT STAR. READ THIS ARTICLE TO SEE JUST WHY THE SUN IS SO IMPORTANT.**

3. After the students have read the article, briefly discuss to determine whether or not students have understood the main ideas.

4. Distribute worksheets.

**IN OUR LAST LESSON WE LEARNED HOW TO ORGANIZE INFORMATION SO IT IS EASIER TO UNDERSTAND AND REMEMBER. FILL IN THE MISSING**

INFORMATION IN THIS OUTLINE. THE SIGNAL WORDS WE STUDIED  
WILL HELP YOU.

5. After the students have completed the activity, discuss  
their responses.

6. Collect lesson passages and outlines. Distribute  
foolscap and have students produce written recall of lesson  
passage.

## LESSON 4, GROUP 1; LESSON 8, GROUP 2

## Objective of Lesson

1. Working in groups of 4-5, students will develop an outline of the lesson passage based on the comparison/contrast pattern.
2. Students will recognize the signal words in the passage.

## Materials

1. One copy of the lesson passage, "Why Was There Tension Between The French and English Empires?", for each student.
2. A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and have students provide a written recall of the previous lesson passage.
2. Introduce lesson passage and provide purpose for reading.  
**LATER IN THE YEAR WE WILL STUDY THE CONFLICT BETWEEN THE FRENCH AND ENGLISH IN NORTH AMERICA. THIS ARTICLE IS AN INTRODUCTION TO THAT STUDY. READ THIS ARTICLE AND UNDERLINE THE SIGNAL WORDS THAT POINT OUT HOW THE FRENCH AND ENGLISH EMPIRES WERE THE SAME AND HOW THEY WERE DIFFERENT.**
3. After students have read the passage discuss the signal words that have been underlined. Teacher's copy of the lesson passage has suggested signal words underlined.
4. The teacher will organize the class into groups of 4-5

students. For each group the teacher will appoint a recorder. **IN YOUR GROUPS, DECIDE HOW THE FRENCH AND ENGLISH WERE THE SAME AND HOW THEY WERE DIFFERENT. GIVE EXAMPLES OF THE SIMILARITIES AND DIFFERENCES.**

5. Allow approximately 15 minutes for the activity. Then discuss each group's outline and compare with the following suggested outline:

**SIMILARITIES**

- both had colonies in India: tea, silk, cotton
- both had colonies in the West Indies: sugar
- both had colonies in North America: fur, fish, lumber, tobacco
- both built forts to protect fur trade

**DIFFERENCES**

- French forts along the Great Lakes, St. Lawrence River, and Mississippi Basin
- English established along the east coast, Hudson Bay, and Ohio river

6. Collect passages and outlines. Distribute foolscap.

Have students produce a written recall of the lesson passage.

LESSON 5, GROUP 1; LESSON 9, GROUP 2

#### Objective of Lesson

Working in pairs, students will develop an outline of the lesson passage based on the comparison/contrast pattern.

#### Materials

1. One copy of lesson passage, "Community Health", for each student.
2. A supply of foolscap.

#### Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the previous lesson passage.
2. Introduce lesson passage and provide a purpose for reading.

HAVING ENOUGH TO EAT, WARM CLOTHES IN THE WINTER, AND A COMFORTABLE HOUSE TO LIVE IN ARE THINGS WE TAKE FOR GRANTED. IN SOME OTHER PARTS OF THE WORLD, PEOPLE AREN'T AS LUCKY AS WE ARE. READ THIS ARTICLE TO SEE HOW THE LIVES OF CHILDREN IN SOME PARTS OF AFRICA, ASIA, AND SOUTH AMERICA ARE DIFFERENT FROM YOUR LIFE.

3. After students have read the passage, the teacher will form pairs of students, or allow the students to choose partners.

WE HAVE BEEN PRACTISING OUTLINING INFORMATION INTO

**DIFFERENCES AND SIMILARITIES. WORK TOGETHER AND ORGANIZE THE INFORMATION IN THIS PASSAGE INTO DIFFERENCES AND SIMILARITIES.**

4. Allow approximately 15 minutes for this activity. Then discuss the results and compare with the following suggested outline:

**DEVELOPED COUNTRIES**

- high standard of living
- enough healthful food
- electricity
- clean water
- medical care, vaccinations

**UNDERDEVELOPED COUNTRIES**

- low standard of living
- too little food, too little protein
- no electricity
- dirty water
- disease

5. Collect outlines and lesson passages. Distribute foolscap and have students produce a written recall of lesson passage.

LESSON 6, GROUP 1; LESSON 10, GROUP 2

### Objective of Lesson

Working individually, each student will produce an outline of the lesson passage based on the comparison/contrast pattern.

### Material

1. One copy of lesson passage, "Matter", for each student.
2. A supply of foolscap.

### Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the previous lesson passage.
2. Introduce lesson passage and provide a purpose for reading.

**HOW ARE A PIECE OF IRON, AN APPLE, AND A CLOUD THE SAME?**

Accept student response.

**THEY ARE ALL FORMS OF MATTER. EVERYTHING AROUND US IS A FORM OF MATTER. BUT MATTER CHANGES FORM. READ THIS PASSAGE TO DISCOVER HOW MATTER CHANGES FROM ONE FORM TO ANOTHER.**

3. After students have read the passage, say:

**WE HAVE LEARNED TO OUTLINE PASSAGES TOGETHER AS A CLASS, IN GROUPS, AND IN PAIRS. TODAY YOU WILL MAKE AN OUTLINE ON YOUR OWN. REMEMBER TO USE THE SIGNAL WORDS TO HELP YOU TO ORGANIZE THE INFORMATION. HOW IS ALL MATTER THE SAME AND HOW IS IT DIFFERENT?**

4. Allow approximately 15 minutes to complete the activity.

Then discuss the results and compare with the suggested outline:

**SAME**

- all matter is capable of change

**DIFFERENT**

- change can be very fast or very slow
- physical change
- chemical change
- nuclear change

5. Collect lesson passages and outlines. Distribute foolscap and have students produce a written recall of the lesson passage.

LESSON 7, GROUP 1; LESSON 3, GROUP 2

#### Objective of Lesson

1. Given a topic, students will develop an outline of similarities and differences under the direction of the teacher.
2. Each student will write an expository essay based on the outline.

#### Topic

What is your favourite season, winter or summer? Why?

#### Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the previous lesson passage.
2. Introduce topic.  

YOU HAVE SEEN HOW INFORMATION IN TEXTBOOKS IS ORGANIZED INTO CERTAIN PATTERNS. UNDERSTANDING THESE PATTERNS CAN ALSO HELP YOU TO BE A BETTER WRITER. BY ORGANIZING YOUR IDEAS BEFORE YOU WRITE, YOUR WRITTEN WORK WILL BE CLEARER AND MORE INTERESTING. LET'S ORGANIZE THE IDEAS FOR THIS WRITING ASSIGNMENT INTO A COMPARISON/CONTRAST PATTERN. ONE REASON WHY YOU MAY LIKE ONE SEASON MORE THAN ANOTHER IS BECAUSE OF THE THINGS YOU CAN DO DURING THAT SEASON. WHAT ARE SOME OF THE THINGS YOU CAN DO DURING THE SUMMER?

List student responses on chalkboard or overhead projector.

Do the same for winter activities, and for activities that can be done in both winter and summer.

3. Possible response:

**SUMMER ACITIVITIES**

swimming (outdoors)

baseball

camping

movies

going to the park

**WINTER ACTIVITIES**

skating

skiing

building snowmen

snowball fights

**WINTER AND SUMMER ACTIVITIES**

swimming (indoors)

skating

camping

movies

4. Teacher will demonstrate how these ideas can be expanded into sentences, and how the sentences can be joined by using signal words. For example:

I can go swimming in the summer and in the winter, but in the winter I have to go to the indoor pool.

Camping is fun anytime, however, it's more fun in the winter.

5. COMPARE SUMMER AND WINTER ACTIVITIES. ADD MORE IDEAS IF YOU WISH. BE SURE TO TELL WHICH SEASON YOU LIKE THE BEST AND WHY.

## LESSON 8, GROUP 1; LESSON 4, GROUP 2

## Objective of Lesson

1. Given a topic, students will develop an outline of similarities and differences working in groups of 4-5.
2. Each student will write an expository essay based on the outline.

## Topic

How is grade five like grade six?

How is it different?

Which grade would you rather be in?

## Instructional Sequence

1. Introduce topic.  
**HOW IS GRADE FIVE THE SAME AS GRADE SIX? HOW IS IT DIFFERENT? IN YOUR GROUP THINK OF AS MANY SIMILARITIES AND DIFFERENCES AS YOU CAN. LIST THESE SIMILARITIES AND DIFFERENCES AS WE DID IN THE LAST ASSIGNMENT. EACH MEMBER OF YOUR GROUP SHOULD MAKE A COPY OF THE OUTLINE.**
2. Allow 10-15 minutes for this activity. Then have the students return to their seats with a copy of the outline, and have them complete the assignment with the aid of the outline. Have students turn in outlines and essays.

## 3. Possible outline:

**SAME**

spelling

homework

**DIFFERENT**

better (worse) teacher

different subjects

different rooms

## LESSON 9, GROUP 1; LESSON 5, GROUP 2

## Objective of Lesson

1. Given a topic, students will develop an outline of similarities and differences working in pairs.
2. Each student will write an expository essay based on the outline.

## Topic

Which is the better restaurant, McDonald's or Burger King?

Why?

## Instructional Sequence

1. Introduce topic.

WHAT IS YOUR FAVOURITE, A BIG MAC OR A WHOPPER? THINK ABOUT WHAT YOU LIKE ABOUT MCDONALD'S, AND WHAT YOU DON'T LIKE. DO THE SAME FOR BURGER KING.

2. Form the students into pairs, or let them pick a partner. Each student should have a copy of the outline produced.

Allow about 10-15 minutes for the activity.

3. The students will return to their seats to complete the assignment. Students will turn in the outline and the essay.

4. Possible response:

**MCDONALD'S**

better selection of food

poor service

crowded

**BURGER KING**

better food

more locations

good service

## LESSON 10, GROUP 1; LESSON 6, GROUP 2

## Objective of Lesson

1. Students will select a topic, develop an outline in the comparison/contrast pattern, and use that outline to write an expository essay.

## Suggested Topics

1. Who are the better baseball players, boys or girls? Why?
2. What is your favourite TV program? Which program do you like least? How are these programs the same? How are they different?
3. How is going to a movie like watching TV? How is it different?

## Instructional Sequence

1. Introduce assignment by asking students to suggest topics which can be organized into a comparison/contrast pattern. Teacher will also provide suggestions if necessary.
2. **THINK ABOUT THE TOPIC YOU HAVE CHOSEN. THEN ORGANIZE THE IDEAS INTO AN OUTLINE BY LISTING SIMILARITIES AND DIFFERENCES, OR INTO LIKES AND DISLIKES. USE THIS OUTLINE TO HELP YOU WITH ASSIGNMENT.**

## LESSON 1, GROUP 3

## Objective of Lesson

1. Students will be able to identify the three types of Question-Answer Relationships (QARs):

Right There, Think and Search, On My Own

## Materials

1. Overhead transparency with QAR definitions.
2. Lesson passage, "Plant-Eating Animals and Animals That Eat Animals",
  - a) a copy for each student,
  - b) a copy on a transparency.
3. Sample questions on a transparency.
4. A supply of foolscap.

## Instructional Sequence

1. Introduction (bold face indicates suggested teacher dialogue).

**WE ARE GOING TO TALK ABOUT DIFFERENT KINDS OF QUESTIONS AND THE BEST WAY TO ANSWER THEM. SOMETIMES YOUR WORKBOOK OR I GIVE YOU QUESTIONS THAT ASK FOR INFORMATION YOU CAN FIND QUITE EASILY IN THE BOOK. OTHER TIMES YOU WON'T FIND AN ANSWER THERE. WE WILL DESCRIBE THREE KINDS OF QUESTIONS: RIGHT THERE, THINK AND SEARCH, AND ON MY OWN. EACH TYPE OF QUESTION CAN BE FIGURED OUT BY DECIDING WHERE YOU GET THE**

INFORMATION FOR THE ANSWER. WE CALL THIS A QUESTION-ANSWER RELATIONSHIP, OR QAR FOR SHORT.

2. Teacher places QAR transparency on the overhead projector, and through guided discussion develops the concept of "text-based" and "knowledge-based" response.

3. Lesson passages are distributed to the students.

THIS PASSAGE DESCRIBES SOME OF THE DIFFERENCES BETWEEN PLANT- AND MEAT-EATING ANIMALS. WE WILL USE THIS PASSAGE TO STUDY SOME EXAMPLES OF QARs.

4. After students have silently read the passage, the following questions will be presented. Students will, through guided discussion, identify the type of QAR. The emphasis in this lesson will be on the identification of the correct source of response information, rather than the most appropriate or complete response.

Right There

What do zebras eat?

What is a predator?

Think and Search

Why are green plants important to animals?

Is it true that all plant-eating animals are similar than meat-eating animals?

What does "interdependent" mean?

On My Own

Name three plant-eating animals and three meat-eating animals not mentioned in the text?

Some meat-eating animals live in zoos where they cannot hunt.

How do these animals get their food?

Are some animals both plant- and meat-eaters?

What kind of animal makes the best pet, a meat-eater or a plant-eater?

5. Lesson passages will be collected and blank sheets of foolscap will be distributed. Students will be asked to produce a written recall of the lesson passage.

## LESSON 2, GROUP 3

## Objective of Lesson

Students will identify the three types of QARs, locate sources of information, and distinguish between fact and opinion.

## Materials

1. Overhead transparency with QAR definitions.
2. Lesson passage, "The First Canadian", for each student.
3. Sample questions on a transparency.
4. A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the previous passage.

2. Review QARs.

**LAST TIME WE TALKED ABOUT DIFFERENT TYPES OF QUESTIONS AND HOW TO ANSWER THEM.** Teacher will then elicit the types of QARs and examples from the class.

3. Introduce lesson passage and provide reason for reading.  
**WE WILL USE THIS ARTICLE TO PRACTICE IDENTIFYING THE TYPES OF QUESTIONS, AND TO LOCATE THE SOURCES OF INFORMATION FOR THE ANSWERS. READ THIS ARTICLE TO LEARN WHEN AND HOW THE FIRST CANADIANS CAME TO NORTH AMERICA.**

4. After the students have read the passage, the teacher

will present the following questions. Students will identify the type of question, but the emphasis in this lesson will be on most appropriate or most complete answer.

#### Right There

When did the first people come to North America?

Why did the first people come to North America?

#### Think and Search

If ice covered most of the earth, how did these people get to the south?

How did the people get from Asia to North America?

#### On My Own

Why did some of the tribes go to war with each other?

Why did some people become farmers while others remained hunters?

Did any tribes hunt and farm?

Would you rather be a farmer or a hunter?

**SOMETIMES ALL THE INFORMATION WE NEED TO ANSWER A QUESTION IS NOT PROVIDED. WHAT CAN WE DO TO VERIFY OR EXPAND OUR ANSWERS?**

Teacher will elicit from class: other textbooks, encyclopedia, library, ask an expert.

**SOMETIMES A QUESTION HAS NO CLEAR CUT ANSWER. OUR ANSWER DEPENDS ON HOW WE FEEL ABOUT THE SUBJECT. THESE ANSWERS ARE**

**CALLED OPINIONS.**

5. Teacher will collect lesson passages and distribute foolscap. Students will produce a written recall of the lesson passage.

## LESSON 3, GROUP 3

## Objective of Lesson

1. Student will produce a written recall of the previous lesson passage.
2. Student will complete a writing assignment based on the previous lesson passage.

## Materials

A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and have students provide a written recall of previous lesson passage.
2. Distribute foolscap and have students complete a written assignment based on lesson passage. Suggest topics:

Imagine that you are living in North America 1000 years ago. You have none of the things we have today: no TV, no 7-11, no MacDonald's, no cars, no schools. Describe a typical day in your life.

Imagine you are a prehistoric hunter. Describe your experiences.

## LESSON 4, GROUP 3

## Objective of Lesson

Students will correctly identify the type of QAR, indicate the source of information for the answer, and answer the questions appropriately and completely.

## Materials

1. Lesson passage, "Our Star - The Sun". One copy for each student.
2. Sample questions on a transparency.
3. A supply of footscap.

## Instructional Sequence

1. Distribute lesson passage and provide reason for reading.

**WHAT STAR CAN BE SEEN IN THE DAYTIME?**

Student responses: the sun.

**READ THIS ARTICLE TO LEARN MORE ABOUT THE SUN. WE WILL USE THIS PASSAGE TO LEARN MORE ABOUT QARs.**

2. After students have read the passage discuss the following questions. Have students identify the type of question. Emphasis should be on giving the most complete answer.

## Right There

Describe how the earth would be without the sun.

What forms of energy are radiated from the sun?

**Think and Search**

Compare the sun to other stars.

What will happen to the sun when the hydrogen is used up?

**On My Own**

What causes an eclipse of the sun?

How big is the sun compared to the moon?

3. After discussing the questions, teacher will collect lesson passages and distribute foolscap. Students will produce a written recall of the lesson passage.

## LESSON 5, GROUP 3

## Objective of Lesson

1. Students will produce a written recall of the previous lesson passage.
2. Students will complete a writing assignment based on the previous lesson passage.

## Materials

A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the lesson passage from the previous lesson.
2. Distribute foolscap and have students complete a written assignment based on the previous lesson. Suggested topics:

Imagine it is 5 billion years from now. The sun is becoming smaller and cooler. How would your life be different than it is now?

Describe all the things you like about the sun. Which of these things is the most important? Why?

## LESSON 6, GROUP 3

## Objective of Lesson

1. Students, working in groups of 4-5, will generate at least one of each type of QAR questions.
2. Students will practice identifying type of question and locating sources of information using student generated questions.

## Materials

1. One copy of lesson passage, "Why Was There Tension Between The French and English Empires?", for each student.
2. A supply of foolscap.

## Instructional Sequence

1. Distribute lesson passage and provide reason for reading.  
**LATER IN THE YEAR WE WILL STUDY THE CONFLICT BETWEEN THE FRENCH AND ENGLISH IN NORTH AMERICA. THIS ARTICLE IS AN INTRODUCTION TO THAT STUDY. READ TO FIND OUT HOW THE FRENCH AND ENGLISH EMPIRES WERE THE SAME AND HOW THEY WERE DIFFERENT.**

Allow about 10 minutes for the reading.

2. Form the class into groups of 4-5. Appoint a recorder for each group.

**WE HAVE BEEN STUDYING IDENTIFYING TYPES OF QUESTIONS AND WHERE TO FIND INFORMATION FOR ANSWERING THE QUESTIONS. TODAY**

YOU GET A CHANCE TO WRITE THE QUESTIONS. IN YOUR GROUPS MAKE UP QUESTIONS FROM THE PASSAGE YOU JUST READ. MAKE UP AT LEAST ONE OF EACH TYPE: RIGHT THERE, THINK AND SEARCH, AND ON MY OWN. BE SURE YOU CAN ANSWER THE QUESTIONS OR TELL WHERE THE INFORMATION CAN BE FOUND.

Allow about 15 minutes for the activity.

3. Have each group share their questions with the rest of the class. The type of question should be identified and the source of information should be indicated.
4. Collect reading passage and distribute foolscap. Have students produce a written recall of the lesson passage.

## LESSON 7, GROUP 3

## Objective of Lesson

1. Students will produce a written recall of the previous lesson passage.
2. Students will complete a writing assignment based on the previous lesson passage.

## Materials

A supply of foolscap.

## Instructional Ssequence

1. Distribute foolscap and have students produce a written recall of the lesson passage from the previous lesson.
2. Distribute foolscap and have students complete a written assignment based on the previous lesson. Suggested topics:  
Imagine that you are a colonist settling in a new land.  
Write a letter home describing your experiences.  
Imagine you are a fur trader paddling your canoe into the wilderness in search of fur. Describe your experiences.

## LESSON 8, GROUP 3

## Objective of Lesson

1. Students working in pairs, will generate at least one of each type of QAR questions.
2. Students will practice identifying type of question and locating sources of information using student generated questions.

## Materials

1. One copy of lesson passage, "Community Health", for each student.
2. A supply of foolscap.

## Instructional Sequence

1. Distribute lesson passage and provide reason for reading.  
**HAVING ENOUGH TO EAT, WARM CLOTHES IN WINTER, AND A COMFORTABLE HOUSE TO LIVE IN ARE THINGS WE TAKE FOR GRANTED. IN SOME OTHER PARTS OF THE WORLD, PEOPLE AREN'T AS LUCK AS WE ARE. READ THIS ARTICLE TO SEE HOW THE LIVES OF CHILDREN IN SOME OTHER PARTS OF AFRICA, ASIA, AND SOUTH AMERICA ARE DIFFERENT FROM YOUR LIFE.**

Allow about 10 minutes for the reading.

2. Form the class into pairs or allow the students to choose a partner. Appoint a recorder for each pair.

TODAY YOU WILL WRITE SOME QUESTIONS ON THE PASSAGE YOU JUST READ WORKING IN PAIRS. REMEMBER TO WRITE AT LEAST ONE OF EACH TYPE OF QUESTION: RIGHT THERE, THINK AND SEARCH, AND ON MY OWN. AND BE SURE TO HAVE AN ANSWER FOR EACH QUESTION.

Allow about 15 minutes for the activity.

3. Have each pair share their questions with the rest of the class. The type of question should be identified and the source of information should be indicated.
4. Collect reading passage and distribute foolscap. Have students produce a written recall of the lesson passage.

## LESSON 9, GROUP 3

## Objective Lesson

1. Students will produce a written recall of the previous lesson passage.
2. Students will complete a writing assignment based on the previous lesson passage.

## Materials

A supply of foolscap.

## Instructional Sequence

1. Distribute foolscap and have students produce a written recall of the lesson passage from the previous lesson.
2. Distribute foolscap and have students complete a written assignment based on the previous lesson. Suggested topics:  
Describe how your life is different from the life of a boy or girl in an underdeveloped country.  
How could the lives of children in underdeveloped countries be made better?

## LESSON 10, GROUP 3

1. Students, working individually, will generate at least one of each type of QAR questions.
2. Students will practice identifying type of question and locating sources of information using student generated questions.

## Materials

1. One copy of lesson passage, "Matter", for each student.
2. A supply of foolscap.

## Instructional Sequence

1. Distribute lesson passage and provide a reason for reading.

**HOW ARE A PIECE OF IRON, AN APPLE, AND A CLOUD THE SAME?**

Accept student response.

**THEY ARE ALL FORMS OF MATTER. EVERYTHING AROUND US IS A FORM OF MATTER. BUT MATTER CHANGES FORM. READ THIS PASSAGE TO DISCOVER HOW MATTER CHANGES FROM ONE FORM TO ANOTHER.**

Allow about 10 minutes for the reading.

2. After the class has read the passage, give the following directions.

**TODAY YOU WILL WRITE SOME QUESTIONS ON THE PASSAGE YOU JUST READ. REMEMBER TO WRITE AT LEAST ONE OF EACH TYPE OF QUESTION: RIGHT THERE, THINK AND SEARCH, AND ON MY OWN. AND**

**BE SURE TO HAVE AN ANSWER TO EACH QUESTION.**

Allow about 15 minutes for the activity.

3. Discuss the questions with the class. The type of question should be identified and the source of information should be indicated.

4. Collect lesson passages and distribute foolscap. Have students produce a written recall of the lesson passage.

APPENDIX B

READING PASSAGES

Pre/Post Cloze Passages

Pre/Post Recall Passages

Instructional Passages

Sources of Passages

Examples of Student Responses

## CLOZE PASSAGE A

(Underlined words deleted on student copy)

## FAMILIES AND FRIENDS TRY TO UNDERSTAND

Most young people are friendly with others their own age. Friends, however, can often be different ages and different sizes, and enjoy doing different things. Some friends are quiet, while others talk a lot. Some are not very active, while others are always involved in an activity. Each friend has different skills and abilities.

Families, too, are made up of different people with different needs and interests. Most members of a family expect each other to act in courteous and helpful ways. At time, your family may expect you to do certain things or behave in certain way, even when you do not completely agree. Although it may not always be easy for them, your family is probably helpful to you in many ways. It is fair that you sometimes go out of your way for your family, too.

Different friends like you for different reasons. They may share some of your interests and not others. Some like certain characteristics you have, but not like all of them. Good friends, however, always care about what you think and feel, even when what they think and feel is different.

To have good friends, you must be a good friend. You must be

able to share your time with others in ways that often help them more than yourself. For example, a good friend must be a good listener. Friends need to be able to talk to each other about their thoughts, feelings, and needs. By talking about how their families may be the same or different, friends often find new ways to help and enjoy each other. Friends can be honest and open with each other while still showing they care about each other's health and well-being.

# of sentences	20
# of words	286
Readability:	Dale-Chall 5-6
	Fry 7
	Raygor 7

## CLOZE PASSAGE B

(Underlined words deleted on student copy)

## OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers like Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They expected "gentleman-like" behaviour, even if the game caused death and destruction. When the armies of Wolfe and Montcalm fought, they faced each other in a formation that is very much like the way

games such as checkers or chess are set up.

Privates and sailors, on the other hand, came from the opposite class--the lower class. Most were forced to join the army and navy. Some were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers were hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers that he called them the "scum of the earth". Wolfe did not share this opinion. He expected a lot from his troops and as a result they were very loyal to him. But, because most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they could not desert. Camps were never located near large forests. Night marches were considered risky. To allow sailors to go on shore leave was to invite desertion.

Most of the time, officers and enlisted men did not trust or understand each other. In fact, sometimes, the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers sent a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. Meanwhile, these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French ships and kill French sailors while they slept.

# of sentences	23
# of words	308
Readability:	Dale-Chall 7-8
	Fry 7
	Raygor 7

## RECALL PASSAGE A

## CHANGING LIFE IN LOWER CANADA

Under British rule, the habitants still worked their fields along the St. Lawrence. They still paid their rents to the seigneur. Fiddle music still rang out at lively country dances. Black-robed priests and nuns ran the churches and convents. Men went out to trade for furs and cut timber. Girls still married young and raised large families.

But the whole pattern of life had changed. The people of Lower Canada had become isolated. They were cut off from France. And there was a great gap of culture, language and religion between the Canadians and their new British rulers. Even the old economic patterns had changed.

Life in New France had been based on trade. Great shipments of furs were sent to France. Trade had made the towns of New France very important. Twenty-five percent of the population of New France lived in Quebec, Montreal or Trois Rivieres. Many left after the Conquest. Some went back to France; others moved onto the land.

The merchants and civil servants who now lived in the cities were British. But they did not bring their families, nor did the British soldiers stationed in Lower Canada. The population of the towns dropped sharply. By 1825, only 10 percent of the population

of Lower Canada lived in the towns.

On the other hand, the population of the countryside continued to grow rapidly. Couples married young. Families of 10 or 12 children were common. The population of Lower Canada doubled every 25 years or so.

This growth put great pressure on the farmlands along the St. Lawrence. Lands still covered in trees were cleared and farmed. New areas in the Eastern Townships, were cleared. At first, most of the farmers in the Eastern Townships were Loyalists. Later French-speaking farmers began to move into the Eastern Townships too.

# of sentences	30
# of words	302
Readability:	Dale-Chall 11-12
	Fry 6
	Raygor 7

## RECALL PASSAGE B

## BUILDING BETTER HEALTH

## How Can Stress Affect You?

Do you ever feel so excited about something that you have trouble sleeping? Do you ever feel nervous before doing something you think will be difficult? These kinds of feelings are caused by stress. Stress comes from any activity, problem, or thought that makes people feel tense or strained. Stress can cause a strain on your body. It can also strain your mind.

Stress often helps people to do their best. Their brains signal their bodies to get ready for some special, new challenge. This may start with a surge of energy. Their muscles get tense and ready to move quickly. Their hearts beat faster, sending more blood and oxygen to their brains. All parts of the body tune up to help them meet the challenge.

Stress can be harmful when people cannot quickly make use of it and cannot reduce the strain. People who are unable to handle their stress may become physically ill. The stress has made them ready for action, but they must be able to think of some action to take. For example, the student who gets a poor report card can feel great stress. The student's family may get upset, and that can add to the tension. The student can find a way to use this

stress by taking action.

One kind of action is to make a plan to get better grades. The student can set up study time and homework time. If it is necessary, the student can ask for help in understanding schoolwork. By taking sensible steps to make the next report card a better one, the student can reduce the stress.

# of sentences	22
# of words	258
Readability:	Dale-Chall 9-10
	Fry 5
	Raygor 7

## INSTRUCTIONAL PASSAGE 1

(Underlined words are deleted on student copy)

## PLANT-EATING ANIMALS AND ANIMALS THAT EAT ANIMALS

Living things in a community depend upon one another for their food. This is one of the ways in which they are interdependent.

Zebras eat grass. It is their chief source of food. Lions, on the other hand, will kill and eat a zebra. Do you see that in this way the grass provides food for the lions as well as for the zebras?

There are many kinds of plant-eating animals. Some, like aphids, are very small. Others, like the grasshopper, the mouse, the rabbit, the sheep, and the cow, are larger. A few, like the giraffe and the elephant, are very large. These animals get all of their food from plants. They change the plant protoplasm which they eat into animal protoplasm. They use the energy stored in plant cells to perform the functions of life. Their lives depend upon the green plants.

The lion is only one of many animals that get their food by eating plant-eating animals. These animals do not change plant protoplasm into animal protoplasm. They wait for the plant-eater to do that. Then they eat the plant-eater.

Some of the animals that eat plant-eaters are rather small,

like the ladybird beetle, the spider, and the dragonfly. Others, like frogs, hawks, and wolves are larger. Still others, like the lion and the tiger, are quite large and fierce.

All animals that kill other animals for food are called predators. Some predators not only eat plant-eaters, but they also may be killed and eaten by larger predators. For example, a caterpillar which has been eating the leaves of a green plant may suddenly be swallowed by a toad. The toad may then be eaten by a snake. The snake, at last, may be devoured by a hawk.

# of sentences	30
# of words	326
Readability:	Dale-Chall 7-8
	Fry 6
	Raygor 5

## INSTRUCTIONAL PASSAGE 2

## THE FIRST CANADIANS

About 30,000 to 35,000 years ago, the first people arrived in North America. About this time, ice covered most of the earth. So much water was turned into ice that the level of the oceans dropped. This created a bridge between Siberia and Alaska. It is thought that hunters from Asia followed herds of bison, mammoths, caribou and other animals across this land bridge to North America.

Over several thousand years some of these people settled in the north, while others moved south. Much of what is now Canada was then covered by ice. But for a long time there was a large open path that led down the MacKenzie River to the Great Plains. It is known that some of the newcomers reached as far south as Southern California. About 12,000 years ago, men with flint-tipped spears were hunting bison in Arizona and New Mexico.

The first arrivals were wandering hunters. Later, however, some groups learned to farm, growing corn and other crops. Six thousand years ago, people were growing corn in central Mexico.

These first North American banded together in families, tribes, kingdoms, and even empires. They built villages, towns, and cities. Each tribe developed its own language, dress, religion, and customs. They wrote poetry, composed music, made

tools, and some developed a form of writing.

The tribes fought wars with each other, but they traded with each other also. Goods from Mexico were carried up the Mississippi to the Ohio area. Goods moved along the Pacific coast from California to Alaska.

While some groups remained hunters, others, such as the Maya of Mexico and Central America, became skilled scientists, mathematicians and builders.

These were the people whom early explorers from Europe called Indians, because the Europeans thought they had reached India. But the native people had their own names for their tribes and kingdoms. Names like Aztec, Maya, Apache, Cree, Mohawk, Navajo and Salish.

Each group was as different from the others as the English are from the French, or the Italians from the Germans. Six of these groups lived in what is now Canada: the people of the Northwest Coast, the Plateau, the Arctic, the Subarctic, and the Eastern Woodlands.

# of sentences	24
# of words	364
Readability:	Dale-Chall 9-10
	Fry 9
	Raygor 10

## INSTRUCTIONAL PASSAGE 3

## OUR STAR - THE SUN

Did you know that your existence depends upon a star? This star is the sun, one of the billions of stars in the Milky Way. To us our star is big, bright, and beautiful but compared to all the other stars it is only of average size. The sun gives us warmth, light, energy, and just about everything else we have. Without our star we would have a cold, dark, barren, lifeless planet.

Energy in the form of heat and light is radiated outward in all directions from the sun. The earth receives just the right amount of heat and light energy to sustain life. Of the total energy radiated out into space by the sun the earth receives very little. Yet this amount is equal to the energy released by 21 billion tonnes of coal burning every hour. Sunshine has given man coal, gas, oil, and even electricity.

The sun appears very large to us but as stars go it is a very ordinary, yellow star. The size of our star lies midway between the largest and the smallest of stars; the sun is cooler than the hottest blue stars and hotter than the coolest red stars. Our star can be classified among the dwarf stars.

In about 5 million years from now, the hydrogen at the core of the sun will be used up and, as a result, the thermonuclear

reactions will move closer to the sun's surface where greater quantities of hydrogen will be available. When most of the hydrogen has been converted to helium in the thermonuclear reactions, the sun will become cooler and smaller, shrinking to about the size of earth, with a density so great that each cubic centimetre of the sun will have a mass of several tonnes.

Therefore, before the sun burns itself out we should hurry to complete our homework.

# of sentences	16
# of words	309
Readability:	Dale-Chall 9-10
	Fry 8
	Raygor 7

## INSTRUCTIONAL PASSAGE 4

## WHY WAS THERE TENSION BETWEEN THE FRENCH AND ENGLISH EMPIRES?

As European countries learned of the wealth that could be found in other lands, they tried to establish colonies around the world. During the 17th and 18th centuries, both France and England were busy expanding their empires. They both founded colonies in many places.

Both countries, for instance, set up tea plantations in India, since tea was a popular drink in Europe. Cotton and silk helped make the Indian colonies even more profitable. France and England were also drawn to the West Indies because of the sugar. And, of course, North America's furs, fish, timber and tobacco were also of great interest to both countries. As you can see, France and England were often interested in the same lands. This was one of the reasons for conflict between the empires.

In North America, one of the main reasons for conflict was the beaver pelt trade. Both empires wanted to control the trade. To do this, it was necessary to control the river systems in the new land. Why were the rivers so important? People in the beaver trade travelled along the rivers in search of new sources of beaver skins. Beaver ponds were located along the streams and rivulets that flowed together to form great rivers. If the rivers were controlled, the trappers and traders could freely find the

beaver. Once the beavers were killed and skinned, they could be transported down the rivers to trading posts.

By 1700, the French had built fur-trading forts along the Great Lakes-St. Lawrence River routes, and had begun to expand into the Mississippi Basin. The English, meanwhile, were established along the east coast of North America, south of New France. They were building fur-trading forts around Hudson Bay. The English were also interested in the fur-rich Mississippi Basin, especially the land along the banks of the Ohio River. As well, the English colonies were growing and needed more land to settle. The settlers were looking to the land west of the Appalachian Mountains.

In this wilderness, the two empires collided.

# of sentences	24
# of words	337
Readability:	Dale-Chall 11-12
	Fry 8
	Raygor 9

## INSTRUCTIONAL PASSAGE 5

## COMMUNITY HEALTH

Families in developed countries, such as Canada, the United States, Japan, and the European nations, have a high standard of living. This allows most of them to build their own best health. This does not mean that every family can afford to buy all the food, clothing, cars, and pretty houses other families can afford. It simply means that people with a high standard of living can work to earn the money to pay for - or can learn the skills to produce - the food, clothing, and shelter needed to survive. Medical and dental care is available to help people in every community build and keep their health.

However, not all countries of the world are developed. Many are still developing. In developing nations many people have no electricity. Often they live in dry regions without enough clean water to drink or raise food crops. At times there may be too little nutritious food or clean drinking water to keep people healthy.

In developing nations, such as India and certain countries in southeast Asia, South America, and Africa, many people still suffer from diseases that are caused by too little healthful food. In India, Thailand, and the island of Jamaica, there is often too little protein in the diets of poor families. Young people may

eat starches and sugar for growth and energy; but without enough protein from milk, meat, beans, and vegetables their stomachs can swell and their skin can peel. Too little protein can also cause brain damage. Young people in many Asian, African, and South American communities may survive, but they often grow slowly and suffer from diseases that come from drinking dirty water or from insects that breed in dirty water. Without well-balanced foods, their bodies have little strength to fight disease microbes.

The children in most developed nations are immunized against a disease called diphtheria. However, in developing areas such as parts of Africa, many starving children die of diphtheria during droughts (times when there is no rain). What can you guess about a community's standard of living when children are not vaccinated against disease and there is little or no food for survival?

# of sentences	19
# of words	358
Readability:	Dale-Chall 9-10
	Fry 10
	Raygor 11

## INSTRUCTIONAL PASSAGE 6

## CHANGES IN MATTER

All things are different forms of matter. And all matter is capable of change. Think of the changes the Earth has undergone. The wearing away of mountains by weathering and erosion takes place slowly over a long period of time. Other changes in matter take place rapidly. The explosion of an atom bomb, for example, takes place in just millionths of a second. Somewhere between these two extremes - millions of years and millionths of seconds - is the time required for most of the changes in matter to occur.

These changes also differ in other ways. Many of the changes of the Earth are physical changes. Some, such as atomic reactions, are examples of nuclear changes. Matter also undergoes chemical changes.

The basic units of matter are molecules, atoms, and the particles which make up atoms. All matter is made up of molecules, atoms, electrons, protons, and neutrons. Changes occur at each of these levels of organization in matter.

Changes in the arrangement of molecules, but not in the molecules themselves, are physical change. Tearing a sheet of paper is an example of a physical change.

Chemical changes, on the other hand, result in the rearrangement of atoms. In a chemical change, compounds

(combinations of molecules) are formed or decomposed.

Changes which result in the rearrangement or release of subatomic particles (electrons, protons, and neutrons) are nuclear changes.

Changes in matter can occur quickly, or they take a long time. Changes in matter can be physical, chemical, or nuclear. In your opinion, which of the kinds of change has the greatest effect on your daily life?

# of sentences	22
# of words	266
Readability:	Dale-Chall 11-12
	Fry 10
	Raygor 11

## SOURCES OF READING PASSAGES

## Cloze Passages

Families and Friends Try To Understand

Adapted from: Building Better Health, Gold Level; Fleming, et al., McDougal, Littell and Company; Evanston, Illinois, 1983, page 20.

Officers and Enlisted Men: What Was the Difference?

Adapted from: Discovering Canada: Settling a Land; Kirby, et al.; Prentice-Hall Canada Inc.; Scarborough, Ontario, 1982, page 221.

## Recall Passages

Changing Life in Lower Canada

Adapted from: Canada: Growth of a Nation; Garrod, et al.; Fitzhenry and Whiteside; Toronto, Ontario, 1981, page 136.

How Can Stress You?

Building Better Health, Gold Level; Fleming, et al.; McDougal, Littell and Company; Evanston, Illinois, 1983, pages 28-29.

## Instructional Passages

Plant-Eating Animals and Animals That Eat Animals

The New Laidlaw Science Program, Modern Science, level 6;

Blecher and Pless; Laidlaw Brothers Publishers; River Forest,  
Illinois, 1972, pages 46-47.

#### The First Canadians

Canada: Growth of a Nation; Garrod, et al.; Fitzhenry and  
Whiteside; Toronto, Ontario, 1981, pages 20-21.

#### Our Star - The Sun

Astronomy: Examining Your Environment Series; Stecher, et  
al.; Rinehart and Winston of Canada Limited; Toronto,  
Ontario, 1977, page 44.

#### Why Was There Tension Between the French and British Empires?

Discovering Canada: Settling a Land; Kirbyson, et al.;  
Prentice-Hall Canada Inc.; Scarborough, Ontario, 1982, pages  
213-214.

#### Community Health

Building Better Health, Gold Level; Fleming, et al.;  
McDougal, Littell and Company; Evanston, Illinois, 1983.

#### Changes in Matter

The New Laidlaw Science Program, Modern Science, level 6;  
Blecher and Pless; Laidlaw Brothers Publishers, River Forest,  
Illinois, 1972, page 222.

## SAMPLES OF CLOZE RESPONSES

In the following examples the words deleted have been underlined, while the students' response are in brackets. The names have been changed to preserve the anonymity of the subjects.

## "TERRY" GROUP 3, POST TEST

## FAMILIES AND FRIENDS TRY TO UNDERSTAND

Most young people are friendly with others their own age. Friends, however (they), can often be different ages (shapes) and different sizes, and enjoy doing different things. Some friends are quiet, while others talk a lot. Some are not very active, while others are always involved (playing) in an activity. Each friend has different skills and abilities.

Families, too (mostly), are made up of (with) different people with different needs and interests. Most (Some) members of a family expect each other to act in courteous and helpful ways. At time, your family (parents) may expect you to do certain things or behave in certain way, even (sometimes) when you do not completely agree. Although (Sometimes) it may not always be easy for them, your family is probably helpful to you in many ways. It is fair that you sometimes (do) go out of your way for your family, too.

Different friends (people) like you for different reasons. They (Some) may share some of your interests and not others. Some like (are) certain characteristics you have (like), but not like all of them. Good friends, however, always care (tell) about what you think and feel, even when what they think and feel is different.

To have good (some) friends, you must be a good friend. You must be able to share your time with others in ways that often help (to) them more than yourself. For example, a good friend must be a good listener. Friends (They) need to be able to talk to each other about their thoughts, feelings, and needs. By talking about how their families may be the same or different ( ), friends often find new ways to help and enjoy each other. Friends can be honest and open with each other while still (there) showing they care about each other's health and well-being.

"MIKE" GROUP 1, POST TEST

OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers like ( ) Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They expected (taught) "gentleman-like" behaviour, even ( ) if the game caused death and destruction. When the armies of Wolfe and Montcalm fought ( ), they faced each other in a formation that is very much like the way games ( ) such as checkers or chess are set up.

Privates and sailors, on the other ( ) hand, came from the opposite class--the lower class. Most (They) were forced to join the army and navy. Some (Many) were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers were ( ) hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers that (so) he called them the "scum of the earth". Wolfe did not share this opinion. He ( ) expected a lot from his troops and as a result ( ) they were very loyal to him. But, because (only) most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they could (would) not desert. Camps were never ( ) located near large forests. Night marches were considered risky.

To allow sailors to go on shore leave was to invite desertion.

Most of the time, officers ( ) and enlisted men did not trust or understand each other. In fact, sometimes ( ), the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers sent (gave) a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. Meanwhile (Suddnly), these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French ships (boats) and kill French sailors while they slept.

## "MARY" GROUP 1, PRE TEST

## FAMILIES AND FRIENDS TRY TO UNDERSTAND

Most young people are friendly with others their own age. Friends, however (also), can often be different ages (colour) and different sizes, and enjoy doing different things. Some friends are quiet, while others talk a lot. Some are not very active, while others are always involved (active) in an activity. Each friend has different skills and abilities.

Families, too ( ), are made up of ( ) different people with different needs and interests. Most (One) members of a family expect each other to act in courteous and helpful ways. At time, your family (father) may expect you to do certain things or behave in certain way, even ( ) when you do not completely agree. Although ( ) it may not always be easy for them, your family is probably helpful to you in many ways. It is fair that you sometimes ( ) go out of your way for your family, too.

Different friends ( ) like you for different reasons. They (Some) may share some of your interests and not others. Some like ( ) certain characteristics you have (don t), but not like all of them. Good friends, however, always care (talk) about what you think and feel, even when what they think and feel is different.

To have good ( ) friends, you must be a good friend. You must be able to share your time with others in ways that often help ( ) them more than yourself. For example, a good friend must be a good listener. Friends ( ) need to be able to talk to each other about their thoughts, feelings, and needs. By talking about how their families may be the same or different ( ), friends often find new ways to help and enjoy each other. Friends can be honest and open with each other while still ( ) showing they care about each other's health and well-being.

## "ANN" GROUP 2, PRE TEST

## OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers like ( ) Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They expected (had) "gentleman-like" behaviour, even ( ) if the game caused death and destruction. When the armies of Wolfe and Montcalm fought (came), they faced each other in a formation that is very much like the way games ( ) such as checkers or chess are set up.

Privates and sailors, on the other ( ) hand, came from the opposite class--the lower class. Most (They) were forced to join the army and navy. Some ( ) were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers were ( ) hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers that ( ) he called them the "scum of the earth". Wolfe did not share this opinion. He ( ) expected a lot from his troops and as a result ( ) they were very loyal to him. But, because (he) most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they could (did) not desert. Camps were never (usally) located near large forests. Night marches were considered risky.

To allow sailors to go on shore leave was to invite desertion.

Most of the time, officers ( ) and enlisted men did not trust or understand each other. In fact, sometimes (most of), the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers sent (gave) a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. Meanwhile (Then), these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French ships ( ) and kill French sailors while they slept.

## "ANDREW" GROUP 2, POST TEST

## OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers like ( ) Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They expected (had) "gentleman-like" behaviour, even (except) if the game caused death and destruction. When the armies of Wolfe and Montcalm fought (met), they faced each other in a formation that is very much like the way games (when) such as checkers or chess are set up.

Privates and sailors, on the other ( ) hand, came from the opposite class--the lower class. Most (They) were forced to join the army and navy. Some (They) were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers were ( ) hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers that ( ) he called them the "scum of the earth". Wolfe did not share this opinion. He ( ) expected a lot from his troops and as a result (troop) they were very loyal to him. But, because ( ) most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they could (did) not desert. Camps were never (also) located near large forests. Night marches were considered risky.

To allow sailors to go on shore leave was to invite desertion.

Most of the time, officers ( ) and enlisted men did not trust or understand each other. In fact, sometimes ( ), the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers sent (gave) a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. Meanwhile (But), these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French ships (troop) and kill French sailors while they slept.

## "TARA" GROUP 3, PRE TEST

## OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers like (from) Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They expected (ack) "gentleman-like" behaviour, even (but) if the game caused death and destruction. When the armies of Wolfe and Montcalm fought (came), they faced each other in a formation that is very much like the way games ( ) such as checkers or chess are set up.

Privates and sailors, on the other ( ) hand, came from the opposite class--the lower class. Most (They) were forced to join the army and navy. Some (They) were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers were (had) hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers that ( ) he called them the "scum of the earth". Wolfe did not share this opinion. He ( ) expected a lot from his troops and as a result (soldier) they were very loyal to him. But, because ( ) most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they could (did) not desert. Camps were never (they) located near large forests. Night marches were considered risky.

To allow sailors to go on shore leave was to invite desertion.

Most of the time, officers ( ) and enlisted men did not trust or understand each other. In fact, sometimes ( ), the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers sent (got) a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. Meanwhile (But), these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French ships ( ) and kill French sailors while they slept.

APPENDIX C

TEST INSTRUMENTS

Pre/Post Cloze Tests

Recall Protocols

Writing Analysis Protocol

Data Collection Sheet

## PRE/POST CLOZE TEST A

## FAMILIES AND FRIENDS TRY TO UNDERSTAND

Most young people are friendly with others their own age. Friends, \_\_\_\_\_, can often be different \_\_\_\_ and different sizes, and enjoy doing different things. Some friends are quiet, while others talk a lot. Some are not very active, while others are always \_\_\_\_\_ in an activity. Each friend has different skills and abilities.

Families, \_\_\_\_, are made up \_\_ different people with different needs and interests. \_\_\_\_ members of a family expect each other to act in courteous and helpful ways. At time, your \_\_\_\_\_ may expect you to do certain things or behave in certain way, \_\_\_\_ when you do not completely agree. \_\_\_\_\_ it may not always be easy for them, your family is probably helpful to you in many ways. It is fair that you \_\_\_\_\_ go out of your way for your family, too.

Different \_\_\_\_\_ like you for different reasons. \_\_\_\_ may share some of your interests and not others. Some \_\_\_\_ certain characteristics you \_\_\_\_, but not like all of them. Good friends, however, always \_\_\_\_ about what you think and feel, even when what they think and feel is different.

To have \_\_\_\_ friends, you must be a good friend. You must be able to share your time with others in ways that often \_\_\_\_ them

more than yourself. For example, a good friend must be a good listener. \_\_\_\_\_ need to be able to talk to each other about their thoughts, feelings, and needs. By talking about how their families may be the same or \_\_\_\_\_, friends often find new ways to help and enjoy each other. Friends can be honest and open with each other while \_\_\_\_\_ showing they care about each other's health and well-being.

## PRE/POST CLOZE TEST B

## OFFICERS AND ENLISTED MEN: WHAT WAS THE DIFFERENCE?

Officers \_\_\_\_ Wolfe and Montcalm were members of the English and the French nobility. They were the upper class. To them, war was a kind of sport with rules of honour. They \_\_\_\_\_ "gentleman-like" behaviour, \_\_\_\_ if the game caused death and destruction. When the armies of Wolfe and Montcalm \_\_\_\_\_, they faced each other in a formation that is very much like the way \_\_\_\_ such as checkers or chess are set up.

Privates and sailors, on the \_\_\_\_ hand, came from the opposite class--the lower class. \_\_\_\_ were forced to join the army and navy. \_\_\_\_ were even kidnapped from poor areas in large cities by press-gangs. Sometimes soldiers \_\_\_\_ hired from other countries such as Germany.

One English general was so unimpressed with his own soldiers \_\_\_\_ he called them the "scum of the earth". Wolfe did not share this opinion. \_\_\_\_ expected a lot from his troops and as a \_\_\_\_\_ they were very loyal to him. But, \_\_\_\_\_ most officers did not trust soldiers, wars were fought in a certain way. For example, officers always kept a close eye on the troops so they \_\_\_\_ not desert. Camps were \_\_\_\_\_ located near large forests. Night marches were considered risky. To allow sailors to go on shore leave was to invite desertion.

Most of the time, \_\_\_\_\_ and enlisted men did not trust or understand each other. In fact, \_\_\_\_\_, the behaviour of the officers seemed strange to the enlisted men. At Louisbourg, the English officers \_\_\_\_\_ a basket of pineapples to the wife of the French general. And gifts were sent to the English officers from the French officers. \_\_\_\_\_, these same French officers were paying Indians for any English scalps they brought to Louisbourg. English officers were ordering their marines to board French \_\_\_\_\_ and kill French sailors while they slept.

## RECALL PROTOCOL: SOCIAL STUDIES

1. LIFE SEEMED LITTLE CHANGED UNDER BRITISH RULE
2. habitants worked their fields
3. along the St. Lawrence
4. they paid rent to the seigneur
5. fiddle music was played at country dances
6. black-robed priests (nuns)
7. ran churches and convents
8. men went out
9. to trade for furs
10. to cut timber
11. girls married young
12. raised large families
  
13. BUT THE PATTERN OF LIFE HAD CHANGED
14. people had become isolated
15. they were cut off from France
16. there were gaps between Canadians and the new British rulers
17. culture, language, religion
18. economic patterns had changed
  
19. TRADE HAD MADE TOWNS IN NEW FRANCE IMPORTANT
20. life in New France was based on trade
21. great shipments of furs were sent to France

22. 25% of population lived in towns
23. Quebec, Montreal, Trois Rivieres
24. many left after the conquest
25. went back to France
26. moved on to the land
  
27. THE POPULATION OF THE TOWNS DROPPED
28. British merchants and soldiers did not bring families
29. by 1825, only 10% of population lived in towns
  
30. POPULATION OF THE COUNTRYSIDE GREW RAPIDLY
31. couples married young
32. large families were common
33. 10-12 children
34. population doubled every 25 years
  
35. MORE FARMLAND WAS NEEDED
36. growth put pressure on land along the St. Lawrence
37. land was cleared and farmed
38. new areas in Eastern Townships cleared
39. at first most farmers were Loyalists
40. later French-speaking farmers moved in

main ideas	6
major details	22
minor details	<u>12</u>
	40

## RECALL PROTOCOL: HEALTH

1. STRESS CAUSES CERTAIN FEELINGS
2. excitement may cause trouble sleeping
3. feel nervous before doing something different
4. stress makes people feel tense or strained
5.       any activity, problem, or thought
6.       can strain the body
7.       can strain the mind
  
8. STRESS HELPS PEOPLE TO DO THEIR BEST
9. brain signals body to get ready
10.       to meet some special challenge
11. there is a surge of energy
12. muscles tense
13.       ready to move quickly
14. heart beats faster
15.       sending more blood to the brain
16. all parts of the body tune up
  
17. STRESS CAN BE HARMFUL
18. must make use of stress quickly to reduce strain
19. may become physically ill
20. ready for action/need action to take
21. a poor report card can cause stress

22. for student
23. for family
24. student must take action
  
25. MAKE A PLAN TO GET BETTER GRADES
26. plan study and homework time
27. ask for help in understanding schoolwork
28. take sensible steps to get a better report card

main ideas 4

major details 15

minor details 10

29

## WRITING ANALYSIS PROTOCOL

## 1. Product Measures

- a) Signal Words. Score one point for each of the following words used in the writing sample. If the same word is used more than once, score one point each time the word is used. HOWEVER, BUT, AS WELL AS, ON THE OTHER HAND, NOT ONLY...BUT ALSO, EITHER...OR, WHILE, ALTHOUGH, UNLESS, SIMILARLY, YET.
- b) Record the total number of words used in the writing sample.
- c) Record the total number of T-units used in the writing sample.

## 2. Global Rating

This score is a quick, impressionistic rating of the writing sample as an example of a comparison/contrast passage. The rater will make no marks on the papers at this time. The papers should be quickly read and scored according to the general descriptions below. This rating is a general evaluation of the paper; no one quality of the paper should constitute the whole score.

5 or 6 High

3 or 4 Middle

1 or 2 Low

## 3. Analytic Rating. This is an evaluation of specific

attributes based on the following guidelines.

a) organization

5-6 High - introduction and closing or summary

- compares/contrasts 3 or more attributes

- effective transitions throughout

- 3 or more signal words used

3-4 Middle - introduction or closing statement

- compares/contrasts 2 attributes

- 2 signal words

1-2 Low - little thoughtful organization

- same signal word used throughout

- no signal words

b) wording and style

5-6 High - appropriate, precise vocabulary

- clearly understandable

3-4 Middle - appropriate but common vocabulary

- repetitive

1-2 Low - very simple words

- uninteresting

c) focus

5-6 High - point of view clearly stated in interesting,

thoughtful manner

3-4 Middle - point of view stated, but not in original or

creative manner

1-2 Low - no point of view obvious

e) details and elaboration

5-6 High - comparison/contrast stated, but details not clear or inaccurate

3-4 Middle - variety of structures, but not used effectively  
- comparison/contrast pattern evident between sentences but not within sentences

1-2 Low - simple, repetitive structure

- little evidence of comparison/contrast pattern

f) sentence structure

5-6 High - variety of sentences

- three or more sentences with connectives reflecting comparison/contrast patterns

3-4 Middle - variety of structures, but not used effectively  
- comparison/contrast pattern evident between sentences, but not within sentences

1-2 Low - simple, repetitive structure

- little evidence of comparison/contrast pattern

g) paragraphing

5-6 High - correct format, reflects c/c pattern

3-4 Middle - basically correct, but does not clearly reflect c/c pattern

1-2 Low - no attempt at paragraphing

PRE/POST

STUDENT #

READING 1. Reading Test/Rating

2. Cloze Score

3. Recall Score

words \_\_\_\_\_ M.I. \_\_\_\_\_ maj. \_\_\_\_\_ min. \_\_\_\_\_ total \_\_\_\_\_

WRITING 4. Product Measures

a) number of signal words \_\_\_\_\_

b) number of words \_\_\_\_\_

c) number of T-units \_\_\_\_\_

5. Global Rating

6 5 4 3 2 1

6. Analytic Rating

a) organization

6 5 4 3 2 1

b) wording and style

6 5 4 3 2 1

c) focus

6 5 4 3 2 1

d) ideas

6 5 4 3 2 1

e) ideas and elaboration

6 5 4 3 2 1

f) sentence structure

6 5 4 3 2 1

g) paragraphing

6 5 4 3 2 1

## APPENDIX D

## WRITING SAMPLES

Pre and Post Instruction Samples, With Inter-rater  
Comparisons

Writing Lesson Samples

(The names are not the real names of the actual students, however  
the genders are correct. These samples are duplicated exactly as  
written).

## "AMY" GROUP 1, PRE INSTRUCTION

Some of the ways that the corner store is the same as Safeway or Super Valu are that they both sell food. They both have cash registers and they both have freezers for cold things.

Some of the things that are different are that a corner store isn't as big as Safeway or Super Valu and usely at the corner store the prises are more expensive then in the bigger ones. In a bigger store there's more selection then in a corner store so that you usely find what you want.

	Rater 1	Rater 2
Global Rating	5	4
Organization	5	2
Wording and Style	4	4
Focus	4	4
Ideas	3	4
Elaboration	4	3
Sentence Structure	5	4
Paragraphing	5	4

## "BETTY" GROUP 1, POST INSTRUCTION

I think a cat would make a nice pet because a cat doesn't bark. And the cat is trained not to make a mess only in a litter box. Cats don't eat much. They are more cuddly than a lot of dogs. A cat is quiet and doesn't mind not having too much attention. A cat never needs a bath because they clean themselves. They hardly ever need to see a vet.

	Rater 1	Rater 2
Global Rating	2	2
Organization	3	2
Wording and Style	2	4
Focus	2	2
Ideas	2	3
Elaboration	2	2
Sentence Structure	2	1
Paragraphing	3	2

"CHARLIE" GROUP 2, PRE INSTRUCTION

There is a big different between Grocery Stores and Super Valu. A grocery Store may only have one brand of a product, like for Example, a Grocery Store Koolaid SuperValue - Koolaid Tang Quench etc.

Another different is price a Grocery store may have a product cheaper the Super Valu, but Super Valu has their own brand called No name and that is sold very cheap.

I think a grocery store is just place for emergencies when you need to a liter of milk, loaf of bread etc... Super Valu is just for weekly shopping when you fill the cart with food.

	Rater 1	Rater 2
Global Rating	6	2
Organization	5	3
Wording and Style	5	5
Focus	5	2
Ideas	6	4
Elaboration	5	5
Sentence Structure	4	2
Paragraphing	5	3

## "DONNA" GROUP 2, POST INSTRUCTION

similarities -

They dog and the cat have some similarities. The cat and dog both shed fur. They are both cuddly. They both can be protective.

Differences

The dog and the cat have some differences. The cat has fluffy fur but sometimes the dog will too. A cat can scratch a lot.

I would like a dog because there cuter get used to them easier and they don't scratch as much.

	Rater 1	Rater 2
Global Rating	3	5
Organization	3	5
Wording and Style	3	4
Focus	3	5
Ideas	3	4
Elaboration	3	3
Sentence Structure	2	4
Paragraphing	3	6

## "FRED" GROUP 3, PRE INSTRUCTION

The difference between the Supper store and the corner stor is that the supper store you can get bikes, plants, dishes, bras, grocerys, frut, and bread you can get evrything but in a corner store you don't have such a big selection, but the big difference is in size if you get a corner store and a Supper store side by side one is like a house to a dog house one is huge and the other is peuny.

What makes the stores alike is you could get lots of the same things like bread and frut and other grosrys to.

	Rater 1	Rater 2
Global Rating	5	3
Organization	4	5
Wording and Style	3	4
Focus	3	5
Ideas	4	5
Elaboration	3	4
Sentence Structure	2	3
Paragraphing	5	4

## "EDDIE" GROUP 3, POST INSTRUCTION

I like a dog because when a burgler breaks in a house, the dog would just bite or scare the burgler away. Poodles can do tricks. And a Chiawas' are cute. Some dogs are cute some are ugly.

Because Bulldogs are ugly they are tuff and mean. Some dogs are fighters like a boxer. Some dogs can kill a snake.

The best dogs are guard dogs because they are tuffer than any dogs.

Some dogs are very talented like a poodle, Chiwawa. Some dogs can kill people.

Onece a dog ate a baby in 1888. I like dogs best.

	Rater 1	Rater 2
Global Rating	1	1
Organization	1	2
Wording and Style	2	3
Focus	1	2
Ideas	3	1
Elaboration	1	2
Sentence Structure	2	1
Paragraphing	2	3

## SAMPLES FROM WRITING LESSONS

"Ginny" Group 1, Lesson 10

Topic: How is going to a movie like watching TV? How is it different?

Going to the movie and watching t.v. at home is almost the same however watching at a theatre is a little different. At home you can move all you want and noise but at a movie theatre you have to be quiet and if you move you might block somebodys view. At a theatre theres alot of people but home there's just your family and maybe some of your friends. Although you have the comfort of home some people like it at the movie theatre because it can be more fun if your with your bestfriends. There of course at home are commercials unless you have pay tv. at a theatre there is no commercial or interuption.

"Hannah" Group 2, Lesson 6

Topic: What is your favourite TV program? Which program do you like least? How are these programs the same? How are they different?

I do not like Family Ties because it is so boring. The Cosby Show is better because there is more action. I like the kids of the Cosby Show. I really don't like the actors of Family Ties because they act like there the king or queen of the hill. The

directors of Family Ties could not make the boy Andy become big already with 4 years old he was borned one month and then a month later he is 4 years old or 3 years old that is what I hate about Family Ties. The Cosby Show is not like that it is better. The actors cooperate with each other and this what I like about the Cosby Show. The best show that I like is the Cosby Show.

"Ingrid" Group 3, Lesson 8

Topic: How is Life in Canada different from life in an underdeveloped country?

Most children from these underdeveloped countries have nothing, no clean fresh water, no delicious meals or fruits and vegetables, and no shelter or good education. Children might every night. These children's parents suffer more. They have no jobs or occupation, they have no cars or big trucks. No stove microwave, dishwasher or any kind of appliance. Face it, these children's lives are hopeless. The only thing that could help them now is people that live in developed countries, like Canada or the United States.

Our lives in Canada are way better than their's. Our parents have jobs and cars, we have homes and money. Our children have an education, fresh water, clean fruits and vegetables. Our children have toys, dolls, and toy cars. We can help these children and adults buy giving them food like bread, vegetables and fruits.

So we should be thankful for all the good stuff we have,  
because one maybe very soon countries like Canada in the United  
States may become some more of these underdeveloped places.