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Title of Thesis — Titre de la thèse

INVESTIGATION OF DIRECT TEACHING OF MAIN THOUGHT

University — Université

UNIVERSITY OF ALBERTA

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

MASTER OF EDUCATION

Year this degree conferred — Année d'obtention de ce grade

1984

Name of Supervisor — Nom du directeur de thèse

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INVESTIGATION OF DIRECT TEACHING OF MAIN THOUGHT

by

Wonyee Wong

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

SPRING, 1984

THE UNIVERSITY OF ALBERTA

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ABSTRACT

The purpose of this study was to investigate the effect of direct teaching of relevant details and main thought in reading discussions using narrative. The writer conducted four weeks of reading lessons in four grade six Edmonton Elementary Public School classrooms. Two grade six classrooms (experimental groups) were given the direct teaching of relevant details and main thought in narrative while the other two classrooms (control groups) were given their "regular" reading instruction.

A sample of 78 students was selected from the sixth grade population of 106 students. The 78 students selected were assigned to three reading achievement groups as stratified by the Edmonton Public Schools Elementary Reading Test, Grade Six (1980). To determine the students' cognitive ability, the non verbal section of the Canadian Cognitive Abilities Test, Form 1, Level D (1974), was used.

To evaluate the effectiveness of the direct teaching, a pretest and posttest were administered to the experimental and control groups. Two stories, "Child of the Silent Night" (pretest) and "How Helen Keller Learned" (posttest), both comparable in content, length and readability, were given to the students for silent reading. Upon completion of the story, the students were to answer two questions developed by the writer:

1. What things happened in the story that you think are important?
2. After having read the story, what do you think the

author's main or important thought was? Explain. Based on the students' written responses, categories were developed by the writer from which a ranking system was established to score each response.

Statistical treatment of the data consisted of a two- and three-way analyses of variance with repeated measures comparing the performance of the experimental and control groups pretest and posttest achievement scores on the effects of:

1. Direct teaching of relevant details and main thought in narrative.
2. Reading achievement group as stratified by the Edmonton Public School Elementary Reading Test.
3. Cognitive ability as determined on the non verbal C.C.A.T.
4. Sex (male or female).

Major findings indicated that:

1. Direct teaching of relevant details for the high achievers in reading was significant.
2. Direct teaching of main thought was not significant for the students irrespective of their reading achievement.

Conclusions drawn from this study indicate students could learn to more effectively identify relevant details. However, the extent to which identification of relevant details would be helpful to the students in production of main thought needs further investigation. Finally, a major implication for teaching from this study is that teachers need to directly teach systematically and sequentially

relevant details and main thought in all content areas so that students can indeed relate the relevant details learned and thus facilitate main thought production.

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to:

Dr. J. E. Robertson, thesis advisor, for her warm encouragement, wise counsel, her kindness and patience -- all of which helped to sustain the writer to the completion of the thesis.

Dr. W. T. Fagan and Dr. J. G. Patterson, examining committee members, for their thought-provoking questions and astute comments.

Dr. D. Sawada, for his insightful suggestions on data interpretation which helped the writer to maintain her sanity!

Pat Heffernan and Susan Fulmore, colleagues and friends, who so generously gave of their time to evaluate the story selections and for their painstaking inter-rater work.

Moira Juliebo, Mary Sakari, and Susan MacLean, graduate students, for their helpful assistance in evaluating the questions of the pre and post tests and the categories for ranking the students' written responses.

Pat Chan and Eddy Chiu, for their cheerful willingness to work till the wee hours of the morning in determining the readability level of the story selections.

Sue Duxbury, for the speed and efficient manner with which she typed the final draft of the thesis.

Principals, teachers and children of the Edmonton Public Schools who made this study a reality. The writer is

especially indebted to the children in this study who made the task of "direct teaching" a challenging and rich learning experience.

My family and friends, for their incessant encouragement throughout the development of the thesis.

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CHAPTER I

INTRODUCTION

> Comprehension pedagogy, as is true with so many facets of education, abounds with overlapping and confusing jargon. Some concepts have many labels and some labels represent different concepts. (Santa and Hayes, 1981, p. 73)

Such is the case with the concept of "main idea". Friedman and Rowls (1980) stated that "terms like 'main idea', 'generalize', 'conclusion' ... and so on, are not simple terms that are readily understood by students" (p. 206). The authors suggested substituting "other terms" to combat the problem of terminology as a "major roadblock" to teaching the skill (Friedman and Rowls, 1980, p. 206). Hence, for the purpose of simplifying the concept "main idea" so that students can readily understand the terminology, hereafter "main idea" will be referred to as "main thought" or "important thought".

The writer is particularly concerned and perplexed about the inability of students to grasp the main thought of what they read -- even if they are able to identify all the words on the printed page. That same concern is identified in research where difficulty in finding the main thought is found to be common to both the intellectual elite as well as those less gifted. Perry (1959), cited in Niles (1967) reported a study in which just one in 115 Harvard and Radcliffe freshmen was able to write a short statement about a presented chapter. Since the scholars from such

academically renowned institutions were unable to get the point of it all then surely those less able would miss the point of what they read. Hence it is of no surprise that a number of researchers as cited in Isakson et al. (1980) (McCullough, 1957; Otto, Barrett and Koenke, 1968; Barrett and Otto, 1969), have reported that children in elementary grades experience difficulty in finding the main thought. The inability of students to find the main thought of what they read is certainly grounds for educational concern especially when one considers that a major purpose of reading is to comprehend the writer's main thought. In short, reading teachers may well claim that if the freshmen described above and elementary children failed to get the author's main thought, they were not comprehending adequately.

Authors believe that main thought is one aspect of comprehension. In an instructional book for educators, titled Teaching Reading Comprehension, Pearson and Johnson (1978) provided suggestions for teachers on how to teach students to find the main thought as a means to understanding longer discourse. In Barrett's "Taxonomy of Cognitive and Affective Dimensions of Reading Comprehension" (Durkin, 1978, p. 420), main thought is included as one behavior involved in reading comprehension. From McPike's (1983) recent research, proficient and very proficient sixth graders were able to find main thought in expository and narrative passages. Hence, if one purpose for reading is to identify main thought, then reading comprehension and main thought identification must be linked one with the other.

Furthermore, since reading comprehension is a major objective of reading instruction, students who fall short of this goal would seem to merit instruction.

Instruction in the area of reading comprehension has been found to be sadly lacking as revealed in the findings of Durkin's (1978-79) research in grades three to six. The dismal truth, according to Durkin's research in the elementary level was that "almost no comprehension instruction was found" (p. 48). Durkin's shocking revelation may produce anxieties in reading teachers who fear that they too have fallen short of her definition of comprehension instructors. Worst yet, the teachers may find themselves identified by Durkin as "mentioners", "assignment givers and checkers" and "interrogators". The lack of comprehension instruction in the elementary schools where Durkin conducted her research may well stem from the fact that educators generally lack a system for teaching reading comprehension.

Addressing the subject on methods of teaching reading, Jenkinson (1973) stated that there is "no single right way to teach reading" (p. 40). The difference between "lack of a system" and "no single right way to teach" is that teachers in Durkin's (1978-79) study were apparently not using any method. It seems that their problem was not one of having chosen a poor method but rather of having chosen no method or having chosen a method that substituted mentioning for teaching. Perhaps some would say "no method" <u>is</u> their method! If educators indeed lack a system for

teaching, that is, opt for no method in teaching reading comprehension, then it is understandable that only one percent of the teachers were engaged in comprehension instruction in Durkin's 1978-79 study. There is much wisdom in Jenkinson's statement as there exist many methods of teaching reading. However, teachers cannot afford to opt for no method of teaching reading. If students are deprived of sequential, systematic and direct reading instruction in elementary school, then they may well exhibit haphazard behaviors as the high school students interviewed by Jenkinson did in their approach in understanding what they read (Jenkinson, 1975).

Obviously, reliance on serendipity to arrive at an understanding as to what is read is not a productive strategy for students. Indeed, Jenkinson stated that "... it is imperative to teach pupils how to decode both the author's language and his thought" (1975, p. 2). Research by Durkin has shown what teaching is not. It is not testing, nor is it assigning children to workbook pages or kits in the hopes that they will eventually learn the complex process of reading by osmosis.

What then is teaching? Teaching is:

> ... providing direct instruction -- a demonstration of a skill. Teaching creates the conditions for learning to take place. Teaching is a process of assisting students to change their behavior or attitudes. (Merlin and Rogers, 1981, p. 293)

In summary, support for this research to investigate direct instruction to elementary students in producing main

thought stems from two concerns. First, as pointed out by studies, elementary students (especially those in grades three to six) experience difficulty in producing the main thought. Second, not enough effort by teachers is placed on teaching comprehension tasks which encourage students to do more than recognize or recall explicit statements in their material. In short, these concerns form the basis of this research which assumes that producing a main thought is one important behavior intrinsic to comprehending what is read and one that merits teaching directly, sequentially and systematically.

Statement of the Problem

It seems that no discipline is complete without including a main thought item as part of the comprehension activity. Answers to the perennial question, "what is the main thought?" is expected of students as early as kindergarten and on up to university. As long ago as 1916, John Dewey urged an emphasis upon the "main ideas" of a discipline as a means to help students make greater sense out of their experience (Fraenkel, 1973, p. 104). The question asked by this study was whether direct teaching of main thought would help students make greater sense out of what they read.

Purpose of the Study

This study investigated whether direct teaching of relevant details and main thought in narrative to grade six students would enable them to more effectively produce main

thought in narrative. Durkin (1978-79) posed the fundamental question, "Is reading comprehension teachable?" (p. 527). The purpose of this research may well shed some light as to whether producing main thought, one major purpose of reading comprehension, was teachable.

Definition of Terms

The following definitions were used for the purpose of this study and all definitions apply to narrative passages.

Main Thought

A "central insight" or "general idea" about life which accounted for a) main subject in narrative generalized, b) main character's conflict (problem) generalized, and c) the resolution of character's conflict (problem) generalized. (McPike, 1983)

For example, an acceptable main thought for "Child of the Silent Night" is:

Handicapped people	can learn
Laura's problem was her blindness. The main character's problem of blindness was generalized to handicapped people.	Despite Laura's blindness, she was able to learn the manual alphabet and to realize that ideas could be communicated through the use of symbols. Resolution of Laura's problem was the fact that she learned the manual alphabet.

Central insight or general idea was that (a blind girl) handicapped people (learned how ideas could be communicated through the use of the manual alphabet) can learn.

Relevant Details

Relevant details are the facts and ideas that develop, describe, explain and limit the main thought of a passage. (McGuire and Bumpus, 1974, p. 13)

Narrative Passage

A narrative passage is written in a story form which may "involve a problem facing a main character, a sequence of attempts by the main character to solve the problem, and an eventual resolution of the problem" (Furniss, 1979, p. 4).

Direct Teaching

Direct teaching is any teaching-learning method, for example, the inductive method, whereby the students are given systematic and sequential instruction to help them to identify the relevant details and to produce main thought in narrative. A comprehensive description of direct teaching of students to identify the relevant details and produce main thought in narrative will be found in Chapter IV.

Grade six students: The students were divided into three groups according to their reading comprehension achievement.

Reading Achievement Group A Students

Sixth grade students performing above the 85th percentile on the comprehensive test of the Edmonton Public Schools Elementary Reading Test (1980).

Reading Achievement Group B Students

Sixth grade students performing at or above the 53rd percentile to the 85th percentile on the comprehensive test of the Edmonton Public Schools Elementary Reading Test (1980).

Reading Achievement Group C Students

Sixth grade students performing at or above the 14th percentile to the 52nd percentile on the comprehension test of the Edmonton Public Schools Elementary Reading Test (1980).

Research Questions and Hypotheses

In order to achieve the purposes set for this study, research questions were posed from which null hypotheses were composed and tested.

The reading achievement groups (A, B, and C) have been assigned a numerical reference in Table 1 below to facilitate precise reference to the two questions on the pretests and posttests.

Table 1

Reference Numbers of Reading Achievement Groupings

Reading Achievement Group	Pretest for: Experimental *Q1	Q2	Control Q1	Q2	Posttest for: Experimental Q1	Q2	Control Q1	Q2
A	1	4	7	10	13	16	19	22
B	2	5	8	11	14	17	20	23
C	3	6	9	12	15	18	21	24

*Q1 - Detail Question
Q2 - Main Thought Question

Research Question 1a and 1b

1a Is there an increase in Q1 achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C)?

1b Is there an increase in Q2 achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C)?

In Table 1, the student achievement scores were between cells:

1a 1-3 and 13-15 compared with 7-9 and 19-21

1b 4-6 and 16-18 compared with 10-12 and 22-24

Null Hypotheses 1a and 1b

1a There is no significant difference in Q1 achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

1b There is no significant difference in Q2 achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

Research Question 2a, 2b and 2c

2a Is there an increase in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A?

2b Is there an increase in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group B and the Control reading

achievement group B?

2c Is there an increase in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C?

In Table 1, the student achievement scores were between cells:

2a 1 and 13 compared with 7 and 19

2b 2 and 14 compared with 8 and 20

2c 3 and 15 compared with 9 and 21

Null Hypotheses 2a, 2b and 2c

2a There is no significant difference in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A.

2b There is no significant difference in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group B and the Control reading achievement group B.

2c There is no significant difference in Q1 achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C.

Research Question 3a, 3b and 3c

3a Is there an increase in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A?

3b Is there an increase in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group B and the Control reading achievement group B?

2c Is there an increase in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C?

In Table 1, the student achievement scores were between cells:

3a 4 and 16 compared with 10 and 22

3b 5 and 17 compared with 11 and 23

3c 6 and 12 compared with 18 and 24

Null Hypotheses 3a, 3b and 3c

3a There is no significant difference in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A.

3b There is no significant difference in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group B and the Control reading achievement group B.

3c There is no significant difference in Q2 achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C.

Research Question 4a and 4b

4a Is the increase in Q1 achievement scores from the

pretest to the posttest between the Experimental groups and the Control groups due to cognitive ability? That is, is there an increase in Q1 achievement scores from the pretest to the posttest between the Experimental groups whose non verbal IQ scores ranged from

a) 67 - 100

b) 101 - 114

c) 115 - 132

and the Control groups with similar non verbal IQ score ranges?

4b Is the increase in Q2 achievement scores from the pretest to the posttest between the Experimental groups and the Control groups due to cognitive ability? That is, is there an increase in Q2 achievement scores from the pretest to the posttest between the Experimental groups whose non verbal IQ scores ranged from

a) 67 - 100

b) 101 - 114

c) 115 - 132

and the Control groups with similar non verbal IQ score ranges?

In Table 1, the student achievement scores were between cells:

4a 1-3 and 13-15 compared with 7-9 and 19-21

4b 4-6 and 16-18 compared with 10-12 and 22-24

Null Hypotheses 4a and 4b

4a There is no significant difference in Q1 achievement scores from the pretest to the posttest between the Experimental groups and the Control groups due to cognitive ability.

4b There is no significant difference in Q2 achievement scores from the pretest to the posttest between the Experimental groups and the Control groups due to cognitive ability.

Research Question 5a and 5b

5a Is the increase of Q1 achievement scores from the pretest to the posttest due to sex differences between the Experimental groups (A, B, and C) and the Control Groups (A, B, and C)? That is, do females and males differ in their performance from the pretest to the posttest between the Experimental groups and the Control groups?

5b Is the increase of Q2 achievement scores from the pretest to the posttest due to sex differences between the Experimental groups (A, B, and C) and the Control groups (A, B, and C)? That is, do females and males differ in their performance from the pretest to the posttest between the Experimental groups and the Control groups?

In Table 1, the student achievement scores were between cells:

5a 1-3 and 13-15 (males) compared with 7-9 and 19-21 (males)

1-3 and 13-15 (females) compared with 7-9 and 19-21 (females)

5b 4-6 and 16-18 (males) compared with 10-12 and 22-29 (males)

4-6 and 16-18 (females) compared with 10-12 and 22-29 (females)

Null Hypotheses 5a and 5b

5a There is no significant difference in Q1 achievement scores from the pretest to the posttest due to sex differences between the Experimental groups and the Control groups.

5b There is no significant difference in Q2 achievement scores from the pretest to the posttest due to sex differences between the Experimental groups and the Control groups.

Research Question 6a and 6b

6a Is the increase of Q1 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A?

6b Is the increase of Q2 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A?

In Table 1, the student achievement scores were between cells

6a 1 and 13 compared with 7 and 19 (males-females)

6b 4 and 16 compared with 10 and 22 (males-females)

Null Hypotheses 6a and 6b

6a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the

posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A.

6b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A.

Research Question 7a and 7b

7a Is the increase in Q1 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B?

7b Is the increase of Q2 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B?

In Table 1, the student achievement scores were between cells:

7a 2 and 14 compared with 8 and 20 (males-females)

7b 5 and 17 compared with 11 and 23 (males-females)

Null Hypotheses 7a and 7b

7a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B.

7b There is no significant difference in Q2 (main thought)

achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B.

Research Question 8a and 8b

8a Is the increase of Q1 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C?

8b Is the increase of Q2 achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C?

In Table 1, the student achievement scores were between cells:

8a 3 and 15 compared with 9 and 21 (males-females)

8b 6 and 18 compared with 12 and 24 (males-females)

Null Hypotheses 8a and 8b

8a There is no significant increase in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C.

8b There is no significant increase in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C.

Assumptions

1. It is assumed that the teachers involved in this research study did not teach directly their students to produce main thought in narrative when the writer was not present during the one month that she was conducting her research.
2. It is assumed that the students performed in the pretest and posttest to the best of their abilities.

Limitations of the Study

The design of the study imposes the following limitations on the generalizability of the study.

1. The population of the study was limited to grade six students in an urban school system. The conclusions based on the analysis of the results are restricted to the sixth grade students in a comparable setting only.
2. Having to express in writing a main thought of the passage read may have inhibited the students from expressing their ideas.
3. The initial pretest may have sensitized the grade six students to the interests of the experimenter and have affected their responses on the posttest one month later.
4. The study was limited to narrative reading materials. The conclusions of the story thus relate only to this one form of prose.
5. The direct teaching of this study was devised by the researcher from surveying pertinent literature. Hence,

it represents but one means of direct reading instruction. In other words, other researchers might have selected a different approach to teach the relevant details and main thought in narrative. In short, the findings are limited to the particular kind of direct reading instruction used in this study.

6. The study was conducted over a period of one month including a total of 20 consecutive school day sessions. The findings, therefore, must be viewed in light of the fact that the one month period may not have been sufficient to realize the effectiveness of direct teaching of relevant details and main thought in narrative.

Significance of the Study

The notion of main thought can be found in most scope and sequence charts, reading texts, and instructional materials. In light of the emphasis placed on producing main thought in reading instruction and how minimal was the time devoted to comprehension instruction (Durkin, 1978-79), the writer deemed an investigative study of comprehension instruction was warranted.

Not only was the lack of direct comprehension instruction pointed out by Durkin's study, but its practice has been questioned (Merlin and Rogers, 1981). Indeed, practices such as assigning students to workbooks, centers or games fall short of what Merlin and Rogers would regard as comprehension instruction. What is not comprehension,

then, was pointed out.

The findings of this present research may reveal pertinent information on the nature of direct teachings of relevant details and main thought in narrative to sixth graders. It may prove to be helpful in revealing whether sixth graders can be taught how to identify relevant details and to produce main thought in narrative. Moreover, it may have implications for classroom teachers to critically analyze the relevance of the tasks advocated for use with students in the commercially prepared material to their own reading comprehension instruction.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this study was to investigate whether direct teaching of relevant details and main thought to sixth graders would help them to produce main thought in narrative. Prior to the investigation, the development of a method of reading instruction was needed. The writer deemed a review of related literature as crucial in developing an effective methodology for teaching reading comprehension. Reading theory and reading comprehension instruction were two major areas considered as pertinent to the development of a method of reading instruction for this study. Is every reading instructional practice not expressive of one or more theory? Indeed, to cite McCullough (1980):

> Every act, every thought which we employ in dealing with human beings as teachers -- teaching them, diagnosing them, prescribing for them, evaluating them, choosing for them or letting them choose for themselves -- is expressive of a theory about what reading is, of what it is composed, what supports its being, how it can be engaged in successfully, and how its cultivation can be fostered. (p. 5)

In the following sections, the writer has discussed the literature review as it pertains to:

1.) Reading theory

2) Instructional strategies

3) Research on classroom instruction

and finally, how this study implemented the research based implications into teaching practice.

Reading Theory

Reading: An Active Reader Process of Constructing An Author's Communication

It is generally agreed by educators that the ultimate goal in reading is communication, the base of which is comprehension. From Thorndike's (1917) research, the definition of reading instruction changed from sounding out words to "getting meaning from the printed page through reasoning or problem solving processes" (Singer, 1978, p. 58). The emphasis on reading as "getting meaning" implies that the reader in comprehending what the author has communicated must play an active role in the reading process. For instance, the reader must contribute by reconstructing and reacting to what the author has communicated.

One manner by which the reader can contribute to the reading process is by bringing meaning to the printed page. Jenkinson (1973) seems to regard bringing meaning to print a more accurate definition of reading than getting meaning from print. Perhaps the accuracy of Jenkinson's definition lies in the degree of active involvement that is demanded of the reader. If getting meaning is the reader's aim then it seems that the focus is on the author and only what he has to impart to his reader. However, if bringing meaning is the reader's aim then it seems that the focus is directed at both the author and the reader. So in this later case, the

reader actively reconstructs the message of the author's text and actively reacts to the author's message. The reader, then, is comprehending when he actively and accurately reconstructs the author's message.

How the reader brings meaning to the printed page may be by using his wealth of experiences, such as his knowledge of the world, reading (graphic symbols) and language (oral and written) to help him interact and communicate with what the author has to impart. The writer concludes that the emphasis in reading is undoubtedly on meaning. Moreover, whether the reader "gets" meaning or "brings" meaning from the printed page, he cannot read passively but must read actively. Indeed, to cite Smith (1978), "reading is not a passive activity -- readers must make a substantial and active contribution if they are to make sense of print" (p. 12).

In the case of this study, the students must make a substantial and active contribution if they are to produce a main thought of narrative read. Because a main thought may not be explicitly stated in the narrative, students in this study must actively attend to information about the main character, his problem (conflict), resolution of his problem (conflict), and reconstruct the information to produce a main thought of narrative read.

The writer views producing main thought which is one major purpose for reading, as an aspect of reading for comprehension. Instructional objectives for this study were devised with consideration for the relationship between

reading comprehension and producing main thought. The next section will present two perspectives on the nature of main thought.

Main Thought: One Perspective

What is the "something" that happens when readers are comprehending? Is expressing the main thought one overt indication of the "something" that happens when readers are comprehending? This section will present one perspective on what research has revealed concerning the relationship between producing main thought and reading comprehension. According to the search conducted by Baker and Stein (1981) for skills which contribute to comprehension, the four most commonly explored skills were "... identifying main ideas, understanding logical structures, making inferences, and using higher order knowledge structures" (p. 8). Of the four skills mentioned, the authors regarded main thought identification as the one skill "most directly relevant to comprehension instruction" (p. 87). However, how main thought was relevant to comprehension and how main thought was defined were not stated by Baker and Stein (1981). Moreover, to cite McPike (1983):

> While identifying the main (thought) of a passage has historically been regarded as a significant indication of comprehension, little research directly examining main (thought) can be found. (p. 34)

McPike (1983) pointed out that past research which attempted to relate finding the main thought with comprehension were fraught with problems of validity. The major problem with relating main thought with comprehension

is the variant definitions on main thought. For example, Pearson (1981) presented a list of main thought definitions:

> 1. An idea was a main (thought) to the extent that it was related to the theme of the selection. (Korman, 1945, cited in Yendovitskayz, 1971)
>
> 2. In other studies, main (thoughts) were those judged to be most important (e.g. Brown and Smiley, 1977).
>
> 3. In a few others, what was meant by main (thoughts) were the "most general" ideas in the text (e.g. Otto, Barrett, and Koenke, 1969). (p. 124)

The problem with these variant underlying definitions on main thought is that implications from one study can not be discussed in light of another study because of the different main thought definitions used by the researchers. Overall, it seems that defining it in terms sometimes as a theme or at other times as a topic, or at times the most important thought in the paragraph (Pearson and Johnson, 1978), provides little understanding of how finding main thought relates to comprehension.

To cite Malicky (1980):

> Readers do not go through a process of elimination after each paragraph to determine main (thought); rather as they read they constantly relate one idea to another and by abstracting the similarities among ideas, they generalize from all the details. (p. 2)

Here, implicit to the process involved in producing main thought are mental operations such as classifying, synthesizing and generalizing information. It is by juxtaposing the process of comprehension and the process of producing main thought that one reaches more understanding

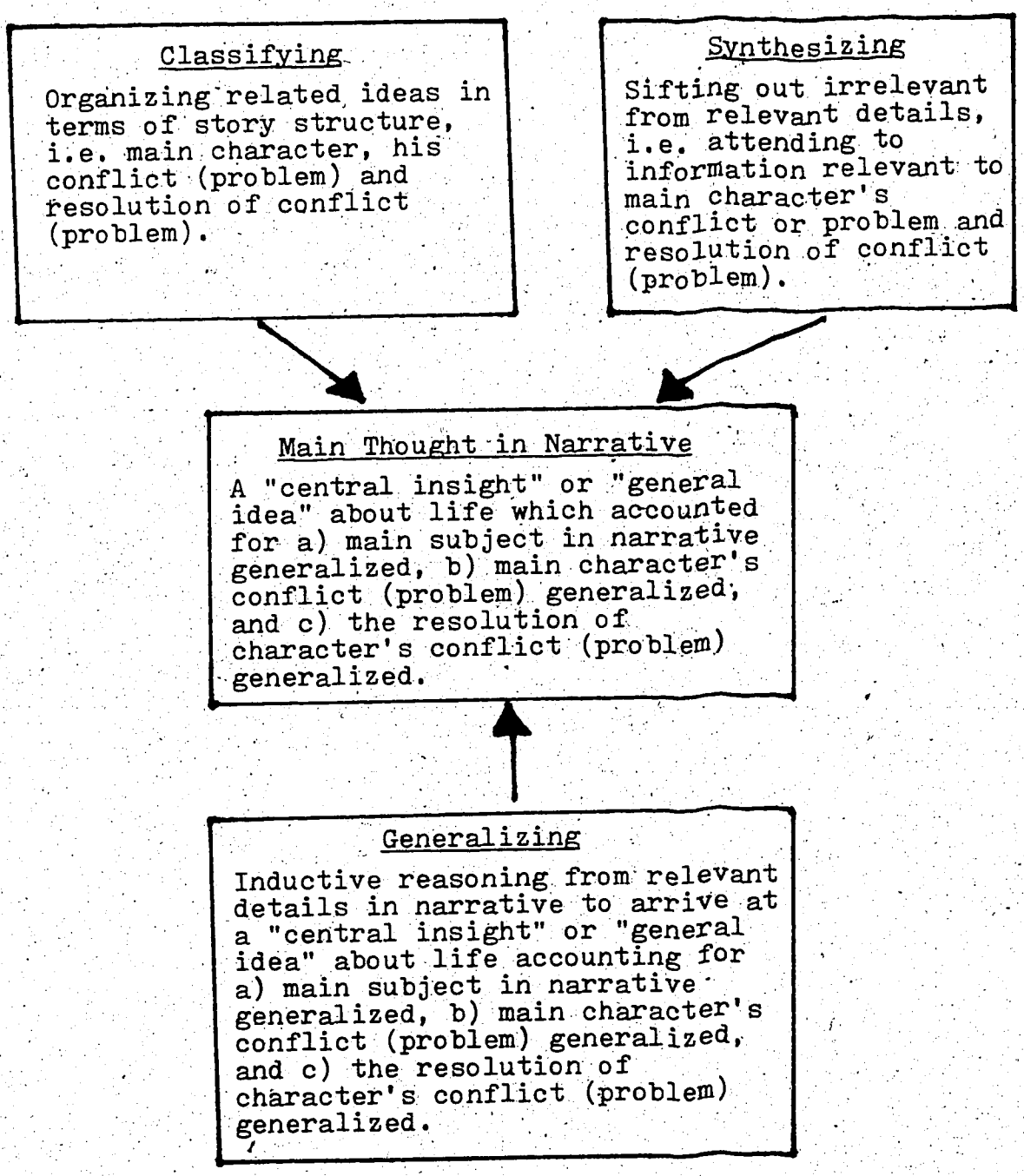
on how main thought relates to comprehension. On the whole, the process of producing main thought requires reading (graphic symbols), language (oral and written) and thinking skills which are also skills required in the process of comprehension.

The most noted similarity is how the thinking process permeates both producing main thought and reading comprehension. An understanding of the cognitive processes that is involved in reading comprehension is noted in Gerhard (1975), Guszak (1972), Henry (1974), and Pearson and Johnson (1978). Based on the information gleaned from the above authors, the writer has applied the thinking process of comprehending to producing main thought.

A description of the cognitive processes in producing main thought includes classifying, synthesizing and generalizing information (see Figure 1). It seems that in producing main thought the reader engages in organizing related ideas together (classifying), sifting out irrelevant from relevant details (synthesizing), and arriving at a hypothesis that will explain the evidence at hand (generalizing). It also seems that in generalizing the reader engages in inductive reasoning proceeding from known information to a significant statement incorporating all the ideas together (main thought). Overall, the writer regards the generalizing process as a crucial process in producing main thought.

Figure 1

Cognitive Processes Involved in Producing Main Thought in Narrative



While the generalizing process subsumes the cognitive processes of classifying and synthesizing in producing main thought in narrative, the writer also views classifying and synthesizing as necessary mental operational requirements. In other words, absence of any of the mental operations can cause difficulties for the reader in producing main thought.

The information garnered from the text as classifying, synthesizing and generalizing processes is often referred to as relevant details and these are the explicitly stated facts and ideas of the text. Because main thought production depends on the reader's ability to "... reason from (these) explicitly stated facts and ideas to something that was not explicitly stated" (Durkin, 1978, p. 441), helping students to attend to details relevant to main thought was necessary. McPike's (1983) research pointed out that the students in her study produced main thought by attending to information related to the central conflict and resolution of that conflict. Therefore, such information was considered as relevant details by the writer.

How is Main Thought Related to Comprehension?

As discussed earlier, variant definitions and activities on main thought shed no light on how it is related to comprehension. However, viewing main thought as a process in which similarities can be drawn out between main thought and comprehension was helpful.

To reiterate a point made earlier, the essential requirements in the comprehension process are "thinking", "language (oral and written)", and reading (graphic symbols)"

skills. In order to comprehend what is on the printed page, the reader needs to acquire more than a verbatim quote of the passage. In short, the act of comprehending goes beyond the word-calling process. Royer and Cunningham (1978) firmly stated that "... the act of comprehension entails an interaction between an incoming linguistic message and the comprehender's world knowledge" (p. 3). The view of reading comprehension presented expresses the conviction of bringing meaning to the text by using the reader's knowledge of language and of the world to make sense of print.

Similarly, the process of producing main thought also involves the "thinking", "language (oral and written)", and "reading (graphic symbols)" skills that are inherent in the reading comprehension process. Main thought "... is not contained in the text, but (is) a formulation produced between the writer (text) and the reader" (McPike, 1983, p. 44). Moreover, "... the reader's prior knowledge and his learning of new information from the passage (affects) his ability to infer meaning as well as his strategy use" (ibid). McPike's conception of main thought process reflects the interactive and bringing meaning view of reading comprehension. Further implications of the similarity between main thought and comprehension is the involvement of thinking skills in producing main thought such as "inferencing" and "prior knowledge" whether it is knowledge of the world or of language (oral and written) as essential elements necessary to the process of comprehending.

In conclusion, it seems that the process involved in producing main thought closely resembles that of the reading comprehension process. Reading (graphic symbols), language (oral and written) and thinking skills are essential to producing main thought and these same skills are essential components of reading comprehension. Overall, the conclusions drawn by the writer on how main thought is related to reading comprehension are based on assumptions from literature on reading comprehension. Because reading comprehension is "something" which does go on inside the reader's head, only by overt demonstrations such as producing main thought can one infer the reader is comprehending. It is to this end, perhaps, that reading comprehension tests abound with questions requiring production of main thought. In short, students in this study who produced an acceptable main thought of narrative read demonstrated to the writer one aspect of comprehending.

Instructional Strategies

Since students are expected to extract main thought from textbooks, the next section will examine the type of instructional practices common in a reading comprehension teaching program. The increase in concern for the teaching of comprehension has been reflected in literature accordingly. For example, recent books by Smith (1975), Gerhard (1975), and Pearson and Johnson (1978) are devoted entirely to aspects of teaching reading comprehension. The current standard teaching strategies designed to facilitate reading

comprehension as summarized by Johnson and Barrett (1981, p. 94) are presented below:

1. Relate the content of the passage to the reader's background.
2. Introduce vocabulary which may prove troublesome.
3. Set purposes or prose questions to guide the reader.
4. Have the readers read the passage part by part or in total.
5. Determine how well the readers have understood the passage by asking questions related to the purposes or questions introduced before reading.
6. Reread the passage, or parts thereof, to verify understanding or for new purposes.

While this approach in combination is still recommended in instructional and professional sources, Johnson and Barrett (1981) caution against perfunctory implementation of the approach for teaching reading comprehension.

1. Teachers may deemphasize the importance of relating student language and experiential background. Students may not become actively involved in "building bridges from the known to the new".
2. Perfunctory setting of purposes and questions before reading may lead to a tendency on the part of teachers to focus on bits of literal information ... Students may be conditioned to pass over incidental information when they read, which might contribute significantly to their understanding.
3. Students may develop a tendency to become passive rather than active readers, if the approach is implemented in a "cookbook fashion". In other words, students may become conditioned to thinking comprehension of a passage is

> a mundane exercise requiring minimal involvement on their part. (Johnson and Barrett, 1981, p. 95)

In summary, the writer views three variables as fundamental to teaching a reading comprehension program:

1. Relating the reader's background to the content of the passage;
2. Setting purposes for reading the passage;
3. Asking questions before, during, and after reading.

The three fundamental variables described above are essential to instructing students not only the "what" of reading (with questions) but also the "how" of reading (with relating the reader's background to the text).

For the students in this study, the "what" of reading or a major purpose for reading was to produce a main thought of the narrative read. In helping the students to the "how" of producing a main thought, an understanding of the main character's predicament in the narrative was necessary. Hence, the writer helped students, for example, to realize their experiences and to compare and contrast them with that of the character's. Questions were asked prior to, during and after assigned reading to help students to attend to information about the main character, his problem (conflict) and resolution of problem (conflict). Attending to the information as described above was essential to producing main thought in narrative.

Research on Classroom Instruction

Ideally reading comprehension programs would include fundamentals of teaching strategies as summarized above. Moreover, instruction in facilitating student reading comprehension would reflect those strategies in a reading classroom. Contrary to this belief, according to Duffy (1982), a survey of classroom instruction in classrooms revealed little or no comprehension instruction. Below is a summary of the studies of classroom reading practice (Duffy, 1982, p. 297).

1. In Durkin's (1978-79) classic work in which she studied comprehension instruction by analyzing 7,244 minutes of observation in 24 fourth-grade classrooms, she concluded that the teachers "assessed" and "mentioned" comprehension but virtually no comprehension instruction was found.

2. In a subsequent report, Durkin (1981) attributes such findings to the absence of instructional suggestions in the teacher's guide of basal textbooks, seemingly suggesting that teachers "assess" and "mention" not as a result of selecting alternative strategies but because this is what is suggested in the basal text.

3. Duffy and McIntyre (1980) conducted a study after studying ... the audio tape transcripts, field notes, and interview notes of six primary grade teachers. The major instructional activity was to check the accuracy of pupil responses, or in some cases, to provide spontaneous reactive cues to errors.

4. Dunkin and Biddle, 1974; Mehan, 1979 indicate that the predominate teacher-pupil-interaction during instruction is one in which the teacher asks a question, the pupil responds, and the

teacher sometimes provided an evaluative response.

5. Hoffman and Clements (1980) found similar patterns in their research on teacher feedback to miscues. In fact, the typical classroom reading instruction is apparently so textbook/workbook-bound that it seemed to demand technician behavior rather than decision-making (from both pupils and teachers).

Certainly, based on the findings of what goes on behind closed doors in classrooms, comprehension instruction seems to receive little or no attention. Overall, the undesirable practice of merely assessing comprehension seems to be the conventional method of instruction in the studies described earlier. The practice of assessment is undesirable for the reason that it takes away the interactive nature of reading comprehension.

The studies described above pointed out that the practice of merely assessing (questioning) students was not considered by researchers as comprehension instruction. While there is no doubt that assessment has its place in comprehension instruction, the doubt of its value as instruction comes when students are only informed whether their answer is incorrect or correct. While the writer in this study also included assessment as part of the comprehension instruction, the difference between the practice of assessment in the studies described and this study is that the students were provided with feedback from the writer. They were informed either why their answers were acceptable or inacceptable or were asked to provide

proof or evidence from the story to support answers. The value of providing students with an evaluative response of whether their answers were acceptable or unacceptable served two purposes. First, if a student was informed as to why his answer was unacceptable, for example, because of his illogical thinking, then he could learn from his error and reason logically the next time he was confronted with a similar question. Second, if a student was informed as to why his answer was acceptable, for example, because of his logical thinking, then he could feel confident that answering similar questions in the same manner would ensure success.

Implications From Research For Instruction

Because research has pointed out the pedagogical deficit in teaching children reading comprehension, the writer has undertaken the challenge in this study to investigate how students can be helped to comprehend what they read through instruction on production of main thought. While research is far from unanimous that any one skill or combination of skills are, in fact, central to reading comprehension, there is general agreement that some skills, such as identification or production of main thought, are related to reading comprehension -- even if that relation is questionable. Finally, although direct teaching comprehension is questionable, "... situations can be provided to facilitate and encourage the process of print into meaning" (Torey, 1976, p. 486).

The situation whereby students could be provided with comprehension instruction dictated, for example, the following elements:

1. Relating the reader's background to the content of the passage;
2. Setting purposes for reading the passage;
3. Asking questions before, during, and after reading.

Most important though, the situation called for instruction not exclusively on the "what" of reading but on the "how" of reading as well. In short, reading comprehension instruction is actually teaching students the programmatic thinking process that is used to comprehend the written text. The emphasis in reading comprehension instruction informs the student how he can relate his prior knowledge to make sense of print.

For this study, the student's major purpose for reading was to produce a main thought of a story. Through direct teaching the students were helped to attend to relevant details such as the main character, his problem (conflict), and resolution of problem (conflict) to produce a main thought of narrative read. Discussing with the students experiences which were relevant to the content, comparing and contrasting the students' experiences with the main character's were some of the instructional strategies used to help students relate to the content of the passage. In addition, the use of questions prior to, during and after reading were an important aspect of the instructional practice in this study. Overall, questions were used to

help the reader to:

1. Establish a purpose for reading;
2. Attend to specific information relevant to producing main thought;
3. Guide his thinking, for example, to relate information identified for producing main thought.

Chapter Summary

The underlying purpose of this chapter was to review what research revealed about reading theory and reading comprehension instruction. The existing theories on reading seem to corroborate each other in regard to viewing reading as a complex process with emphasis on the reader playing an active role.

The relationship of how main thought and reading comprehension are related has also been discussed. Consideration of main thought as a process rather than as a skill served to determine, to some extent, how it is similar to the comprehension process. While documented research is lacking in establishing how producing main thought contributes to reading comprehension, its significance to comprehension is borne out. First, by the fact that it is one purpose of reading. Second, by the frequency with which it is found in scope and sequence charts, exercise books and standardized tests under the domain of reading comprehension.

Because a basic assumption of the goal in reading was reading comprehension the writer examined instructional strategies on reading comprehension. Overall the strategies.

reflected the conviction that reading comprehension is a complex interactive process of reading. Factors such as prior knowledge, thinking skills, such as categorizing, synthesizing and generalizing, reading skills (graphic symbols), and language skills (oral and written) were considered as fundamental essentials in a reading comprehension program.

Next, this chapter surveyed studies on whether these described practices were actually implemented in classrooms during reading comprehension instruction period. The studies revealed little or virtually no comprehension instruction. Instead the conventional method of reading instruction was assessing students on what they read.

Thus, the writer having examined basic research and abstract theoretic notions about reading and comprehension, established fundamental essentials desired in a reading comprehension instructional program. In the next chapter, the writer has described the experimental design of this study.

CHAPTER III

THE EXPERIMENTAL DESIGN

Overview of the Design

Experimental design is "... defined as research in which one or more variables are manipulated by the experimenter under carefully controlled conditions" (Williamson, 1977, p. 228). Using the pretest-treatment-posttest design, direct teaching of relevant details and main thought was the treatment applied in this study to the experimental group but not to the control group. With this objective in mind, the study was conducted in five stages.

Stage One

The first stage involved surveying elementary reading materials for story selections with well developed main thoughts useable for teaching. As well, from reading relevant literature on appropriate stories for classroom instruction additional criteria were established for selecting the stories. The Dale-Chall Readability Formula was then applied to each story to determine whether the readability level of each selected story was suitable for sixth graders.

Stage Two

The second stage involved surveying relevant research literature for comprehension instruction, specifically for teaching main thought. From the survey of reading materials in instruction on main thought, a framework was established

for developing lesson plans for classroom instruction.

Stage Three

The third stage required that the suitability of the selected stories and the framework for teaching be investigated in a pilot study. Also two comparable stories in terms of length, readability, and content were selected for the pretest and posttest. In addition, the writer also formulated two questions to be used in the pretest and posttest. The selected stories for classroom instruction were also given to two graduate students in reading to assess their suitability in terms of readability, content and interest for sixth graders. Likewise the formulated pretest and posttest questions were distributed to three other graduate students in reading to seek agreement as to whether the test questions would solicit information as set out in the objective of this study.

From the pilot study, students' written responses in the pretest and posttest were collected and analyzed. Tentative categories were devised by the writer based on the students' written responses. The reliability of the categories was then determined by three graduate students in reading who used the categories to rank the pretest and posttest answers to questions one and two.

Stage Four

The fourth stage entailed implementation of the main thought teaching strategies to two grade six classrooms for a period of four weeks, for 35 to 40 minutes daily. Because these two classrooms were given the special treatment,

hereafter they will be referred to as the experimental groups. In order to assess the effects of the treatment versus no treatment, two control groups were established. For the two grade six control groups, the writer planned the teaching sessions in accordance with the "regular" reading lesson plan using the classroom prescribed reader. In total, four grade six classes were involved in this study.

Stage Five

The fifth and final stage was to collect the answers to the pre and post tests and to analyze the data. The pretest was administered on the first day prior to instruction while the posttest was administered on the last day of the fourth teaching week. The tentative categories devised from the pilot study were refined and revised for the main study. Once again the reliability of the categories was established by two graduate students in reading who evaluated the students' written responses according to the categories developed by the writer.

Selection of the Sample

The research sample of 78 students was chosen from a population of four classes of grade six students in the Edmonton Public School Board system (E.P.S.B.), a total of 105 students. The schools were assigned to the writer by central office personnel and were believed by them to be comparable in terms of sex, chronological age, reading achievement, and to be representative of a middle class population.

Students at the grade six level were chosen for the following reasons:

1. Grade six students have had experience in reading narrative passages and in finding main thoughts in them.
2. Children generally by the age of ten to twelve are capable of abstract thinking demanded by the tasks in this study. (Rawson, 1979)

From a total population of 105 sixth graders, 78 suitable subjects, 38 females and 40 males were identified. The selection process for these students is described in the following section.

In total, the sixth grade population attending the Edmonton Public Schools for June of the 1983 school year was approximately 4,564 as recorded on files at the Public School Board central office. From that population, 105 sixth graders (the total of the four classes in this study) were selected. The 105 sixth graders were thought by the Edmonton Public School Board central office personnel to be representative of the total sixth grade population. The actual population sample selected for the purpose of this study was 78 sixth graders with 27 sixth graders not selected from the total sixth grade population of 105. Those students were not selected for reasons due to either their absence in writing the pre or post test, or their low performance on the Edmonton Public School Elementary Reading Test (below the 14th percentile on the reading comprehension test).

The students identified were selected on the basis of their reading comprehension achievement scores on the Edmonton Public School Elementary Reading Test, Grade Six (1980), administered to the students in May, 1983, by their classroom teachers. (Details of the test will be described later in this chapter.) The manual included conversion tables for the students' raw scores to percentile ranks which were normed when the test was taken by the Edmonton Public School District grade six students. Hence, the percentile ranks on the reading comprehension section were used to identify three groups of students. Group A consisted of students who were performing above the 85th percentile on the comprehension test, while Group B consisted of students who were performing at or above the 53rd percentile to the 85th percentile. Group C consisted of students who were performing at the 52nd to the 14th percentile on the same comprehension test.

Determination of the percentiles for the three reading achievement groups rested on the assumption that the group scores were normally distributed. Hence, given the reading comprehension norming raw score mean of 68.5 and the standard deviation of 16 (Edmonton Public Schools Elementary Reading Test), it was assumed by central office personnel - Research Group that approximately two-thirds of the scores would fall within the range from one standard deviation below (52.5) to one standard deviation above the mean (84.5) (Williamson, 1977). Finally, determination of the cut off point for group C (from 52nd to 14th percentile)

rested on the assumption by the researcher of this study that students who performed at approximately half of the total raw score of 99 (percentile equivalent for raw score of 49 was 14th) would be functioning at the frustration reading level. This frustration level of obtaining half of the total score or 50 percent comprehension stipulation was based upon the criteria adapted from Powell's (1968) research as cited in Guszak (1972).

The composition of both the experimental group and the control group of this sample of students may be seen in Table 2. A profile for each student showing the reading comprehension percentile as tested by the Edmonton Public Schools Elementary Reading Test is given in Appendix A. Each student was also identified by sex and cognitive ability. The student's cognitive ability was determined from the non verbal IQ score as tested on the Canadian Cognitive Abilities Test, Form 1, Level D (1974). Hereafter this test will be referred to as C.C.A.T. (Details on the C.C.A.T. will be described later in this chapter.)

Table 2 summarized the composition of experimental and control groups in this study. The experimental group in total consisted of 45 students, of which 25 were males and 20 were females. The control group in total consisted of 33 students, of which 15 were males and 18 were females. Overall, the total population of the experimental and control groups consisted of 78 students. As can be seen from Table 2, the experimental group had more students than the control group. It is interesting to note that while the

range of E.P.S. Elementary Reading Comprehension percentile scores were comparatively similar (Experimental group had percentile scores which ranged from 15-99; Control group had percentile scores which ranged from 19-97), the range of C.C.A.T. non verbal scores between the two groups differed. For the experimental group, the C.C.A.T. non verbal scores ranged from 67 to 130 while the C.C.A.T. non verbal scores ranged from 86 to 132 for the control group. It seemed that the control group had students whose performance on the C.C.A.T. non verbal test was significantly higher than the students in the experimental group. The writer concluded that generally while the ability performance of the experimental groups and the control groups was comparable in tasks which required reading (E.P.S. Elementary Reading Test Comprehension Percentile Score: Control group = 19-97; experimental group = 15-99), they differed in ability performance when the task of reading was not required (C.C.A.T. non verbal test: Control group = 86-132; experimental group = 67-130). In short, the control group generally seemed to perform better in tasks which do not require reading.

A description of the composition of each experimental and control group can be found in Appendix A. The total number of students in the classrooms of the experimental and control groups can also be found in Appendix A. The writer taught in all the classrooms.

Table 2

Composition of Experimental and Control Groups

Student Group	Total No. Students	Sex Male	Sex Female	Range of E.P.S. El. Rdg. Comp. Percentile Score	Range of C.C.A.T. Non-Verbal Score
Experimental A	11	6	5	86-99	89-130
Experimental B	19	7	12	53-84	90-119
Experimental C	15	12	3	15-51	67-120
Total	45	25	20	15-99	67-130
Control A	8	2	6	86-97	107-125
Control B	15	7	8	60-80	90-132
Control C	10	6	4	19-42	86-125
Total	33	15	18	19-97	86-132

Screening Tests Used for Sample Selection

This section describes the two test instruments used in the study for selecting the sample:

1. Edmonton Public Schools Elementary Reading Test, Grade Six (1980)
2. Canadian Cognitive Abilities Test (Form 1, Level D) Grade Six (1974)

Edmonton Public Schools Elementary Reading Test, Grade Six (1980)

This test was composed of reading passages and questions graded for difficulty. The students were asked to read the passages silently and answer the multiple choice questions.

An estimate of each student's comprehension level was obtained by using the subtotal comprehension percentile ranks set by the Edmonton Public Schools Elementary Reading Test, Grade Six (1980), which was administered to the entire sixth grade school population of 105 students in May, 1983. The percentile ranks of the test was normed when it was "... written in 1979 (May) by 4,459 grade 6 students in the Edmonton Public School District" (p. 14).

This particular test, hereafter referred to as Elementary Reading Test, was designed to assess seven specific reading skill areas. Table 3 identifies the skill areas and the number of questions included for each area.

Table 3

Specific Reading Skills of the Elementary Reading Test

Clusters of Reading Skill Areas	Percentage of Total Test	No. of Questions Per Section
[illegible]extual Analysis	7	10
[illegible]c Analysis and [illegible]ionary Usage	12	17
[illegible]ructural Analysis	11	15
DECODING SUBTOTAL	30	42
4. Vocabulary	14	20
5. Literal Comprehension	19	26
6. Inferential Comprehension	20	28
7. Critical Comprehension	17	24
COMPREHENSION SUBTOTAL	70	98
TOTAL	100	140

(Elementary Reading Test, Grade 6, Manual, 1980, p. 2)

Reliability

Researchers in the E.P.S.B. research office established reliability of the Elementary Reading Test using the Kuder-Richardson 20 formula. The reliability coefficient (KR-20) obtained for the Elementary Reading Test for grade six was 0.945 (Reading Test Manual, p. 17), a high reliability.

Validity

Validity of the Elementary Reading Test was determined by the judgement of experts who have experience as elementary teachers, consultants and reading specialists.

The Elementary Reading Test was selected by the writer of this study as an estimate of each student's reading comprehension for the following reasons. First, the Elementary Reading Test was administered by the school during the period that the writer was conducting her research. The writer was of the opinion that additional reading tests administered to the students at that time would cause undue strain on them. Second, the advantage of using the Elementary Reading Test which the students were accustomed to writing annually may well eliminate the possibility of adverse effect of a test the students were unaccustomed to writing might have produced. Finally, and most importantly, the Elementary Reading Test fulfilled the criteria Farr (1969) deemed crucial in measuring reading comprehension. To cite Farr,

> ... to delineate the basic measurable components of reading comprehension satisfactorily, the best procedure involves using a variety of measures. Included could be tests of the reader's ability to:
>
> 1. recall specific facts
> 2. make generalizations
> 3. draw conclusions
> 4. draw inferences
> 5. reorganize and organize ideas. (p. 56)

A review of the Elementary Reading Test by the writer revealed that the basic five reading components as described by Farr were indeed a part of the reading comprehension test.

Hence, the Elementary Reading Test was deemed appropriate as an estimate of each student's reading comprehension.

All answers on the Elementary Reading Test were scored by the central office computer, with the exception of one set of hand scored tests by a classroom teacher. The scores were recorded for the writer of this report by the teachers participating in the study.

Canadian Cognitive Abilities Test (C.C.A.T.)

(Form 1, Level D, Grade 6, 1974)

An estimate of each student's cognitive ability was obtained by using the non verbal section of the C.C.A.T. The non verbal battery required responses demanding abstract reasoning abilities that involved neither words nor numbers, but figure analogies, figure classification, and figure synthesis instead. The test was deemed appropriate by the writer for the purpose of this study as it did not require reading of print. The C.C.A.T. was normed with ten Canadian provinces including Yukon-North West Territories, using a stratified random sample of schools.

The C.C.A.T. was administered to the sixth grade population in January, 1983, by the classroom teachers. The student performance was scored by the Edmonton Public School central office in terms of IQ scores. For the purpose of analysis of data in this study, the C.C.A.T. IQ scores of students were divided into three groups. Group one range of scores = 67-100; Group two range of IQ scores = 101-114; and Group three range of IQ scores = 115-132. The writer's arbitrary decision for such student grouping of scores

was so that for computer purposes, there would be an equal random distribution of students in each IQ group. This grouping was a modification of the IQ score ranges which was determined from the C.C.A.T. manual.

Selection and Analysis of Treatment, Pretest and Posttest Stories

In order to conduct reading instruction in the sixth grade classrooms, suitable reading material needed to be selected. Hence, an investigation of the story content was carried out in both basal readers and language arts series of books at the elementary levels.

Although twelve stories were selected and designed for this research study, only eight of these were actually used in the study. The stories and the method used in selecting them for the study are described below.

The writer established the criteria for selecting all the stories used in this study from reading relevant literature on the selection of classroom reading materials (Cadenhead and Carmichael, 1980; Durkin, 1978; Muise, 1976; Brown, 1971) and in consultation with fellow graduate students in reading. Specifically, the following criteria were used in selecting all the stories:

1. The content should have a high interest potential for sixth graders.
2. Each selection must fall within the readability level of grade 4-8. (At time of testing, students were about to be promoted to grade 7.)

3. The vocabulary level must be at a level appropriate for grade six.
4. The story content must lend itself to teaching a main thought lesson.
5. The ideas and concepts presented in the story should not be of a nature too complex for a sixth grader, i.e. beyond his or her realm of experiences, either direct or indirect, but novel enough to stimulate thinking.
6. There should be a balance between long and short stories selected.
   Long stories were to be those approximately 10-20 pages in length.
   Short stories were to be those approximately 5-10 pages in length.
7. Form of a story must include plot, climax, and denouement.

Rationale for Selecting Narrative Reading Selections

The rationale for selecting narrative rather than expository reading materials was:

1. Prose in the narrative form is used extensively in elementary schools and it is assumed that children are familiar with this format.
2. Stories "usually" contain experiences which students can identify either through personal or vicarious experiences. Hence through the use of stories, the writer hoped to help the student "... link himself with an author's creative treatment of a theme where human

possibilities are revealed, thus enhancing proficiency in reading and personal growth" (Cadenhead and Carmichael, 1979-80, p. 64).

3. Usually in reading narrative the teaching emphasizes understanding of character and analysis of plot, and the "significance of the theme, the writer's purposes ... are neglected" (Jenkinson, 1973, p. 52). In other words, the reader is not helped to relate and integrate what has been learned about the character and the plot in order to realize a main thought for the narrative read. The writer of this study selected narrative so that focus on what is significant in stories but not taught could be emphasized through direct teaching of main thought.

Children's Interest in Narrative

From Norvell's (1958) research on children's interests as cited in Brown (1971) two types of interests were depicted as motivating children in grades four to six to read. Animal stories ranked highest and "... myths, legends and hero tales also were ranked high by both boys and girls" (p. 136). The writer, however, found from the pilot study that while the children did rank animal stories such as "Dangerous Journey" and "Gulliver the Great" as interesting, they ranked "The Nightingale" as "boring" and "uninteresting". While the children found this particular fairy tale to be dull reading, their lack of enthusiasm for fairy tales in general cannot be assumed. The decision by the writer not to use fairy tales, myths or legends in this study was made

then because the particular story considered was found to be uninteresting and thought to be boring for sixth graders. In addition, the majority of the fairy tales considered did not meet the criteria for story selection described previously. Overall, these criteria as described were the writer's subjective appraisal and assessment as well as those of graduate students in reading who are experienced teachers, and they determined the story selections.

Pretest and Posttest Selections

Two comparable stories were selected as the research instrument to provide a measure of the students' performance on producing main thought of the stories read, before and after the treatment period. The story selected for the pretest was "Child of the Silent Night" from The World of Language, Book 4, published by McGraw-Hill Ryerson Limited. For the posttest, "How Helen Keller Learned" was selected from What Joy Awaits You, published by Open Court Publishing Company. Both stories were found in reading series for the intermediate grades. For the purpose of this study the writer administered the adapted story of "Child of the Silent Night" from Muise's study (1976) because she had omitted various paragraphs and sentences in order to have that story similar in content and length to "How Helen Keller Learned".

The decision to administer two different but comparable stories for the pretest and posttest was based on Davis' (1961) argument as cited in Farr (1969), that

> ... if the same form of a test were used more

> than once, a student might remember parts of it on a subsequent trial of the test or he might have even inquired about the test's content between testings. (p. 139)

Hence, to avoid possible practice effect if the same test was used for the pretest and posttest, different stories were used.

While the pre and post stories were "different" in terms of title and authorship they were comparable in the following respects:

1. Similar content;
2. At approximately same readability level;
3. Approximately the same in length;
4. Related to an experience which sixth graders were able to understand in terms of direct or indirect experiences;
5. Similar narrative form in terms of plot, climax and denouement.

Readability Level of Each Narrative

The writer selected the Dale-Chall Readability Formula to ensure that each narrative was within the reading range for sixth grade readers. This particular formula was selected based on Klare's (1968) conviction that "... it is consistently more accurate than others in comparison; though sometimes only slightly so" (p. 22). A grade level for each story was determined by applying the formula to three 100-word samples as suggested in the Dale and Chall (1948) instructions (p. 37). The following table reports the readability level of each narrative selected in this study (Table 4).

Table 4

Readability Levels of Stories Selected as Determined by the Dale-Chall Readability Formula

Story	Readability of Sample 1	Readability of Sample 2	Readability of Sample 3	Average of 3 Samples	Grade Score
*How Helen Keller Learned	5.2	6.0	5.4	5.6	5-6
*Child of the Silent Night	4.9	5.1	5.5	5.2	5-6
The Last Day of September	5.4	4.6	4.4	4.8	4 and below
Gulliver the Great	5.4	5.2	6.1	5.6	5-6
The Tower	5.12	5.0	4.9	5.2	5-6
Out on a Limb	5.9	6.1	6.1	6.0	7-8
**The Nightingale	5.4	5.8	5.0	5.4	5-6
Dangerous Journey	6.0	6.2	6.4	6.2	7-8
Boss Finds a Boy	5.8	5.7	4.6	5.4	5-6
**The Dappled Mare	6.1	5.9	5.8	5.9	5-6
**The Lark and Her Young Ones	5.9	5.8	6.0	5.9	5-6
**Nail Soup	6.3	4.8	5.7	5.6	5-6

** Stories not used in main study

* Pretest/Posttest selection

From the list of twelve stories described in Table 4, eight stories were used for this study of which two stories were used for the pretest and posttest. The remaining six stories were used for instruction in the classrooms of the experimental groups. The decision to exclude three stories ("The Nightingale", "The Lark and Her Young Ones" and "Nail Soup") for instruction was based on the majority of unenthusiastic student reactions to these stories during the pilot study (see Chapter IV). Due to time constraints, "The Dappled Mare" was not used for instruction as originally planned by the writer.

The sources from which the six stories used in the main study were taken are presented below in Table 5 with full bibliographic details given in Appendix B.

Table 5

References of Narratives Used for Instruction

Story Title	Series	Book Level
The Last Day of September	Gage Strategies - Comprehension Strategy 1	4-6
Gulliver the Great	Houghton Mifflin Readers - Bright Peaks	5
The Tower	Allyn and Bacon Inc. - Time and Beyond	6
Out on a Limb	Allyn and Bacon Inc. - The Widening Path	6
Dangerous Journey	L. W. Singer Company - Mountain Peaks	6
Boss Finds a Boy	Harcourt, Brace and World Inc. - First Splendor	6

Designing the Pretest and Posttest

To assess the effectiveness of the direct teaching, the pretest and posttest questions given to the students after having read the story were:

1. What things happened in the story that you think are important? (relevant details)
2. After having read the story, what do you think the author's main or important thought was? Explain.

The rationale for the format chosen for the pretest and posttest questions was based on the cognitive ability involved in producing main thought. To quote Durkin (1978):

> What holds (relevant details and main thought) together under the same umbrella is that all owe their existence to a reader's ability to reason from explicitly stated facts and ideas to something that was not explicitly stated. Since a mental leap is involved, interpretation may require justification. That is, children who offer an interpretation should be prepared to justify it. (pp. 441-442)

Therefore, in pretest and posttest question two, students were asked to justify their main thought answer with an explanation such as providing evidence from the story for support.

Pretest and Posttest Procedure

"Child of the Silent Night" was used as the pretest story, while "How Helen Keller Learned" was used as the posttest story. To minimize memory demands, the story was available to the students for rereading and answering the test questions.

Oral Directions for the Pretest and Posttest

The directions were:

"Read the story silently to yourself. When you have finished reading the story, write down your answers to the two questions on the blackboard.

If you need to reread any part of the story in order to answer a question, you may go back and reread that part.

1. What things happened in the story that you think are important?
2. After having read the story, what do you think the author's main or important thought was? Explain."

Development of Categories for the Pretest and Posttest Student Written Responses

Distinct categories were developed by the writer based on the written responses of students on both the pretest and posttest to the two questions. For both test questions an ideal answer was first established and analyzed in terms of the information provided in the answer for identification. The evaluation of each of the written responses to question one: what things happened in the story that you think are important? was conducted in light of information provided which related to the character and plot in the story. For example, ideal answers which were evaluated as Category 1 type must meet the criteria of including all five of the following details:

1. Main character(s) and/or main subject to account for context in narrative

AND

2. The central conflict (problem)

AND

3. The solution of the conflict (problem)

AND

4. Detail(s) relevant to the central conflict (problem)

AND

5. Details relevant to the solution of the conflict (problem)

The evaluation of each of the written responses to question two: After having read the story, what do you think the author's main or important thought was? (Explain), was conducted in light of information which:

1. Generalized the main subject in the story

AND

2. Generalized the central conflict in the story

AND

3. Generalized the resolution of the conflict in the story

AND

4. Provided an explanation, i.e. included logical reasoning and/or examples from narrative such as relevant detail(s) to support given answer.

Answers for question two which provided all of the above described information were evaluated as the ideal response, were regarded as Category 1 and received a score of 5.

Subsequent to the establishment of the information expected in an ideal answer, criteria to evaluate those answers which deviated from the "best" response were then established. Answers which did not provide the ideal

response were analyzed to be either incomplete or inaccurate and subsequently received a score from 4 to 0. In short, categories were established to account for responses with information varying in degrees of completeness and accuracy and which did not fall in the ideal response category. The categories developed for the pretest and posttest written answers to questions one and two will be described in detail in Appendix D, but a summary is offered here in Tables 6 and 7.

Scoring System for the Categories

The assignment of a numerical value for each category in questions one and two was determined by crediting the ideal response with the highest score. The scoring system for each category in questions one and two is presented in Tables 8 and 9. For question one, the highest score credited to Category 1 was five. For question two, the highest score credited to Category 1 was four. In total then, a total score of nine was possible.

Table 6

Summary of Categories for Evaluating Students' Written Responses to Question One

Category	Description	Score
1	Five details: a) main character(s) and/or main subject b) the central conflict c) the solution of the conflict d) detail(s) relevant to the central conflict e) detail(s) relevant to the solution of the conflict	5
2	Any four of the five details in Category 1	4
3	Any three of the five details in Category 1	3
4	Any two of the five details in Category 1	2
5	Any one of the five details in Category 1	1
6	Five faulty details: a) unacceptable character(s) and/or unacceptable subject b) unacceptable conflict c) unacceptable solution of the conflict d) details not relevant to the central conflict e) details not relevant to the resolution of the conflict	0
7	Any four of the five faulty details in Category 6	0
8	Any three of the five faulty details in Category 6	0
9	Any two of the five faulty details in Category 6	0

Category	Description	Score
10	Any <u>one</u> of the five faulty details in Category 6	0
11	Any <u>four</u> of the five faulty details in Category 6 and <u>one</u> acceptable detail as described in Category 1	0
12	Any <u>three</u> of the five faulty details in Category 6 and <u>two</u> acceptable details as described in Category 1	0
13	Any <u>two</u> of the five faulty details in Category 6 and <u>three</u> acceptable details as described in Category 1	0
14	Any <u>one</u> of the five faulty details in Category 6 and <u>four</u> acceptable details as described in Category 1	0

Table 7

Summary of Categories for Evaluating Students' Written Responses to Question Two

Category	Description	Score
1	a) main subject generalized b) central conflict generalized c) resolution of conflict generalized d) acceptable explanation	4
2	a) same as above b) same as above c) same as above d) unacceptable or omitted explanation	3
3	a) main subject generalized b) central conflict specified c) resolution of conflict specified d) acceptable explanation	3
4	a) same as above b) same as above c) same as above d) unacceptable or omitted explanation	2
5	a) main subject specified b) central conflict generalized c) resolution of conflict generalized d) acceptable explanation	
6	a) same as above b) same as above c) same as above d) unacceptable or omitted explanation	2
7	a) main subject specified b) central conflict specified c) resolution of conflict specified d) acceptable explanation	3

Category	Description	Score
8	a) same as above b) same as above c) same as above d) unacceptable or omitted explanation	2
9	omitted one or more of the following: a) main subject b) central conflict generalized and/or its resolution generalized c) central conflict and/or its resolution specified and included d) acceptable explanation	1
10	omitted one or more of the following: a) same as above b) same as above c) same as above and included d) unacceptable or omitted explanation	0
11	any one or more of the following faulty information: a) main subject identified was faulty b) central conflict generalized or specified was faulty c) resolution of conflict generalized or specified was faulty d) acceptable explanation	0
12	any one or more of the following information: a) same as above b) same as above c) same as above d) unacceptable or omitted explanation	0

Table 8

Scoring System for Categories to Question One

Category	Scores
1	5
2	4
3	3
4	2
5	1
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0

acceptable answers

unacceptable answers

4 unacceptable
1 acceptable

3 unacceptable
2 acceptable

2 unacceptable
3 acceptable

1 unacceptable
4 acceptable

Total = 5

Table 9

Scoring System for Categories

to Question Two

Category	Scores
1	4
2	3
3	3
4	2
5	3
6	2
7	3
8	2
9	1
10	0
11	0
12	0
	Total = 4

Treatment Procedure for Main Study

The writer conducted her research during the period of April 18 to May 16, 1983, in four grade six classrooms. Two grade six classrooms from two different schools were taught by the writer from which students were selected for the experimental groups. For reference purposes, these groups were designated as experimental groups one and two. Two other grade six classrooms from the same school were also taught by the writer from which students were selected for the control groups. Again, for reference purposes, these groups were designated as control groups three and four. All four grade six classrooms, then, received instruction from the writer.

The assignment of the two classrooms as the control groups was agreed upon between the writer and the teachers concerned prior to the research. The teachers from these two classrooms agreed to participate in the writer's research only if their regular reading programs were continued by the writer. Hence, the two classrooms where the regular reading programs were continued, the writer assigned as control groups.

Instructional Schedule

To ensure that the time of day that the reading lesson was taught would not affect the results of the study, the writer arbitrarily chose morning to teach the control groups and afternoon to teach the experimental groups for two weeks. For the remaining two weeks, the writer taught the experimental groups in the morning and the control groups in

the afternoon. The instructional schedule for the control and experimental groups may be found in Table 10.

Table 10

Instructional Schedule

for Experimental and Control Groups

Time (April 18-29, 1983)	Classroom
Morning	
8:55 - 9:30	Control Group #3
*9:30 - 10:10	Control Group #4
Afternoon	
1:15 - 1:55	Experimental Group #2
2:30 - 3:10	Experimental Group #1
(May 2-13, 1983)	
Morning	
9:40 - 10:15	Experimental Group #1
10:30 - 11:05	Experimental Group #2
Afternoon	
1:00 - 1:35	Control Group #4
*1:35 - 2:15	Control Group #3

*As Control Groups #3 and #4 were in the same school, no time was lost in moving from one classroom to the next.

Instruction of Experimental Groups One and Two

The framework for the direct teaching of relevant details and main thought was developed from ideas garnered from Durkin (1978), McPike (198 and Pearson and Johnson (1978). From Durkin, teacher behaviors which are related to

reading comprehension were identified and implemented as part of the teaching framework for this study. From Pearson and Johnson, specific direct teaching strategies for teaching reading comprehension were also incorporated into the instructional framework. Finally, from McPike, the strategies which children in her study found effective in producing main thought were identified for the students in this study to help them produce main thought of stories read. Details of the framework along with the instructions given to Experimental groups one and two are fully described in Chapter IV.

Instruction of Control Group Three

Below is a general description of the sequencing of instruction outlined in Developing Comprehension in Reading by Thomas and Warren (1968, p. ix) and implemented by the writer with discretion.

1. Assigned silent reading of selected story.
2. Assigned the answering in writing of questions located in Developing Comprehension in Reading following story.
3. Checked the written answers with students.
4. Discussed each answer with students.
5. Decided which student answer was correct. Student had to support his answer from the story. Students also had to show why other answers were not acceptable or less desirable. It should be noted that the writer viewed that the advocated instruction in Developing Comprehension in Reading was to regard the student's

answer as either correct or incorrect. However, the writer in implementing the reading instruction accepted the student's answer as acceptable when a reasonable explanation was provided.

The writer of this study commenced work with the group on story 26 (stories were purposely numbered because choosing a title was one of the skills taught) on the first teaching day and concluded with story 32 on the last teaching day. In total then, seven stories were taught to these students in Control Group three. Each story required from two to three teaching days for completion.

Instruction of Control Group Four

For Control Group four, the reading text used during the period the writer was conducting her research was Starting Points in Reading C, Second Book, published by Ginn, 1975. In total, eight stories were taught to the students in the order listed below:

1. The Row, p. 9
2. Freaky Friday, pp. 11-22
3. The Watchers, pp. 24-29
4. My Brother Stevie, pp. 32-43
5. The Story of Cholmondely the Chimp, pp. 176-183
6. Hockey Fever in Goganne Falls, pp. 208-235
7. Split Nolan, pp. 94-105
8. The Substitute, pp. 133-143

The sequencing of each lesson was conducted following the teacher's manual on page x. Once again, as in the instruction given to Control Group three, the writer

implemented the suggestions from the teacher's manual with discretion. A summary of the sequencing of the reading lessons is described below:

1. Preparing students for story such as discussions on background of story, setting purpose for reading and introduction of new vocabulary.
2. Discussing content of story such as having students recall details, drawing inferences, inferring feelings, speculating and comparing characters.
3. Expressing what has been learned from story in creative writing such as poetry and stories.

Other than the idiosyncratic differences between the writer and the teachers from Control Groups three and four, the students received their "regular" reading instruction.

Overall, the regular reading program already in use was maintained for the control groups, while a special reading program devised by the writer was given to the experimental groups. The writer's decision to continue with the reading texts already in classroom use rather than to devise her own teaching unit for the control groups was based on an agreed upon arrangement made with the teachers concerned. Because the writer's research was to take up four weeks of reading time, the teachers expressed concern that they would not have sufficient time remaining before school ended in June to adequately cover the intended reading lessons of their programs. As the researcher was conducting her research from mid-April to May (a hectic time for teachers who are trying to meet their objectives before

June), getting schools at this particular time to agree to participate in the research was difficult. Consequently for the control groups the researcher continued with the "regular" reading instruction normally conducted by the classroom teachers to ensure adequate coverage of the reading material before year end.

What distinguished the instruction given to the experimental groups and the control groups was the emphasis of direct teaching of main thought to the former groups. While main thought was occasionally mentioned during the reading lessons in the control groups, the writer's teaching of main thought followed what was suggested in the reading textbooks and was not systematic nor discussed in depth as in the experimental groups.

Analysis of the Data

Data for analysis were obtained from the written pretest and posttest administered to the control and experimental groups. Categories were developed by the writer based on the students' written responses in the pretest and posttest. The construction of the pre and post tests along with the developed categories are found in detail in Chapter IV. Subsequent to the development of the categories the writer ranked each category in terms of an assigned score. The pretest and posttest data were analysed as stated in Chapter I.

Analysis of data was computed using two and three way analyses of variance with repeated measures. The interaction

effect (one of the statistical values resulting from the analysis of variance) was used in determining whether the four variables: 1) direct teaching, 2) reading achievement, 3) sex difference, and 4) cognitive ability, had an effect on the differential increase in achievement scores between the experimental and control groups.

Chapter Summary

There were 78 sixth graders selected from a population of 105 students in four grade six classes in the Edmonton Public School District. The selected sample for this study was assigned to three reading achievement groups as determined by the reading comprehension achievement score from the Edmonton Public School Elementary Reading Test, Grade Six (1980). This test was administered to the students by the schools in May of 1983. From the test, three reading achievement groups for the purpose of this study were formed; namely, reading groups A, B, and C.

The treatment applied to the experimental groups was the direct teaching of relevant details and main thought using narrative found in basal readers and reading series which were prescreened by the writer for suitability in terms of content, length and readability. For the control groups, the writer used the reading text already in classroom use and continued with the reading lessons as normally conducted by the classroom teachers. Specific lesson plans for the experimental groups were designed by the writer adapting suggestions from literature on teaching reading comprehension

and teaching of main thought in narrative.

The research study was conducted over a one month period. In determining the effects of the treatment applied to the experimental groups, a pretest and posttest were designed by the writer and administered to both groups prior to the teaching and on the last teaching day. Subsequent to the teaching lessons, the pretest and posttest answers were analyzed in terms of the types of written responses given by the students. Categories were developed by the writer based on the written responses from the pretest and posttest. Finally, a score was assigned to each category in order to rank each written response. Other than the analysis of whether the specific treatment affected the students' performance to produce main thought for narrative, the variables of sex and cognitive ability were also taken into consideration. The Canadian Cognitive Achievement Test (non verbal score) administered to the sixth graders by the schools in January, 1983, was used to determine the students' IQ scores. Statistical treatment of the data consisted of two and three-way analyses of variance, with repeated measures.

CHAPTER IV

CONSTRUCTION OF THE RESEARCH INSTRUMENT

Overview of Chapter

This chapter has identified the sources of information related to the development of the direct teaching strategies used in this study. Specifically, the ideas for developing the teaching methodology in this study were gleaned from:

1. Durkin's (1978) categories of teacher behavior in terms of reading comprehension.
2. Pearson and Johnson's (1978) concept of direct teaching.
3. McPike's (1983) research on:
   a) what information students consider important in narrative.
   b) how students produce main thought in narrative.

The development of lessons incorporating the sources of information derived from Durkin, Pearson and Johnson, and McPike into the direct teaching studies has been discussed in this chapter. Finally, the pilot study has been discussed.

Development of the Direct Teaching Strategies

The literal definition of the concept of direct teaching as defined by the writer in Chapter I, was: "Any teaching-learning method (inductive method) in which the students are given systematic and sequential instruction to help them to

identify the relevant details and to produce main thought of a narrative". An operational definition on how direct teaching as a "teaching-learning method" used in this study was established will be discussed.

Because Durkin's (1978) research revealed that the state of teaching reading comprehension in the classrooms she studied was characterized as no teaching in light of her definition of comprehension instruction, ideas were noted regarding how Durkin perceived comprehension instruction. Durkin's definition of comprehension instruction provided a point of departure for instruction for the writer in that she identified related categories of teaching comprehension. However, Durkin's category which related to comprehension instruction was stated in general rather than specific terms. In other words, the writer found it very difficult to implement Durkin's comprehension instruction based only on her definition. What the writer of this research needed were specific operations describing the behaviors related to "direct teaching". Subsequent to arriving at a general framework for expected teacher behavior related to comprehension instruction, the writer used the operational definition on direct teaching advanced by Pearson and Johnson (1978) which will be discussed later in this chapter. Overall, an integration of ideas from Durkin and Pearson and Johnson provided direction in the development of the framework used in this experimental study.

As the purpose of this experimental study was to investigate whether direct teaching would help the students

to attend to relevant details and produce main thought in narrative, subsequent to the establishment of the teaching framework, research concerning how students produce main thought in narrative was studied. The writer reasoned that an understanding of how students who successfully produce main thought would help in providing means for other students to produce main thought successfully.

Recent research by McPike (1983) provided an understanding for the writer of not only how students produced main thought but also what information they deemed important for producing main thought in narrative. These findings helped to know what to focus on in direct teaching lessons to help students attend to important information (relevant details) and to help produce main thought in narrative.

The following sections will discuss the background information which shaped the teaching strategies designed for this study:

Comprehension instruction with special reference to Durkin (1978) and to Pearson and Johnson (1978).

Information students consider important in narrative.

How students produce main thought in narrative.

Teacher Behavior in Terms of Reading Comprehension

According to Durkin (1978) teacher behavior identified in terms of reading comprehension may be classified in eight categories. These categories are:

1. Comprehension: instruction
2. Comprehension: review of instruction
3. Comprehension: application
4. Comprehension: assignment

5. Comprehension: help with assignment
6. Comprehension: preparation for reading
7. Comprehension: assessment
8. Comprehension: prediction (p. 492)

Durkin's definition (p. 488-491) of the teacher behavior in each of these categories exhibiting comprehension instruction will be described below.

1. Comprehension: instruction

> Teacher does/says something to help children understand or work out the meaning of more than a single, isolated word. (p. 488)

Durkin offered the following examples as to what the teacher might say or do as comprehension instruction with paragraphs (or more). She suggested:

> Using a paragraph that describes a person, teacher asks children to read it and, as they do, to try to get a mental picture of the person. Once the (description of the) person is discussed, the paragraph is read in order to decide what details were omitted. Using additional paragraphs in a similar fashion, teacher encourages children to picture what is described whenever they read. (p. 489)

As a second example, Durkin suggested:

> Asking a question that may or may not be answered in a given paragraph, teacher directs children to read it until they (have) the answer. Children who think they found it are asked to give the answer and to tell why they think it does answer the question. Answers are also analyzed to see whether they can be shortened and still be correct. (p. 489)

2. Comprehension: review of instruction

> Teacher goes over earlier comprehension instruction. (p. 491)

3. Comprehension: application

> Teacher does/says something in order to learn whether previous instruction enables

children to understand the meaning of connected text not used in that instruction. (p. 488)

Durkin's example of application follows:

> Subsequent to instruction that shows how (their own personal) experiences help readers to comprehend, the teacher has children tell which of (the two) events mentioned in sentences occurred first, based on their own experiences (e.g. Anne hurt her knee when she fell. They ate too much candy and got sick.) (p. 488)

4. Comprehension: assignment

   Teacher gives written assignment concerned with comprehension. (p. 491)

5. Comprehension: help with assignment

   Teacher helps one or more children with comprehension assignment. (p. 491)

6. Comprehension: preparation for reading

   Teacher does/says something in order to prepare children to read a given selection -- for instance, identifies or has children identify new words; poses questions; relates children's experiences to selections; discusses meanings of words in selection. (p. 491)

7. Comprehension: assessment

   Teacher does/says something in order to learn whether what was read was comprehended. Efforts (as suggested by Durkin) could take a variety of forms -- for instance, orally posed questions; written exercises; request for picture of unpictured character in a story. (p. 490)

Durkin distinguished interrogation that is a part of instruction from interrogation that is assessment in that the former requires children to prove or show why they thought an answer was correct. For example, students are helped to realize why an answer is acceptable by going back to the content of the story for support of answer.

8. Comprehension: prediction

> Teacher asks for prediction based on what was read and understood. (p. 491)

For example, students are helped to guess what might happen in the story based on known information.

Overall, Durkin's categories of teaching behavior related to reading comprehension were focused on how to help students learn to read for understanding. Clearly Durkin's categories emphasized the responsibilities expected of a reading teacher. It is the aspect of having teachers "teach" during the reading lesson that provides a sharp contrast to the teachers in Durkin's study who were identified as assessors and assigners. According to Durkin, how a teacher might "teach" reading comprehension is by saying or doing something to help children understand what they read (p. 488). It is the "something" which the teacher is to say or do which the writer found vague in terms of operationalizing teaching comprehension instruction in the classrooms for this study. Therefore a discussion follows on the direct teaching of comprehension as propounded by Pearson and Johnson (1978).

Despite the controversial issue of whether reading comprehension is teachable or not, Pearson and Johnson (1978) "... contend that comprehension can be taught directly ..." (p. 4). Teaching Reading Comprehension, a book published by Holt, Rinehart and Winston (1978), reinforces the authors' conviction that reading comprehension is teachable. No doubt the authors' teaching experience in

reading provides support for their conviction that reading comprehension is teachable. Moreover, it is Pearson and Johnson's belief that reading comprehension, "... while a complex and integrated process, lends itself to analysis" (p. 230). In short, it is in the analyzing of the process of reading comprehension that Pearson and Johnson believe is helpful to understanding the process of teaching reading.

Pearson and Johnson offered the following suggestions as to how reading comprehension can be taught directly. Explanatory notes by the writer of this study have been added.

1. "Model comprehension process for students."
   For example, the teacher might
   a) recall/compare (you know what that reminds me of?)
   b) predict/justify (I think that such and such will happen because ...)
2. "Provide (graphic) cues to help students understand what they are reading."
   For example, the teacher might draw the students' attention to the emphasis of a word in a sentence by asking, "Why do you think the word has quotation marks surrounding it?"
3. "Guide discussions to help students (be more aware of) what they know."
   For example, the teacher might remind students of problems and solutions they have either experienced or have read about.
4. "Ask pointed, penetrating, or directional questions

(to advance students' comprehension abilities)."

5. "Offer feedback (both informational and reinforcing) at the appropriate time (to inform student whether or not he is comprehending what he has read)."
6. "Generate useful independent practice activities (that would provide opportunities for student to transfer reading skill learned to another situation)."

(Pearson and Johnson, 1978, p. 4)

Pearson and Johnson's direct teaching practices were regarded by the writer as the possible "something" which Durkin referred to as what a teacher might say or do to help students understand the printed text. Moreover, it seemed to the writer that Pearson and Johnson's concept of direct teaching did not contradict Durkin's view of reading comprehension instruction. The commonalities between the views of reading comprehension instruction of Pearson and Johnson and Durkin's were: one, the responsibility of the reading teacher was to "teach", and two, the objective was to help students comprehend what they read. Hence, the writer regarded Pearson and Johnson's direct teaching practice as a complement to Durkin's definition of comprehension instruction.

Overall, the general framework underlying the lesson plans for this study was developed based on Durkin's eight categories of teacher behavior related to reading comprehension. In addition, Pearson and Johnson's direct teaching strategies were incorporated as part of the instructional practice for this study. Having developed

this general framework for the lesson plans, the writer then turned to a study of what information students consider important in narrative.

Information Students Consider Important in Narrative

McPike's (1983) research reported children (in her study) attended to information in narrative which related to character and plot. The reasons given by the children for regarding information in narrative as important were:

1) it provided a base for inferring character
2) it established the central conflict or led to the solution of the conflict
3) it created suspense and foreshadowing
4) it stated a main action

(McPike, 1983, p. 217)

Implications for the teaching of relevant details in the study reported here were drawn from McPike's findings on what information students considered important in narrative. The focus of the direct teaching in narrative by the writer was on drawing the students' attention to information related to the character and plot of the narrative. That is, the writer directed the students' attention through questioning and discussion to information related to the central conflict and resolution of that conflict. Such information was considered as relevant details by the writer. To reiterate the writer's definition of relevant details as stated earlier in Chapter I: "Relevant details are the facts and ideas that develop, describe, explain and limit the main thought of a passage". Hence, information related to the character and plot of the

narrative was considered as relevant details because they are indeed the "facts and ideas that develop, describe, explain and limit the main thought of a passage".

Having made this decision the researcher turned to a consideration of how students produced main thought in narrative (McPike, 1983).

How Students Produce Main Thought in Narrative

McPike's (1983) study revealed that the most effective strategies used by the students for producing main thought in narrative were:

1. Imaging

   For example, mentally imagine the experience or actually taking part in the story.

2. Establishing major character with the major event

   For example, telling who the story was about.

3. Cueing on plot

   For example, establishing the main character, defining the internal conflict of the character and the resolution of conflict.

Implications for this study for an operational definition of main thought in narrative were derived from McPike's findings on how students produce main thought in narrative. If the students in McPike's study used the above strategies to produce a main thought in narrative which was indicative of a central insight or general idea about life, it seemed reasonable and desirable to use them in direct instruction of students in this study.

Because it appeared that the students searched for a central insight or general idea about life which accounted for the character, his problem and resolution generalized in the narrative as a main thought, the writer defined main thought in terms of how the students operated to produce main thought in narrative. Thus, an operational definition of main thought for narrative, in this study, was defined by the writer as "a 'central insight' or 'general idea' about life which accounted for a) main subject in narrative generalized, b) main character's conflict (problem) generalized, and c) the resolution of character's conflict (problem) generalized" (Chapter I).

The three strategies mentioned: imaging, establishing major character with the major event and cueing on plot were also incorporated as part of the direct teaching instruction. In other words, because these strategies appeared effective in helping students to produce main thought in narrative, the writer reasoned that helping students realize and use these strategies may also prove effective ~~to~~ produce main thought in narrative.

The reason for defining main thought in operational terms was to help the students better understand the underlying structure of main thought in narrative and thereby structure their selection of information through employing certain strategies to help them produce main thought. More importantly, an operational definition of main thought would help the students to arrive at a main thought through systematic means rather than by serendipity.

In short, teacher behavior such as showing the students the underlying structure of main thought as well as showing them how to structure the selection of information constituted what the writer viewed as a teaching-learning method or a "direct teaching" method.

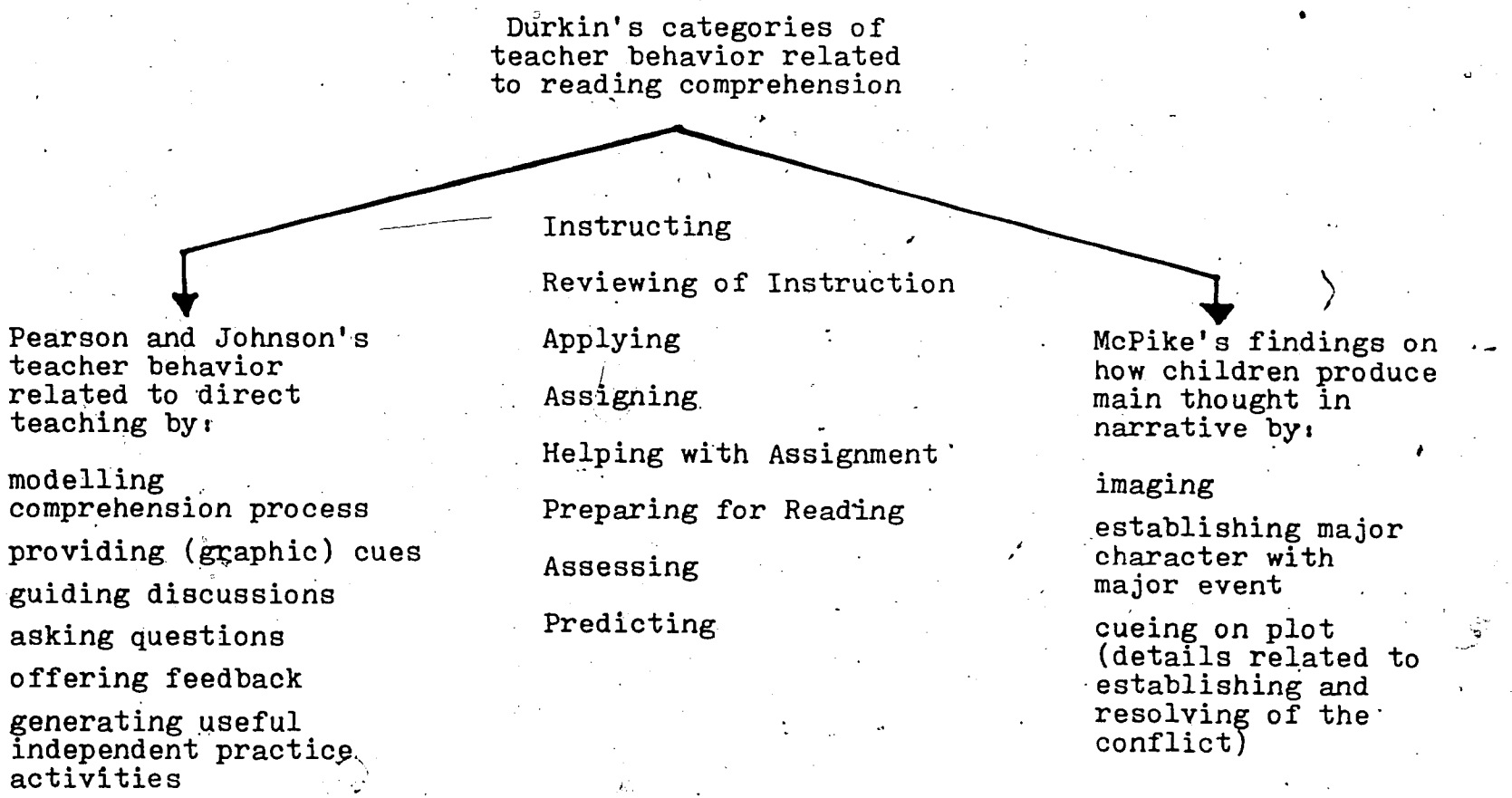
In Figure 2 an illustration of the direct teaching framework of this study is presented. Under the umbrella of teacher behavior related specifically to reading comprehension as defined by Durkin (1978) are Pearson and Johnson's (1978) direct teaching strategies as well as the strategies children use for producing main thought (McPike, 1983). The ideas gathered from Pearson and Johnson and McPike are related to the "how" to instruct children and therefore act as a complement to Durkin's definition of comprehension instruction. With reference to Figure 2, it should be noted that Durkin's predicting category is one teacher behavior Pearson and Johnson regard as modelling comprehension process.

Development of Lessons Using Direct Teaching Strategies

To provide an illustrative sample of how the direct teaching strategies were implemented in the classroom during the main study the teaching that occurred on the first day will be presented in this section describing how Ester Wier's "Boss Finds a Boy" was taught. In total, three teaching days were used for the completion of the story, a common time schedule for most stories used in the main study. It should be noted that only a summary of the teaching method is

Figure 2

Direct Teaching Framework



presented in Table 11. How the writer conducted each teaching lesson for "Boss Finds a Boy" is described in detail in Appendix C.

Table 11

Summary of Direct Teaching Method for "Boss Finds a Boy"

Lesson	Teacher Behavior	Student Behavior
Day 1	Preparing for reading one section of story: - guiding discussions - asking questions (assessing) - providing feedback - providing cues	Student reading portion allotted silently Imaging details Cueing on plot
	Instructing - asking questions (assessing) - providing feedback - providing cues - guiding discussions	Cueing on plot
	Preparing for reading next section: - modelling; predicting - asking questions (assessing) - providing feedback	Student reading portion allotted silently Imaging details Establishing major character with major event
	Instructing - providing cues - modelling - guiding discussions - asking questions (assessing) - providing feedback - generating practice activities - helping with assignment	Imaging details Cueing on plot Establishing major character with major event
	Reviewing of Instruction	

Lesson	Teacher Behavior	Student Behavior
Day 2	Reviewing of the previous day's discussion on story by: - asking questions (assessing) - providing feedback	Cueing on plot Establishing major character with major event
	Preparing for reading next section: - asking questions (assessing) - providing feedback - guiding discussions - modelling	Student reading portion allotted silently Imaging details Cueing on plot
	Instructing - guiding discussion - modelling - asking questions (assessing) - providing feedback - generating practice activity - helping with assignment	Imaging details Cueing on plot Establishing major character with major event
	Reviewing of story discussion	
Day 3	Reviewing of the previous day's discussion on story by: - asking questions (assessing) - providing feedback	Student reading portion allotted silently Imaging details Cueing on plot Establishing major character with major event
	Instructing - asking questions (assessing) - providing feedback - providing cues - guiding discussions - predicting - modelling - generating practice activity - helping with assignment	Cueing on plot Imaging Establishing major character with major event
	Summarize story read by reviewing day 1 and day 2 story discussions and helping students to realize how identification of plot (relevant details) helps to produce main thought of story read.	

Pilot Study

A pilot study was conducted in June, 1982, involving two grade six classrooms from the Edmonton Public School System. Fifty-two sixth graders participated in this pilot study. The writer taught the two grade six classes daily for sixty minutes during their regular reading period from June 7 to 11 for five school days. Prior to the study the teachers had identified to the writer the students whom they regarded as "high", "average" and "low" achievers in reading. This classification was based on the teachers' observations of daily performance as well as on consideration of their recorded test results.

Purpose

The purposes of this pilot study were as follows:

1. To select from among the six stories those which the students identified as most interesting and suitable as to reading level for grade six average achievers in reading.
2. To develop sensitivity to suitability of strategies for direct teaching of relevant details and main thought in narrative to grade six students.
3. To determine the feasibility of using the pretest and posttest questions:
   a) What is the story about?)
) (relevant details)
   b) What happened in the story?)
   c) What is the main thought that the author is saying in the story?) (main thought)

4. To develop criteria for marking students' responses to the questions above in number 3.
5. To familiarize the writer with any other problems which might arise in the main study.

Materials

The stories used for instructional purposes in the pilot study were:

1. Friebele, Mary Louise (Aesop's Fables). "The Lark and Her Young Ones". In Leavell, Ullin W. Widening Horizons. New York: American Book Company, 1956, pp. 182-184.
2. Kowalski, Christine. "Nail Soup". In Jacobs, Leland B., Johnson, Eleanor M., and Turner, Jo Jasper. Adventure Lands. Columbus, Ohio: Charles E. Merrill Books, Inc., 1966, pp. 66-69.
3. Wier, Ester. "Boss Finds a Boy". In Stygley, Sara Krentzman and Early, Margaret. First Splendor. New York: Harcourt, Brace and World, Inc., 1968, pp. 85-96.

The stories distributed to the students for their responses in terms of suitable reading level for average achievers in reading and interest were:

1. Andersen, Hans Christian. "The Nightingale". In Witty, Paul A., and Freeland, Alma Moore. Treasure Gold. Boston: D. C. Heath and Company, 1964, pp. 233-242.
2. Dyer, W. A. "Gulliver the Great". In Bright Peaks. Boston: Houghton Mifflin, 1957, pp. 277-286.
3. Kjelgaard, Jim. "Dangerous Journey". In Sebesta, Sam Leaton, Iverson, William J., and DeLancey, Floy Winks.

Mountain Peaks. New York: The L. W. Singer Company, Inc., 1968, p. 206-223.

Students were asked to answer the following questions after completion of stories:

1. Did you like the story?
   Explain why you liked or disliked the story.
2. Did you find the story easy or difficult to read?
   Explain.

Each story was checked using the Dale-Chall Readability Formula to determine the approximate grade level of difficulty. The stories were rated at the 4-8 grade level of difficulty and were, therefore, assumed to be within appropriate reading range for average sixth grade achievers in reading who were at the year end of the reading program.

Procedures

Five lesson plans were developed for the three stories. "Boss Finds a Boy" was divided into three teaching days due to its length. "The Lark and Her Young Ones" was read on the fourth day and "Nail Soup" was read on the fifth day by the students. Each teaching day was linked together by reviewing discussions from the previous day and students were helped to realize how attending to relevant details in the story helps to produce main thought of the story read.

The sources from which information and ideas were gathered and integrated in formulation of the direct teaching strategies were from Durkin (1978), Pearson and Johnson (1978) and McPike (1983). Overall, the procedure was to help students through direct teaching how to identify

relevant details and produce main thought in narrative.

Pretest and Posttest

"Boss Finds a Boy" was given as the pretest on the first day and "Nail Soup" was given as the posttest on the fifth day. Because the two stories used in the pretest and posttest were not comparable in nature the results could not be compared. However, the stories were useful in determining their suitability in terms of interest and reading difficulty for average grade six achievers in reading.

Oral Directions for Pretest and Posttest

"Read the story silently and write down your answers to the following questions:

1. What is the story about?)
2. What happened in the story?) (relevant details)
3. What is the main thought that the author is saying in the story? (main thought)"

Results

Since two different stories were used the pretest and posttest results cannot be directly comparable as they would be in the main study where two comparable stories were used after an interval of one month. Moreover, the results from "Nail Soup" were questionable because the story was familiar to the students. Both grade six classes indicated that they had either read a similar story titled "Stone Soup" or had seen a dramatization of the story.

An analysis of the written responses revealed that the students generally provided the same answer to the questions:

What is the story about? and What happened in the story? For example, in answering question one, a student wrote, "A boy who was alone in the world and was found by a woman named Boss". For question two, he wrote, "A boy was alone in the world and Boss found him alone in the fields". The writer expected students to provide information related to the character and plot of the story for question one which they did. However, for question two, the writer expected students to provide information related to the conflict (problem) and resolution of the conflict (problem) in the story. Instead, students tended to provide information of either "everything" that occurred in the story or only one isolated incident regardless of its relevance to the story as a whole. The writer concluded that the two questions seemed to be redundant or confusing for the students. Hence the writer developed new questions to take into account the expected information.

Because the writer was left to infer from the responses to the main thought question whether students had utilized most relevant or least relevant details to arrive at a main thought, an explanation from the students was required. The revised question asked: "After having read the story, what do you think the author's main or important thought was? Explain." Both revised questions emphasized the importance on regarding how the students think. Adding the phrase "What do you think" with reference to the student's opinion may well lessen the likelihood of students to guess what answer was expected from the teacher. Moreover, since an

opinion was asked, students might respond more freely and feel less inhibited in providing an answer than providing answers to questions which have either a right or wrong response. The revised test questions were given to three graduate students in reading to assess whether the test questions were phrased appropriately for the purpose of this study. The three graduate students concurred with the writer's opinion that the test questions were phrased appropriately for the purpose of this study.

Based on a survey of responses from the two grade six classes the following stories generated the most interest and were therefore utilized in the main study.

1. "Boss Finds a Boy"
2. "Dangerous Journey"
3. "Gulliver the Great"

Chapter Summary

This chapter has identified the sources of information used in the study for the designing of the research instrument. It has discussed: teacher behaviors related to comprehension instruction as defined by Durkin (1978), the direct teaching strategies of Pearson and Johnson (1978), McPike's (1983) findings on how children produce main thought in narrative, what information they considered important, and their relevance in designing the direct teaching strategies used by the writer. An illustrative sample of one lesson plan conducted over three days for "Boss Finds a Boy" was presented to demonstrate how the direct teaching

strategies were actually implemented in the classrooms. Lastly, the pilot study presented an overview of how the administrative techniques and the pretest and posttest instrument were refined for the study.

CHAPTER V

FINDINGS AND DISCUSSION

The purpose of this study was to investigate whether direct teaching of relevant details and main thought in narrative to grade six students would enable them to more effectively produce main thought. In order to achieve the purposes set for this study, hypotheses were formulated, and tested on the basis of $p < .10$ level of acceptable significance (Kohout, 1974, p. 253). The writer's decision to reject the null hypothesis at the .10 level was based on the small sample size of data. For example, in some instances, some reading achievement groups contained only eight students, too few students for a more rigorous level of significance.

To test whether the direct teaching made a difference, the posttest scores in the experimental reading achievement group where the direct teaching was applied were compared to the posttest scores from the comparable control groups where the direct teaching was not applied. In other words, the writer was interested in investigating whether there would be a differential increase of achievement scores in the experimental group. Hence, the control group provided a baseline against which the other, the experimental group, could be compared.

Two-way and three-way analyses with repeated measures of variance were used to test whether there was a significant

increase in the posttest achievement scores between the experimental groups and the control groups. The analysis of variance enabled the writer to compare simultaneously the pretest and posttest achievement scores between the experimental and the control groups. (Garlington and Shimota, 1964; Huck et al., 1974) In essence, the two-way analysis of variance was used to compare simultaneously the performances of the experimental and the control groups' pretest and posttest achievement scores on whether or not an interaction existed ($p < .10$) between two or more of the variables described below:

1. direct teaching of relevant details and main thought in narrative;
2. reading achievement as stratified by the Edmonton Public School Elementary Reading Test;
3. cognitive ability as determined on the non verbal C.C.A.T.;
4. Sex (male or female).

In Table 12, a summary of the students' average scores on the pretest and posttest is presented for reference by reading achievement groups. Each student's scores on the pretest and posttest are reported in full in Appendix G.

At this point, the writer deemed it appropriate to briefly report what was observed during her teaching in the experimental classrooms for this study in light of the summary scores presented in Table 12. With reference to the relevant details question (Q1), an increase from 2.45 to 3.45 out of a possible score of five was reported for the

Table 12

Summary of the Experimental and Control Groups' Average Scores on Q1 and Q2 of the Pretest and Posttest by Reading Achievement

Reading Achievement Groups	No. of Students	Average Scores on Pretest for *Q1	**Q2	Average Scores on Posttest for Q1	Q2
Experimental A	11	2.45	2.45	3.45	2.09
Experimental B	19	2.21	1.78	2.89	1.94
Experimental C	15	1.66	1.46	2.33	1.13
	N = 45	2.11	1.90	2.89	1.72
Control A	8	2.37	0.62	2.37	1.00
Control B	15	1.93	1.46	2.13	0.93
Control C	10	2.00	1.40	2.10	1.20
	N = 33	2.10	1.16	2.20	1.04

Total N = 78

*For Q1 total possible score of 5

**For Q2 total possible score of 4

high reading achievers. This increase in achievement scores seemed to reflect the change from the students' earlier and later responses as time progressed with the teaching of relevant details identification. Initially students responded to the relevant details question by recalling one isolated incident or recalling all the details regardless of their significance to the story. Gradually the students were

noted to respond with details which provided information on the character, the character's problem and how the character resolved his problem. Such answers reflected the students learning from the teaching of relevant details identification which focused the students' attention to the character, his problem and its resolution. For illustrative purposes, the writer has selected from the high reading achievers' group, which demonstrated a significant increase in achievement scores, two student samples to contrast the before and after instruction answer.

Pretest answers to the relevant details question:
("Child of the Silent Night")

S1: "I think that the fact that Laura learned how to use letters and her hands to spell and write is important and also that Dr. Howe and his sister did not give up."

S2: "Laura was able to identify objects with her hands. She learned how words were spelled and the manual alphabet. Then she realized that this was the way of identifying objects."

Posttest answers of the same subjects:
("How Helen Keller Learned")

S1: "Some important happenings in the story are, the girl's illness, how she learned things from her teacher, like braille and how she learned to speak."

S2: "Some of the main things in the story are that Helen Keller was blind and deaf and she could not speak. At first she made motions to express how she felt. A teacher came to help her. Her name was Miss Sullivan.

She taught her to talk with her hand. Then she taught her to spell in Braille which is raised letters. Then a lady whose name was Miss Fuller taught Helen to speak. Her first words were 'It is warm'."

An improvement between S1 and S2 answers from the pretest to the posttest on the relevant details questions can be noted. Both students improved on their posttest answer by providing not only isolated details as was the case in the pretest answer but by relating the details to the character, the character's problem and how the character resolved her conflict. In other words, the subjects were selecting relevant details not just details. The fact that the high reading achievers increased in scores from 50 percent to 75 percent seemed to indicate that those who were achieving at the 75 percent could have a better chance of successfully producing a main thought in narrative.

With reference to the main thought question (Q2), an increase from 1.78 to 1.94 out of a possible score of four was reported for the average reading achievers. While this increase in achievement scores was reported to be statistically significant, the findings indicated that the direct teaching of main thought was not the main effect in causing the differential increase in scores between the experimental and control groups. (Refer to the findings on null hypothesis 7b.)

Considering the increase of scores on the main thought question (from 1.78 to 1.94) was less than 50 percent since a score of four was possible, less than half of the average

achievers were not successful in producing a main thought. This relatively small increase in achievement scores on the main thought question indicated that students were generally not successful in producing a main thought.

Observations made by the writer during her teaching of main thought in the classrooms concurred with the finding here. The students had difficulty expressing in words a main thought for the stories read. Their explanations for a main thought answer were vague or not related to the story. Some students tended to focus on one isolated incident in the story while others confused the content of the story as a main thought. Overall the problem for the students was that they were unable to generalize from the specific details in the story to produce a main thought. However, as time progressed with the teaching of main thought generally students were able to successfully produce a main thought but only when the writer probed the students further to relate what was learned (relevant details) and how to use that information to produce a main thought. The writer found modelling, a direct teaching strategy advocated by Pearson and Johnson (1978), most helpful for the students. That is, the writer gave an example of how she formulated a main thought for a story thus leading the students through the thinking process involved in how a main thought may be produced.

For illustrative purposes, the writer has selected from the high reading achievers' group, two student samples to contrast the before and after instruction answer.

Pretest answers to the main thought question:

("Child of the Silent Night")

S1: "To learn what you can it will benefit in the futur If you learn new languages and different types of writing it will help you in your life."

S2: "Even though she was deaf and blind, she could stil understand and learn. The author may be trying to stress the thought that handicapped people can lear to do things as well as able people if they have the r t help."

Posttest answers by the same subjects:

("How Helen Keller Learned")

S1: "The main thought is that you can learn anything yo want if you want to bad enough. Helen was blind an deaf and she learned braille because she wanted to badly."

S2: I think the author wanted us to realize her own difficulties and also her bravery and willingness t helped her cope with an illness that left her handicapped. She was considered useless, and she proved that she could learn. So I think the main thought is of her difficulties to be closer to norm c and live a good life."

Both students improved in the quality of answer giv on the posttest. It should be noted that the writer considered the first student's answer unacceptable as th emphasis in "Child of the Silent Night" was not on "lear g new languages". The responses given in the posttest see to reflect the students' thinking which related relevant

details to produce a main thought. This thinking process seemed to be absent in the first student's response. Both students provided acceptable explanations with specific details from the story to substantiate their main thought answer.

Having presented the writer's general impressions of how the experimental groups responded during the direct teaching, the testings and findings from the null hypotheses will be discussed. It is hoped that this information given on how the students performed during the classroom situation would shed some light on their test performance findings.

To reiterate, the pretest and posttest questions were:

1. What things happened in the story that you think are important? (relevant details)
2. After having read the story, what do you think the author's main or important thought was? Explain.

To facilitate precise reference to the reading achievement groups (A, B, and C) and to the two questions on the pretest and posttest, Table 1 from Chapter I has been repeated here.

Table 1

Reference Numbers of Reading Achievement Groupings

Reading Achievement Group	Pretest for: Experimental *Q1	Q2	Control Q1	Q2	Posttest for: Experimental Q1	Q2	Control Q1	Q2
A	1	4	7	10	13	16	19	22
B	2	5	8	11	14	17	20	23
C	3	6	9	12	15	18	21	24

*Q = Question

The following null hypotheses were tested:

Null Hypotheses 1a and 1b

1a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

1b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

In Table 1, the student achievement scores were between cells.

1a 1-3 and 13-15 compared with 7-9 and 19-21

1b 4-6 and 16-18 compared with 10-12 and 22-24

Findings Related to Null Hypotheses 1a and 1b

For null hypothesis 1a, the interaction value of $p = 0.009$ was reported. Hence, null hypothesis 1a was rejected at the .10 level of significance.

For null hypothesis 1b, the interaction value of $p = 0.839$ was reported. Hence, null hypothesis 1b was accepted as stated. (See Tables 13 and 14.)

The findings indicated that the experimental groups' achievement scores increased significantly on the relevant details question but not on the main thought question.

Table 13

Two-Way Analysis of Variance With Repeated Measures on Performance of the Experimental Group (A, B, and C) and the Control Group (A, B, and C) on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	4.544	1.	4.544	3.473	*0.066
Subjects Within Groups	99.431	76.	1.308		
Within Groups B = Pretest/Posttest	7.317	1.	7.317		*0.001
A x B (Interaction)	3.831	1.	3.831		*0.009
B x Subjects Within Group	40.913	76.	0.538		

* = $p < .10$

Table 14

Two-Way Analysis of Variance with Repeated Measures on Performance of the Experimental Group (A, B, and C) and the Control Group (A, B, and C) on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	15.665	1.	15.665	7.893	*0.006
Subjects Within Groups	150.829	76.	1.985		
Within Groups B = Pretest/Posttest	1.136	1.	1.136	0.804	0.373
A x B (Interaction)	0.059	1.	0.059	0.042	0.839

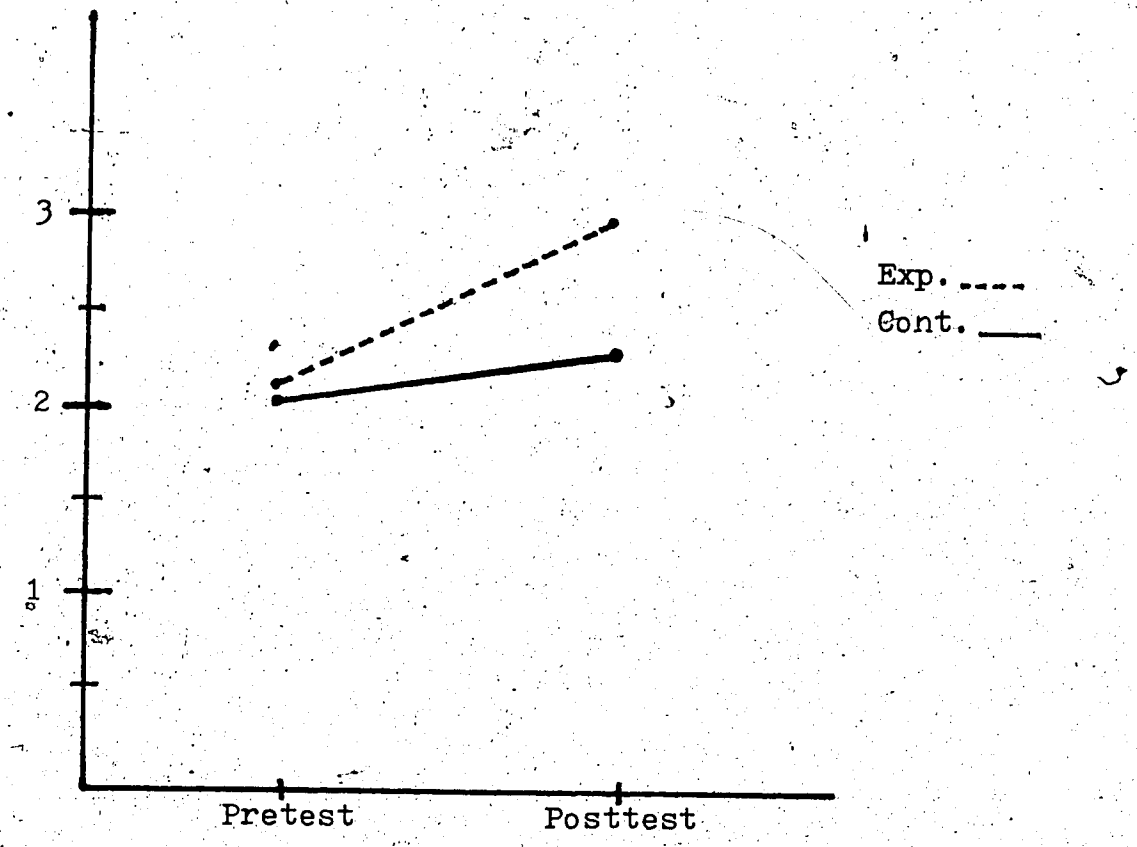
Discussions Related to the Findings of Null Hypotheses 1a and 1b

A significant differential increase on Q1 (relevant details) posttest achievement scores in the experimental groups can be noted in Table 12. The graph in Figure 3 illustrates that the control groups' achievement scores remained relatively constant from the pretest to the posttest. The achievement scores on the main thought question for the experimental group did not show a differential increase from the control group as illustrated in Figure 4. In short, the direct teaching of main thought did not have an effect on the experimental groups' performance on the main thought question as demonstrated by no significant increase in posttest scores. Instead, a slight decrease was noted in the mean scores from the pretest to the posttest.

Overall, the direct teaching of relevant details had an effect on the experimental groups' performance on the relevant details question illustrated by the nonparallel lines in Figure 3. Comparable pretest mean scores were reported: $\bar{x} = 2.089$ for the experimental groups; $\bar{x} = 2.061$ for the control groups. A significant increase in scores was reported for the posttest: $\bar{x} = 2.844$ for the experimental groups; $\bar{x} = 2.182$ for the control groups. The significant differential increase in posttest scores for the experimental groups can be attributed to the direct teaching of relevant details.

Figure 3

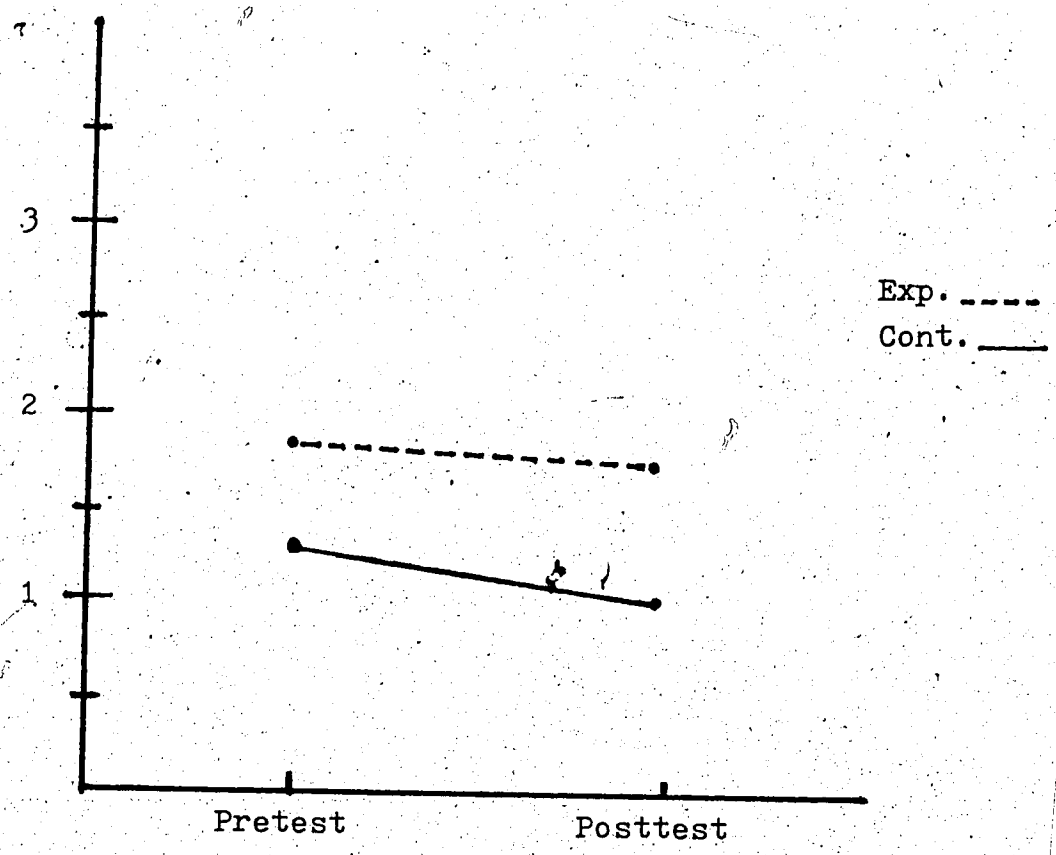
Mean Scores for the Experimental (A, B, and C) and Control (A, B, and C) Groups on the Pretest and Posttest for Q1 (Relevant Details)



Group	Q1 Test	Mean
Exp.	Pre	2.089
Exp.	Post	2.844
Con.	Pre	2.061
Con.	Post	2.182

Figure 4

Mean Scores for the Experimental (A, B, and C) and Control (A, B, and C) Groups on the Pretest and Posttest for Q2 (Main Thought)



Group	Q2 Test	Mean
Exp.	Pre	1.844
Exp.	Post	1.711
Con.	Pre	1.242
Con.	Post	1.030

Null Hypotheses 2a, 2b and 2c

2a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A.

2b There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest between the Experimental reading achievement group B and the Control reading achievement group B.

2c There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C.

In Table 1, the student achievement scores were between cells.

2a 1 and 13 compared with 7 and 19

2b 2 and 14 compared with 8 and 20

2c 3 and 15 compared with 9 and 21

Findings Related to Null Hypotheses 2a, 2b and 2c

For null hypothesis 2a, the interaction value of $p = 0.052$ was reported. Hence, null hypothesis 2a was rejected at the .10 level of significance.

For null hypothesis 2b, the interaction value of $p = 0.186$ was reported; for null hypothesis 2c the interaction value of $p = 0.223$ was reported. Hence, the hypotheses 2b and 2c were accepted as stated. (See Tables 15-17.)

The findings indicated that considering reading

achievement groups only, the high achievers in reading increased in their posttest scores on the relevant details question.

Table 15

Two-Way Analysis of Variance With Repeated Measures on Performance of the Experimental Group A and the Control Group A on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	3.111	1.	3.111	2.618	0.124
Subjects Within Groups	20.205	17.	1.189		
Within Groups B = Pretest/Posttest	2.316	1.	2.316	4.374	*0.052
AB (Interaction)	2.316	1.	2.316	4.374	*0.052
B x Subjects Within Group	9.000	17.	0.529		

* = P < .10

Table 16

Two-Way Analysis of Variance With Repeated Measures on Performance of the Experimental Group B and the Control Group B on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	4.521	1.	4.521	3.261	*0.080
Subjects Within Groups	44.362	32.	1.386		
Within Groups B = Pretest/Posttest	3.2777	1.	3.277	6.077	*0.019
AB (Interaction)	0.983	1.	0.983	1.823	0.186
B x Subjects Within Group	17.253	32.	0.539		

* = $p < .10$

Table 17

Two-Way Analysis of Variance With Repeated Measures on Performance of the Experimental Group C and the Control Group C on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	0.030	1.	0.030	0.032	0.859
Subjects Within Groups	21.450	23.	0.933		
Within Groups B = Pretest/Posttest	1.763	1.	1.763	2.873	0.104
AB (Interaction)	0.963	1.	0.963	1.570	0.223
B x Subjects Within Group	14.117	23.	0.614		

* = $p < .10$

Discussion Related to the Findings of Null Hypotheses 2a, 2b and 2c

A significant differential increase in achievement scores on the relevant details question for Experimental group A is presented in Table 12. Figure 5 illustrates that the control groups' mean scores remained constant from the pretest ($\bar{X}$ = 2.375) to the posttest ($\bar{X}$ = 2.375). The pretest and posttest mean scores for Experimental groups B ($\bar{X}$ = 2.211 to $\bar{X}$ = 2.895) and C ($\bar{X}$ = 1.667 - $\bar{X}$ = 2.333) did not show a differential increase from the control groups B ($\bar{X}$ = 1.933 to $\bar{X}$ = 2.133) and C ($\bar{X}$ = 2.000 to $\bar{X}$ = 2.100). (See Figures 6 and 7.) The direct teaching of relevant details had an effect on the high reading achievers (Experimental group A) but not on the average (Experimental group B) and low reading achievers (Experimental group C). The increase in achievement mean scores ($\bar{X}$ = 2.455 to $\bar{X}$ = 3.455) for the Experimental group A indicated a significant growth when compared to the no change in achievement mean scores ($\bar{X}$ = 2.375 to $\bar{X}$ = 2.375) for the Control group A.

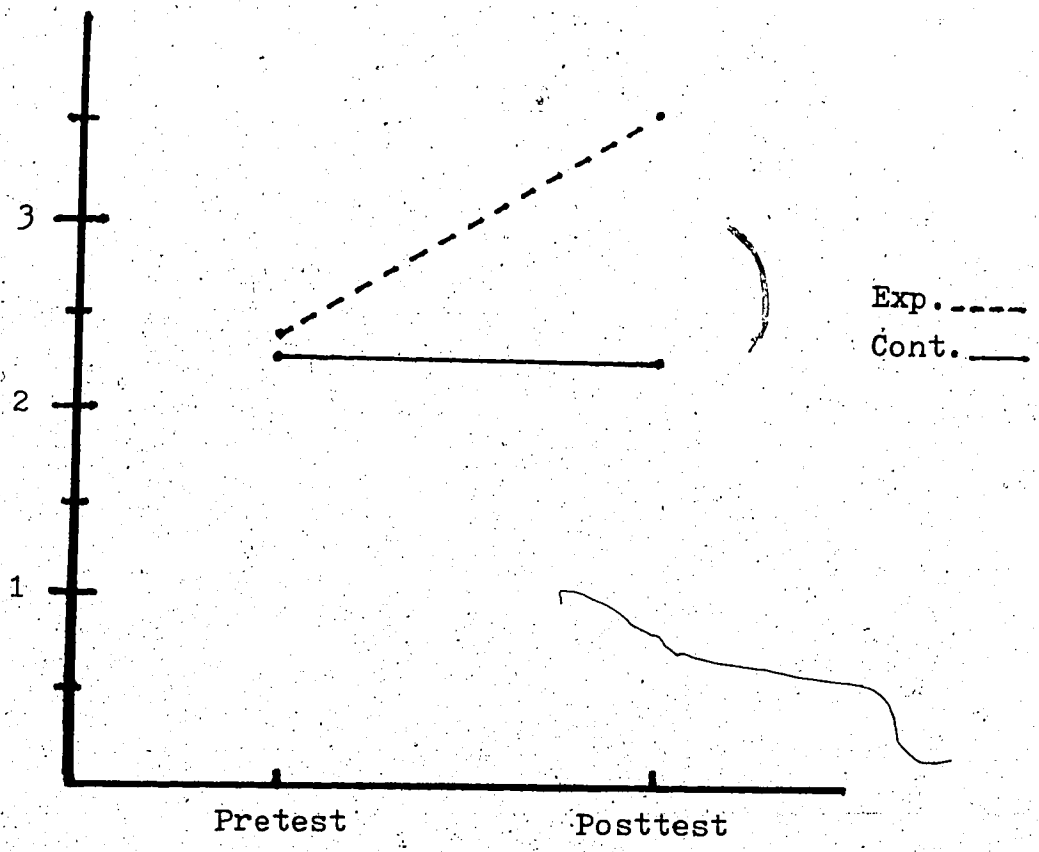
Null Hypotheses 3a, 3b and 3c

3a There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest between the Experimental reading achievement group A and the Control reading achievement group A.

3b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest

Figure 5

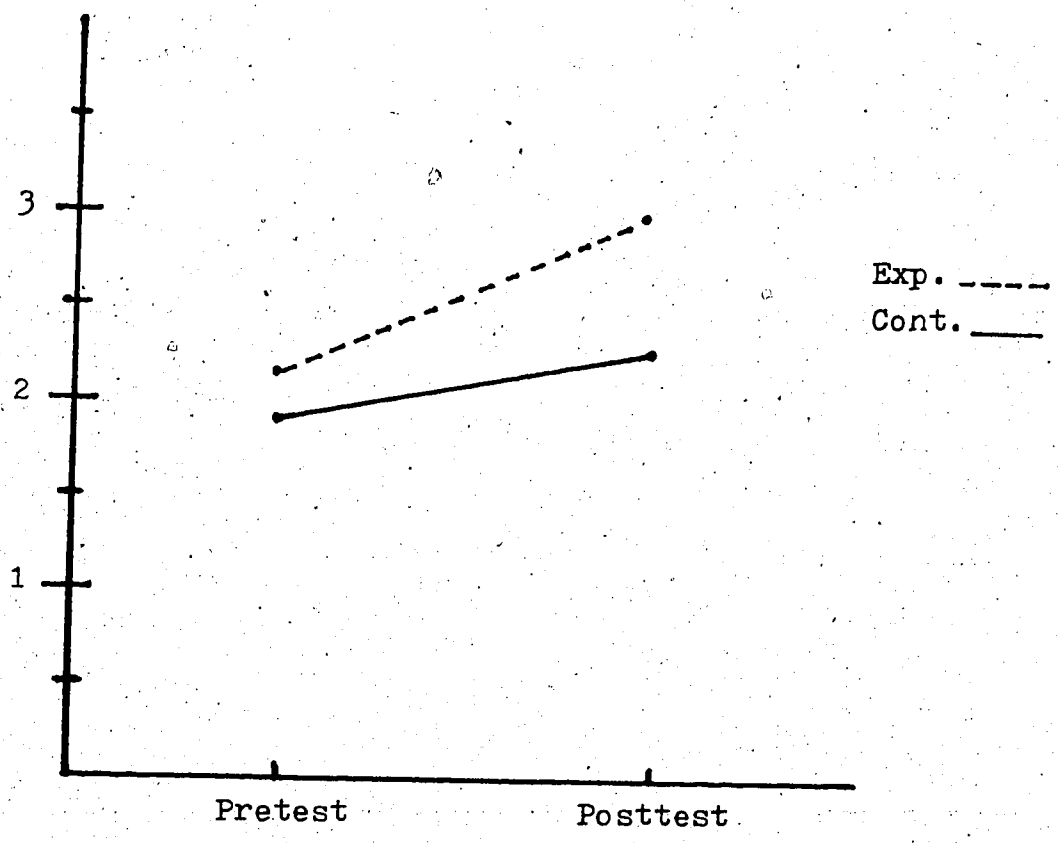
Mean Scores for the Experimental A and the Control A Groups on the Pretest and Posttest for Q1 (Relevant Details)



Group	Q1 Test	Mean
Exp.	Pre	2.455
Exp.	Post	3.455
Con.	Pre	2.375
Con.	Post	2.375

Figure 6

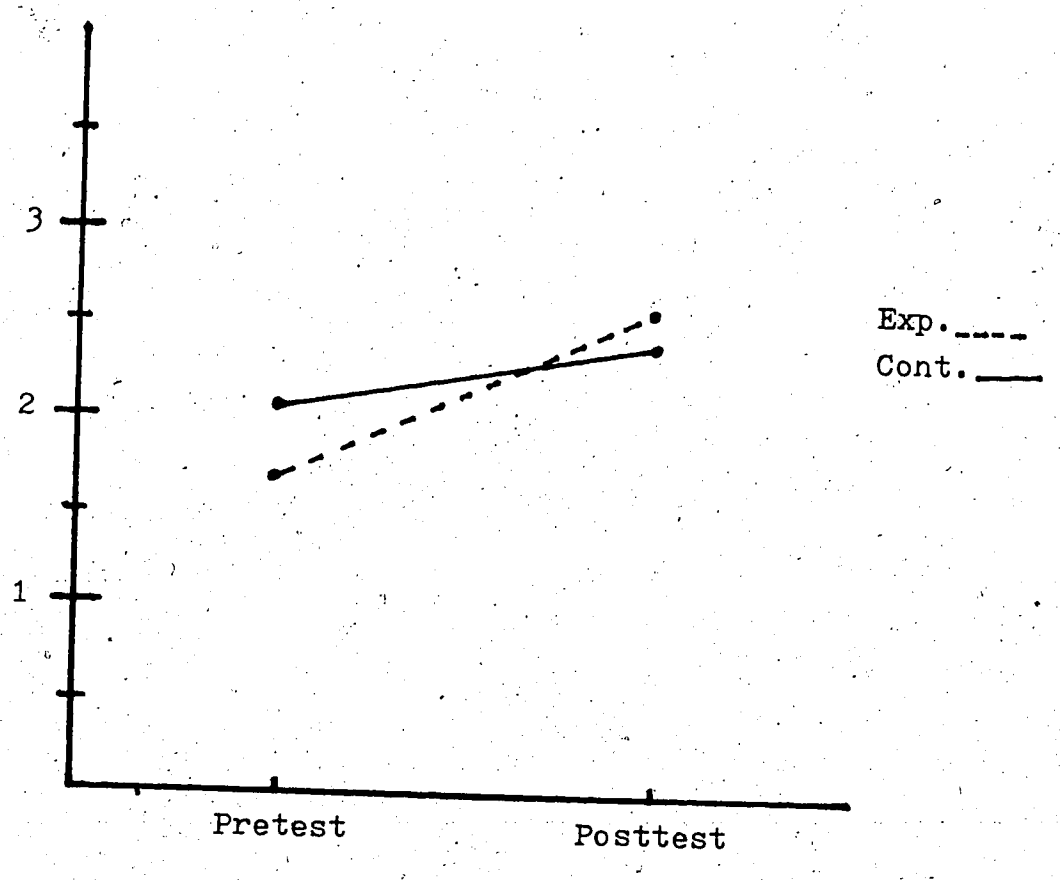
Mean Scores for the Experimental B and the Control B Groups on the Pretest and Posttest for Q1 (Relevant Details)



Group	Q1 Test	Mean
Exp.	Pre	2.211
Exp.	Post	2.895
Con.	Pre	1.933
Con.	Post	2.133

Figure 7

Mean Scores for the Experimental C and the Control C Groups on the Pretest and Posttest for Q1 (Relevant Details)



Group	Q1 Test	Mean
Exp.	Pre	1.667
Exp.	Post	2.333
Con.	Pre	2.000
Con.	Post	2.100

between the Experimental reading achievement group B and the Control reading achievement group B.

3c There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest between the Experimental reading achievement group C and the Control reading achievement group C.

In Table 1, the student achievement scores were between cells.

3a 4 and 16 compared with 10 and 22

3b 5 and 17 compared with 11 and 23

3c 6 and 18 compared with 12 and 24

Findings Related to Null Hypotheses 3a, 3b and 3c

For null hypotheses 3a, 3b and 3c, the interaction values respectively reported were $p = 0.432$; $p = 0.134$; and $p = 0.868$. The interaction level for null hypotheses 3a, 3b and 3c were not significant at the .10 level. Hence, the hypotheses were accepted as stated. (See Tables 18-20.)

The findings indicated that regardless of the reading achievement levels in the experimental group, no significant increase in achievement scores for these groups was reported on the main thought question.

Discussion Related to the Findings of Null Hypotheses 3a, 3b and 3c

While the Experimental group A ($\bar{X} = 2.435$) and B ($\bar{X} = 1.789$) pretest mean scores were higher than the Control group A ($\bar{X} = 0.625$) and B ($\bar{X} = 1.467$), there was no significant difference in the growth of achievement scores on the posttest (main thought question) between the two

groups. (See Figures 8-9.) No significant difference in achievement scores on the main thought question (see Figure 10) was indicated for Experimental group C (pretest $\bar{X}$ = 1.400; posttest $\bar{X}$ = 1.133). Overall, the direct teaching of main thought did not affect the experimental groups' performance on the main thought question regardless of the students' reading achievement level. The direct teaching in this study had focused the students' attention first on relevant details followed with main thought instruction in the same lesson. The findings here may well reflect

a) the students had focused much more on relevant details than on main thought because relevant detail instruction preceded main thought instruction in the lessons

or

b) the developmental sequence inherent in the nature of producing main thought, that is, of focusing on relevant details first and then integrating the writer's teaching to organize the relevant details for producing a main thought, appeared to have been successful for focusing on relevant details but not for integrating these details to produce a main thought.

In Figures 8-10 it can be seen that the low achievers in reading from the control group performed at a comparable level with the average readers in this group. It can also be noted that a substantial difference in pretest scores existed between the high achievers in the experimental and control groups. For the Experimental group A students, the pretest mean score reported was $\bar{X}$ = 2.455, while $\bar{X}$ = 0.625 was

reported for the Control group A students. This difference in performance may well be due to the unacceptable behavior of the control group students and their inattentiveness during the pretest and posttest.

Table 18

Two-Way Analysis of Variance with Repeated Measures on Performance of the Experimental Group A and the Control Group A on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	19.751	1.	19.751	8.767	*0.009
Subjects Within Groups	38.301	17.	2.253		
Within Groups B = Pretest/Posttest	0.000	1.	0.000	0.000	0.990
AB (Interaction)	1.263	1.	1.263	0.647	0.432
B x Subjects Within Group	33.210	17.	1.954		

* = $p < .10$

Table 19

Two-Way Analysis of Variance with Repeated Measures on Performance of the Experimental Group B and the Control Group B on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	7.490	1.	7.490	3.888	*0.057
Subjects Within Groups	61.642	32.	1.926		
Within Groups B = Pretest/Posttest	0.591	1.	0.591	0.697	0.410
AB (Interaction)	2.003	1.	2.003	2.362	0.134
B x Subjects Within Group	27.130	32.	0.848		

* = $p < .10$

Table 20

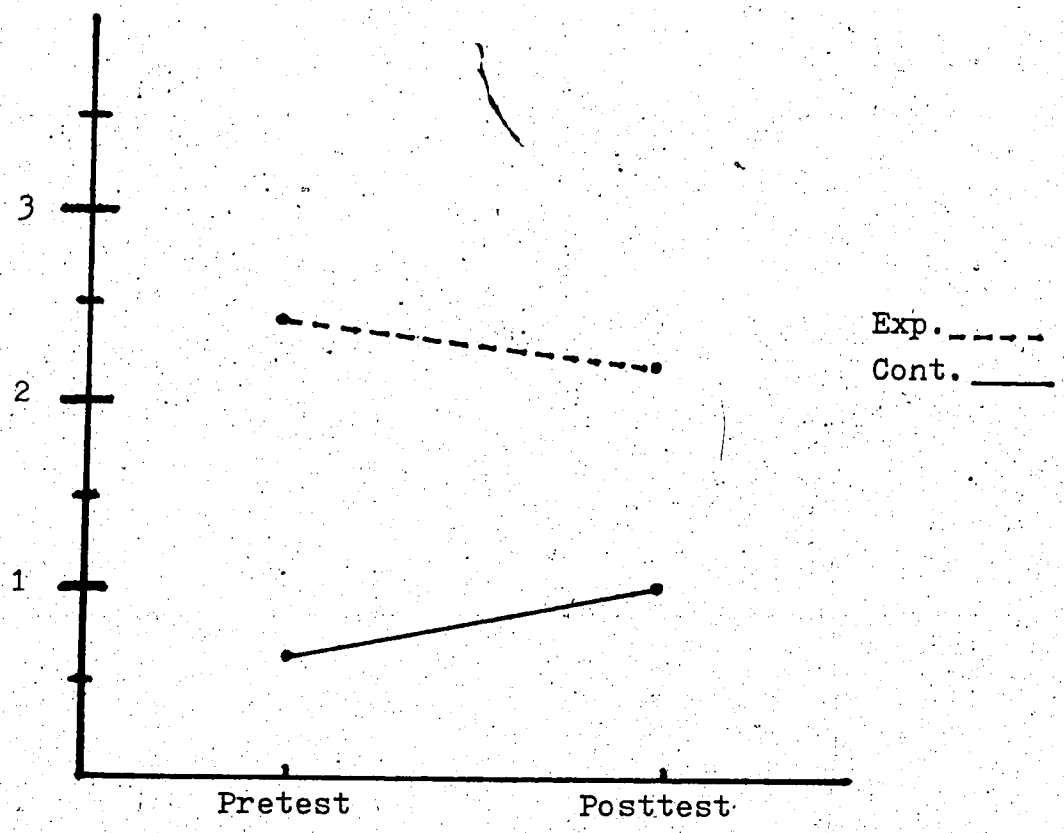
Two-Way Analysis of Variance with Repeated Measures on Performance of the Experimental Group C and the Control Group C on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects A = Experimental/Control	0.0	1.	0.0	0.0	0.999
Subjects Within Groups	36.000	23.	1.565		
Within Groups B = Pretest/Posttest	0.853	1.	0.853	0.452	0.508
AB (Interaction)	0.053	1.	0.053	0.028	0.868
B x Subjects Within Group	43.467	23.	1.890		

* = $p < .10$

Figure 8

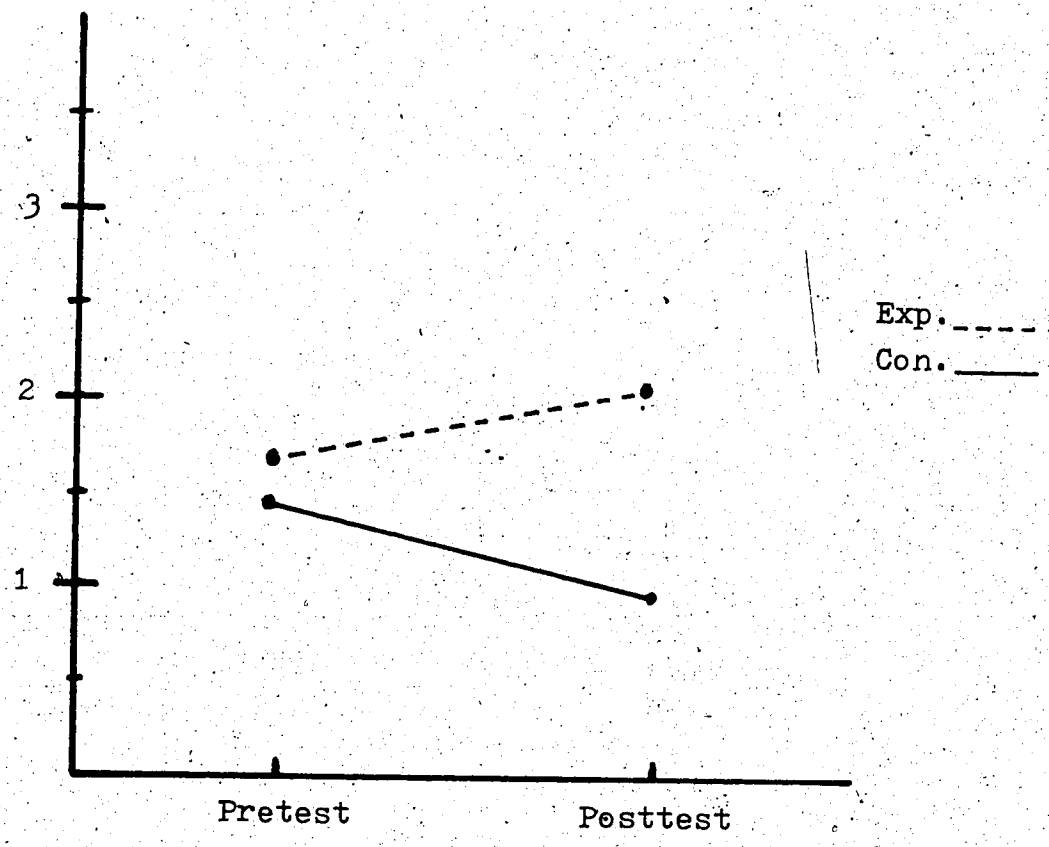
Mean Scores for the Experimental A and the Control A Groups on the Pretest and Posttest for Q2 (Main Thought)



Group	Q2 Test	Mean
Exp.	Pre	2.455
Exp.	Post	2.091
Con.	Pre	0.625
Con.	Post	1.000

Figure 9

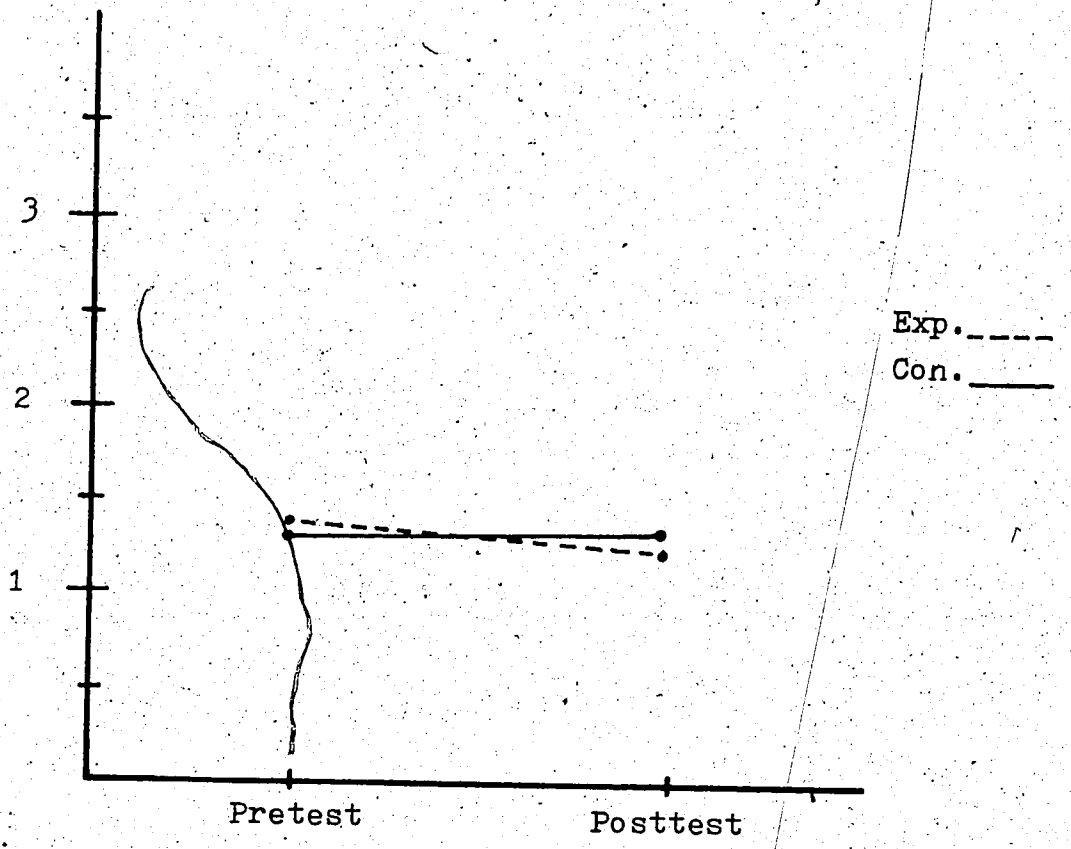
Mean Scores for the Experimental B and the Control B Groups on the Pretest and Posttest for Q2 (Main Thought)



Group	Q2 Test	Mean
Exp.	Pre	1.789
Exp.	Post	1.947
Con.	Pre	1.467
Con.	Post	0.933

Figure 10

Mean Scores for the Experimental C and the Control C Groups on the Pretest and Posttest for Q2 (Main Thought)



Group	Q2 Test	Mean
Exp.	Pre	1.467
Exp.	Post	1.133
Con.	Pre	1.400
Con.	Post	1.200

Null Hypotheses 4a and 4b

4a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C) due to cognitive ability.

4b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) and the Control groups (A, B, and C) due to cognitive ability.

That is, with reference to null hypotheses 4a and 4b there is no significant difference in (Q1, Q2) achievement scores from the pretest to the posttest between the Experimental groups (A, B, and C) whose non verbal IQ scores ranged from

a) 67 - 100

b) 101 - 114

c) 115 - 132

and the Control groups (A, B, and C) with similar non verbal IQ score ranges.

In Table 1, the student achievement scores were between cells.

4a 1-3 and 13-15 compared with 7-9 and 19-21

4b 4-6 and 16-18 compared with 10-12 and 22-24

Findings Related to Null Hypotheses 4a and 4b

For null hypothesis 4a, the interaction value reported was $p = 0.315$. For null hypothesis 4b, the interaction value reported was $p = 0.626$. Hence, null hypotheses 4a and

4b were accepted as stated. (See Tables 21 and 22.)

The findings indicated that the factor of cognitive ability did not have an effect on the experimental groups' performance on the relevant details question nor on the main thought question.

Discussion Related to the Findings of Null Hypotheses 4a and 4b

The findings specifically from the testing of null hypothesis 4a indicated that the significant increase in achievement scores for the relevant details question as reported in the findings of null hypothesis 1a was not dependent upon cognitive ability. In other words, the significant increase in the relevant details question for the experimental groups collapsing the three reading achievement levels was effected by the direct teaching of relevant details but not by cognitive ability.

Null Hypotheses 5a and 5b

5a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

5b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental groups (A, B, and C) and the Control groups (A, B, and C).

Table 21

Three-Way Analysis of Variance with Repeated Measures Between the Cognitive Ability of the Experimental Groups and the Cognitive Ability of the Control Groups on the Pretest and Posttest for Q1

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	5.151	1.	5.151	4.050	*0.048
Between Subjects by Cognitive Ability (B)	1.083	2.	0.541	0.426	0.655
A x B	5.617	2.	2.809	2.208	0.117
Subjects Within Groups	91.568	72.	1.272		
Within Groups C = Pretest/Posttest	6.111	1.	6.111	11.475	*0.001
A x C	2.952	1.	2.952	5.543	*0.021
B x C	1.251	2.	0.626	1.175	0.315
A x B x C (Interaction)	0.809	2.	0.404	0.759	0.472
C x Subjects Within Group	38.348	72.	0.533		

* $p < .10$

Table 22

Three-Way Analysis of Variance with Repeated Measures Between the Cognitive Ability of the Experimental Groups and the Cognitive Ability of the Control Groups on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	14.318	1.	14.318	7.443	0.008
Between Subjects by Cognitive Ability (B)	0.850	2.	0.425	0.221	0.802
A x B	10.247	2.	5.124	2.663	0.077
Subjects Within Groups	138.509	72.	1.924		
Within Groups C = Pretest/Posttest	0.364	1.	0.364	0.249	0.619
A x C	0.023	1.	0.023	0.016	0.900
B x C	1.380	2.	0.690	0.472	0.626
A x B x C (Interaction)	1.696	2.	0.848	0.580	0.562
C x Subjects Within Group	105.233	72.	1.462		

* $p < .10$

In Table 1, the student achievement scores were between cells.

5a 1-3 and 13-15 (males) compared with 7-9 and 19-21 (males)

1-3 and 13-15 (females) compared with 7-9 and 19-21 (females)

5b 4-6 and 16-18 (males) compared with 10-12 and 22-24 (males)

4-6 and 16-18 (females) compared with 10-12 and 22-24 (females)

Findings Related to Null Hypotheses 5a and 5b

For null hypothesis 5a, the interaction value reported was $p = 0.629$. For null hypothesis 5b, the interaction value reported was $p = 0.588$. The interaction level of sex differences in the experimental groups' performance on the relevant details and the main thought question was not significant. Hence, the null hypotheses 5a and 5b were accepted as stated. (See Tables 23 and 24.)

Discussion Related to the Findings of Null Hypotheses 5a and 5b

The findings specifically from the testing of null hypothesis 5a indicated that the significant increase in achievement scores for the relevant details question as reported in the findings of null hypothesis 1a was not dependent upon sex differences. In other words, the significant increase in the relevant details question for the experimental groups collapsing the three reading achievement levels was affected by the direct teaching of relevant details but not by sex differences.

Table 23

Three-Way Analysis of Variance with Repeated Measures Between Experimental Groups of Male-Female Performance and Control Groups of Male-Female Performance on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Group (A)	4.751	1.	4.751	3.705	*0.058
Between Subjects by Sex (B)	0.621	1.	0.621	0.484	0.489
A x B	4.315	1.	4.315	3.365	0.071
Subjects Within Groups	94.887	74.	1.282		
Within Groups (C)	7.372	1.	7.372	13.842	*0.001
A x C	3.343	1.	3.343	6.277	*0.014
B x C	1.475	1.	1.475	6.769	0.100
A x B x C (Interaction)	0.126	1.	0.126	0.236	0.629
C x Subjects Within Group	39.409	74.	0.533		

* $p < .10$

Table 24

Three-Way Analysis of Variance with Repeated Measures Between Experimental Groups of Male-Female Performance and Control Groups of Male-Female Performance on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Group (A)	15.240	1.	15.240	7.488	*0.008
Between Subjects by Sex (B)	0.139	1.	0.139	0.069	0.794
A x B	0.118	1.	0.118	0.058	0.811
Subjects Within Groups	150.605	74.	2.035		
Within Groups (C)	1.016	1.	1.016	0.713	0.401
A x C	0.014	1.	0.014	0.010	0.921
B x C	1.676	1.	1.676	1.176	0.282
A x B x C (Interaction)	0.422	1.	0.422	0.296	0.588
C x Subjects Within Group	105.472	74.	1.425		

* $p < .10$

Null Hypotheses 6a and 6b

6a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A.

6b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group A and the Control reading achievement group A.

In Table 1, the student achievement scores were between cells.

6a 1 and 13 compared with 7 and 19 (males-females)

6b 4 and 16 compared with 10 and 22 (males-females)

Findings Related to Null Hypotheses 6a and 6b

For null hypothesis 6a, the interaction value reported was $p = 0.999$. For null hypothesis 6b, the interaction value reported was $p = 0.558$. The sex variable did not affect the experimental reading achievement group A's performance on either the relevant details question or the main thought question. Hence, null hypotheses 6a and 6b were accepted as stated. (See Tables 25 and 26.)

Discussion Related to the Findings of Null Hypotheses 6a and 6b

The findings from the testing of null hypothesis 6a indicated that the significant increase in achievement

Table 25

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group A Male-Female Performance and Control Group A Male-Female Performance on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	3.441	1.	3.441	3.294	*0.090
Between Subjects by Sex (B)	0.215	1.	0.215	0.206	0.656
A x B	3.441	1.	3.441	3.294	0.090
Subjects Within Groups	15.667	15.	1.044		
Within Groups by Pretest/Posttest	1.935	1.	1.935	3.226	*0.093
A x C	1.935	1.	1.935	3.226	*0.093
B x C	0.0	1.	0.0	0.0	0.999
A x B x C (Interaction)	0.0	1.	0.0	0.0	0.999
C x Subjects Within Group	9.000	15.	0.600		

* $p < .10$

Table 26

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group A Male-Female Performance and Control Group A Male-Female Performance on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	18.600	1.	18.600	7.493	*0.015
Between Subjects by Sex (B)	0.019	1.	0.019	0.008	0.931
A x B	1.041	1.	1.041	0.419	0.527
Subjects Within Groups	37.233	15.	2.482		
Within Groups by Pretest/Posttest (C)	0.077	1.	0.077	0.036	0.852
A x C	1.809	1.	1.809	0.836	0.375
B x C	0.776	1.	0.776	0.359	0.558
A x B x C (Interaction)	0.077	1.	0.077	0.036	0.853
C x Subjects Within Group	32.433	15.	2.162		

* $p < .10$

scores for the relevant details question as reported in the findings of null hypothesis 2a was not dependent upon sex differences. In other words, the significant increase in the achievement scores for the relevant details question as noted for Experimental group A (null hypothesis 2a) was affected by the direct teaching of relevant details but not by sex differences (null hypothesis 6a).

Null Hypotheses 7a and 7b

7a There is no significant difference in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B.

7b There is no significant difference in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group B and the Control reading achievement group B.

In Table 1, the student achievement scores were between cells.

7a 2 and 14 compared with 8 and 10 (males-females)

7b 5 and 17 compared with 11 and 23 (males-females)

Findings Related to Null Hypotheses 7a and 7b

For the testing of null hypothesis 7a, the interaction value reported was $p = 0.096$. For null hypothesis 7b, the interaction value reported was $p = 0.082$. The sex variable had a significant effect on the experimental reading

achievement group B's performance on the relevant details question and the main thought question. Hence, null hypotheses 7a and 7b were rejected. (See Tables 27 and 28.)

Table 27

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group B Male-Female Performance and Control Group B Male-Female Performance on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	5.260	1.	5.260	3.659	*0.065
Between Subjects by Sex (B)	0.380	1.	0.380	0.265	0.611
A x B	0.754	1.	0.754	0.524	0.475
Subjects Within Groups	43.128	30.	1.438		
Within Groups by Pretest/Posttest (C)	3.513	1.	3.513	7.312	*0.011
A x C	0.818	1.	0.818	1.702	0.202
B x C	1.658	1.	1.658	3.450	*0.073
A x B x C (Interaction)	1.420	1.	1.420	2.955	*0.096
C x Subjects Within Group	14.414	30.	0.480		

* p = .1

Table 28

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group B Male-Female Performance and Control Group B Male-Female Performance on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	8.262	1.	8.262	4.087	*0.052
Between Subjects by Sex (B)	0.186	1.	0.186	0.092	0.764
A x B	0.744	1.	0.744	0.368	0.549
Subjects Within Groups	60.643	30.	2.021		
Within Groups by Pretest/Posttest (C)	0.434	1.	0.434	0.573	0.455
A x C	1.642	1.	1.642	2.168	0.151
B x C	2.313	1.	2.313	3.054	*0.091
A x B x C (Interaction)	2.461	1.	2.461	3.249	*0.082
C x Subjects Within Group	22.726	30.	0.758		

* p $<$ .10

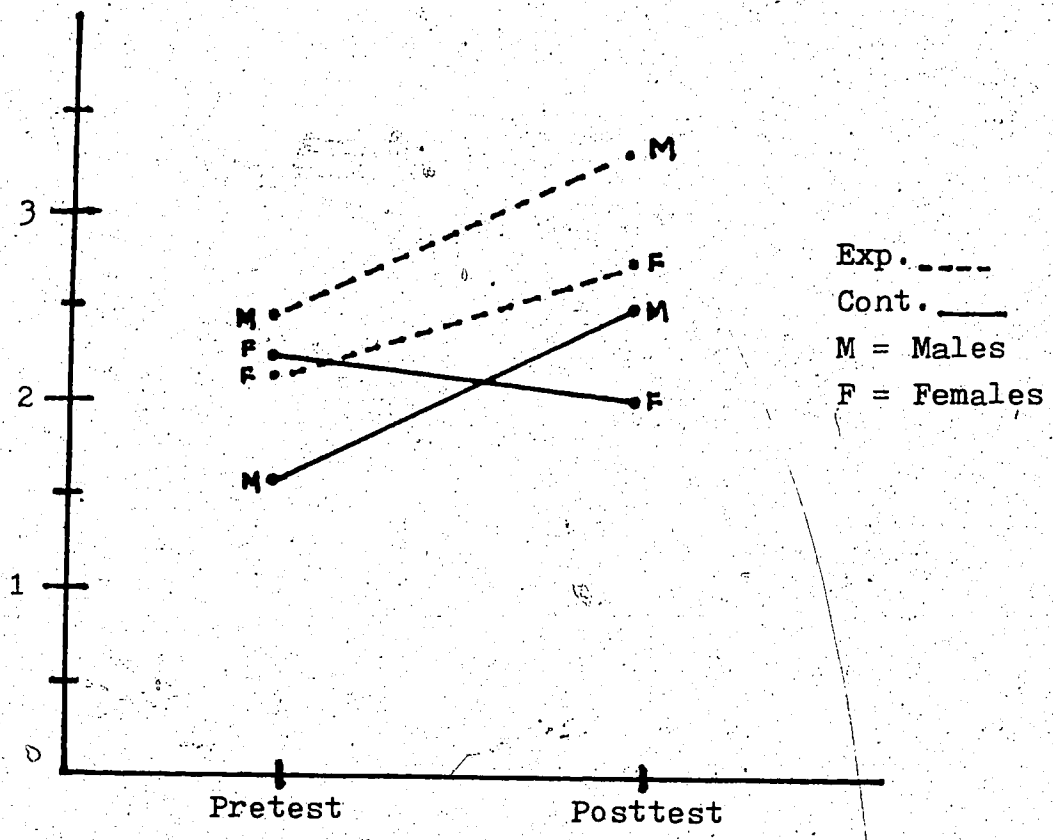
Discussion Related to the Findings of Null Hypotheses 7a and 7b

Figures 11 and 12 illustrate the effects of reading achievement, sex and direct teaching which produced a three-way interaction. Figure 11 illustrates an increase in posttest scores for both experimental male and female average achievers in reading. Between the sexes though, no differential increase in achievement scores was noted as illustrated by the parallel dotted lines in Figure 11. An increase was reported in the posttest scores for the control male average reading achievers in Figure 11. However, a drastic decrease in posttest scores from pretest ($\bar{X}$ = 2.250) to posttest ($\bar{X}$ = 1.875) was reported for the control female average achievers in reading. The significant differential increase in scores between the experimental and control average male-female achievers in reading was caused not by the direct teaching of relevant details but by the decrease in scores of the control average female achievers in reading. Hence, the effect of direct teaching of relevant details on the increase in achievement scores for the relevant details question is suspect. The writer noted that the females in particular from the control group were exhibiting unacceptable behavior and were inattentive during the posttest.

A significant differential increase in posttest scores was also reported for the main thought question. The performance of the control female average achievers decreased drastically from pretest ($\bar{X}$ = 1.875) to posttest

Figure 11

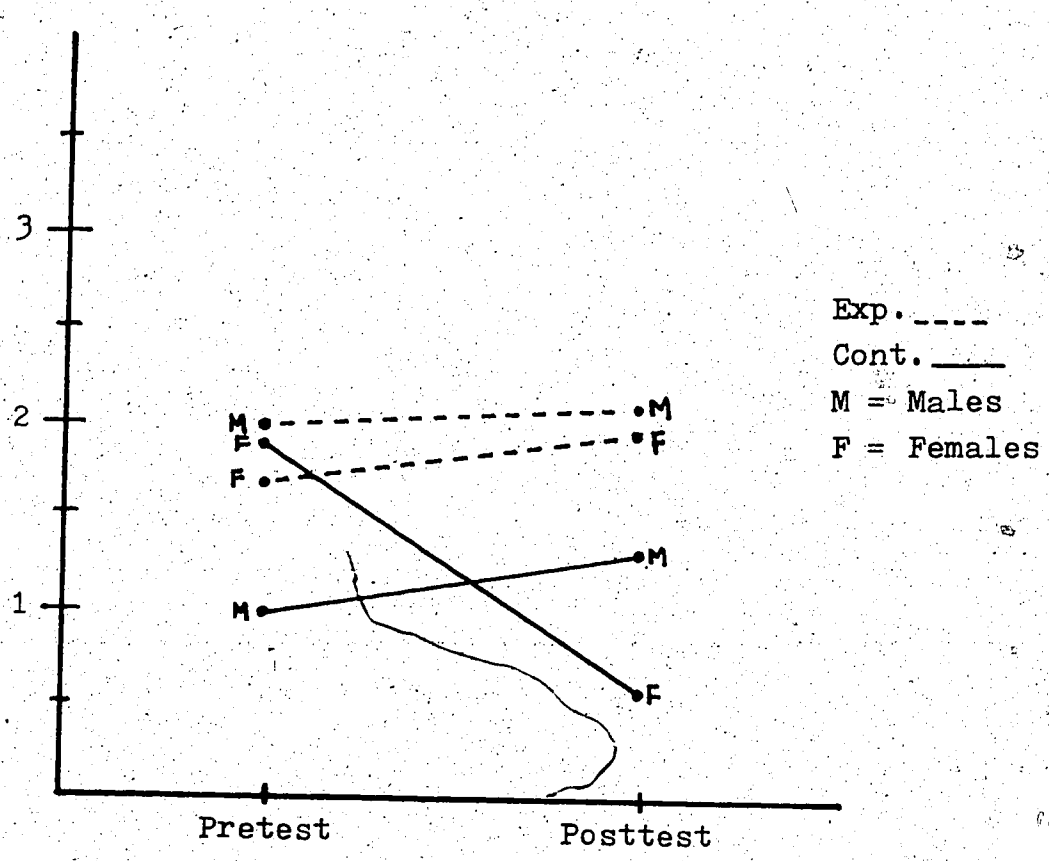
Mean Scores for the Experimental B Male-Female Performance and Control B Male-Female Performance on the Pretest and Posttest for Q1 (Relevant Details)



Group	Q1 Test	Mean	Group	Q1 Test	Mean
Exp (M)	Pre	2.429	Con (M)	Pre	1.571
Exp (M)	Post	3.143	Con (M)	Post	2.429
Exp (F)	Pre	2.083	Con (F)	Pre	2.250
Exp (F)	Post	2.750	Con (F)	Post	1.875

Figure 12

Mean Scores for the Experimental B Male-Female Performance and Control B Male-Female Performance on the Pretest and Posttest for Q2 (Main Thought)



Group	Q2 Test	Mean	Group	Q2 Test	Mean
Exp (M)	Pre	2.000	Con (M)	Pre	1.000
Exp (M)	Post	2.143	Con (M)	Post	1.286
Exp (F)	Pre	1.667	Con (F)	Pre	1.875
Exp (F)	Post	1.833	Con (F)	Post	0.625

($\bar{x}$ = 0.625). Once again, the effect of the direct teaching, in this case, of main thought, is suspect as having an effect on the increase in scores for the main thought question. (See Figure 12.)

Null Hypotheses 8a and 8b

8a There is no significant increase in Q1 (relevant details) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C.

8b There is no significant increase in Q2 (main thought) achievement scores from the pretest to the posttest due to sex differences between the Experimental reading achievement group C and the Control reading achievement group C.

In Table 1, the student achievement scores were between cells.

8a 3 and 15 compared with 9 and 21 (males-females)

8b 6 and 18 compared with 12 and 24 (males-females)

Findings Related to Null Hypotheses 8a and 8b

For the testing of null hypothesis 8a, the interaction value of p = 0.142 was reported. For null hypothesis 8b, the interaction value of p = 0.393 was reported. The sex variable did not affect the experimental reading achievement group C's performance on either the relevant details question or on the main thought question. Hence, null hypotheses 8a and 8b were accepted as stated. (See Tables

29 and 30).

Table 29

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group C Male-Female Performance and Control Group C Male-Female Performance on the Pretest and Posttest for Q1 (Relevant Details)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	0.417	1.	0.417	0.520	0.479
Between Subjects by Sex (B)	1.350	1.	1.350	1.684	0.208
A x B	3.267	1.	3.267	4.075	*0.056
Subjects Within Groups	16.833	21.	0.802		
Within Groups by Pretest/Posttest (C)	0.417	1.	0.417	0.719	0.406
A x C	0.067	1.	0.067	0.115	0.738
B x C	0.600	1.	0.600	1.036	0.320
A x B x C (Interaction)	1.350	1.	1.350	2.330	0.142
C x Subjects Within Group	12.167	21.	0.579		

* $p < .10$

Table 30

Three-Way Analysis of Variance with Repeated Measures Between Experimental Group C Male-Female Performance and Control Group C Male-Female Performance on the Pretest and Posttest for Q2 (Main Thought)

Source of Variation	SS	DF	MS	F	P
Between Subjects by Experimental/Control (A)	0.038	1.	0.038	0.023	0.882
Between Subjects by Sex (B)	0.504	1.	0.504	0.304	0.587
A x B	0.704	1.	0.704	0.425	0.522
Subjects Within Groups	34.792	21.	1.657		
Within Groups by (C) Pretest/Posttest	1.837	1.	1.837	0.931	0.346
A x C	0.704	1.	0.704	0.357	0.557
B x C	0.504	1.	0.504	0.255	0.619
A x B x C (Interaction)	1.504	1.	1.504	0.762	0.393
C x Subjects Within Group	41.458	21.	1.974		

* $p < .10$

Discussion Related to the Findings of Null Hypotheses 8a and 8b

For the low achievers in reading, sex differences did not affect this group's performance on the relevant detail and the main thought questions. This finding is reasonable since there was no significant differential increase reported between the low achievers in the experimental and control groups. On the whole, the direct teaching of

relevant details and main thought did not have a positive significant effect on the low achievers in reading in terms of improving their performance on the posttest.

Summary of Findings and Discussion Related to the Null Hypotheses

The following main effects were found to be significant at the .10 level for the relevant details question: direct teaching of relevant detail given to the experimental groups collapsing the three reading achievement levels ($p = 0.009$); high achievers in reading ($p = 0.052$); average achievers in reading by sex (0.096). The main effect significant at the .10 level for the main thought question was the average achievers in reading by sex ($p = 0.082$). A summary of the significant levels of the main effects is presented in Tables 31 and 32.

The findings indicated that the effectiveness of the direct teaching of relevant details was dependent on the reading achievement level but not on cognitive ability nor on sex differences. In particular, it was the high achievers in reading who were the most affected by the direct teaching of relevant details. The effectiveness of the direct teaching was reflected by the significant differential increase in the high reading achievers' posttest scores.

In regards to how effective the direct teaching of main thought was for the average achievers in reading, the reported significant differential increase in scores for

this group was suspect. Because the findings reported that the control group of average female reading achievers in reading decreased in their posttest performance, the difference in posttest scores between the control and experimental group was seen as due not to the direct teaching [redacted] the drastic decrease in scores reported for the cont[redacted] p.

[redacted] teaching of this study focused first on relevant details followed with main thought instruction. The sequence inherent in producing a main thought then, was to attend first to relevant details. The increase in posttest scores for the relevant details question is one indication that the direct teaching of relevant detail was effective. The increase in posttest scores for the relevant details question and not for the main thought question also indicates that the students focused much more attention on the relevant details than on producing main thought. The sequence of instruction in this study of focusing first on relevant details, then on producing main thought in the same lesson, may have had an effect on the students' performance.

Table 31

Analysis of Variance Summary

(Q1 Relevant Details)

Source of Variation	DF	MS	F	Significance of F
Experimental Group by Reading Achievement				
Group A	1.	2.316	4.374	*0.052
Group B	1.	0.983	1.823	0.186
Group C	1.	0.963	1.570	0.223
Total Experimental Groups (A, B, C)	1.	3.831		*0.009
Cognitive Ability	2.	0.404	0.759	0.472
Sex Difference (Male-Female)	1.	0.126	0.236	0.629
Experimental Reading Achievement Group by Sex				
Group A	1.	0.0	0.0	0.999
Group B	1.	1.420	2.955	*0.096
Group C	1.	1.350	2.330	0.142

* $p < .10$

Table 32

Analysis of Variance Summary

(Q2 Main Thought)

Source of Variation	DF	MS	F	Significance of F
Experimental Group by Reading Achievement				
Group A	1.	1.263	0.647	0.432
Group B	1.	2.003	2.362	0.134
Group C	1.	0.053	0.028	0.868
Total Experimental Groups (A, B, C)	1.	0.059	0.042	0.839
Cognitive Ability	2.	0.848	0.580	0.562
Sex Difference (Male-Female)	1.	0.422	0.296	0.588
Experimental Reading Achievement Group by Sex				
Group A	1.	0.077	0.036	0.853
Group B	1.	1.420	2.955	*0.082
Group C	1.	2.461	3.249	0.393

* $p < .10$

CHAPTER VI

MAJOR FINDINGS, SUMMARY OF DISCUSSIONS, CONCLUSIONS AND IMPLICATIONS

Summary of the Study

The purpose of this study was to investigate whether direct teaching of relevant details and main thought by the writer would enable grade six students to more effectively produce main thought in narrative. In order to establish a baseline against which two groups could be compared, the experimental and control groups were set up in a basic research design for this study of pretest-treatment-posttest. To test whether the direct teaching made a difference in the experimental group's performance, the following two questions were developed by the writer:

1. What things happened in the story that you think are important? (relevant details)
2. After having read the story, what do you think the author's main or important thought was? Explain. (main thought)

These two questions were administered before and after the direct teaching to the experimental and control groups. The significance of the differences in achievement scores between the experimental and control groups on the pretest and posttest was tested at the .10 level using the two-way analysis of variance. The main effects tested for significance were: reading achievement, direct teaching

(relevant details and main thought), sex difference, and cognitive ability.

Major Findings

Findings from Null Hypotheses 1a and 1b

1. The direct teaching of relevant details was beneficial to the students as reflected by the significant increase in achievement scores.
   ($\bar{X}$ = 2.089 to $\bar{X}$ = 2.844 for experimental groups)
   ($\bar{X}$ = 2.069 to $\bar{X}$ = 2.182 for control groups)
2. The direct teaching of main thought did not have a positive effect on the students as reflected by no significant increase in achievement scores.
   ($\bar{X}$ = 1.844 to $\bar{X}$ = 1.711 for experimental groups)
   ($\bar{X}$ = 1.242 to $\bar{X}$ = 1.030 for control groups)

Findings from Null Hypotheses 2a, 2b and 2c

1. The direct teaching of relevant details was beneficial to the high achievers in reading as reflected by the significant increase in achievement scores.
   ($\bar{X}$ = 2.455 to $\bar{X}$ = 3.455 for experimental group A)
   ($\bar{X}$ = 2.375 to $\bar{X}$ = 2.375 for control group A)
2. The direct teaching of relevant details did not have a significant effect on the average and low achievers in reading as reflected by no significant increase in achievement scores.
   ($\bar{X}$ = 2.211 to $\bar{X}$ = 2.895 for experimental group B)
   ($\bar{X}$ = 1.933 to $\bar{X}$ = 2.133 for control group B)
   ($\bar{X}$ = 1.667 to $\bar{X}$ = 2.333 for experimental group C)

($x = 2.000$ to $x = 2.100$ for control group C)

Findings from Null Hypotheses 3a, 3b and 3c

1. The direct teaching of main thought did not have a significant effect on the reading achievement groups regardless of the students' reading achievement as reflected by no significant increase in achievement scores.

($\bar{X} = 2.455$ to $\bar{X} = 2.091$ for experimental group A)

($\bar{X} = 0.625$ to $\bar{X} = 1.000$ for control group A)

($\bar{X} = 1.789$ to $\bar{X} = 1.947$ for experimental group B)

($\bar{X} = 1.467$ to $\bar{X} = 0.933$ for control group B)

($\bar{X} = 1.467$ to $\bar{X} = 1.133$ for experimental group C)

($\bar{X} = 1.400$ to $\bar{X} = 1.200$ for control group C)

Findings from Null Hypotheses 4a and 4b

1. The direct teaching of relevant details did not have a significant effect on the experimental groups regardless of the students' cognitive ability as reflected by no significant increase in achievement scores.

($\bar{X} = 1.800$ to $\bar{X} = 2.800$ for experimental group with CCAT score 67-100)

($\bar{X} = 2.231$ to $\bar{X} = 2.462$ for control group with CCAT score 67-100)

($\bar{X} = 2.417$ to $\bar{X} = 3.333$ for experimental group with CCAT score 101-114)

($\bar{X} = 2.000$ to $\bar{X} = 2.167$ for control group with CCAT score 101-114)

($\bar{X} = 2.308$ to $\bar{X} = 2.385$ for experimental group with CCAT score 115-132)

($\bar{X} = 1.857$ to $\bar{X} = 2.000$ for control group with CCAT score 115-132)

2. The direct teaching of main thought did not have an effect on the experimental groups regardless of the students' cognitive ability as reflected by no significant increase in achievement scores.

($\bar{x}$ = 1.750 to $\bar{x}$ = 1.600 for experimental group with CCAT score 67-100)

($\bar{x}$ = 1.538 to $\bar{x}$ = 1.385 for control group with CCAT score 67-100)

($\bar{x}$ = 2.333 to $\bar{x}$ = 2.250 for experimental group with CCAT score 101-114)

($\bar{x}$ = 1.000 to $\bar{x}$ = 1.500 for control group with CCAT score 101-114)

($\bar{x}$ = 1.462 to $\bar{x}$ = 1.231 for experimental group with CCAT score 115-132)

($\bar{x}$ = 1.143 to $\bar{x}$ = 0.643 for control group with CCAT score 115-132)

Findings from Null Hypotheses 5a and 5b

1. The direct teaching of relevant details did not have a significant effect on the experimental groups regardless of the students' sex differences as reflected by no significant increase in achievement scores.

($\bar{x}$ = 2.120 to $\bar{x}$ = 3.000 for experimental group males)

($\bar{x}$ = 2.050 to $\bar{x}$ = 2.650 for experimental group females)

($\bar{x}$ = 1.667 to $\bar{x}$ = 2.067 for control group males)

($\bar{x}$ = 2.389 to $\bar{x}$ = 2.278 for control group females)

2. The direct teaching of main thought did not have an effect on the experimental groups regardless of the students' sex differences as reflected by no significant increase in achievement scores.

($\bar{x}$ = 1.800 to $\bar{x}$ = 1.760 for experimental group males)

($\bar{x}$ = 1.900 to $\bar{x}$ = 1.650 for experimental group females)

($\bar{x}$ = 1.133 to $\bar{x}$ = 1.267 for control group males)

($\bar{x}$ = 1.333 to $\bar{x}$ = 0.833 for control group females)

Findings from Null Hypotheses 6a and 6b

1. The direct teaching of relevant details did not have a significant effect on experimental group A regardless of the students' sex differences as reflected by no significant increase in achievement scores.

   ($\bar{x}$ = 2.833 to $\bar{x}$ = 3.833 for experimental group A males)

   ($\bar{x}$ = 2.000 to $\bar{x}$ = 3.000 for experimental group A females)

   ($\bar{x}$ = 2.000 to $\bar{x}$ = 2.000 for control group A males)

   ($\bar{x}$ = 2.500 to $\bar{x}$ = 2.500 for control group A females)

2. The direct teaching of main thought did not have a significant effect on experimental group A regardless of the students' sex differences as reflected by no significant increase in achievement scores.

   ($\bar{x}$ = 2.500 to $\bar{x}$ = 2.333 for experimental group A males)

   ($\bar{x}$ = 2.400 to $\bar{x}$ - 1.800 for experimental group A females)

   ($\bar{x}$ = 0.000 to $\bar{x}$ = 1.000 for control group A males)

   ($\bar{x}$ = 0.833 to $\bar{x}$ = 1.000 for control group A females)

Findings from Null Hypotheses 7a and 7b

1. The direct teaching of relevant details was beneficial to the students in experimental group B due to sex differences as reflected by significant increase in achievement scores.

   ($\bar{x}$ = 2.429 to $\bar{x}$ = 3.143 for experimental group B males)

   ($\bar{x}$ = 2.083 to $\bar{x}$ = 2.750 for experimental group B females)

   ($\bar{x}$ = 1.571 to $\bar{x}$ = 2.429 for control group B males)

   ($\bar{x}$ = 2.250 to $\bar{x}$ = 1.875 for control group B females)

2. The direct teaching of main thought was beneficial to the students in experimental group B due to sex differences as reflected by significant increase in achievement scores.

($\bar{X}$ = 2.000 to $\bar{X}$ = 2.143 for experimental group B males)

($\bar{X}$ = 1.667 to $\bar{X}$ = 1.833 for experimental group B females)

($\bar{X}$ = 1.000 to $\bar{X}$ = 1.286 for control group B males)

($\bar{X}$ = 1.875 to $\bar{X}$ = 0.625 for control group B females)

Findings from Null Hypotheses 8a and 8b

1. The direct teaching of relevant details did not have a significant effect on experimental group C regardless of the students' sex differences as reflected by no significant increase in achievement scores.

($\bar{X}$ = 1.583 to $\bar{X}$ = 2.500 for experimental group C males)

($\bar{X}$ = 2.000 to $\bar{X}$ = 1.667 for experimental group C females)

($\bar{X}$ = 1.667 to $\bar{X}$ = 1.667 for control group C males)

($\bar{X}$ = 2.500 to $\bar{X}$ = 2.750 for control group C females)

2. The direct teaching of main thought did not have a significant effect on experimental group C regardless of the students' sex differences as reflected by no significant increase in achievement scores.

($\bar{X}$ = 1.333 to $\bar{X}$ = 1.250 for experimental group C males)

($\bar{X}$ = 2.000 to $\bar{X}$ = 0.667 for experimental group C females)

($\bar{X}$ = 1.667 to $\bar{X}$ = 1.333 for control group C males)

($\bar{X}$ = 1.000 to $\bar{X}$ = 1.000 for control group C females)

Conclusions Drawn From Major Findings

The following conclusions were drawn from the major findings:

1. Direct teaching of relevant details given over a one month period was effective for high reading achievers but not for average and low reading achievers.
2. Direct teaching given over a one month period did not have a significant effect on the students' performance on the main thought question irrespective of their reading achievement.
3. The factors of sex and cognitive ability did not affect the students' performances on either the relevant details or main thought questions.

The findings were based on the particular methodology of direct teaching for this study in which relevant details instruction preceded main thought instruction. A point worthy of note is that the writer never taught identification of relevant details in isolation. Each lesson was integrated with previous lessons for any one story to help the students realize what information to attend to and how to use that information in producing an acceptable main thought.

The writer reasons that the findings from this study were the result of:

1. Methodology of direct teaching.

Teaching is providing "direct instruction" as mentioned in Chapter I. Specifically, for this study, it was defined as "an inductive method, whereby the students are given

systematic and sequential instruction to help them to identify the relevant details and to produce main thought in narrative" (Chapter I).

The sequence of this instruction focused the students' attention first on relevant details prior to main thought instruction. That is, the details related to the character's problem and the resolution of the problem. And from the findings, the students did improve significantly in their ability to identify the relevant details in narrative. It is reasonable to suggest given a period longer than one month that the students would have used their increased ability to identify relevant details to produce an acceptable main thought.

Instruction given over a period of one month seemed to have helped the students more on what information was relevant than on how to produce main thought from the relevant details identified. Had the writer extended the instruction beyond the one month period, or had the writer been the regular teacher so that repeated explanation and practice for the students could have been made in several subject areas throughout the day, then the students may have used their increased ability to identify relevant information to produce an acceptable main thought.

2. Nature of producing main thought.

The production of a main thought is an overt action which goes on inside one's head. From McPike's (1983) findings reported in Chapter IV, main thought "... is not contained in the text, but (is) a formulation produced

between the writer (text) and the reader". Hence, a main thought is not explicitly stated in the text and reconstruction of the passage is required.

In this study, students were given direct instruction to actively attend to relevant information as a strategy to help them produce a main thought. The extent to which the students were successful in producing a main thought depended on more than verbatim quote or mere recall of incidental details. To produce main thought as discussed in Chapter II, students needed to have adequate reading skills (graphic symbols), language skills (oral/written) and thinking skills (organizing, synthesizing, generalizing, etc.). Indeed, producing a main thought requires very complex thinking processes as emphasized in Figure 1, Chapter I.

Inadequacy in any one of the above mentioned skills may well limit a reader's effectiveness in producing a main thought. One limitation of this study as acknowledged in Chapter I was the use of the written mode to express a main thought. Certainly from the writer's observation and analysis of data, the students in this study generally had more difficulty in expressing their thoughts in writing than in their oral expressions.

3. Reading achievement level.

While the exact relationship between producing main thought and reading comprehension has not been borne out (Chapter II), the axiom that both activities require a high level of reading proficiency has been borne out. In order to process from print to meaning, the reader must contribute

to the reading process (Chapter II). He is to not only get meaning but to contribute to the reading process by what Jenkinson (1973) terms as bringing meaning to the printed page (Chapter II). Indeed, the reader can best "bring meaning" to the passage when he is not battling hindrances such as word identification, recall or organization of ideas.

The high reading achievers in this study demonstrated a significant increase in their scores on the relevant details question. As indicated by the achievement group to which these students were assigned no doubt they would score high as word identifiers. However, the fact that they did not increase in scores significantly on the main thought question sheds light on the level of this group's reading ability. Apparently this group of high reading achievers were effective in producing explicitly stated information but not effective in producing implicitly stated information from the passage. And since main thought was not explicitly stated in the story, irrespective of reading achievement, these students did not increase significantly in their scores on the main thought question. However, to reiterate a point suggested previously, had the instruction time been extended or had the writer been the regular teacher so that repeated explanation and practice for the students could have been made in several subject areas throughout the day, the high achievers especially may have used their increased ability to identify relevant information to produce an acceptable main thought. Moreover, because identifying relevant information was stressed for the purpose of producing a main

thought in each lesson, the students would inevitably link identifying relevant details to producing a main thought.

Implications of this Study

In Chapter I, the writer conjectured whether the findings from this study would have significant implications with respect to:

1. Pertinent information on the nature of direct teaching of relevant details and main thought in narrative to sixth graders.
2. Whether sixth graders can be taught how to identify relevant details and produce main thought in narrative.
3. Implications for classroom teachers to critically analyze the relevance of the tasks advocated for use with students in the commercially prepared material in their own reading comprehension instruction.

The pertinence of the reported findings with respect to the above will be addressed here.

1. Nature of direct teaching of relevant details and main thought in narrative.
   a) Because main thought is not explicitly stated, it is necessary for students to actively attend to information such as the character's problem and his resolution in a story. (McPike, 1983)
   b) Production of main thought requires the reconstruction of the message since it is not explicitly stated. The students in this study were not effective in producing main thought.

c) Direct teaching of main thought needs to help students both in the what and how of producing main thought. That is, students need direct instruction in identification of relevant details and production of main thought, but the instruction should couple the two. It is reasonable to expect students under the direct methodology of this study to first improve in identifying relevant details and then to use that improved skill in producing an acceptable main thought.

2. Are relevant details and main thought in narrative teachable?

a) As indicated earlier in this chapter, the findings from this study were the result of one methodology of direct teaching. And in light of this particular methodology developed by the writer, identification of relevant details is teachable and the writer suggests that had instruction time been extended, then production of main thought may well be teachable. The comments from the preceding section are applicable here.

3. Implications for classroom teachers.

a) Research from Johnson and Barrett (1981) as discussed in Chapter II depicted the hazards of carrying out the strategies in manuals in a perfunctory manner. The authors pointed out that one result of this type of teaching is that "bits of literal information" are drawn to the students'

attention (Chapter II). No doubt continual practice would condition the students to pass over relevant information which may contribute significantly to their production of a main thought. Such fragmentization of teaching is certainly seen as ineffective for main thought production. Indeed, students cannot afford to focus only on bits of relevant information without using that information to produce a main thought. How ideas are related one to another is crucial to main thought production and instruction should focus on that.

The implication for classroom teachers using commercially prepared reading manuals is to critically analyze the relevant details task asked of the student and to consider how that task relates to production of main thought.

b) Durkin's (1981) research on teacher's guides revealed the absence of instructional suggestions (Chapter II). The "what" of teaching is usually included in a limited way while the "how" of teaching is omitted. That is, teachers are given suggestions on what aspects of reading comprehension to teach but suggestions do not provide background information on the nature of what is to be taught nor on how to sequence or relate that particular aspect of the instruction to the whole of reading comprehension. For example, manuals suggest the teaching of relevant details identification and main thought

production but do not provide explanations on what relevant details are and what main thought is nor on how one is related to the other.

The implication for classroom teachers is to consider the methodology used in this study of explaining what relevant details are, what main thought is, and of helping students to realize how one is related to the other when teaching them to produce main thought in narrative.

Suggestions for Classroom Teaching

1. In teaching reading comprehension, teachers need to consider the nature of the particular aspect of reading comprehension that is to be taught. In the instance of teaching main thought production to students, teachers need to sequence their instruction so that identification of relevant details is given first. Not only should teachers realize for themselves, but in turn, they should help students to realize that the process of producing a main thought is generalized from attending to information in the story which is related to the character's problem and his resolution of the problem. Such information should not be kept secret from students but relayed directly through systematic instruction as one strategy helpful to producing an acceptable main thought in narrative.
2. The writer strongly urges teachers to consider a methodology for teaching reading comprehension. That

is, a methodology for teaching main thought is essential if students are not to depend on serendipity to produce a main thought answer. It is suggested that teachers consider the inductive systematic and sequential method used in this study. The framework for teaching may be found in Figure 2, Chapter IV.

In regards to the methodology of direct instruction used in this study, the writer emphasizes for teachers the importance of considering:

a) Strategies used by children in producing main thought in narrative. In particular, imaging, cueing on plot and establishing the character's problem and resolution are strategies which children have found helpful (McPike, 1983). Teachers should bring these strategies to the children's attention as a means of producing main thought during instruction time.

b) Three fundamental variables to be incorporated into a reading comprehension program (Chapter II). These variables are set out and related to the teaching of identification of relevant details and production of main thought.

   i) Relating the reader's background to the content of the passage. That is, teachers should help students link relevant information they have from their experience to that provided by the author.

   ii) Setting purposes for reading the passage.

That is, teachers should help students realize that producing main thought is one essential purpose for reading.

iii) Asking questions before, during and after reading. That is, teachers should help students to realize that information relevant to main thought must be related in narrative to the character's problem and his resolution. Therefore, the questions asked must require the students to do the relating.

c) Marriage of the parts to the whole when teaching reading comprehension. That is, main thought should not be taught in fragments because children will fail to see how one lesson integrates with the previous one. But rather, instruction should help children to relate how important information identified in one lesson is relevant in the next for the purpose of producing an acceptable main thought. In short, instruction should couple the two - identification of relevant details and production of main thought, if students are to relate how the parts fit into the whole of one particular aspect of reading comprehension.

3. Classroom teachers need to integrate the direct teaching of main thought in other subject areas. The high achievers in this study over a period of one month were successful in identifying relevant details in narrative but not in producing main thought. It is

reasonable to expect that had more practice and explanations been given to these students in social studies, mathematics, science, etc., then they would have used their increased ability of identifying relevant details to producing an acceptable main thought. Hence, continuous application in identifying relevant details and producing main thought in other content areas should be provided for students.

4. The writing mode used by the students to express their thoughts was acknowledged as one limitation of this study. From the writer's observation and analysis of data, students in this study were indeed not effective writers. The writer suggests that teachers need to provide more systematic and organized opportunities for students to express their thoughts in writing.

Suggestions for Further Research

1. The investigation of this study revealed that students, especially the high achievers in reading, were successful in identifying relevant details but not in producing main thought for narrative. The writer suggests that a research study be conducted over a period longer than one month to investigate whether:

   a) Students would continue to improve in their ability to identify relevant details in narrative.

   b) Student would also improve in their ability to produce main thought in narrative.

   c) Students would consistently use the information

identified as relevant information to produce an acceptable main thought independently.

2. The writer assumed that the students in her study performed in the pretest and posttest to the best of their abilities. This assumption, however, was misplaced. To reiterate, students from one control classroom were exhibiting unacceptable behavior and were inattentive during the writing of the posttest. The test results showed that the female average reading achievers in particular decreased drastically in scores on their posttest. Hence, the writer suggests replication of this study to investigate whether average female achievers in reading who are not discipline problems would perform well on the relevant details and main thought questions.

   Also of relevance for this study would be an investigation of the factors which may help or hinder children in learning how to identify relevant details and main thought production. Factors which may affect the teaching-learning situation include:

   a) Teaching methodology of relevant details identification and main thought production.
   b) Maturity level of girls (pre-adolescence).
   c) Nature of discipline needed for this group of pre-adolescent girls.

3. This study was conducted with grade six students. The findings from this study revealed that the high achievers in reading were successful in identifying

relevant details. The writer suggests that a developmental study be conducted across different grade levels to investigate whether maturity level (mental and social) is a factor which affects the reader's ability to identify relevant details and to produce main thought.

4. Because narrative, an acknowledged limitation of this study, was used, findings from this study are generalizable only to this one form of prose. The writer suggests a study be conducted using expository passages to investigate whether children can be taught to identify relevant details and produce main thought. To be considered in this investigative study would be:
   a) Nature of expository passages.
   b) Methodology to teach relevant details identification and main thought production for expository passages.
   c) Strategies which children consider helpful in producing main thought for expository passages.
5. Further studies could explore modifications of this direct teaching methodology.

Concluding Statement

Findings as cited in Patching (1983) reported that metacognitive skills or "learning to learn" skills can be systematically taught to students in the elementary grades (p. 407). Indeed, the findings from this study reveal that given a systematic approach, students did learn in a more effective way how to identify relevant details in narrative.

Moreover, the writer reasoned that given more practice and explanation to the students in all content areas using the particular methodology of this study, these students would have continued to learn how to use their increased ability to identify relevant details and to learn how to produce an acceptable main thought.

The writer concludes that while there is "no single right way to teach reading" (Jenkinson, 1973, p. 40), it is imperative that teachers opt for a direct systematic methodology to teach reading comprehension.

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APPENDIX A

Composition of Experimental and Control Groups

Composition of Experimental and Control Groups

Classes:	Experimental Group	Classes:	Control Group
Class #1 - 29	24	Class #3 - 25	19
Class #2 - 27	21	Class #4 - 24	14
56	45	49	33

Total sixth grade population N = 105

Composition of the Experimental Group A

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
1	F	99	104
2	F	87	89
3	M	91	130
4	M	99	124
5	M	93	126
6	F	99	116
7	M	86	130
8	M	97	119
9	F	96	121
10	F	96	104
11	M	98	119
N = 11	6M; 5F	86-99	89-130

Composition of the Experimental Group B

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
12	M	64	90
13	M	67	100
14	M	67	116
15	F	61	96
16	M	69	110
17	F	75	116
18	F	80	100
19	F	80	105
20	F	84	99
21	F	80	111
22	F	60	110
23	F	65	119
24	F	60	110
25	M	65	101
26	F	53	96
27	F	68	114
28	M	68	106
29	F	76	102
30	M	76	98
N = 19	7M; 12F	53-84	90-119

Composition of the Experimental Group C

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
31	M	21	87
32	M	37	67
33	F	50	102
34	M	41	71
35	M	34	91
36	M	29	75
37	M	16	78
38	M	15	74
39	M	51	120
40	M	27	93
41	M	46	89
42	F	24	110
43	M	46	99
44	F	31	90
45	M	17	93
N = 15	12M; 3F	15-51	67-120

Composition of the Control Group A

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
46	F	86	116
47	F	90	118
48	M	86	125
49	F	97	119
50	F	86	117
51	F	98	107
52	M	86	111
53	F	90	116
N = 8	2M; 6F	86-97	107-125

Composition of the Control Group B

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
54	F	65	117
55	F	60	110
56	F	80	113
57	F	65	101
58	M	65	90
59	M	83	127
60	F	78	105
61	M	76	128
62	M	68	119
63	M	65	104
64	M	76	104
65	F	78	114
66	M	76	93
67	F	71	132
68	F	68	115
N = 15	7M; 8F	60-80	90-132

Composition of the Control Group C

Student	Sex	E.P.S. Elementary Reading Comprehension %ile Score	CCAT Non-Verbal Score
69	F	38	88
70	F	40	108
71	M	40	98
72	M	42	125
73	M	31	108
74	M	19	101
75	M	36	86
76	M	33	115
77	F	36	113
78	F	34	95
N = 10	6M; 4F	19-42	86-125

APPENDIX B

Bibliographic List of Stories Used in Study

Andersen, Hans Christian. "The Nightingale" from Treasure Gold. Boston: D. C. Heath and Company, 1964, pp. 233-242.

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APPENDIX C

Illustrative Sample of One Detailed Direct Teaching Lesson Plan

Lesson Plan (1) (30-40 minutes)

April 19, 1983, Tuesday

Purposes

To develop students' ability to:

1) Identify a main or important thought that the author is conveying.
2) Identify the important things that happened in the story (relevant details).
3) Reason logically by providing evidence (relevant details) from story to support answer.
4) Interpret the author's purpose and thoughts.

Material:

"Boss Finds a Boy" by Ester Wier, pp. 85-88.

A copy of "Boss Finds a Boy" may be found in Appendix D.

Procedures

A. Preparation for reading

1. Discuss with class concept of "family".
   a) What does family mean to student?
   b) What things do you do with your family?
   c) What things does your family provide for you? (love, comfort, food, security, etc. are provided by family)
2. Explain to class reason for discussion of concept of "family".

"We have an idea from our experience what being a part of a family is like. Let's read the introduction to

this story entitled "Boss Finds a Boy" by Ester Wier and see if our idea of what a family is like is also shared by the boy in the story."

3. Ask students to read introduction to story only. Students are also asked to read and find out what information is given on the boy's past and present situation.

B. Instruction

1. What information did you learn about the boy's past? (Students may read out answers or rephrase in own words.) (boy had never known his parents, life was harvesting crops, going from place to place with the people who pick beans or potatoes or lettuce and then move on, his last family had left him)

2. How do you know that this information was about the boy's past?
(Direct students' attention to past tense, "had never known ..." "his life was ..." etc.)

3. What information did you learn about the boy's present situation? How do you know? ("... and now he was travelling alone") Direct students to word "now" which means at the present time.

4. Draw students' attention to the quotation marks surrounding "family". Ask student to read out sentence, "His last 'family' had left him, and now he was travelling alone".
What is the meaning of having quotation marks around the word "family"?

Why do you think the writer put quotation marks around the word "family"?

Ask students to read again this sentence, this time alerting their attention to quotation marks around "family" using finger gestures.

Explain to class quotation marks around a word in this case alerts or calls the reader's attention to the word indicating that word meaning is not accurate.

5. Having drawn students' attention to the word "family" because of the quotation marks around it, ask students to think about the meaning of the word "family" for the boy.

"Remember earlier we discussed our idea of a family in terms of our experiences. Let's go back and reread the introduction and find out what the boy's idea of a family might be given his past experiences."

Explain.

6. Direct students' attention to discussion recorded on chalkboard on family concept.

"From what we know so far about the boy, let's go through our list (on the board) and decide whether or not he would have had experiences similar to ours."

(Students are asked to support their answers by referring to story information.)

7. Make students aware that "from the comparison of family experiences between ours and the boy's, it seems that the boy's family experiences would not be the same.

It is because the boy does not really have a real

family like ours that the writer has chosen to put quotation marks around it."

8. Tell students, "It is important to pay attention to information that the writer wants to tell us. Only by understanding what the writer means can we explain why certain things happen in the story. For example, how does knowing that the boy did not have a real family help you to answer this question:
Why do you think the boy's 'family' left him?
Explain."

Preparation for reading, pp. 85-88.

1. "We know that the boy is traveling alone. What do you think is going to happen to the boy?" Record predictions on board. "We'll check how accurate your predictions are after reading the story."
2. "Why do you think I want you to predict or guess what is going to happen to the boy?"
"Predicting helps you to think about what you already know from reading and to decide if what happens is logical or reasonable with what you already know. If what happens is not logical or unreasonable we need to check our understanding by rereading; perhaps we missed out something from our reading."
"We'll check our accuracy in reading later."
3. "Read pages 85-88 (top only) to find out more about the boy."
Allow 10-15 minutes for reading.

Instruction

1. "Reread (silently) paragraphs 2 and 3 on page 85 to get a mental picture of the boy."
2. "From the two paragraphs read find words which describe what the boy was wearing." Explain.
3. "From the two paragraphs read find words which describe his physical condition."
4. "It is important to pay attention to the writer's description of the boy because we find out the boy's needs and feelings."
5. "From the description of the boy, what would you say are the boy's needs?" Explain.
   ("biting" wind through boy's "threadbare dungarees" as evidence for need of new clothes; needs food because he is "hungry", etc.)
6. "We are also told how the boy feels. Read the sentence that tells you how he feels." Explain how you know, relate own experience, description of "ache" is feeling.
7. "Explain the reasons why the boy's body ached?"
   ("ached with weariness and hunger and terrible emptiness")
8. "What is the meaning of "ache with weariness and hunger"? Explain.
9. "What is the meaning of "ache with terrible emptiness"? Explain.
10. "So far we know from the description of the boy his needs and feelings. We know that it is reasonable for the boy to be in this condition because he was left by

his 'family' and was traveling alone."

11. "What was the boy's reaction to seeing a herd of deer?" Explain.
"Find words which describe how he ran towards the herd of deer."

12. "Explain the meaning of 'fury of haste' in the sentence."

13. "From the manner that the boy is running towards the herd of deer, what do you think the writer is trying to tell us about the boy's feelings?" "Explain."
(boy's need - need for contact with a living thing, loneliness)

14. "The boy seemed to be very excited when he was calling the herd of deer. How did the author get this meaning across?" ("wait!" exclamation mark means excitement in this case)

15. "We are told that the boy was 'foolish' to shout at the herd of deer. Find the words which have the same meaning."

16. "What do you think the author meant by saying that the boy 'shouted foolishly'?" Explain.
"Think about our knowledge of deer. We know that loud noise would no doubt frighten the deer away. Because the boy probably broke the 'silence' around him by not only running to the deer but also 'shouting' at the deer, it is only natural that the deer would run from him. From what we know about the deer, it is predictable that the deer would not 'wait' and it is

reasonable for the writer to describe the boy as shouting foolishly."

"Also perhaps the boy even knew it was 'foolish' to shout at the deer to wait but because he was so desperate for companionship, he could not think clearly."

17. "The author introduces you to a Montana mountain rat" and a "flock of crows".
"Read the part that describes what the Montana mountain rat and the flock of crows were doing."

18. "What do you think the most important thought in this paragraph is? Explain." (animals returning to home for night)

19. "We know that it is night because animals are going to their homes. We also know that the boy has no home to go to. What do you think the author's purpose was in writing the paragraph about the animals?" Explain.

20. "Find words which tell you that the boy cried."

21. "Why do you think the boy started to cry? Explain."
"What would you do if you were in the boy's situation?"

22. "Given the information of what we know of the boy's needs and feelings it is reasonable to expect him to cry."

23. Ask students to write down answers to:
a) What things happened in the story that you think are important?
b) What do you think the author's most important thought in the story to this point is? Explain.

24. Have students read out answers and discuss what details from the story support their answers.

Summary

Integrate story thus far for students.

Important happenings:

Boy's "family" had left him. The boy never had a real family, only people he has traveled with from place to place harvesting crops. The boy is traveling alone and we learn that he cannot stand being alone when he tries to stop a herd of deer by shouting to them.

Author's important thought to this point:

Boy is alone in the world with not a soul to care for his needs and wants. Boy is alone because his "family" left him, he is hungry, alone, tired, etc.

Collect students' work.

Lesson Plan (2) (30-40 minutes)

April 20, 1983, Wednesday

Purposes

Refer to Lesson Plan 1.

Material

"Boss Finds a Boy" by Ester Wier, pp. 88-94.

Procedures

Review of Instruction

1. "We were reading the story, "Boss Finds a Boy". What things did we learn about the boy?"
   (his needs, feelings, wants, etc.)
2. "What clues from the story tell us about the boy's needs, feelings, etc.?"
   (Remind class that from boy's action, i.e. his desperate attempt to call the herd of deer we found out the boy's loneliness and his need to be with something alive. From the writer's description of the boy we found out boy needed new clothes, was hungry and lonely, etc.)
   "An important happening in the story so far then is that through the boy's action, his attempt to call the herd of deer, we learn that the boy is desperately alone and needs companionship."

Preparation for reading a new story section

1. "In this section of the story the boy is going to be found by Boss. What kind of a picture do you have of

a person named Boss?" Record description on board.

2. "What does the name Boss mean to you?"

3. "Let's read pages 88-94 (top). Find out what the story tells about Boss. As you read, think about what are Boss' needs and wants, and how Boss thinks and feels."

Allow 15-20 minutes for reading.

Instruction

1. "Let's compare our descriptions of Boss to what we learned about her from the story."

2. "Reread paragraph one on page 88 to get a mental picture of Boss, Describe Boss."

3. "What information would support or change your prediction of Boss?" Explain.

Description of Boss:

six foot two, wearing boots (sturdy leather, laced), wool trousers, heavy wool-lined jacket, man's old felt hat, gray hair cut short, powerful body (grace of an athlete, relaxed, yet disciplined)

4. "From the description of Boss we find she seems more masculine than feminine. What words tell you Boss is described like a man?"

(six foot two, man's old felt hat, powerful body)

5. "What had shaken the very foundations on which Boss' life was built?" (death of her son two years ago)

6. "What is the foundation on which Boss builds her life? Explain."

"Rephrase in your own words, 'She had lived too long in this vast and unpredictable land to question what

happened here'."

7. "Why do you think she doesn't question what happens?" "Let's go back to the question, 'What is the foundation on which Boss builds her life?' In other words, what Boss believes in is what is meant by 'the foundation on which she builds her life on'. So what is it the foundation on which Boss builds her life?" (Boss believes that things happen according to God's will which is mysterious and unquestionable.)
8. "Read the part that explained why Boss looked at the sugar and hesitated before putting it in the mush." (She didn't hold with spoiling children with sweets.)
9. "We are not told whether Boss had put sugar in the mush only that 'she looked at the sugar and hesitated'. Do you think the woman put sugar in the mush?" Explain.
10. "The woman told the boy to call her Boss. Why do you suppose she suggested to the boy that he call her by that name?" ("It's been years since anyone called me anything.")
11. "What did the woman mean that "It's been years since anyone called (her) anything?" Explain. (Own son died two years ago, only human within miles, only had dogs for company)
12. "Read page 93, the sentence, 'It made her mad all over'. What is it that made the woman 'mad all over'?" Explain. (fact that boy was "underfed," uncared for, and didn't even have a name. Right now he looked like a hunted animal, a lonely animal fighting for its life

in a world where no body cared.)

13. "What does it mean to be 'mad all over'?" Explain.

14. "What did Boss compare the boy to on page 93?"

15. "What words tell you that the boy is being compared?" ("looked like")

16. "From the woman's description we see that she certainly feels sorry for the boy as she describes him as a 'hunted' and 'lonely' animal. She is also very upset that a child is treated this way. We know how upset she is by the author's description of her being 'mad all over'."

17. "Read the part that tells you winter was coming."
- "a herd of deer driven from the higher ridges by the first signs of winter", p. 86.
- "the wind from the mountains carried the icy threat of snows soon to come", p. 89.

18. "What words did the author use to describe the chill?" (the chill turned to raw cold)

19. "Why do you think the author wanted to tell you that winter was coming? Explain." (help understand boy's predicament, his situation, that he would not survive winter alone, especially his worn out clothing, hunger, etc.)

20. "What similarities are there between the boy and the woman? Find support for your answers from the story."
- Both are alone (p. 85, "boy traveling alone")/ (p. 89, woman's son died 2 years ago, only human being within miles)

- Both without family

- Both with no name because no one to call them or care enough to call or give name.

"Why is it important to know that similarities exist between the boy and Boss?"

21. "Find examples in the story which show how Boss cared for the boy after she brought him into her wagon."

- "she carried the boy to the end where her bed was built crosswise into the wagon", p. 90,91.

- "woman handed him the bowl and poured milk on the mush. 'Eat', she said", p. 91.

22. "Think about what you have read so far and about our discussion today when you are answering the questions." "Write down your answers to:

a) What things happened in the story that you think are important?

b) What do you think the author's most important thought in the story to this point is? Explain.

23. Have students read out answers and discuss what details from story support their answers.

Summary

Integrate story thus far for students.

Important happenings in the story thus far:

Boss finds the boy. Boss is a woman sheep herder who is alone since her son died two years ago. Boss takes boy in and feeds him.

The author's important thought for this section may be:

Boss is alone in the world. Her only companionship is a herd of sheep and two dogs.

Boss, like the boy, also needs human companionship, would be a reasonable guess as the death of her son has left her alone.

Collect students' work.

Lesson Plan (3)

April 21, 1983, Thursday

Purposes

Same as Lesson Plan 1.

Material

"Boss Finds a Boy" by Ester Wier.

Procedures

Review with class:

1. "What things happened in the story that are important so far?"
2. "What is the important thought that the author seems to be telling us so far?"
3. "Let's finish reading the story and see what will happen to the boy."

Read pages 94-96. Allow 8-10 minutes for reading.

Instruction

1. "How did Boss know that the boy paid her a compliment?" (Boy said, 'You'd be a good crop-picker'.)
2. "How do you know that the boy said it?" (by quotation marks surrounding what boy said as well as words, "the boy said", p. 95)
3. "What was the boy's reason for thinking Boss would be a good crop picker?" ("You're bigger than most men and you could lift a sack of potatoes easy, or even a full hamper of beans", p. 95)
4. "How do you think the boy feels towards Boss if he

paid her a compliment? Explain."

5. "What evidence indicates that the woman had a sense of humor? Explain." (woman's explanation to the boy that he needed to sleep with a sack of potatoes to keep them from freezing, p. 96)

6. "Let's have one student play the boy in the story and another student play the woman."
"How do you know what the boy says and what the woman says?" (quotation marks)
"Let's have one student read what the writer tells us."
"The rest of us will listen to the conversation between the boy and the woman and decide whether they would get along well with each other."

7. "From the conversation between the boy and the woman, how do you think the woman feels toward the boy? How does the boy feel towards Boss?" Explain.

8. "Both characters seem to get along well with each other." (Boss laughed at boy's explanation, p. 95. Boy pays compliment to Boss. Boss answers all of boy's questions)

9. "From the conversation between the boy and the woman, they seemed to be getting along very nicely. What do you think would happen to the boy?" Explain.

10. Ask students to summarize in class what happened in story. For example: "Let's think about the whole story. In the beginning of the story we learned that the boy's 'family' had left him. The boy is traveling alone, hungry and tired. He can't stand being alone

and his desperation for companionship caused him to chase after a herd of deer. The boy was found by a woman sheep herder who was also alone in the world since the death of her son. The boy is taken into the woman's wagon and given food and shelter.

11. "Now that we have discussed the whole story, 'Boss Finds a Boy', let's think about how we could organize the information to answer the question, 'What things happened in the story that you think are important?'"

Model for students how to select their information.

Step I = "First, let's think about the characters in the story."

Q = "Who are the main or important characters in the story?"

Step II = "Usually in stories we find that the character has some kind of a problem."

Q = "What kind of a problem did the boy have?"

Step III = "Usually when the character in a story has a problem he finds some way to solve it."

Q = "In the story how did the boy solve his problem?"

Step IV = "OK, now to answer the question - 'What things happened in the story that you think are important?' - we have to talk about a) who was in the story, b) the character's problem, and c) how the problem was solved."

Q = "Write down your answer to the question, 'What things happened in the story that you think are important?'" Have students read out answers and discuss them.

12. Write on board the following answers:

a) Jup saves a boy from loneliness.

b) About the travels of a dog.

c) About a boy's need for food, shelter and proper clothing.

d) About a boy alone in the world who finds someone to care for him.

Discuss with students which answer is most acceptable to the question, "What are the important happenings in the story?" Students are expected to explain why a, b, and c, are unacceptable.

13. Model for students how to organize information to produce main thought.

Step I = "Once we have selected and organized our information as to what things happened in that story we can use that information to help us come up with a main thought." "Let's use answer d on the board and see how it can help us to come up with a main thought."

Step II = "What is the main or important thought in answer d?" Examples of answers from students: "loneliness, need for love, need for a family".

Step III = "Now what can we say about loneliness, or need for love, that would cover what happened in the story?" Examples of answers from students:

a) Without a family, life can be lonely.

b) Human survival depends on care and love from others.

c) Lonely people need companionship.

Step IV = "To determine whether our main thought answer is

acceptable for the story we should be able to explain our answer in terms of what happened in the story. That is, we should be able to support or defend our main thought answer with examples of what happened in the story."

"For example, an acceptable explanation for main thought answer (a) might be:

The boy in the story didn't have a real family and he was very lonely. We know he was lonely because he was foolish to chase after a herd of deer just so that he could have some company."

14. Have students provide other explanations to support main thought answer. Discuss with students why an explanation is or is not acceptable.

15. Review for students how to organize information to decide what things in the story are important and finally how to use the information to arrive at a main thought for a story.

APPENDIX D

Story Used in Lesson Plan - "Boss Finds a Boy"

"Boss Finds a Boy" by Ester Wier

(The boy had never known his parents. His life was harvesting crops, going from place to place with the people who pick beans or potatoes or lettuce and then move on. His last "family" had left him, and now he was traveling alone.)

The boy stood in the middle of the road, gazing up at the wedge of wild geese high in the sky above him. Their noisy honking broke the immense quiet that lay like a blanket, spread from the mountains beyond to the endless plains far below.

He shook his head dully and looked down at his feet. There was little left of the sneakers now, only the ragged canvas around his ankles, the raveled strings which held them on, and what had not been gouged from the soles on the long walk from the highway many miles behind him now.

A late afternoon wind was rising, biting into his legs through the threadbare dungarees and into his body under the worn flannel shirt. The crack in his lower lip opened again, and his tongue, touching it, tasted blood. He put a chapped hand against his lip and pressed hard. Every inch of his body ached, ached with weariness and hunger and terrible emptiness.

Beyond him the road climbed another hill, and upon the crest spruce trees bent in the wind, and shadows spread like dark water seeping from the mountainside. The ruffled edges of the clouds had turned gold, and for a moment it seemed that the whole world had become golden, the dried slopes about him reflecting the coming sunset. He was used to being out of doors at all hours, but he had never seen anything like

this and he stood, swaying wearily, caught by its splendor. In the distance, off to his right, a herd of deer driven from the higher ridges by the first signs of winter, moved slowly across the bronze grass. Except for birds, they were the first signs of life he had seen in days of struggling through this country, and suddenly the enormity of the space around him and the loneliness of its silence became more than he could stand, and he found himself running toward the animals, leaving the road, and scrambling over sun-scorched pasture land in a fury of haste.

"Wait!" he called, fighting through bushes and over hillocks. "Wait!" he shouted foolishly with all his strength, his voice carrying through the thin air. The deer poised for a moment and then faded into the landscape. He watched them go, still calling frantically and running toward them. They were alive, and at this moment he needed to be near something living, something besides endless stretches of hills and plains.

When he realized they were gone, his breath began to come in long shaking sobs. The reserve strength he had called on in trying to reach them left him, and he fell headlong on the earth beside a cluster of pale-gold serviceberry bushes. The impact knocked the air out of him, and he lay without moving, his tear-streaked face pressed into the rough dry grass.

A Montana mountain rat, busy on an errand of nest making, paused and sat on her haunches looking at him before scurrying on across the fields, and a flock of crows flew above him, seeking their roost for the night.

Finally the boy tried to raise his body, his shaggy brown

hair falling over his eyes. He couldn't go any farther. He was through, finished, beaten. How long had it been since he left the potato fields and started off on his own across this unfamiliar country? How many rides had he hitched on the highway? Which way was he headed now? How many meals had he made on berries and the raw potatoes he carried in his pockets? He didn't know. He didn't care. Nothing mattered now.

He lay quietly until the sobs began again, deep and racking. Above him the sky turned from gold to dark blue, and the clouds drifted to the south. He burrowed deeper into the earth, rolling his body into a ball against the bushes, the weariness spreading through him like a soothing syrup, He cried himself out, and slowly his hands relaxed and his eyes closed. Like a small animal seeking the warmth of the earth, he pressed his face against the grass and slept.

The woman, waiting on the rise of the hill, stood six-foot-two in her boots. They were sturdy leather boots, laced to the knee. Above them she wore wool trousers and a heavy wool-lined jacket. On her head was a man's old felt hat, pulled down to cover her ears and the gray hair cut short all over her head. From a distance it would have been hard to tell she was a woman, for her body was powerful, and she stood with the grace of an athlete, relaxed yet disciplined. She lifted a hand and called, "Come!" and the dog, below the hill beside some serviceberry bushes, raised his head and looked at her. The rough coat of the collie was black with white markings on the chest, the neck, the legs, and the feet.

He stood thirty inches at the shoulder, and his weight was nearly eighty pounds. The bigness of his mistress would have dwarfed most dogs, but not Jupiter. He came from a line of the finest sheep dogs of northern Scotland, and it showed in his deep chest, his remarkable height, his proud balance of body.

He looked at the woman and took a few steps toward her, then flung his head high and growled low in his throat. He retraced his steps to the bushes and looked at her again. Barking for a sheep dog was always the last resort in an emergency and one sure to excite the sheep, so he held his voice deep in his throat and the sound carried no farther than to the woman on the hill.

"What is it, Jup?" she asked, watching him. "If I walk down there and find it's only a rabbit, I'll skin you alive."

The dog, hearing her voice, started toward her again, then stopped and flung his head high.

"All right, all right," she said, "I'm coming."

He met her halfway and led her back to the bushes where the boy lay. There was no surprise on the woman's face. She had lived too long in this vast and unpredictable land to question what happened here. Although her son's death two years before had shaken the very foundations on which her life was built, she still held to her belief in a wisdom greater than man's. "God moves in a mysterious way His wonders to perform," she marveled now. How else had the boy been led here, a stone's throw from the only human being within miles?

"Well," she said at last, "if it were a sheep and as

scrawny as this, I'd say it was hardly worth the finding. How do you suppose he got here, Jup? Where does he belong? Hardly enough clothes or flesh on him to cover his bones. You found a real stray this time."

The wind from the mountains carried the icy threat of snows soon to come. The sunset was over and night blue had spread across the sky. The first stars appeared, and the chill turned to raw cold.

"Back to the sheep, Jup," the woman said. "I'll handle this." The collie hesitated a moment in leave-taking, then sped off toward the bed-ground, the white tip of his tail moving through the fast-falling darkness.

The woman bent over the sleeping boy. Traces of tears were on his face, streaks through the dust and dirt. His thin body was curled against the cold, and the straight brown hair hung ragged against his neck. "What a miserable little critter," she said softly. "I wouldn't let a sheep get into such a wretched condition." She studied for a while how to move him, and decided against wakening him. Carefully she placed an arm underneath and slowly raised him so that he lay against her, reminding her of stray lambs she had so often carried back to the fold. He stirred, a long convulsive shudder running through his body, then lay quietly in her arms.

She carried him up the hill and across the hundred yards to the sheep wagon. Jup was waiting for her, his head turned toward her yet his senses alert for any movement among the sheep on the bed-ground. They lay, over nine hundred of them, close together on a slanting rise beside the wagon. Around

the bed-ground, several feet apart, stood the flags to scare off marauding animals.

The other dog, Juno, sniffed daintily, her nose pointed up at the boy. Her rough white coat moved in the wind and her dark mahogany-colored ears stood three-quarters erect, with the ends tipping forward.

"It's all right," the woman assured her. "Now, you two get back to your posts and keep a sharp lookout for coyotes. If they get a sheep tonight, I'll skin you both alive." Jup whined softly and moved toward the sheep, Juno following a parallel course on the opposite side of the flock.

Smoke curled from the stovepipe atop the sheep wagon, drifting south with the wind. The woman mounted the steps to the door, pulling it open carefully so as not to disturb the boy. Once in, she shut it behind her and looked about. The benches on either side of the long narrow room were hard and bare, so she carried the boy to the end where her bed was built crosswise into the wagon. She pushed aside the soogan, the heavy square comforter, and laid him on top of the blankets. The room was warm, and the boy sighed as he turned over and adjusted himself to the softness.

The woman took off her heavy coat and old felt hat, and went to the kerosene stove which stood to the right of the door. Taking a kettle, she poured water into it from a bucket, salted it, and set it on the flame. She seemed to fill the end of the wagon, her head clearing the ceiling by only a few inches. While the water came to a boil, she raised a trap door in the long bench on the left and pulled

out two wool sacks stuffed with straw, two blankets, and another soogan. She made up a bed quickly on the bench, then returned to the stove and poured cornmeal into the boiling water. When the mush was ready, she put it into a bowl and punctured a can of milk. She looked at the sugar and hesitated. She didn't hold with spoiling children with sweets. Even her own son had never been allowed sugar on his mush. Life was a hard business and indulgences led only to softness, and softness to weakness. She didn't believe in weakness. She left the bowl on the stove to keep warm and went back to the bed where the boy lay.

"Come," she said, rousing him. The boy's eyes flew open, and he lay staring up at her. Confusion was on his face and a wary look about his eyes. "Here's some food," she said. "You look as if you could stand it." She went back to the stove and picked up the bowl.

The boy sat up and backed into a corner of the bed. He looked around the strange room and then up at the woman again. "Who're you?" he asked.

The woman handed him the bowl and poured milk on the mush. "Eat," she said. "I'll talk while you fill your stomach." She wanted to wash his hands and face before he ate but she knew at the moment his need was more for nourishment than for cleanliness.

"Eat!" she said again. The boy stared at her, then dropped his eyes to the bowl. Picking up the spoon, he began to eat, placing the hot mush in his mouth and swallowing hungrily.

"Take it slow," she said. "There's more if you want it." She sat on the bench and leaned forward. "My dog found you a while ago, and I carried you here and put you to bed. I figured you must be hungry so I fixed you something to eat. And I wanted you to know where you were so that when you woke up in the morning you wouldn't be scared to find yourself here."

The boy listened as he ate. "Who're you?" he asked again.

"You can call me Boss, I guess. It's been years since anyone called me anything else. I've got a flock of sheep outside and this is my wagon, and it's resting on the winter range."

The boy finished the mush and raising the bowl to his mouth licked it clean. The woman refilled it for him.

"Now, suppose you tell me what to call you," she said.

The boy looked at her silently for a long time. Distrust and caution played over his face, and Boss had the notion that if he could squirm out of the corner and past her, he would make a dash for the door.

"This ain't a home for children?" he asked.

Boss laughed. "It's a home for me, that's what it is. Now, what's your name?"

The boy's eyes narrowed. "Boy," he said. "That's what folks call me, unless they're mad at me."

The woman knew she had been right about his being a stray. He was underfed, uncared for, and didn't even have a name. Right now he looked like a hunted animal, a lonely

animal fighting for its life, in a world where nobody cared about it. It made her mad all over.

"All right," she said, "I'll call you Boy for now." She knew there was no use asking him questions. Let him settle down and relax first. There would be time enough to find out where he belonged and decide what to do with him later.

She took the bowl back to the stove and filled a pan with water from the kettle. In a corner of the dish cupboard beside the stove she found a towel. She got some soap and carried it all back to him.

"Wet a corner of the towel and wash your face. Then scrub your hands," she said. "And use the soap! I'll find something for you to sleep in."

The boy looked at the water and soap. "Is it Saturday?" he asked. In the crop-pickers' camps no one ever bathed except on Saturday evening.

"No, it isn't Saturday but I want you clean because I'm letting you sleep in my bed tonight. I won't have it messed up with a lot of dirt. Now, get to washing!"

She turned her back on him, lifted the bed she had made to get to the trapdoor of the bench again. When she found the garment she wanted, she came back to him and dropped it on the bed. He had rubbed the wet towel across his face, leaving his neck and ears grimy with dirt. She saw that the palms of his hands were heavily calloused, as though they had blistered and healed again and again, forming heavy pads of thickened skin. "Wipe your hands and get into this shirt."

The boy picked up the nightshirt in surprise. "Take off my clothes? Why?"

"So you'll sleep better," she answered. "Take off everything and put it on. I won't watch you."

She took the pan to the door, opened it, and flung the water out upon the ground. Then she refilled the pan and washed the bowl and spoon he had used. "All right to look now?"

The answer was muffled and she turned to see him struggling into the flannel shirt, his head coming slowly through the open neck.

"It's big," he said. "Is it yours?"

She shook her head. "Belonged to old Bezeleel who used to live here. I found it when I moved in. It's clean."

He pulled the nightshirt around him. "Take off your shoes," she said, "and don't ask me why again." He did as he was told.

"Where you sleeping?" he asked.

She pointed to the wool sacks on the bench. "I'll sleep here tonight, soon as I get my boots off."

"You going to wash and take off your clothes too?"

"I've already washed. I do that as soon as I come in from the range and get the sheep settled. And I don't undress because a good herder never takes his clothes off at night. He sleeps with one ear on the sheep and the other on the dogs, and never knows from one minute to the next when he'll have to get out there and scare off a coyote or two."

"That why Beze - the other sheepherder ain't here no

more? 'Cause he took off his clothes and used this night-shirt?"

Boss laughed. He was quick all right ... "No, that's not why." She stood up and straightened her bed.

"You'd be a good crop-picker," the boy said, studying her. "You're bigger than most men and you could lift a sack of potatoes easy, or even a full hamper of beans."

The woman knew he had paid her a compliment. So that's where he had come from, she thought. Probably from the potato fields in Idaho. But why is he here and who does he belong to?

She raised the blankets on his bed and told him to crawl under. "It's going to be cold when I turn off the stove, so dig down deep and keep the potatoes warm." She picked up a sack of potatoes and put them under the covers beside him. "When you sleep in this bed, that chore goes with it."

He looked at her as though she were crazy. "Sleep with potatoes? Why?"

"So they won't freeze. Now, no more questions. I'll leave the stove on in the morning when I start out. And the window over your bed cracked just enough to give you some air. I'll leave biscuits on the stove and a pot of beans, and the rest of the canned milk. Sleep all you can and I'll see you when I get home at sundown. Don't go outside in those thin clothes."

"Where you going?"

"Out with the sheep. They're ready to leave the bed-ground at sunup and they'll graze a few miles from here

tomorrow. Now, no more questions. Go to sleep."

She turned off the lamp and lay down on the straw-filled wool sacks, drawing the blankets and soogan over her. She listened for the dogs but heard nothing. Not a sound came from the sheep. The wind was dying down and she thought gratefully that perhaps tonight she would be able to sleep straight through. Jup or Juno would warn her if the coyotes came near, or if the sheep became restless and decided to look for higher ground, or if the lead sheep felt she hadn't had enough grass and set off to find more, with the rest of the flock following her.

She would think what to do with the boy tomorrow while she was out on the range. Right now she was tired and sunup was too few hours away.

APPENDIX E

Pretest Story -

"Child of the Silent Night"

CHILD OF THE SILENT NIGHT

By reading, you can learn of children and adults who have been able to overcome their handicaps and problems and find their place in the world.

One such person was Laura Bridgman. She was both deaf and blind as a result of a childhood illness. In 1837, a few weeks before her eighth birthday, Laura's parents took her to school to start her great adventure in learning. Dr. Howe and his sister, Miss Jeannette Howe, were her teachers.

The following selection ... tells of Laura's first encounter with formal schooling.

The room that had been given to Laura was in Dr. Howe's own apartment and he and his sister quickly became another father and mother to her. In a very short time she began learning, through her hands of course, to identify every member of the school family. There were more than forty people: blind children and teachers. Laura soon knew every one of them by touch.

At the end of two weeks Laura was so happy in her new surroundings that Dr. Howe felt he could begin the experiment he had planned. The night before he began he discussed his plans aloud with his sister.

"My goal is perfectly clear to me, Jeannette," he said. "I am going to try to bring into Laura's mind the idea that there are twenty-six different signs or letters that everyone uses. This is our alphabet. I want her to know that by combining these letters into words we can share our thoughts with each other."

"But Sam, how in the world are you going to 'tell' Laura that?"

asked Miss Jeannette, puzzled....

"I know just exactly how I am going to try to do it," said Dr. Howe, smiling. "You may attend the first class with Laura tomorrow morning and see for yourself."

The great day dawned. When the first lesson began Laura was seated at a table across from Dr. Howe. Beside her sat Miss Drew, who was to be Laura's own special teacher. Miss Jeannette Howe sat watching nearby.

The doctor had arranged a row of objects on the table in front of him. There were a large key, a spoon, a knife, a fork, a book, a cup, and a few other things with which he felt sure Laura would be familiar.

First Dr. Howe put the key into Laura's hand. It was a very large key. He let her handle it and feel it all over. She knew immediately what it was. The key at home with which she locked her boot in the cupboard was very much like this one - except for one thing. Her sensitive fingers paused as they felt the long key. There was something on this one.

Dr. Howe had fastened a paper label on the key. On the label the word *key* was written in a special kind of raised lettering or embossing that was used at that time in writing for the blind. The Braille system, now so widely used, had not yet been adopted. Dr. Howe guided Laura's fingers over the raised lines of the letters several times. She had no idea, of course, what the letters were.

Then he took the key away from Laura and handed her a spoon. She took it, felt it and immediately recognized it as a spoon much like

the ones with which she set the table at home. Again there was one important difference. Along the handle of the spoon Dr. Howe had pasted a label with the letters S-P-O-O-N written in raised type. Dr. Howe guided her fingers carefully over this word several times.

Now the doctor took away the spoon and gave the key back to Laura. He directed her fingers to the label on the key again. Then he gave her back the spoon and directed her fingers to the label on the spoon once more. He wanted Laura to feel that the shape of the lines on the key label and the shape of the lines on the spoon label were just as different from each other as the key and spoon themselves were different from one another....

Now the doctor did something else. He took away the key and the spoon and gave Laura just a piece of paper with some raised letters on it. The letters were K-E-Y again. Taking the key once more, Dr. Howe directed Laura's fingers to the label on it.

An expression on Laura's face made it quite clear that she recognized that the raised letters were the same on both papers, the one on the key and the separate label. Dr. Howe went through the same process with the spoon and a separate label that read S-P-O-O-N.

The rest of that first lesson was spent letting Laura feel the remaining objects - cup, knife, book, and so forth - and the labels for these, both those pasted on the object and those that were separate. From that time on Laura had lessons every morning and afternoon. She seemed to enjoy them thoroughly and to consider them just a game, not work. It was difficult for Dr. Howe and Miss Drew to get her to stop "playing" this game.

By about the third day Dr. Howe and Miss Drew were delighted to see that Laura had grasped the important point that the separate label for *key* somehow went with the key and the label that was separate from the spoon went with the spoon. That she understood this was shown by the fact that she could take a separate label, such as the one spelling *book*, and feel about until she found a book without any label. Then she would place the label on the book.

In a very few days Laura could reverse this process. She could pick up an object, such as a spoon, search through a pile of loose labels on the table, feel them until she found the one that read S-P-O-O-N and then put it on a spoon. She could do this for any object for which she had been taught the feeling of the word.

Dr. Howe was greatly encouraged. He felt sure that he was going to succeed with Laura; his only question was how long it was going to take him. In a report that he once wrote about his work with her he said: "It sometimes occurred to me that she was like a person alone and helpless in a deep, dark, still pit,"...

The lessons were going so well that Dr. Howe felt Laura was ready to take another important step forward. He had Miss Drew cut the labels for the words *key, spoon, knife,* and so forth, into separate letters. Up until this time Laura had seen words as wholes. Now he wanted her to learn that they are made up of parts - letters. Laura was allowed to follow closely, with her hands, all that Miss Drew did. After the words had been cut into separate letters, her hands followed Miss Drew's as she arranged the letters back into words.

In an astonishingly short time Laura had grasped the point of

this new "game". If Miss Drew handed her the letters O,S,N,O,P, in a flash Laura could arrange them in the correct order to spell S-P-O-O-N. If Miss Drew gave her Y,K,E, Laura arranged them into the word K-E-Y. O,K,O,B, and I,K,E,N,F were equally simple for her. After a few more lessons Laura could do this with all the words in her vocabulary and soon after that she could take from a whole pile of loose letters whatever ones she wanted and spell correctly any word she wished of those she had been taught. This would have been a great accomplishment for any eight-year-old. How much more remarkable it was for a little girl like Laura Bridgman!...

Two months had passed before Dr. Howe felt that Laura was ready to take the final step that he had planned for her. Miss Drew was sent to the home of a Mr. George Loring, who was a deaf-mute, to learn the manual alphabet. She learned it in one afternoon.

The manual alphabet is a way of forming the twenty-six letters of the alphabet with the hands ...

A deaf person who has been "talking" with the manual alphabet for a long time can "say" with his hand as many as 130 words a minute. A deaf person who is skilled at watching another person "speak" with his hands can easily "read" 130 words a minute.

Laura, of course, would not be able to see the letters. Miss Drew would have to form them in Laura's hand so that she could feel them.

But how could she teach Laura that the various positions in which she held her fingers meant the letters of the alphabet that she had already learned... This is how Miss Drew did it. She picked up the key and let Laura feel it. Then she took the letter *K* from the set

of metal types and let Laura feel that. Then she shaped the letter *k* in the manual alphabet into Laura's hand, her first two fingers up and bent forward, the next two fingers folded down, and the thumb up. She made Laura feel the way her fingers were held. Then she let Laura feel the metal letter K again.

The same procedure was followed with the letter *e*.... Finally the letter Y was taken from the metal types and Laura allowed to feel it.... Now Miss Drew had set the metal types K-E-Y in the form. She let Laura run her hand over the whole word. Then she formed again, in the manual alphabet, the letters *k-e-y* in Laura's hand and she placed the key itself in Laura's other hand. This was done with the spoon, the cup, and the key again.

And then it happened! For two months Laura had been "playing" these games with letters and words almost the way a trained dog performs certain tricks. Now, suddenly, it was different. Dr. Howe always said that he knew almost the exact moment when Laura's face showed that she at last really understood what all this meant. Suddenly it seemed to become clear to her that every object had a name, that these names could be spelled by letters, either in raised letters, metal types or, most easily of all, by the manual alphabet.

APPENDIX F

Posttest Story -

"How Helen Keller Learned"

HOW HELEN KELLER LEARNED

Helen Keller

When Helen Keller was little more than a year old, a severe illness left her both blind and deaf. It is hard to imagine a more terrible affliction. Yet in spite of it she not only learned to read and speak, but acquired a college education. This selection from her book, THE STORY OF MY LIFE, will give you some idea of how she overcame some of her difficulties.

I cannot recall what happened during the first months after my illness. I only know that I sat in my mother's lap or clung to her dress as she went about her household duties. My hands felt every object and observed every motion, and in this way I learned to know many things. Soon I felt the need of some communication with others and began to make crude signs. A shake of the head meant "No" and a nod "Yes", a pull meant "Come" and a push "Go". Was it bread that I wanted? Then I would imitate the acts of cutting the slices and buttering them. If I wanted my mother to make ice cream for dinner, I made the sign for working the freezer and shivered as if cold.

My mother, moreover, succeeded in making me understand a good deal. I always knew when she wished me to bring her something, and I would run upstairs or anywhere else she indicated. Indeed, I owe to her loving wisdom all that was bright and good in my long night.

I understood a great deal of what was going on about me. At five I learned to fold and put away the clean clothes when they were brought in from the laundry, and I distinguished my own from the rest. I knew, by the way my mother and aunt dressed, when they were going out, and I invariably begged to go with them. I was always sent for

when there was company, and when the guests took their leave, I waved my hand to them.

I do not remember when I first realized that I was different from other people, but I knew it before my teacher came to me. I had noticed that my mother and my friends did not use signs as I did when they wanted anything done, but talked with their mouths. Sometimes I stood between two persons who were conversing and touched their lips. I could not understand, and was vexed. I moved my lips, but without result. This made me so angry at times that I kicked and screamed until I was exhausted.

In those days a little colored girl, Martha Washington, the child of our cook, and Belle, an old setter and a great hunter in her day, were my constant compansions. Martha Washington understood my signs, and I seldom had any difficulty in making her do just as I wished. We spent a great deal of time in the kitchen, kneading dough balls, helping make ice cream, grinding coffee, quarreling over the cake bowl, and feeding the hens and turkeys that swarmed about the kitchen steps. Many of the fowls were so tame that they would eat from my hand and let me feel them. One big gobbler snatched a tomato from me one day and ran away with it. Inspired, perhaps, by Master Gobbler's success, we carried off to the woodpile a cake which the cook had just frosted, and ate every bit of it. I was quite ill afterward, and I wondered if the turkey was too.

The most important day I remember in all my life is the one on which my teacher, Anne Mansfield Sullivan, came to me. It was the third of March, 1887, three months before I was seven years old.

From the beginning of my education, Miss Sullivan made it a practice to speak to me as she would speak to any hearing child; the only difference was that she spelled the sentences into my hand instead of speaking them. If I did not know the words necessary to express my thoughts, she supplied them, even suggesting conversation when I was unable to keep up my end of the dialogue. This process was continued for several years.

The next important step in my education was learning to read. As soon as I could spell a few words, my teacher gave me slips of cardboard on which were printed words in raised letters. I quickly learned what each printed word stood for. I had a frame in which I could arrange the words in little sentences; but before I ever put sentences in the frame, I used to make them with objects. I found the slips of paper which represented, for example, "doll", "is", "on", "bed" and placed each name on its object; then I put my doll on the bed with the words *is, on, bed* arranged beside the doll, thus making a sentence of the words and at the same time carrying out the idea of the sentence with the things themselves.

One day, Miss Sullivan tells me, I pinned the word *girl* on my pinafore and stood in the wardrobe. On the shelf I arranged the words, *is, in, wardrobe*. Nothing delighted me so much as this game. My teacher and I played it for hours at a time.

From the printed slip it was but a step to the printed book. I took my *Reader for Beginners* in raised type (Braille) and hunted for the words I knew. When I found them my joy was like that in a game of hide-and-seek. Thus I began to read.

It was in the spring of 1890 that I learned to speak. The impulse to utter sounds had always been strong within me. I used to make noises, keeping one hand on my throat while the other hand felt the movements of my lips. I was pleased with anything that made a noise and liked to feel the cat purr and the dog bark. I also liked to keep my hand on a singer's throat, or on a piano when it was being played. Before I lost my sight and hearing, I was fast learning to talk, but after my illness it was found that I had ceased to speak because I could not hear. I used to sit in my mother's lap all day long and keep my hands on her face because it amused me to feel the motions of her lips; and I moved my lips, too, although I had forgotten what talking was. My friends say that I laughed and cried naturally, and for a while I made many sounds, not because they were a means of communication, but because of the need of exercising my vocal organs. There was, however, one word the meaning of which I still remembered, *water*. I pronounced it "wa-wa". Even this became less and less intelligible until the time when Miss Sullivan began to teach me. I stopped using it only after I had learned to spell the word on my fingers.

In 1890 Mrs. Lamson, a teacher of the deaf, who had just returned from a visit to Norway and Sweden, came to see me and told me of Ragnhild Kaata, a deaf and blind girl in Norway who had been taught to speak. Mrs. Lamson had scarcely finished telling me about this girl's success before I was on fire with eagerness. I resolved that I, too, would learn to speak. I would not rest satisfied until my teacher took me, for advice and assistance, to Miss Sarah Fuller,

principal of the Horace Mann School for deaf children, in Boston. This lovely, sweet-natured lady offered to teach me herself, and we began on the twenty-sixth of March, 1890.

Miss Fuller's method was this: she passed my hand lightly over her face, and let me feel the position of her tongue and lips when she made a sound. I was eager to imitate every motion and in an hour had learned six elements of speech: M, P, A, S, T, I. Miss Fuller gave me eleven lessons in all. I shall never forget the surprise and delight I felt when I uttered my first connected sentence, "It is warm." True, they were broken and stammering syllables; but they were human speech.

APPENDIX G

Description of the Developed Categories for Evaluating Students' Written Responses

Criteria for marking detail answers to:

Q1: What things happened in the story that you think are important?

Category 1 score = 5

The things mentioned which included all five of the following details:

a) main character(s) and/or main subject to account for context in narrative AND

b) the central conflict (problem) AND

c) the solution of the conflict (problem) AND

d) details relevant to the central conflict (problem) AND

e) details relevant to the solution of the conflict (problem)

Category 2 score = 4

The things mentioned which included any four of the five of the details as described in Category 1:

a) a + b + c + d or

b) a + b + c + e or

c) a + b + d + e or

d) a + c + d + e or

e) b + c + d + e

Category 3 score = 3

The things mentioned which included any three of the five of the details as described in Category 1:

a) a + b + c

b) a + b + d

c) a + b + e

d) b + c + d

e) b + c + e

f) c + d + e

g) a + d + e

h) a + c + e

i) c + d + a

j) d + e + b

Category 4 score = 2

The things mentioned which included any two of the five details as described in Category 1:

a) a + b
b) a + c
c) a + d
d) a + e
e) b + c
f) b + d
g) b + e
h) c + d
i) c + e
j) d + e

Category 5 score = 1

The things mentioned which included only one of the five details as described in Category 1:

a) a or
b) b or
c) c or
d) d or
e) e

Category 6 score = 0

The things mentioned which included five faulty details:

a) unacceptable character(s) and/or unacceptable subject, i.e. character(s) and/or subject identified was incorrect contradicting with context in narrative AND
b) unacceptable conflict (problem) i.e. conflict (problem) identified was incorrect contradicting context in narrative AND
c) unacceptable solution of the conflict (problem), i.e. solution of the conflict (problem) identified was incorrect contradicting context in narrative AND
d) details not relevant to the central conflict (problem) AND

e) details not relevant to the resolution of the conflict (problem)

Category 7 score = 0

The things mentioned which included any four of the five faulty details as described in Category 6:

a) a + b + c + d or

b) a + b + c + e or

c) a + b + d + e or

d) a + c + d + e or

e) b + c + d + e

Category 8 score = 0

The things mentioned which included any three of the five faulty details as described in Category 6:

a) a + b + c

b) a + b + d

c) a + b + e

d) b + c + d

e) b + d + e

f) c + d + e

g) a + d + e

h) a + c + e

Category 9 score = 0

The things mentioned which included any two of the five faulty details as described in Category 6:

a) a + b

b) a + c

c) a +

d) e

e) b + c

f) b + d

g) b + e

h) c + d

i) c + e

j) d + e

Category 10 score = 0

The things mentioned which included one of the five faulty details as described in Category 6:

a) a or

b) b or

c) c or

d) d or

e) e

Category 11 score = 0

The things mentioned which included any four of the five faulty details as described in Category 6 and one acceptable detail as described in Category 1:

a) 6a + 6b + 6c + 6d + 1e

b) 6a + 6b + 6c + 1d + 6e

c) 6a + 6b + 1c + 6d + 6e

d) 6a + 1b + 6c + 6d + 6e

e) 1a + 6b + 6c + 6d + 6e

Category 12 score = 0

The things mentioned which included any three of the five faulty details as described in category 6 and two acceptable details as described in Category 1:

a) 6a + 6b + 6c + 1d + 1e

b) 6a + 6b + 1c + 6d + 1e

c) 6a + 6b + 1c + 1d + 6e

d) 6a + 1b + 6c + 6d + 1e

e) 6a + 1b + 1c + 6d + 6e

f) 6a + 1b + 1c + 6d + 6e

g) 1a + 6c + 6b + 6d + 1e

h) 1a + 6b + 6c + 1d + 6e

i) 1a + 6b + 1c + 6d + 6e

j) 1a + 1b + 6c + 6d + 6e

Category 13 score = 0

The things mentioned which included any two of the five faulty details as described in Category 6 and three acceptable details as described in Category 1:

a) 6a + 6b + 1c + 1d + 1e

b) 6a + 1b + 6c + 1d + 1e

c) 6a + 1b + 1c + 6d + 1e

d) 6a + 1b + 1c + 1d + 6e

e) 1a + 6b + 6c + 1d + 1e

f) 1a + 6b + 1c + 1d + 6e

g) 1a + 1b + 6c + 6d + 1e

h) 1a + 1b + 6c + 1d + 6e

i) 1a + 1b + 1c + 6d + 6e

Category 14 score = 0

The things mentioned which included one of the five faulty details described in Category 6 and four acceptable details as described in Category 1:

a) 6a + 1b + 1c + 1d + 1e

b) 1a + 6b + 1c + 1d + 1e

c) 1a + 1b + 6c + 1d + 1e

d) 1a + 1b + 1c + 6d + 1e

e) 1a + 1b + 1c + 1d + 6e

Criteria for marking main thought answers to:

Q2 After having read the story, what do you think the author's main or important thought was? Explain.

Category 1 score = 4

An answer which reflected a central insight or general idea about life accounting for ALL of the following information:

a) main subject in narrative generalized AND

b) main character's conflict (problem) generalized AND

c) the resolution of character's conflict (problem) generalized AND

d) provided an explanation, i.e. included logical reasoning and/or examples from narrative such as relevant detail(s) to support given answer

Category 2

An answer which produced information as described in a) b) and c) of Category 1 and

a) provided an unacceptable explanation, i.e. included illogical reasoning and/or unacceptable examples from the narrative such as irrelevant detail(s) which do not support given answer OR

b) omitted an explanation for given answer

Category 3 score = 3

An answer which produced a statement accounting for ALL of the following information:

a) main subject in narrative generalized AND

b) main character's conflict (problem) specified AND

c) the resolution of character's conflict

(problem) specified AND

d) provided an explanation, i.e. included logical reasoning and/or examples from the narrative such as relevant detail(s) to support given answer

Category 4 score = 2

An answer which produced information as described in a) b) and c) of Category 3 and

a) provided an unacceptable explanation, i.e. included illogical reasoning and/or unacceptable examples from the narrative such as irrelevant detail(s) which do not support given answer OR

b) omitted an explanation for given answer

Category 5 score = 3

An answer which produced a statement accounting for ALL of the following information:

a) main subject in narrative specified AND

b) main character's conflict (problem) generalized AND

c) the resolution of character's conflict (problem) generalized AND

d) provided an explanation, i.e. included logical reasoning and/or examples from the narrative such as relevant detail(s) to support given answer

Category 6 score = 2

An answer which produced information as described in a) b) and c) of category 5 and

a) provided an unacceptable explanation, i.e. included illogical reasoning and/or unacceptable examples from the narrative such as irrelevant detail(s) which do

not support given answer OR

b) omitted an explanation for given answer

Category 7 score = 3

An answer which produced a statement accounting for ALL of the following information:

a) main subject in narrative specified AND

b) main character's conflict (problem) specified AND

c) the resolution of character's conflict (problem) specified AND

d) provided an explanation, i.e. included logical reasoning and/or examples from the narrative such as relevant detail(s) to support given answer

Category 8 score = 2

An answer which produced information as described in a) b) and c) of Category 7 and

a) provided an unacceptable explanation, i.e.included illogical reasoning and/or unacceptable examples from the narrative such as irrelevant detail(s) which do not support given answer OR

b) omitted an explanation for given answer

Category 9 score = 1

An incomplete answer with one or more of the information details missing:

a) omitted mentioning subject in narrative AND/OR

b) omitted mentioning a central insight or general idea about life OR

c) omitted mentioning the central conflict and/or its resolution AND

d) provided an explanation

Category 10 score = 0

An incomplete answer with one or more of the information as described missing in a) and/or b) or c) of Category 9 and

a) provided an unacceptable explanation OR

b) omitted an explanation

Category 11 score = 0

An answer which produced one or more of the following information incorrectly:

a) subject identified was faulty, i.e. contradicted with main subject in narrative or did not account for context AND/OR

b) central insight or general idea about life produced was faulty, i.e. contradicted with context in narrative OR

c) the central conflict and/or its resolution identified was faulty, i.e. contradicted with context in narrative AND

d) provided an explanation

Category 12 score = 0

An answer which produced one or more of the information incorrectly as described in a) and/or b) or c) of Category 11 AND

a) provided an unacceptable explanation OR

b) omitted an explanation

APPENDIX H

Summary of the Experimental and Control Groups' Scores on Q1 and Q2 of the Pretest and Posttest by Reading Achievement

Summary of the Experimental and Control Groups' Scores on Q1 and Q2 of the Pretest and Posttest by Reading Achievement

Group	Student	Pretest Q1	Pretest Q2	Pretest Total	Posttest Q1	Posttest Q2	Posttest Total
Experimental Group A n = 11 (highest in reading achievement)	1	2	3	5	2	1	3
	2	2	2	4	5	2	7
	3	2	0	2	5	1	6
	4	5	0	5	5	3	8
	5	3	4	7	4	4	8
	6	2	0	2	3	3	6
	7	3	3	6	2	4	6
	8	2	4	6	3	1	4
	9	3	4	7	3	3	6
	10	1	3	4	2	0	2
	11	2	4	6	4	1	5
Total Average N = 11		2.45	2.45	4.90	3.45	2.09	5.54
Experimental Group B n = 19 (average in reading achievement)	12	2	2	4	3	2	5
	13	3	2	5	3	3	6
	14	1	1	2	2	0	2
	15	3	1	4	3	2	5
	16	2	3	5	3	2	5
	17	2	3	5	3	3	6
	18	3	2	5	5	3	8
	19	2	1	3	2	2	4
	20	2	4	6	4	3	7
	21	2	0	2	2	1	3
	22	2	0	2	2	1	3
	23	2	3	5	3	0	3
	24	2	0	2	3	0	3
	25	3	0	3	3	3	6

Group	Student	Pretest Q1	Pretest Q2	Pretest Total	Posttest Q1	Posttest Q2	Posttest Total
	26	0	2	2	0	3	3
	27	3	2	5	4	2	6
	28	4	4	8	4	3	7
	29	2	2	4	2	2	4
	30	2	2	4	4	2	6
Total A	N = 19	2.21	1.78	3.99	2.89	1.94	4.83
Experimental Group C n = 15 (lowest in reading achievement)	31	0	0	0	2	0	2
	32	2	3	5	3	0	3
	33	2	0	2	0	0	0
	34	1	0	1	4	3	7
	35	2	0	2	2	0	2
	36	2	2	4	3	0	3
	37	2	2	4	1	2	3
	38	2	2	4	2	0	2
	39	2	2	4	3	4	7
	40	2	0	2	3	2	5
	41	2	0	2	2	0	2
	42	2	2	4	3	1	4
	43	2	2	4	3	2	5
	44	2	4	6	2	1	3
	45	0	3	3	2	2	4
Total Average	N = 15	1.66	1.46	3.13	2.33	1.13	3.46
Control Group A n = 8 (highest in reading achievement)	46	2	0	2	2	0	2
	47	3	0	3	3	0	3
	48	2	0	2	2	2	4
	49	3	0	3	3	3	6
	50	3	0	3	2	0	2
	51	2	3	5	3	3	6
	52	2	0	2	2	0	2
	53	2	2	4	2	0	2
Total Average	N = 8	2.37	0.62	3.00	2.37	1.00	3.37

Group	Student	Pretest Q1	Pretest Q2	Total	Posttest Q1	Posttest Q2	Total
Control Group B n = 15 (average in reading achievement)	54	2	2	4	3	0	3
	55	3	0	3	3	0	3
	56	2	3	5	2	0	2
	57	3	2	5	2	0	2
	58	2	0	2	2	0	2
	59	2	0	2	2	0	2
	60	2	2	4	2	3	5
	61	0	2	2	2	2	4
	62	0	0	0	2	0	2
	63	2	3	5	5	3	8
	64	3	0	3	2	2	4
	65	2	2	4	2	0	2
	66	2	2	4	2	2	4
	67	2	2	4	0	2	2
	68	2	2	4	1	0	1
Total Average N = 15		1.93	1.46	3.40	2.13	0.93	3.06
Control Group C n = 10 (lowest in reading achievement)	69	2	2	4	2	0	2
	70	2	0	2	3	2	5
	71	2	2	4	3	2	5
	72	2	3	5	3	0	3
	73	2	2	4	0	3	3
	74	2	0	2	2	0	2
	75	1	0	1	1	3	4
	76	1	3	4	1	0	1
	77	3	2	5	3	0	3
	78	3	0	3	3	2	5
Total Average N = 10		2.00	1.40	3.40	2.10	1.20	3.30

Total student population = 78