PROCESS WRITING: EFFECTS ON READING ACHIEVEMENT AND READING ATTITUDE OF SIXTH GRADE STUDENTS

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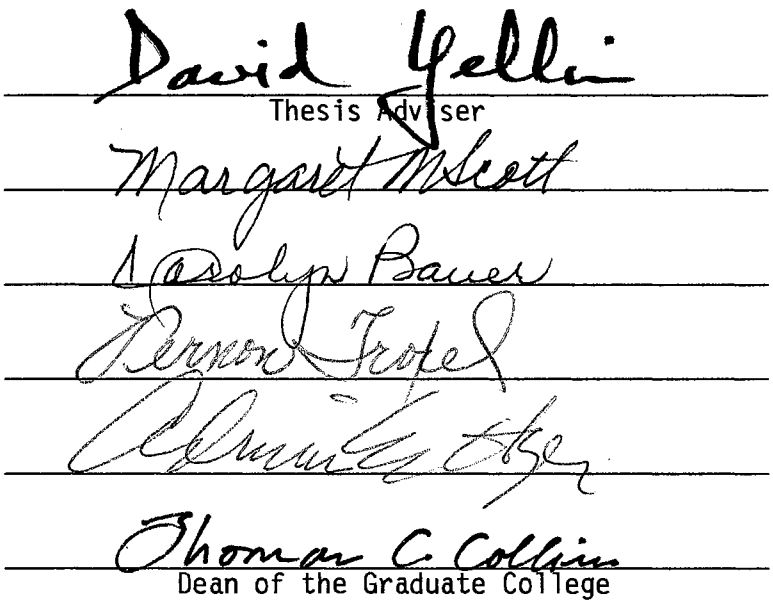

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PREFACE

Previous research has determined a relationship between reading and writing. The extent of this relationship has not been fully determined. This study investigated the effects of process writing instruction on the reading achievement and reading attitude of sixth grade students. Results indicated that students exposed to process writing instruction showed significant improvement in both reading achievement and reading attitude. The results suggested that teaching the processes of reading and writing as interrelated skills can be an effective instructional practice for sixth grade students.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

PRESENTATION OF RESEARCH STUDY

Introduction

Belief in the teaching of language arts through isolated skill instruction has dominated the instructional arena in elementary classrooms for two decades (Goodman, 1985; Venezky, 1987). Educators have expressed concern that this fragmentation of skills would result in instruction that stressed the prominence of certain language arts skills at the expense of others (Atwater, 1981; Graves, 1978; Weaver, 1988). Evidence confirming that the skill of reading had attained instructional prominence over the skill of writing in most elementary classrooms was cited by Graves (1978).

Graves (1978) noted five observations that reinforced his concern that writing was a forgotten link in language arts instruction:

1. Educational investment at all levels favored reading instruction.

2. Quantity of research on writing instruction was less than that of reading research.

3. Teacher certification requirements for teaching writing are inadequate compared to requirements for teaching reading.

4. Textbooks, as the primary source of instructional material, reinforced isolated skill exercises in the areas of punctuation, spelling, listening skills, vocabulary development, and grammar.

5. Writing achievement is difficult to evaluate through standardized testing and education is committed to assessment through standardized test measurement.

More recently, linguists and educators have cautioned against consistent reliance on isolated skill instruction (Goodman, 1985; Weaver, 1988). Despite these documented concerns, language arts instruction continues to be entrenched in fragmentation with limited attention given to teaching the process of writing. The popularity of skill drills and exercises that promote the mechanics of writing, such as spelling, punctuation, capitalization, and penmanship persist in dominating writing instruction in classrooms today (Dyson, 1982; Graves, 1983; Hansen, 1987).

The importance of teaching language arts as a whole, interrelated approach continues to be stressed (Goodman, 1985; Weaver, 1988). Research that focuses on the process instead of the product of learning has reinforced the concept of viewing language arts instruction in a holistic manner (Goodman, 1985; Weaver, 1988). These studies have also contributed to an increasing cognizance of the link between reading and writing and how this link interacts to generate thinking and learning.

Stotsky (1983) provided a comprehensive review of correlational and experimental research studies on reading/writing relationships. The review categorized research on reading/writing relationships into three groups: correlational studies, experimental studies on the effects of writing improvement on reading, and the effects of reading on writing. Stotsky's (1983) synthesis revealed the following conclusions:

1. Correlational studies indicated a strong relationship between a student's ability to read and his/her ability to write. High reading achievers were better writers than low reading achievers.

2. Experimental studies using writing instruction specifically to improve writing indicated insignificant effects on reading achievement.

3. Studies focusing on the improvement of writing by using reading instruction reported insignificant gains.

In the studies reviewed by Stotsky (1983), correlational research indicated a strong relationship between reading and writing. In contrast, experimental studies that sought to improve reading achievement through the use of related writing activities, or studies that sought to improve writing achievement through the use of reading instruction, have not been effective (Stotsky, 1983). Experimental studies using writing instruction in isolation have also resulted in insignificant gains in reading achievement (Stotsky, 1983).

Self-efficacy (self-confidence), attitude, and success play important roles in reading achievement. Bruning (1987) examined the influence of self-efficacy and outcome expectancy of readers and writers. The results of the study found both factors, self-efficacy and outcome expectancy, strongly related to reading performance. The effects of self-efficacy and outcome expectancy were independent of student abilities on subskills and increased as more dominant indicators of success or failure with the subject's age. Bruning (1987) suggested that children should be exposed to successful reading and writing experiences in order to develop an attitude synonymous with good performance in both skills. Smith (1978) defined reading attitude as the emotional response to reading. He also contended that a student's emotional response to reading is formulated through successful reading experiences.

A link between reading and writing, therefore, has been established (Aulls, 1985; Tierney and Pearson, 1983). This link provides the basis for further study of data, through quantitative measurement, regarding the

interrelationship of reading achievement, reading attitude, and process writing instruction.

Purpose of Study

The purpose of this study was to determine the effects of process writing instruction on the reading achievement and reading attitude of sixth grade students. The study addressed the following questions:

1. Did process writing yield significant differences in reading achievement between the experimental group and the control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

2. Did process writing yield significant differences in reading attitude between the experimental group and the control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

3. Did process writing yield significant differences in reading achievement between the "high" reading experimental group and the "high" reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

4. Did process writing yield significant differences in reading achievement between the "low" reading experimental group and the "low" reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

5. Did process writing yield significant differences in reading attitude between the "high" reading experimental group and the "high" reading control group score? If so, could the differences in reading attitude be attributed to process writing instruction?

6. Did process writing yield significant differences in reading attitude between the "low" reading experimental group and the "low" reading control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

Statement of the Problem

A link between reading and writing has been determined; the extent of the link is unknown. Observational studies have been the source from which most discussions on the reading and writing connection are based.

A research update for the eighties called for extensive research, using all designs, to develop studies of the processes related to learning (Graves, 1981b). In order to examine possible relationships between the writing and reading of sixth grade students, process writing instruction was selected as the independent variable and two areas of reading, reading attitude and reading achievement, were selected for quantitative measurement as dependent variables. The subjects' reading achievement and reading attitude were measured by standardized pretesting and posttesting.

This study was designed to test the following null hypotheses:

Hypothesis I: There is no significant difference between gain score means of the experimental and control groups on the measure of reading achievement.

Hypothesis II: There is no significant difference between gain score means of the experimental and control groups on the measure of reading attitude.

Hypothesis III: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading achievement.

Hypothesis IV: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control on the measure of reading achievement.

Hypothesis V: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading attitude.

Hypothesis VI: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading attitude.

Definition of Terms

The following defined terms were used throughout this study:

Cognitive Characteristics: developmental characteristics of intellectual organization of and adaptation to the perceived environment (Wadsworth, 1971).

Cognitive Schema: a "chunk" of organized knowledge and experience, often accompanied by feelings (Weaver, 1988).

Cohesion: the linking of elements of the text through repetition (or redundancy) of information at the semantic, syntactic, and discourse structure levels (Cox, Shanahan, and Sulzby, 1990).

Collaboration: responding to each other through peer discussion sessions and/or teacher discussion sessions (Hansen, 1987).

Holistic Approach: teaching content as a whole approach instead of fragmenting the content into parts and teaching each part in isolation (Weaver, 1988).

Process Writing Instruction: instruction that stresses the process of idea development and evaluation instead of focusing on the mechanics of writing and a finished product (Cox and Jones, 1990).

Reading Achievement: traditionally defined as the level of reading performance that is indicated through standardized testing (Weaver, 1988).

Reading Attitude: the emotional response to reading (Smith, 1988).

Reading Comprehension: the creation of meaning resulting from the interaction of the reader's schema with the printed text (Harp and Brewer, 1991).

Skill Instruction: instruction designed to enable students to master individual skill areas according to a given hierarchical arrangement (Weaver, 1988).

Subskills: division of skill areas into a set of hierarchical part-to-whole skills for instructional purposes (Weaver, 1988).

Assumptions of the Study

For the purpose of this study, the following assumptions were made:

1. Reading and writing are interrelated processes.

2. The Gates-MacGinitie Reading Test (GMRT) (Third Edition, Forms K and L), when administered as designed, is an accurate measurement of general reading achievement and progress for sixth grade level students.

3. The Elementary Reading Attitude Survey (ERAS), when administered as designed, is an accurate measurement for monitoring the reading attitude of sixth grade students.

Limitations of the Study

This study was subject to the following limitations:

1. Generalizations of this study can be applied only to populations which can be described as similar in characteristics as the population from which the samples for this study were drawn.

2. This study was limited to sixth grade students who were given parental permission to participate in the research project.

3. This study was limited to these sixth grade subjects who were administered both the pretest and the posttest.

4. This study was conducted during the last eight weeks of the school year.

5. Subjects were assigned to classrooms at the beginning of the second semester. The sample groups, therefore, were existing.

6. The influence of the classroom teachers' attitudes and teaching practices are possible limitations in this study.

7. The extensive involvement of the experimental group teachers was also a limitation in this study.

Summary

Dominant in the teaching of language arts is skill instruction that tends to place emphasis on reading at the expense of writing instruction. Research has concluded that a link between reading and writing does exist. In order to determine the nature of the connection, additional studies are needed. The focus of current research has been on learning processes and what students actually do in the classroom. The result of this research trend has reinforced a more holistic approach to teaching language skills.

As the interaction between reading and writing becomes more apparent, there is a need to collect data that will support instructional change. Additional information on the relationship between reading and writing is crucial to the enhancement of student success. This study was designed to provide feedback on the effects of teaching reading and writing as interrelated skills.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Instruction that places emphasis on the teaching of reading through isolated skill instruction continues to be the most preferred method of reading instruction in most schools (Irvin and Connors, 1989). Numerous studies can be cited that point to the underlying assumption that reading instruction would be more effectively taught through a whole language approach (Altwerger, Edelsky, and Flores, 1987). Therefore, curricular improvement is dependent on a collection of data relating to how children learn and how children interact with the language processes: reading, listening, writing, and speaking.

The development of successful teaching strategies for reading and writing requires further study of the processes involved. Included in this chapter is a review of literature and selected research relating to the following: (1) reading achievement, (2) reading attitude, (3) reading and writing connections, and (4) process writing.

Reading Achievement

Reading achievement is the degree to which a student can utilize reading. The data on reading achievement continues to indicate a need for reform of related instruction. Lapointe (1986), through an analysis of data on reading and writing achievement, discovered that a 1984 assessment

of reading and writing achievement indicated 40% of the nation's seventh and eighth graders could not read and understand their textbooks; 82% could not perform adequately on simple descriptive report writing.

The two primary components of reading achievement are vocabulary development and comprehension. More recently, extensive study of the reading process has led to an awareness that comprehension and vocabulary development should be viewed as interrelated processes instead of isolated skills (Goodman, Goodman, and Flores, 1984: Nagy, Herman, and Anderson, 1985). A review of information relating to vocabulary and comprehension development, the relationship between the two components, and their influence on reading achievement follows.

Vocabulary Development

Vocabulary development is too often viewed as teaching students to decode and identify words. Phonics and morphemic analysis are the primary methods of teaching decoding skills for word identification (Lass and Davis, 1984). Proficient use of decoding skills allows the students to break an unfamiliar word into smaller units. Through application of phonetic and morphemic analysis, the student relates sound to the smaller units and is able to pronounce the word. Word identification does not require knowledge of the word meaning because students may or may not have an understanding of the word meaning (Hargis, Yonkers, Williams, and Reed, 1988).

Bond and Dykstra (1967) used data from 27 individual studies to conclude that programs emphasizing decoding skills for word identification were not as productive in the area of comprehension; programs that emphasized meaning only needed to be balanced with a more extensive word identification program. The study indicated that total reliance on phonics

and decoding instruction made meaningful reading more difficult for students. According to Bond and Dykstra, the most effective method for teaching word recognition was to encourage children to write vocabulary words at the time of exposure, allowing words to be associated with both sound and meaning. Bond and Dykstra's research provided evidence that vocabulary development and comprehension could be more effectively taught as interrelated skills reinforced through writing.

Further evidence of the role of meaning in vocabulary development was explained by Cohen (1968). Cohen studied the effects of reading children's literature selections aloud daily to second grade students. Cohen's study revealed that the experimental group, students exposed to children's literature through daily oral reading, experienced significant progress over the control group in vocabulary development and reading comprehension. Cohen concluded:

> The slower children are in academic progress, the more difficult it is for them to deal with words in isolation, unrelated to a totally meaningful experience. Vocabulary thus appears to be learned best in a context of emotional and intellectual meaning (p. 213).

The importance of meaning vocabulary over word identification was explained by Pearson (1985). He described the relationship between vocabulary development and comprehension as being evident when the reader's knowledge of a topic could be communicated by using key vocabulary associated with the topic.

Pink and Liebert (1986) stressed the danger of using reading textbooks that consistently emphasize decoding methodology. Pink and Liebert explained:

> The danger of such an emphasis on teaching subskills is that poor readers, especially those in many urban schools, spend almost all the time assigned on lower order skills, to the virtual exclusion of the development of comprehension and reading fluency (p. 56).

Decoding and structural analysis of words have been the standard teaching methods in basal reading instruction since the mid 1950's. Comprehension has not been stressed until recently (Venezky, 1987).

Ownership of word meaning, or of the reading experience, implies a personal interaction between the reader of the text (Harms and Lettow, 1986). Harms and Lettow pointed out that children acquire ownership of their reading through meaningful reading experiences that allow exploration and discovery of the reading process. According to Harms and Lettow, two concepts should be considered in fostering ownership of the reading process:

1. Isolated subskill instruction as an inhibitor of reading and language growth.

2. The teacher's role in reading as synonymous to the teacher's role in fostering ownership of the writing process.

Vocabulary growth is vital in the early grades to facilitate reading achievement. Recent studies have depicted wide reading, not formal vocabulary instruction, as a major contributor to vocabulary growth (Nagy, Herman, and Anderson, 1985; Stanovich and West, 1989).

Gunderson and Shapiro (1988) observed a first grade whole language program for an entire year and reported the learning outcomes. A comparison of vocabulary learned by students concluded that vocabulary was developed primarily through reading experience and not through basal reading instruction (Gunderson and Shapiro, 1986).

Hargis et al. (1988) characterized the difference in word identification and word recognition. Word identification is explained as being synonymous with the ability to decode or pronounce words. Word recognition is synonymous with acquiring word meaning. The study found repetition of word exposure to be the most important factor in word recognition.

In addition, the more proficient readers became, the easier word recognition became for them (Hargis et al., 1988).

Samuels (1988) described word recognition as taking place in two stages: accuracy and automaticity. He equated accuracy to word identification (correct pronunciation of words) and automaticity to word recognition (meaning) through sight and context. Samuels (1988, p. 759) stated, "To develop fluent reading skills in poor readers, get them to read as many enjoyable, easy to read books as possible, so that they will become automatic at contextual reading."

White, Power, and White (1989) addressed the effectiveness of morphological instruction in vocabulary development of students in the middle grades. The study reinforced earlier conclusions that only a limited portion of students' vocabulary growth could be attributed to direct vocabulary instruction. White, Power, and White found evidence that morphological instruction was influenced by three factors: linguistic factors, children's knowledge of affixes and root word meanings, and children's prior exposure to texts containing affixed words.

Reading instruction that places emphasis on decoding skills assumes that reading achievement is dependent on the ability to pronounce words. Smith (1978) pointed out that neither the printed word nor the sound of a printed word can ensure meaning; comprehension is dependent on meaning. Smith continued to explain that comprehension cannot be achieved by combining the meanings of individual words. He maintained that comprehension of the text is necessary to determine both word meaning and word pronunciation.

According to Smith (1978) and Goodman, Goodman, and Flores (1984), reading achievement is dependent on the meaning that readers bring to the reading process. Smith explained that children experience successful

reading achievement through reading and their ability to associate print with existing knowledge. Smith's views are conclusive in suggesting that reading instruction would be more effective if the main focus was on schema development instead of word decoding skills. Smith (p. 76) stated, ". . . in reading or listening we approach language from the same perspective that we employ when we write or speak; the meaning must come first."

The expansion of schema theory has depicted reading as a complex series of interactions between the reader and the printed text involving multiple factors; the reader's schema, the processes of receptive language, and the processes of productive language (Durkin, 1981). According to Tuinman (1980), the relationship between reading achievement and schema development is reciprocal. Tuinman contended that when a reader encounters new information, familiar elements activate existing information as the reader makes an association with the new information. According to Tuinman, the accommodation process leads to comprehension of the new information and simultaneously allows the development of new schema. Tuinman's assumptions reinforce Smith (1978) and Goodman, Goodman, and Flores (1984) in their contention that vocabulary development and comprehension are both related to the meaning that the reader brings to the text. Therefore, a strong relationship between vocabulary development, comprehension, and schema development has been established. Students who are consistently exposed to reading through drill and isolated skill practice have limited opportunity to develop the schema needed to interact with the text in a meaningful way (Pink and Liebert, 1986).

Comprehension

Comprehension is commonly viewed as having three levels: the literal level (the ability to understand the text as it is directly stated), the

inferential level (the ability to understand what is written between the lines and is not directly stated), and the critical level (the ability to understand beyond the text to allow evaluation). Smith (1978) argued that true comprehension of a text cannot be measured. Smith stated:

> The fact that teachers frequently ask how to measure comprehension indicates that it is confused with learning. Comprehension is not a quantity, it is a state of not having any unanswered questions (p. 86).

Smith contended that only the reader is aware if comprehension is taking place.

Wittrock (1983) explored the idea that reading comprehension, listening, writing, and speaking share commonalities of the cognitive process; all are processes of constructing meaning. According to Wittrock, reading and writing are generative processes that relate meaning to ". . . what we know, believe, and experience" (p. 600).

Wittrock's (1983) comprehension model examined the interrelatedness of receptive and productive language processes. His studies were conducted with elementary and junior high school students. Students related new concepts from the text to experience through generative activities in reading, writing, listening, and speaking. The results determined that reading comprehension and retention could be enhanced through teaching the generative process. Wittrock concluded, "From our research with children and adults, I believe that learning to read with comprehension involves acquiring and using some of the same generative skills needed to learn to write" (p. 606). Results of Wittrock's research could imply that failure to teach the processes involved in constructing meaning (reading, listening, writing, and speaking) as interrelated processes, would restrict efforts to teach students to think.

Squire (1983) compared the processes of composing and comprehending. According to Squire:

> Composing is critical to thought processes because it is a process which actively engages the learner in constructing meaning, in developing ideas, in relating ideas, in expressing ideas. Comprehending is critical because it requires the learner to reconstruct the structure and meaning of ideas expressed by another writer (p. 582).

Further assessment of the influence composing has on comprehension was determined by Freeman and Freeman (1987) as they compared the effectiveness of four contrasting approaches of reading instruction. They found the language experience approach (integrating, composing, and comprehending) to be an effective alternative to basal textbook reading instruction.

Shanahan (1988) and Krieger (1990) lend impressive support to the concept of developing reading comprehension skills through a whole language perspective, allowing student exposure to the different ways that ideas are presented, as well as an examination of text meaning. Weaver (1988) explained:

> Comprehension is not simply an end product of the reading process. It is a condition for reading, a driving force that guides the reading, and a result of reading that allows for full integration of meaning (p. 138).

A complete understanding of the message the author is attempting to relay is necessary for students to react to written language. The key to deriving meaning is development of prior knowledge from which the reader can make associations (Herrmann, 1988; Prince and Mancus, 1987; Reutzel and Fawson, 1989).

Reading Attitude

Reading attitude is defined by Smith (1978) as the emotional or personal response to reading. A review of information relating to the

relationship between reading attitude and reading achievement, changes in reading attitude, and variables that influence reading attitude development is presented in this study.

There is an assumed relationship between reading attitude and reading achievement; however, this assumption is not supported by research (Quinn and Jadav, 1987; Schofield, 1980). In attempts to explore causal relationships between attitude and achievement in the content areas of reading and math, Quinn and Jadav concluded, ". . . a program to change attitudes toward a topic may or may not also result in changes in achievement on that topic" (p. 371). Quinn and Jadav's findings were concluded from an analysis of three different studies on the relationship between attitude and achievement.

Although clear evidence of a causal relationship between reading attitude and reading achievement cannot be concluded, reading achievement is commonly assumed to be affected in some way by variables associated with reading attitude (Hollingsworth and Reutzel, 1990; Nielson, 1978; Pottebaum and Ehly, 1986; Schofield, 1980). Earlier studies exploring changes in the reading attitude of elementary students indicated an increased negative attitude toward classroom reading during the intermediate grades (Neale and Proshek, 1967).

More recently, research by Parker and Paradis (1986) investigated the change in reading attitude as students progressed into higher elementary grade levels. The study results found no change in reading attitude between grades one through three. A significant change in reading attitude was detected during grade four and remained constant during grades five and six. Students in grade four developed a ". . . more favorable attitude toward nonclassroom type reading" (Parker and Paradis, p. 315). Attitudes toward classroom reading were reported as consistent through

sixth grade. Students continued to view nonclassroom type reading as more favorable than classroom type reading.

The possibility of a link between the correlate of attitude, self-confidence, and the student's ability to perform has been reported in earlier research findings (Bandura, 1982; Nicholls, 1979; Weiner, 1979). These studies emphasized the need for students to engage in learning experiences that encourage student success.

Reading and Writing Connections

Due to the expansion of writing research, the relationship between reading and writing is becoming more evident. The following section presents an overview of literature related to the link between reading and writing.

Most elementary reading programs have been based on the assumption that reading must develop before writing begins (DeFord, 1981; Wilson, 1981). Wilson explained that recent studies provided consistently strong evidence that reading and writing develop naturally as children become aware of the need to communicate and begin to interact with their environment. Smith (1981a) contended that children learn writing and speaking only through listening and reading the language of others.

Research conclusions have indicated that children have conceptual awareness of print before formal reading and writing instruction begins (Freeman and Whitesell, 1985; McGee and Richgels, 1989; Morris, 1981; Strickland and Morrow, 1989). Further evidence that children develop an understanding of the functional need for reading and writing before being exposed to formal instruction was concluded by Taylor (1982). Taylor researched two areas in which children, at a very young age, repeatedly

interacted socially through reading and writing; to establish social connections, and to organize their environment through exploration.

The similarity of process in reading comprehension and composing suggests that the same cognitive activity could be required for both skills (Aulls, 1985; Tierney and Pearson, 1983). Tierney and Pearson compared the similarities of five reading and writing processes and concluded, ". . . at the heart of understanding reading and writing connections one must begin to view reading and writing as essentially similar processes of meaning construction; both are acts of composing" (p. 568). Goodman and Goodman (1983) explained the importance of encouraging the development of reading and writing simultaneously and how children can benefit from the discovery that "one process supports the other" (p. 599).

Research has implied that through reading the written text children develop a sense of form, or how writing reads (Chall and Jacobs, 1983; Eckhoff, 1983). Evidence that children respond to reading through becoming writers is explained by Hansen (1983). She explained that children learn how to respond to the writings of other authors by becoming writers. Smith (1983) suggested that the organization and mechanics of written language is so complex that, "Everything points to the necessity of learning to write from what we read" (p. 560).

Research findings congruent with the concept that reading and writing should be taught as supportive processes include the use of writing to develop schema for reading (Marino, Gould, and Haas, 1985); combining reading and writing to explore and clarify personal ideas and values (Brookes, 1988); and combining reading and writing to develop critical thinking skills (Tierney, Soter, O'Flahavan, and McGinley, 1989).

Reading and writing are considered natural processes that are based on purpose; the purpose of making sense of the world, self, and the

interaction between the two (Smith, 1979). According to Smith (1979) and Goodman, Goodman, and Flores (1984), two inaccurate assumptions dominate the teaching of writing: (1) writing is often considered the most difficult component of language, and (2) language is perceived as developing only after an individual has acquired fluency in the other components of language.

Goodman, Goodman, and Flores (1984) explained the language process as being composed of two behaviors: receptive and productive. According to these researchers, receptive language relates to the need to receive information and involves the language aspects of listening and reading. Goodman, Goodman, and Flores suggested that productive language relates to the need to produce language and involves the language aspects of speaking and writing. They contended that because of need, receptive language develops first, followed by the spontaneous development of productive language, and explained that reading and writing are interrelated natural processes just as listening and speaking are interrelated.

Process Writing

Writing research was practically nonexistent prior to the mid 1970's (Graves, 1980). Graves reported that only 156 studies on elementary student writing had been done, and the greatest percentage of those studies were for dissertation purposes only. He cited the change in research perspective as a leading factor for stimulating interest in more extensive writing research. Research began to focus on ". . . what writers did during the composing process" (Graves, 1980, p. 915).

Farnan, Lapp, and Flood (1992) reported the results of this shift to study student behavior in the writing process, and noted that writing has become a priority in educational research; over 18,000 articles on writing

were indexed by ERIC between 1980 and 1989. As a result of increased interest and research, a trend to increase writing instruction has been detected (Farnan, Lapp, and Flood, 1992). Regardless of the increased writing activity, according to Farnan, Lapp, and Flood, student achievement in writing has not increased.

> Certainly students cannot become more proficient in the absence of writing; and while time spent writing may have increased, the crucial issue may be what type of instruction and writing experiences occur during the time students spend writing (Farnan, Lapp, and Flood, 1992, p. 551).

Writing instruction continues to consist of the promotion of drill and practice in the mechanics of writing (Farnan, Lapp, and Flood, 1992). As a result, research studies exploring relationships between reading and writing have primarily focused on student achievement in the area of product knowledge (Fulwiler, 1985; Shanahan, 1988).

Shanahan (1988) explained product knowledge as phonemic awareness, word recognition, spelling, punctuation, use of cohesion, and sentence structure. Product knowledge contributes to proficiency in the use of mechanics in writing and is an important component in the process of writing. However, Shanahan stressed that process knowledge should be equally investigated because process includes the strategies and procedures that student use in problem solving.

Process knowledge is defined as the examination of ideas, the analysis of situations, weighing alternatives, discovery of possibilities, and hypothesizing (Spears, 1988). According to Spears, process knowledge develops naturally through engagement in process writing activities. Students engage in writing activities that do not focus on mechanics or the finished product, but engage in activities that encourage ". . . an awareness not just of outcomes or conclusions but of the distinctive ways

in which they arrived at these conclusions and might convey them to others" (Spears, 1988, p. 95).

The following discussion focuses on a review of literature and research exploring writing achievement and the effects of teaching the process of writing as a response to reading. The review includes research conclusions relating to product and process knowledge.

Product Knowledge

Writing instruction in elementary classrooms has been, and continues to be, emphasized as isolated skill drill that focuses on student competency in the area of product knowledge (Dyson, 1982, Farnan, Lapp, and Flood, 1992; Fulwiler, 1985; Shanahan, 1988). Many writing authorities contend that mastery of product knowledge should not be a prerequisite of writing; both product and process knowledge should be learned through the experience of writing (Atwell, 1987; Dyson, 1982; Fulwiler, 1985; Graves, 1978; Hansen, 1987; Lickteig, 1981; Smith, 1979). Smith (1979) explained:

> We can only become proficient at writing by practice, and we can only write proficiently when we write spontaneously and relatively fast (leaving all the cumbersome attention to spelling, punctuation and neatness to a later draft) (pp. 9-10).

Calkins (1980) and Dyson (1982) examined, in two separate studies, the effects of teaching product knowledge through writing experiences. Calkins (1980) examined the effects of teaching third grade punctuation skills in context through the process of writing. The study was implemented through daily observations of instruction over a period of one school year. Students in the experimental group learned punctuation through traditional methods of skill instruction. Concluding results of the experimental group (writers) knew and could describe more types of

punctuation than the students who were taught punctuation in isolation through skill instruction.

Observations from five kindergarten case studies led Dyson (1982) to conclude that establishing a purpose for writing promoted an increase in writing interest. Dyson's conclusions indicated that increased interest led to an increase in practice; therefore, through practice, the student's product knowledge was enhanced.

Graves (1982) provided information on how children grow cognitively from the consistent experience of writing. His studies suggested that spelling (phonemic awareness), motor aesthetic (handwriting), convention (capitalization, punctuation, and sentence structure), and topic information are mastered as stages of problem solving through children's writing experiences.

Cox, Shanahan, and Sulzby (1990) studied the relationship between children's reading ability and the use of cohesion in children's writing. According to Cox, Shanahan, and Sulzby, cohesive text refers to relating the author's thoughts through a series of cohesive ties to reconnect ideas. An example would be the use of a pronoun to replace a noun which has been mentioned previously in the text. Third and fourth grade students were examined on three cohesion measures: appropriate cohesive ties, inappropriate cohesive ties, and cohesive harmony. The study results concluded that better readers used cohesion in writing more effectively than did poor readers.

Juel (1988) explored reading and writing achievements of at-risk children from beginning through their completion of fourth grade. Juel identified at-risk children as primarily minority children from low socioeconomic backgrounds. Her research examined students' reading ability as their achievement in decoding and comprehension. The students'

achievement in spelling and ideation was examined as a measure of writing ability. Juel's findings indicated, "Early writing skill did not predict later writing skill as well as early reading ability predicted later reading ability" (p. 437). Juel's study found the primary weakness of poor writers was their inability to develop ideas in writing. The primary weakness of poor readers was poor vocabulary development and lack of knowledge about story structure. Juel noted that the poor readers had been limited in their exposure to print. By the end of the fourth grade the good readers had been exposed to twice as many words through reading than were the poor readers.

The studies by Juel (1988) and Cox, Shanahan, and Sulzby (1990) support reading experience as the most important factor in vocabulary development for reading proficiency. The studies also indicate that writers develop, through reading experience, their ideas and knowledge of story structure for writing.

Process Knowledge

Student proficiency levels in writing were reported as distressing from 1979 to 1984 (Applebee, Langer, and Mullis, 1987). Applebee, Langer, and Mullis reported that an increase in the teaching of process writing could be detected between 1974 and 1984. However, students continued to receive minimal writing experience and instruction in classrooms, causing a decline in overall writing proficiency (Applebee, Langer, and Mullis, 1987).

Cox and Jones (1990) described process writing as an activity that allows ". . . students to generate ideas before they write, confer with their peers as they write, and publish their papers after revising and editing them" (p. 26). The focus of process writing instruction is to

enhance the student's ability to develop and evaluate ideas; the mechanics of writing are developed through writing experiences (Cox and Jones, 1990).

Atwell (1987) listed four major components for developing a plan for process writing instruction. Her components are: (1) time, (2) children's literature, (3) student-centered curriculum, and (4) mini-lessons. She listed time for writing as a key component of process writing instruction. Writers need regular and frequent blocks of time for writing improvement and writing instruction. According to Atwell, growth in writing is slow and can only be accomplished through the process of writing, editing, and rewriting. She explained:

> Writers need regular chunks of time--time to think, write, confer, read, change their minds, and write some more. Writers need time they can count on, so even when they aren't writing, they're anticipating the time they will be. Writers need time to write well (p. 78).

Atwell (1987) also suggested that students should be allowed, beginning with the initial writing experience, to express and develop their own ideas in writing. Students can formulate and clarify those ideas through the use of children's literature as reading material. The use of children's literature also allows the students to make choices about what they read and write about (Atwell, 1987).

Using children's literature to facilitate writing allows students to respond to what they have read while becoming familiar with how language is used by other writers. Cullinan (1988) explained that children learn intuitively, through reading a variety of literature, the many components of a story and how different authors develop story structure.

A key component of Atwell's (1987) process writing instruction is the development of a student-centered curriculum based on identified needs and interests of the student. Teachers are decision makers regarding the

needs of students and develop curriculum materials as the curriculum unfolds. Atwell responded to the concept of an unfolding curriculum by stating:

> Writers need response. Helpful response comes during--not after--the composing. It comes from the writer's peers and from the teacher, who consistently models the kind of restatements and questions that help writers reflect on the content of their writing (p. 17).

Goodman (1989) explained that the primary benefit for teachers as curriculum decision makers is the opportunity for teachers and students to learn through collaborative methods.

The process writing mini-lesson concept was suggested by Atwell (1987) as an example of developing and presenting curriculum as it unfolds. The mini-lessons are used as a method for students to learn language art skills through reading and writing experiences that are reflective of student need (Atwell, 1987).

Process writing instruction is a plan that allows students to develop writing skills through the experience of writing. Students must be given time to read, write, and reflect if they are expected to become skilled writers (Atwell, 1987).

Glatthorn (1982) outlined differences in the processes used by skilled writers and unskilled writers. He revealed, through a synthesis of writing studies, four areas of observed differences between skilled and unskilled writers: exploring, planning, drafting, and revising. Skilled writers used all four of the above processes; unskilled writers concentrated primarily on spelling, punctuation, and word errors (Glatthorn, 1982). Writing is more than mechanics, and when taught as a process, writing becomes a method of learning to write naturally through idea development and thinking (James, 1982).

Hilliker (1982) observed the developmental elements of writing through a study of four kindergarten students. Hilliker (1982) observed the students' writing progress from their first attempts to label drawings to the beginning of the composing stage. An analysis of the writings clearly illustrates the developmental stages of beginning writing. Hilliker's study supports the contention that writing develops naturally when children are given a purpose for writing.

Tompkins (1982) reported the responses of noted language arts educators who addressed an inquiry regarding the purpose for teaching young children to write. She reported the following responses: (1) to entertain, children seldom continue writing if they do not have a reciprocal audience (Alvina Trent Burrows), (2) to foster artistic expression (Eileen Tway), (3) to explore values (Yetta Goodman), (4) to stimulate imagination (Shirley Haley James), (5) to clarify thinking (John Warren Stewig), (6) to search for identity (Claudia Lewis), and (7) to learn to read and write (Kenneth Hoskisson).

Newkirk (1982) contended that teaching the process of writing also enables students to develop critical reading skills. According to Newkirk:

> By working on their own unfinished tasks, students have the opportunity to propose possible changes. And because they generate these alternatives, they learn to evaluate them. They learn, in other words, to develop critical judgment (p. 452).

In addition to Newkirk's (1982) study, more recent studies have cited process teaching strategies as contributing to student achievement in several areas. A partial listing of areas included are: the use of webbing activities as a method for discovery of text relationships in reading and writing (Blackburn, 1984), the use of writing as a post reading activity to enhance learning (Copeland, 1985), and the use of written dialogue

in the form of buddy journals to develop a purpose for writing (Britton, 1987; Bromley, 1989). Armbruster, Anderson, and Ostertag (1989) also reported improved reading and writing achievement in the middle grades as a result of process teaching strategies developed to increase the student's knowledge of text structure.

Teachers of poor readers have devoted instructional time primarily to remediate reading through drill and practice (Gaskins, 1982). According to Gaskins, teachers have not acknowledged the need for poor readers to write. However, a study of reading disabled elementary students revealed an improvement in reading and writing when process writing instruction was used and the students' writing replaced worksheets (Gaskins, 1982).

Shanahan (1984) attempted to determine a more explicit relationship between reading and writing. His study focused on the possibility that process instruction in one skill could lead to improved achievement in the other skill. Shanahan's study revealed that, as students' reading achievement increased, the relationship between reading and writing also changed.

> The finding that the reading and writing relation changes with reading development suggests the possibility that writing curricular could be directly integrated into those materials currently used for the teaching of reading (Shanahan, 1984, p. 475).

Further investigations have revealed that teaching strategies, which combine reading and writing instruction, have resulted in increased student achievement in the area of product knowledge (Shanahan and Lomax, 1986). As a result of these conclusions, Shanahan and Lomax suggested the need for further study into the effects of teaching strategies that are developed around the concept of combining reading and writing process instruction. Future studies should be designed to investigate student achievement related to process knowledge (Shanahan and Lomax, 1986).

A program implemented by Davis and Winek (1989) lent support for the concept of combining reading and writing instruction. Davis and Winek implemented, on the middle school level, a program that used reading as a prewriting activity to build schema for writing, just as writing has been used as a prereading activity to build schema for reading. Student evaluations of the Davis and Winek program indicated improved student interest and achievement in writing as a result of the schema building activities.

Kletzien and Hushion (1992) studied the cognitive and emotional growth that resulted from the implementation of a process writing program for below average achievers in grade levels nine and ten. The processes of reading and writing were taught through teacher-developed mini-lessons that emphasized using writing as a response to reading. The mini-lessons focused on three areas: reading strategies, writers' craft, and selected authors' works. The Likert scale was administered as a pretest and a posttest to measure changes in student attitudes toward reading. Cognitive growth was monitored through the teacher's analysis of students' writing assignments. According to Kletzien and Hushion (1992), the results of the year-long study did not report increases in student attitude toward reading; however, an increase in the average weekly time that students spent reading was reported. Through observation of students' thinking responses to reading, teachers also detected improved cognitive growth (Kletzien and Hushion, 1992).

The preceding review of literature presented in this study described process writing not as a program, but as a learning strategy based on interaction. Learning benefits have been reported as a result of student interaction with the printed text through reading and writing, the language processes of reading and writing, the authors' works, other students, and teachers. Smith (1992) explained this interaction:

> Methods can never ensure that children learn to read. Children must learn from people; from the teachers (formal and informal) who initiate them into the reader's club and from the authors whose writing they read. It is the relationships that exist within the classroom that matter: students' relationships with teachers and with each other and their relationship with what they are supposed to be learning with reading and writing (p. 440).

Teachers' attitudes, knowledge, expectations, and classroom practices are important factors in the development of an interactive classroom for teaching the process of writing (Fulwiler, 1986).

In order to create the type of interactive classroom environment needed to facilitate the teaching of process writing, Tompkins and McKenzie (1987) suggested changes in the role of the teacher. They explained that teachers of process writing should not view their role as one in which their purpose is to evaluate the final product. Instead, teachers should view themselves as part of the process, interacting and working with students through each step (Tompkins and McKenzie, 1987). Hansen (1987) described the change in her attitude and instructional practice as a result of expanded knowledge related to the teaching of process writing. Hansen explained, "What I learned about writing changed what I know about reading" (p. 5).

In conclusion, teachers have been given new guidelines for the improvement of reading and writing instruction. However, an inability to adapt the new guidelines to material and instructional practice seems to exist (Reutzel, 1985). Presently, a gap continues to be observed between research conclusions related to reading and writing instruction and instructional practice based on the conclusions (Duffy, Roehler, and Putnam, 1987; Durkin, 1987; Irvin and Connors, 1989).

Summary

A review of literature and selected research on the processes of

reading and writing has been presented in this chapter. The review focused on literature and research studies related to the areas of reading achievement, reading attitude, reading and writing connections, and process writing. A brief description of each related area was included as an introduction to the literature that was presented.

The areas explored provided information on the link between reading and writing, the student achievement that has been acknowledged as a result of relating reading and writing instruction, and the teaching practices related to process writing. The concepts embraced through the presentation of literature have provided a basis for this study.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to determine the effects of process writing instruction on the reading achievement and reading attitude of sixth grade students. This chapter will present an overview of the research design, the population and sample groups, the instruments used for collecting data, and the research procedure. The chapter will conclude with a description of the statistical analysis of data.

Research Design

For the purpose of this study, a quasi-experimental research design was used. The quasi-experimental design is preferred over a true experimental design when random selection of subjects is not possible (Campbell and Stanley, 1969). Random selection of subjects is not always possible in the school environment. The researcher was required to work with existing reading classes in this study. The students had been assigned to high, average, or low reading classes according to their reading abilities. The placement of each student was determined by the student's standardized test score on reading and teacher recommendation.

The quasi-experimental design used was the pretest-posttest nonequivalent control group design (Campbell and Stanley, 1969). The design involved the use of two groups: an experimental and a control group.

Intact reading groups were randomly assigned to either the experimental or the control group. Figure 1 displays a diagram of the research design.

O1e	O2e	X	O1e	O2e
O1c	O2c		O1c	O2c

where

- - - Symbol that separates the experimental group from the control and indicates (by a separated line) that intact groups were randomly assigned to the experimental and the control groups.

O1e Pretest and posttest for reading achievement/ experimental group.

O2e Pretest and posttest for reading attitude/ experimental group.

O1c Pretest and posttest for reading achievement/ control group.

O2c Pretest and posttest for reading attitude/ control group.

X Treatment/experimental group.

Figure 1. Research Design

The review of research and authoritative opinion revealed a strong relationship between reading and writing. The review also indicated that student participation in various writing activities produced observable growth patterns in reading and writing achievement. However, the review did not yield substantive evidence of the effects of process writing

instruction on reading achievement and reading attitude. Thus, the research hypotheses were nondirectional.

The study tested the null hypothesis that process writing instruction would not affect the reading achievement and the reading attitude of sixth grade level students. Each of the six hypotheses was tested in its null form. The null hypotheses for this study were as follows:

Hypothesis I: There is no significant difference between gain score means of the experimental and control groups on the measure of reading achievement.

Hypothesis II: There is no significant difference between gain score means of the experimental and control groups on the measure of reading attitude.

Hypothesis III: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading achievement.

Hypothesis IV: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading achievement.

Hypothesis V: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading attitude.

Hypothesis VI: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading attitude.

Internal Validity

Threats to internal validity could increase as a result of the sampling technique used in the pretest-posttest nonequivalent control

group design (Huck, 1974). A list of possible threats to internal validity and a discussion of attempts to control these threats is addressed in the following paragraphs. Huck (1974) stated that selection, history, and maturation are sources of threats to internal validity when using the above design.

Selection. Without random assignment of subjects from a common population, observed differences between the experimental and control groups could be the result of pretreatment groups that were not equivalent, instead of the result of the treatment (Gay, 1987). Random assignment of existing groups to the experimental and the control group, and a statistical analysis of pretest scores to test the assumption of homogeneity of variance, were used in this study to control for the threat of selection.

History. Gay (1987) stated that the longer a study lasts, the more likely history may be a problem. This study was conducted the last eight weeks of school. The time constraints decreased the threat of history, but could not control for the events associated with the conclusion of a school year.

The participating school was a sixth grade center, composed of sixth grade students from the entire school district. Both the experimental and control groups were located in the same building. Internal validity was increased through attempts to maintain that events and environments of both groups remained as similar as possible through the duration of the study. Also, the experimental and control groups were exposed, simultaneously, to all testing materials.

The study could not control for intrasession history because of differences in the classroom teachers' experiences, attitudes, and classroom practices. Conducting the study the last eight weeks of the school year,

and teachers' experiences, attitudes, and classroom practices, were listed as limitations in this study.

Maturation. Time constraints of the study controlled for the threat of maturation to internal validity. Maturation would likely present a problem in this study if the study had been prolonged for an extended period of time (Huck, 1974). Sixth grade students are in the preadolescent stage of development. In this stage of development, students experience very rapid biological and cognitive changes that could affect their performances on the independent variable over a longer period of time (Gay, 1987).

Regression and Mortality. Huck (1974) stated that under certain conditions, regression and mortality can be considered threats to internal validity in this design. Attempts to control for the threats of regression and mortality were applied. This study controlled for regression through the random assignment of groups that were representative of a normal distribution.

Mortality could have been a problem if the study had been implemented over a longer period of time. However, student loss was minimized due to the time constraints of the study. Random assignment of groups also assured and equal chance of student loss from each group of participating subjects.

Instrumentation and Testing. The internal validity of threats of instrumentation and testing are controlled in the pretest-posttest nonequivalent control group design (Huck, 1974). In addition, this study applied controls for instrumentation and testing.

The instruments selected to measure the dependent variables in this study had highly stated reliability and validity. The experimental and control groups were tested simultaneously by participating teachers. All testing responses were assigned number codes for scoring purposes. The assignment of number codes eliminated scoring bias on the pretest and posttest results.

The time between pretesting and posttesting was eight weeks. According to Gay (1987), studies most likely to be affected by threats from testing are studies in which the interval between testing is less than two months.

External Validity

Campbell and Stanley (1969) listed interaction of testing and treatment, interaction of selection and treatment, reactive arrangements, and multiple treatment interference as possible threats to external validity. The following paragraphs provide discussion of external validity factors relating to this study.

Interaction of Testing and Treatment. The threat of testing and treatment interaction occurs only when testing materials or treatment materials are unusual and different than those used regularly (Stanley and Campbell, 1969). The reading achievement and reading attitude tests that were selected as measurement instruments were standardized testing instruments similar to the tests that students are administered annually. The treatment, process writing instruction, was developed from materials similar to the content normally experienced in reading classes.

Interaction of Selection and Treatment. Consultation with teachers of the selected school indicated that all teachers of the sixth grade

classes were interested in participating in the study. Because of the school's unique composition, both the experimental and control groups could be located in the same building. According to Campbell and Stanley (1969), minimizing environmental differences decreases threats to internal validity while contributing to an increase in threats to external validity by limiting the generalizability of results.

Selection bias was a factor in the study because other schools were not given the same opportunity to participate. In addition, the selected school functioned as a sixth grade center for the entire school district and could not be considered representative of other middle school systems. Due to the above factors, results of this study could only be generalized to target sixth grade populations that are similar.

Reactive Arrangements. Efforts to maintain similarity between the experimental and control group minimized the effects of reactive arrangements. The experimental and control groups were given writing assignments twice a week to eliminate the novelty effect for the experimental group. The pretest and posttest were administered by participating teachers in a normal testing situation. The process writing instruction materials reflected content normally used in sixth grade classrooms.

Teachers' attitudes and classroom practices were factors in the researchers' attempts to control reactive arrangements. Teachers of the experimental group were scheduled for discussion sessions on process writing instruction prior to the beginning of the research study. For the duration of the study, the researcher continued to meet once a week with the experimental group teachers to discuss instructional practices and to develop curriculum materials. Due to the extensive involvement of the

participating teachers in this study, the extent of their influence on the study results cannot be determined or overlooked.

Multiple Treatment Interference. Multiple treatment interference was not a problem in this study. Multiple treatment interference is a threat to external validity when subjects receive more than one treatment (Gay, 1987). Only one treatment, process writing, was received by the subjects of this study.

Population and Sample

The participating school district is located in a central Oklahoma city that has a population of approximately 25,000. The city is representative of a stratified socioeconomic structure similar to other cities of comparable size.

The subjects for this study were selected from a population of approximately 240 sixth grade students enrolled in one school. The school was designated as a sixth grade center for the entire school district. The research population was composed primarily of Caucasian students, with a representation of Black American, Native American, Hispanic, and Oriental students.

Sixth grade students were selected for this study due to the wide range of reading ability found at the sixth grade level. The range of reading ability increases with grade level, and at the sixth grade level a seven-year difference between the reading ability of the least and most proficient readers can be found (Bond, Tinker, Wasson, and Wasson, 1989).

The subjects in this study were 117 sixth grade students who had each been preassigned to one of six reading classes; approximately 20 students were assigned to each class. The experimental group (Sa) consisted of

three subgroups (reading classes), and the control group (Sb) consisted of three subgroups. Each subgroup represented a homogeneous reading level of high, average, or low. The sample population for the experimental and control group is illustrated in Table I.

TABLE I

DISTRIBUTION OF SAMPLE AMONG READING LEVELS

Reading Level	Experimental Group (Sa)	Control Group (Sb)
High	n = 23	n = 22
Average	n = 20	n = 18
Low	n = 15	n = 19

At the .05 level of significance, with power set at .90, and adequate n should be 40 subjects in each experimental group (Winer, 1962). Gay (1987) stated that many studies have been considered valid with as few as 15 subjects per experimental group. Using existing reading classes for this study allowed 58 subjects to participate in the experimental group and 59 subjects to participate in the control group. A total of 117 subjects participated in the study, with a minimum of 15 subjects in each subgroup.

Instrumentation

The following instruments were used in this study: Gates MacGinitie Reading Test (Third Edition, Level 5/6, Forms K and L) (MacGinitie and MacGinitie, 1989), and Elementary Reading Attitude Survey (McKenna and Kear, 1990a).

The Gates MacGinitie Reading Test (GMRT) was utilized as the instrument for assessing reading achievement. The test is a group-administered test and is available in two equivalent forms for each level, allowing the use of different forms for pretest and posttest assessment. The content of Level 5/6 measures two aspects of reading, reading vocabulary, and reading comprehension. The maximum score on each form is 100.

Reliability, the extent to which a test yields consistent results, is reported as high, ranging from 93 to 95 using the Kuder Richardson Formula 20 (KR-20). The alternate forms reliability coefficient is reported as .90 using the KR-20 (MacGinitie and MacGinitie, 1989).

Validity, the extent that a test measures what it is designed to measure, is reported as measuring important knowledge and skills common to most school reading curricula (MacGinitie and MacGinitie, 1989). Cooter (1989) reviewed the Gates MacGinitie Reading Test (Third Edition) and questioned the validity of the test and the authors' view of reading as a holistic process in the early grades while viewing reading in the later grades as a synthetic process. In contrast, Curry (1989) described the test as being designed to measure general reading achievement and progress, as opposed to being used as a diagnostic tool.

The Elementary Reading Attitude Survey (ERAS) was used as the measurement instrument for reading attitude. The test is designed to measure

two aspects of children's attitudes toward reading: attitude toward academic reading and recreational reading.

The ERAS is a group-administered test and is available in one level (K-6) and one form, which was used for both pretesting and posttesting. The time interval between pretesting and posttesting was eight weeks. According to Gay (1987), testing interaction as a result of using the same form for both pretesting and posttesting becomes a threat to validity if the interval between testing is less than two months.

Reliability coefficients measuring internal consistency were calculated by using Cronbach's alpha. The coefficients ranged from .74 to .89 (McKenna and Kear, 1990b).

Construct validity data were provided by several means. Factor analyses were conducted to determine if the two subscales measured the aspects of reading attitude that the test was designed for. The results were supportive (McKenna and Kear, 1990b). McKenna and Kear described the limitations of the test as the inability to identify causes for poor reading attitudes and inability to prescribe instruction that would improve poor reading attitude.

Treatment

Process Writing Instruction

Process writing instruction was used as the treatment for this study. The method of instruction was expanded from Atwell's (1987) teaching guidelines that focused on the process involved in writing instead of the product. According to Atwell (1987), the teaching focus should be on teaching students the processes of writing that will allow them to practice using language skills through writing experiences. The product is

viewed only as a method of practice for developing and improving language skills.

Following is the step-by-step plan for process writing instruction (Atwell, 1987):

1. Choose a topic. Student discussion followed by group brainstorming of ideas.

2. Write a draft. Students read children's literature and trade books to help formulate ideas.

3. Peer editing sessions. Students revise their first draft after peer editing.

4. Proofread. Students proofread and self-edit their own drafts, then make revisions.

5. Teacher conference. Student/teacher discussion of problems which may surface through writing. If additional revisions are needed, students make the final revisions.

6. Final draft. Students write the final draft and submit their work to be published.

Research Procedure

In order to examine possible relationships between the reading and writing of sixth grade level students, process writing instruction was selected as the independent variable, and two areas of reading, reading attitude, and reading achievement were selected for quantitative measurement as dependent variables.

From the sixth grade center population of approximately 240 students, 12 existing reading classes were grouped according to three reading levels of high, average, and low. Each high, average, and low reading level consisted of four classes (approximately 20 students in each class).

During the first week of the school year, all students were assigned to one of the homogeneous reading levels according to teacher recommendation and their individual composite reading score on the Metropolitan Achievement Test. Through the following procedure, the researcher selected six of the existing reading classes to participate in the study.

From the 12 existing reading classes, one class from each reading level was randomly assigned to serve as the experimental group; one class (approximately 20 students) from each reading level was randomly assigned to serve as the control group. The experimental and control group was each representative of one heterogeneous reading class.

One week prior to the beginning of the study, the researcher scheduled in-service discussion sessions with both the experimental and control group teachers. The researcher developed and led the discussion sessions to provide a thorough overview and discussion of the research project. Components of the participating teachers' discussion sessions are presented in the process writing plan for the experimental group, and the classroom instruction plan for the control group (Appendix B).

Experiences, backgrounds, and classroom practices of participating teachers were anticipated influences on this study. In an effort to minimize this influence, every attempt was made to provide relevant background and procedural information to the teachers of this study.

Prior to the beginning of the research study, letters and "Permission to Participate" forms were sent to the parents of students who were participating in the study (Appendix F). The letter explained the nature of the study and the importance of parent cooperation in allowing their child to participate. Immediate return of the permission form was requested. All students who were granted parental permission were eligible to participate in the study. All permission forms were returned promptly.

On Wednesday, after collection of permission forms, the GMRT and the ERAS were administered to the research subjects. The tests were administered in one pretesting session with a 10-minute break scheduled between the administration of the GMRT and the ERAS.

Experimental Group

On Thursday, following the administration of the pretest, implementation of the research procedure began. The description of the treatment follows.

The treatment group participated in two consecutive mini-lessons (one class period each on Thursday and Friday), developed to acquaint them with the concept of becoming a writer, to explain the step-by-step plan for process writing instruction, and to discuss the responsibilities of peer editing. The following week, subjects began progression through the instructional schedule in their daily reading classes. The weekly schedule for the experimental group's process writing instruction is presented in Table II.

As outlined in the weekly schedule for process writing instruction, mini-lessons were scheduled weekly to address topics related to the processes involved in writing. Nine mini-lessons were adapted and presented to the experimental group (Appendix C). Mini-lessons were developed jointly, as student need was determined by the researcher and the teachers of the experimental group.

TABLE II

PROCESS WRITING INSTRUCTION WEEKLY SCHEDULE
(EXPERIMENTAL GROUP)

Day	Student Activity
Monday	Process Writing
Tuesday	Reflection and Reading (Children's Literature Selections)
Wednesday	Mini-lesson
Thursday	Reflection and Reading (Children's Literature Selections)
Friday	Process Writing

Instruction. The mini-lessons were designed to be implemented through the use of various children's literature selections, visual charts, and experience activities. The mini-lesson content and lesson objectives were parallel. Since consistency of instruction was an important factor in all three classes of the experimental group, measures were taken to ensure similarity. Mini-lessons were taught during the same class period to all three classes of the treatment group. All lessons were approximately 50 minutes long and were designed to be taught during the regularly scheduled reading class between 8:40 a.m. and 9:30 a.m. Unusual school events or scheduled interruptions occurring during the regular reading class were assumed to have affected all reading classes.

Children's literature selections were used to replace the basal reader as instructional reading material for the treatment group. A complete list of selected literature is presented in Appendix D. The

children's literature selections were selected on the basis of availability and student interest.

Individual writing folders were kept by students in the treatment group to allow student record keeping and assignment organization. Students were encouraged to record comments relating to process writing assignments during the study (Atwell, 1987). Examples of the writing folder materials are presented in Appendix E.

Experimental group subjects participated in process writing instruction for eight weeks. During the ninth week, the study concluded with the administration of the posttest. The posttest administration procedure was the same as the pretest procedure.

Control Group

The control group students continued with their regular basal reading program. Control subjects participated in writing activities, which were related to reading instruction, as designated by the research procedure.

Progress through the weekly instruction plan began on the same day for the experimental and control groups. The weekly schedule for the control group's classroom instruction is presented in Table III.

TABLE III

CLASSROOM INSTRUCTION WEEKLY SCHEDULE
(CONTROL GROUP)

Day	Student Activity
Monday	Writing assignment (Related to reading instruction)
Tuesday	Reading instruction
Wednesday	Reading instruction
Thursday	Reading instruction
Friday	Writing assignment (Related to reading instruction)

Instruction. Research procedures specified that the control group continue with their regular subskill based reading instruction. Attempts to keep the experimental and control groups as similar as possible required the control group to participate twice a week in assigned writing activities related to their regular reading instruction. Various writing activities such as creative writing, journal writing, and the use of spelling words in sentences were included in the assignment.

Students of the control group were required to keep individual writing folders as a method of keeping their writing assignments organized. Control group students followed the classroom instruction plan for eight weeks.

In conclusion, the final day of the study, control group subjects were administered the posttest. The posttest administration followed the same procedure as did the pretest.

Data Analyses Description

Of the two main effects, only the differences between mean gain scores of the experimental and the control groups were of interest. Of the 15 possible comparisons of treatment and level, only two for each dependent variable were pertinent to this study.

The study required an analysis of the difference between individual pretest and posttest scores, although the sampling unit was by group. The reliability of using simple difference scores is considered high when measuring change resulting from the treatment in experimental studies (Overall and Woodward, 1975; Rogosa and Willet, 1983; Zimmerman and Williams, 1982). According to Overall and Woodward, measuring change between the experimental and control group does not indicate a decrease in reliability as a result of combining measurement error, if the original pretest and posttest scores were reliable prior to calculating the difference. Therefore, the use of individual gain scores (posttest-pretest score) was determined to be appropriate for comparison of experimental and control group differences.

At the conclusion of the eight-week study, all testing instruments were scored. Results were transferred to data summary tables. Descriptive data on the pretest and posttest scores were calculated for comparison through statistical analyses procedures.

A 2 x 3 factorial analysis of variance (ANOVA) was selected as the appropriate statistical analysis to detect significant differences between the experimental and control group means. The ANOVA was also used to detect significant differences in means between the reading levels: high, average, and low (Gay, 1981). The ANOVA is used in research situations requiring the analysis of two or more groups to determine if group means

are significantly different and if the difference is the result of the treatment or the result of chance (Huck, 1974). The .05 level of significance was utilized in all hypotheses testing.

Huck (1974) stated that research situations utilizing the ANOVA for data analysis must meet the assumption of equal variances to ensure validity. A test for homogeneity of variance was calculated using Bartlett's chi-square; scores were robust.

The t test for independent samples was determined to be the appropriate statistical analysis for comparison of the "high" experimental and the "high" control group on reading achievement and reading attitude. The t test was also used for comparison of the "low" experimental and the "low" control group on reading achievement and reading attitude. According to Huck (1974) and Gay (1981), the independent t test is the appropriate analysis to compare two groups when the scores in one group are unequal in number to the scores in the second group.

Descriptive data were calculated on the pretest and posttest scores to determine measures of central tendency. Hypotheses I and II were tested using information from the ANOVA. Hypotheses III, IV, V, and VI were tested using data from the t tests. The .05 level of significance was used to evaluate the F ratio in all hypotheses testing.

This study was designed to detect the effects of process writing instruction on the reading achievement and the reading attitude of sixth grade students. The study tested the following null hypotheses:

Hypothesis I. There is no significant difference between the gain score means of the experimental and the control groups on the measure of reading achievement.

Hypothesis II. There is no significant difference between the gain score means of the experimental and the control groups on the measure of reading attitude.

Hypothesis III. There is no significant difference between the gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading achievement.

Hypothesis IV. There is no significant difference between the gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading achievement.

Hypothesis V. There is no significant difference between the gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading attitude.

Hypothesis VI. There is no significant difference between the gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading attitude.

Summary

An overview of the research design, the population and sample group, the instruments used for collecting data, and the research procedure were presented in Chapter III. The chapter concluded with a description of the research method and the data analysis.

CHAPTER IV

ANALYSES OF THE DATA

Introduction

This experimental study was conducted to determine if sixth grade students exposed to process writing instruction would score significantly different from sixth grade students in a control group on measures of reading achievement and reading attitude. The study addressed the following questions:

1. Did process writing yield significant differences in reading achievement between the experimental group and the control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

2. Did process writing yield significant differences in reading attitude between the experimental group and the control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

3. Did process writing yield significant differences in reading achievement between the "high" reading experimental group and the "high" reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

4. Did process writing yield significant differences in reading achievement between the "low" reading experimental group and the "low"

reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

5. Did process writing yield significant differences in reading attitude between the "high" reading experimental group and the "high" reading control group score? If so, could the differences in reading attitude be attributed to process writing instruction?

6. Did process writing yield significant differences in reading attitude between the "low" reading experimental group and the "low" reading control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

In order to collect data on the maximum range of reading abilities, sixth grade level students were selected as subjects for this study. According to the research design specifications, the experimental and the control groups were established.

One hundred seventeen students from one sixth grade center in a central Oklahoma community were selected as subjects for the study. The population consisted of existing reading classes (approximately 20 students each) that were homogeneously ability grouped according to high, average, and low reading levels. One class of each high, average, and low reading level was randomly assigned to the experimental group and one class from each reading level was randomly assigned to the control group. Both the experimental group and the control group consisted of three reading classes.

Teachers of the experimental group were scheduled for two in-service discussion sessions to acquaint them with the concepts of process writing instruction and to explain the research procedure. Teachers of the control group were scheduled for one in-service discussion session to acquaint them with the research schedule.

The experimental and control group subjects were administered reading achievement and reading attitude pretests. The experimental group subjects received the treatment, process writing instruction, in their daily reading classes for eight weeks. Children's literature selections were used to replace the basal reader as reading material. Subjects of the experimental group did not receive basal reading instruction for the duration of the study.

The control group was used as a comparison group. Students in the control group continued their regular basal reading program for the eight-week period.

At the end of the eight-week study, both the experimental and the control group subjects were administered a posttest. Pretest and posttest scores were used to measure the significant differences occurring in reading achievement and reading attitude.

This chapter provides a review of the research design, the research hypotheses, and the data analyses. The statistical program Systat (1990) was used to provide data for the analyses in this study.

Research Design

For the purpose of this study, a quasi-experimental research design was used. A diagram of the research design was presented as Figure 1 in Chapter III.

Research Hypotheses

The null hypotheses for this study were as follows:

Hypothesis I: There is no significant difference between gain score means of the experimental and control groups on the measure of reading achievement.

Hypothesis II: There is no significant difference between gain score means of the experimental and control groups on the measure of reading attitude.

Hypothesis III: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading achievement.

Hypothesis IV: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading achievement.

Hypothesis V: There is no significant difference between gain score means of the "high" reading experimental group and the "high" reading control group on the measure of reading attitude.

Hypothesis VI: There is no significant difference between gain score means of the "low" reading experimental group and the "low" reading control group on the measure of reading attitude.

Data Analyses

The independent variable in this study was process writing instruction, a fixed (between) factor. The dependent variables were reading achievement and reading attitude. Reading achievement was measured by the Gates MacGinitie Reading Test (Third Edition, Level 5/6, Forms K and L) (MacGinitie, 1989), and reading attitude was measured by the Elementary Reading Attitude Survey (McKenna and Kear, 1990a). The data results allowed all six hypotheses to be rejected.

Systat (1990) was used to calculate a stem-and-leaf diagram (using the pretest and posttest scores) to determine if the scores were normally distributed. The stem-and-leaf diagram indicated that the data were normally distributed and skewness was not a problem.

Raw data were used to calculate descriptive information on the pretest and posttest scores. Raw data on the pretest and posttest scores are presented in Appendix G. Tables IV and V present descriptive data on reading achievement and reading attitude for the experimental and control groups.

TABLE IV

DESCRIPTIVE DATA ON READING ACHIEVEMENT

	Pretest (GMRT)	Posttest (GMRT)	Gain Scores (GMRT)
Experimental (N = 58)			
Minimum	22.000	23.000	- 3.000
Maximum	96.000	96.000	20.000
Range	74.000	73.000	23.000
Mean	52.259	60.052	7.793
Median	50.500	62.000	7.000
Standard Deviation	17.838	18.030	5.317
Standard Error	2.342	2.367	0.698
Control (N = 59)			
Minimum	26.000	21.000	-18.000
Maximum	94.000	93.000	6.000
Range	68.000	72.000	24.000
Mean	58.729	56.424	- 2.305
Median	58.000	56.000	- 1.000
Standard Deviation	17.437	17.322	4.632
Standard Error	2.270	2.255	0.603

TABLE V

DESCRIPTIVE DATA ON READING ATTITUDE

	Pretest (ERAS)	Posttest (ERAS)	Gain Scores (ERAS)
Experimental (N = 58)			
Minimum	22.000	23.000	- 4.000
Maximum	75.000	76.000	26.000
Range	53.000	53.000	30.000
Mean	45.190	51.397	6.207
Median	45.000	52.000	4.000
Standard Deviation	13.186	12.470	7.431
Standard Error	1.731	1.637	0.976
Control (N = 59)			
Minimum	25.000	22.000	-24.000
Maximum	74.000	67.000	5.000
Range	49.000	45.000	29.000
Mean	49.492	45.085	- 4.407
Median	51.000	45.000	- 3.000
Standard Deviation	10.269	9.980	6.165
Standard Error	1.337	1.299	0.803

Analyses of Variance

In order to study the effects of the independent variable, process writing, on the experimental and the control group and in combination with the three reading levels (high, average, and low), a 2 x 3 factorial ANOVA

was calculated. Tables VI and VII present the results of the ANOVA on the measures of reading achievement and reading attitude.

TABLE VI

ANOVA OF EFFECTS OF PROCESS WRITING ON READING ACHIEVEMENT OF SIXTH GRADE STUDENTS

Source	SS	df	MS	F	P
Process Writing	2936.470	1	2936.470	19.103	0.000
Reading Levels	2.744	2	1.372	0.056	0.946
P Writing x R Levels	115.511	2	57.755	2.343	0.101
Error	2736.682	111	24.655		

An examination of Table VI indicates that a significant difference was found to exist between the means of the experimental and the control group on the measure of reading achievement ($F = 19.103$; $df = 1$; $P < .05$). Thus, Hypothesis I was rejected on the .05 level of significance. The mean gain of the experimental group was statistically greater than the mean gain of the control group on the dependent variable reading achievement. The results determined that students receiving process writing instruction demonstrated higher reading achievement.

The data from the t test indicated a significant difference between means of the "high" reading experimental and the "high" reading control group on the measure of reading achievement ($t = - 6.160$; $df = 43$; $P <$

.05). A significant difference between the means of the "low" reading experimental and the "low" reading control group on the measure of reading achievement was also detected ($t = -5.025$; $df = 32$; $P < .05$). Therefore, Hypotheses III and IV were rejected. Significant gains in mean scores of the "high" experimental group and the "low" experimental group were detected in reading achievement as a result of exposure to process writing.

TABLE VII

ANOVA OF EFFECTS OF PROCESS WRITING ON READING ATTITUDE OF SIXTH GRADE STUDENTS

Source	SS	df	MS	F	P
Process Writing	3384.026	1	3384.026	72.737	0.000
Reading Levels	165.167	2	82.584	1.775	0.174
P Writing x R Levels	31.983	2	15.991	0.344	0.710
Error	5164.188	111	46.524		

The results of the ANOVA on the measure of reading attitude were presented in Table VII. The data presented indicate that the mean gain of the experimental group was statistically greater than the mean gain of the control group on the dependent variable reading attitude. A significant difference was found to exist between the means of the experimental and control group on the measure of reading attitude ($F = 72.737$; $df = 1$; $P < .05$). Hypothesis II was rejected at the .05 level of significance. The

results disclosed that students receiving process writing instruction demonstrated a higher reading attitude.

The data from the t test indicate a significant difference between means of the "high" reading experimental and the "high" reading control group on the measure of reading attitude ($t = -4.818$; $df = 43$; $P < .05$). A significant difference between the means of the "low" reading experimental and the "low" reading control group on the measure of reading attitude was also detected ($t = = 5.348$; $df = 32$; $P < .05$). Therefore, Hypotheses V and VI were rejected. Process writing did yield significant gains in mean scores of the "high" experimental group and the "low experimental group on the measure of reading attitude.

Summary

A 2 x 3 factorial ANOVA was used to analyze the data from this study. Results of the data analyses determined significant differences between the means of the experimental and control groups on the measures of reading achievement and reading attitude.

In addition, t test results revealed significant differences between the "high" reading experimental and the "high" reading control group means and the "low" reading experimental and the "low" reading control group means on reading achievement. Results of the t test also indicated significant differences between the "high" reading experimental and the "high" reading control group means and the "low" reading experimental and the "low" reading control group means on reading attitude. Though not related to a hypothesis of this study, no significant interaction between the experimental and control groups and reading levels (high, average, and low) on reading achievement or reading attitude were detected.

The data results allowed all of the six hypotheses to be rejected. The rejection of Hypotheses I and II indicated that the treatment, process writing instruction, resulted in an increase in both dependent variables: reading achievement and reading attitude.

This chapter has provided a review of the research design and the research hypotheses. A description of the data and the statistical analyses were also presented. The Systat (1990) program was used to calculate the data for this study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Developing instruction that will facilitate learning and simultaneously teach students to become responsible learners is a challenge for educators. Teachers must develop an awareness of the interrelated cognitive processes of different skills and focus on curriculum decisions that teach learning strategies through a more holistic approach.

This study was developed to determine the difference in reading achievement and reading attitude of sixth grade students after exposure to process writing instruction. The following questions were addressed:

1. Did process writing yield significant differences in reading achievement between the experimental group and the control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

2. Did process writing yield significant differences in reading attitude between the experimental group and the control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

3. Did process writing yield significant differences in reading achievement between the "high" reading experimental group and the "high" reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

4. Did process writing yield significant differences in reading achievement between the "low" reading experimental group and the "low" reading control group scores? If so, could the differences in reading achievement be attributed to process writing instruction?

5. Did process writing yield significant differences in reading attitude between the "high" reading experimental group and the "high" reading control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

6. Did process writing yield significant differences in reading attitude between the "low" reading experimental group and the "low" reading control group scores? If so, could the differences in reading attitude be attributed to process writing instruction?

Summary

An established link between reading and writing provided the basis for further study of the interrelationship of reading achievement, reading attitude, and process writing instruction. Sixth grade students were selected to participate in order to study the treatment effects on the maximum range of reading abilities.

Research Procedure

The research study was conducted during the final eight weeks of the 1990-1991 school year. The study was implemented in a sixth grade center located in a central Oklahoma school district. The researcher randomly assigned six existing reading classes to an experimental or a control group. The experimental group consisted of three reading classes: one class (approximately 20 students) of each high, average, and low reading

levels. The control group consisted of three reading classes; one class (approximately 20 students) of each high, average, and low reading levels.

Prior to the beginning of the study, the researcher scheduled in-service discussion sessions with both the experimental and the control group teachers. The discussion sessions were developed to provide a complete review of the major components of the research study.

The researcher used the Gates MacGinitie Reading Test (Third Edition, Level 5/6, Forms K and L) (MacGinitie and MacGinitie 1989) as the pretest and posttest for reading achievement. The pretest and posttest used to measure reading attitude was the Elementary Reading Attitude Survey (McKenna and Kear, 1990b).

Campbell and Stanley's (1969) quasi-experimental design was used as the research design for this study. The quasi-experimental design used was the pretest-posttest nonequivalent control group design (Campbell and Stanley, 1969). Process writing, instruction that emphasizes the development of knowledge related to the processes of writing, was used as the treatment in this study. This study was designed to detect the effects of process writing instruction on the reading achievement and reading attitude of sixth grade students.

Data Analysis

The Systat (1990) program was used to provide statistical data for analyses. Descriptive statistics were calculated from raw data for the experimental and the control groups.

The researcher used a factorial Analysis of Variance (ANOVA) and the t test as statistical analyses in this study. The .05 level of significance was used to evaluate the F ratio in all hypothesis testing.

Conclusions

An analysis of the data indicated that a significant difference existed between the means of the experimental and the control groups on both measures of the dependent variables: reading achievement and reading attitude. In response to questions one and two, an eight-week exposure to process writing instruction improved the reading achievement and reading attitude of sixth grade students.

In response to question three, the data indicated that the mean gain of the "high" experimental group was statistically greater than the mean gain of the "high" control group on the dependent variable reading achievement. In response to question four, the data indicated that the mean gain of the "low" experimental group was statistically greater than the mean gain of the "low" control group on the dependent variable reading achievement. The data also indicated that there is no significant interaction between process writing and reading level on the measure of reading achievement. The differences detected in the experimental group reading levels were distributed between the high, average, and low reading levels, with the average reading level showing the most gain. Group means for reading achievement are presented in Table VIII.

TABLE VIII

FACTORIAL ANOVA GROUP MEANS FOR
READING ACHIEVEMENT

		Process Writing	
		Experimental	Control
	High	$\bar{x}$ 6.957 N = 23	$\bar{x}$ - 1.773 N = 22
	Average	$\bar{x}$ 9.40 N = 20	$\bar{x}$ - 3.556 N = 18
	Low	$\bar{x}$ 6.933 N = 15	$\bar{x}$ - 1.737 N = 19
Group $\bar{x}$		$\bar{x}$ 7.793 N = 58	$\bar{x}$ - 2.305 N = 59

In response to question five, an analysis of the data on reading attitude indicated that the mean gain of the "high" experimental group was statistically greater than the mean gain of the "high" control group. In response to question six, an analysis of the data on reading attitude indicated that the mean gain of the "low" experimental group was statistically greater than the mean gain of the "low" control group. The differences detected in the experimental group reading levels were distributed between the high, average, and low reading levels, with the

low reading level showing the most gain. Group means for reading attitude are presented in Table IX.

TABLE IX

FACTORIAL ANOVA GROUP MEANS FOR READING ATTITUDE

		Process Writing	
		Experimental	Control
	High	$\bar{x}$ 4.913 N = 23	$\bar{x}$ - 5.227 N = 22
	Average	$\bar{x}$ 5.65 N = 20	$\bar{x}$ - 4.389 N = 18
	Low	$\bar{x}$ 8.933 N = 15	$\bar{x}$ - 3.474 N = 19
Group $\bar{x}$		$\bar{x}$ 6.207 N = 58	$\bar{x}$ - 4.407 N = 59

Additional Findings

Further examination of the data revealed that the reading achievement scores for the control group fell from the pretest to the posttest.

Reported means for the experimental group on reading achievement are: pretest mean, 52.259 and posttest mean, 60.052). Reported means for the control group on reading achievement are: pretest mean, 58.729 and posttest mean, 56.424. The pretest and posttest means for reading achievement are presented in Figure 2.

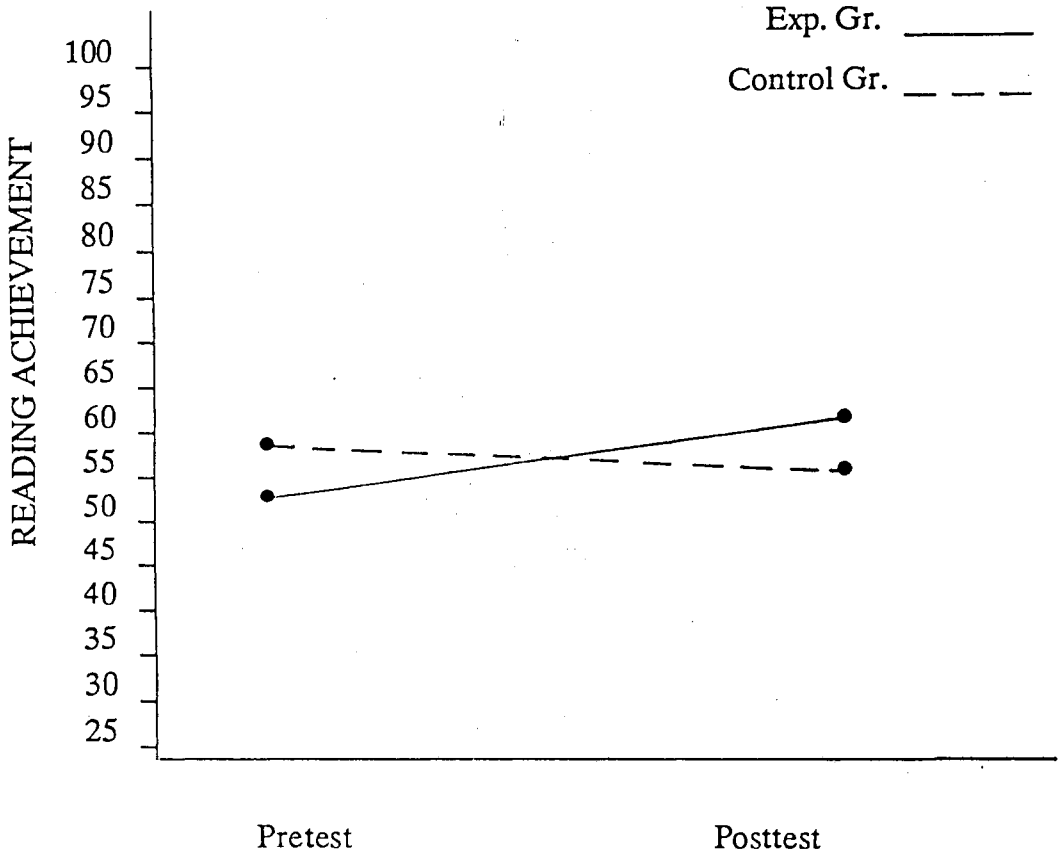

Figure 2. Graph of Reading Achievement Means for the Experimental and Control Groups

The data also revealed that the reading attitude scores for the control group fell from the pretest to the posttest. Reported means for the experimental group on reading attitude are: pretest mean, 45.190 and posttest mean, 51.397. Reported means for the control group on reading attitude are: pretest mean, 49.492 and posttest mean, 45.085. The pretest and posttest means for reading attitude are presented in Figure 3.

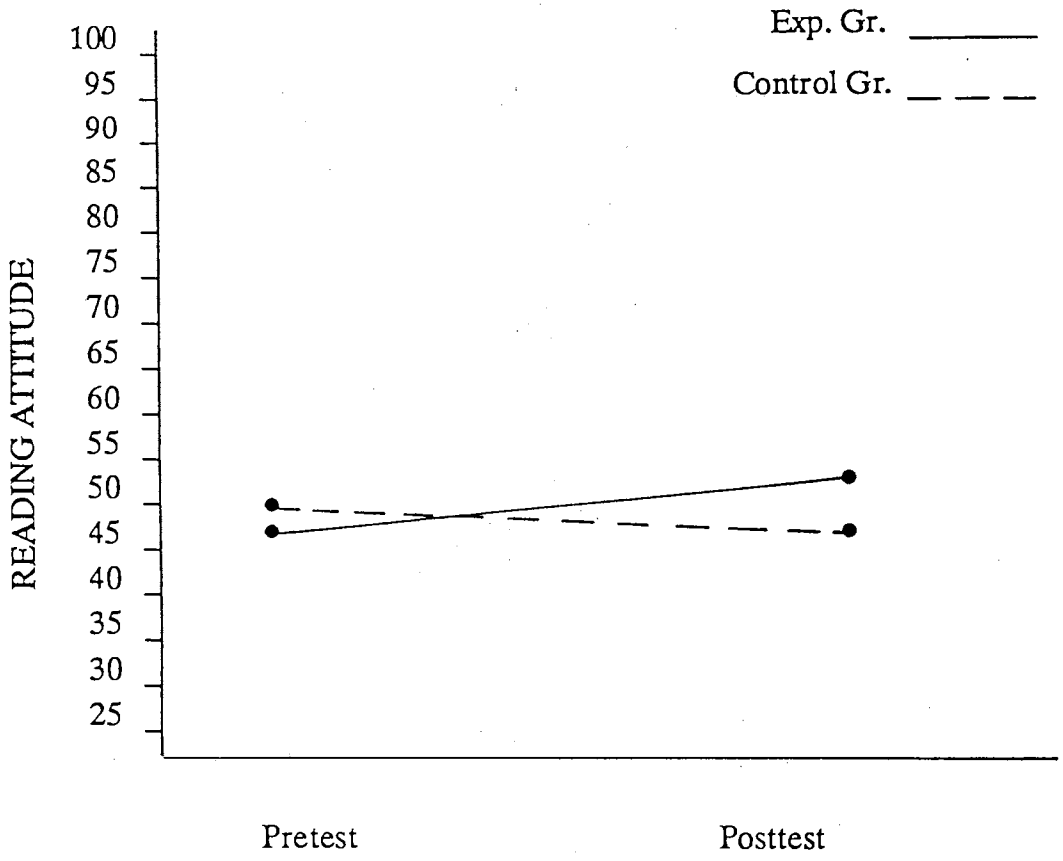

Figure 3. Graph of Reading Attitude Means for the Experimental and Control Groups

Discussion

The importance of teaching reading and writing as an interrelated skill is a key factor in developing curricular materials to facilitate learning. Through process writing instruction, related subskills of the two processes can be taught through an experience approach. Because of the diversity of instruction, which is based on student need and choice, all students can experience success. The development of self-confidence and success also become important factors in promoting a positive reading attitude.

The knowledge explosion of the last decade has, in part, been responsible for an increased awareness of the need to examine current classroom instructional practices. Teachers are finding their role as disseminator of knowledge to be impractical and impossible. Gaining prominence is the idea that teachers should view their role in instruction as being that of a facilitator of learning, therefore encouraging students to assume responsibility for their own learning.

Teaching students how to learn, and decision making about what needs to be learned based on teacher/student collaboration, is becoming an important classroom practice. This interactive student/teacher role will provide effective instructional practices for the diversity of learning styles, language abilities, individual differences in ability, and ethnic backgrounds that are found in today's classrooms. As the literature of this study indicates, both student and teacher benefit from classroom collaboration and conferencing. In order to promote a more interactive learning environment, several myths related to current instructional practices must be addressed, allowing teachers to become more knowledgeable about how children learn in general. Curriculum should be developed on

instructional practices that combine skills in a holistic approach focusing on the processes related to learning.

The results of this study indicate that process writing instruction should be considered as a key component of reading instruction for sixth grade students. However, additional research related to the processes of writing and reading instruction is needed to determine the effects over time.

This study was implemented during the final weeks of school. The researcher has observed, through experience as a classroom teacher, the consistent daily interruptions from normal classroom activity that occur during the last weeks of school. The distraction from these interruptions, added to the anticipation of summer break, frequently impact on student achievement and attitude.

The timing factor would suggest that students could have scored lower than they would have if the study had been conducted earlier in the year. However, it is common for motivation to be low during the last weeks of school. Classroom instruction that is new and different from what students have encountered throughout the year could motivate higher achievement and interest. Teachers' attitudes and practices could also have been affected by the same timing factors.

Participating teachers experienced some problems in teaching process writing and felt the need for a more knowledgeable background relating to process writing instruction. Teachers reported student response as being very receptive to process writing instruction, with the exception of the low group. The low group was reported as having some difficulty with process writing, especially the first two weeks of the study.

Since the research school functioned as a sixth grade center, the unique composition did not allow the results to be generalized to other

sixth grade populations. The results of this study can only be generalized to sixth grade populations similar in composition to the research school.

Recommendations

The results of this study clearly indicated a need for further examination of curricular and instructional methods related to the practice of teaching reading and writing as combined processes. Questions for further study include the following:

1. What are the delayed effects of process writing instruction? This study provided information on the effects of process writing resulting from an eight-week study. A follow-up study at the end of a one-, two-, or three-year time lapse could provide information on the delayed effects of process writing instruction.

2. What are the effects of process writing instruction over time--one or two years? This study examined the effects of process writing over an eight-week period. In order to determine the long-term effects on reading achievement and reading attitude, the duration of the study could be extended to a one- or two-year study.

3. Would the effects be the same in a more traditional school structure as opposed to a sixth grade center? A similar study implemented in a traditional school setting would allow the study results to be generalized to a larger population.

4. Would process writing instruction have the same effect according to gender? The researcher was primarily interested in the effects of process writing on different levels of reading achievement. However, the effects of process writing on gender should be considered, since gender has an influence on learning style.

5. Would process writing instruction be effective at different grade levels? The sixth grade level was selected for this study because the greatest differences in reading achievement could be observed at that level. To monitor the true learning benefits of process writing, future studies should include several grade levels.

6. What effect did process writing instruction have on each participating teacher's attitude, philosophy, and practice? This study focused on the learning benefit of students that resulted from process writing instruction. Future study should also focus on changes in each experimental group teacher's philosophy and practice as a result of teaching process writing.

7. Would process writing instruction be a more effective method of teaching students of a specific learning style? This study examined the effects of process writing on different levels of reading achievement. Several different learning styles exist in each group of high, average, and low achievers. Future study should consider differences in learning styles. Would process writing instruction be more effective with field-independent or field-dependent learners?

Concluding Remarks

A review of the literature in this study reflected evidence that includes writing activities such as journal writing, creative writing, and report writing as a supplement to regular reading instruction can result in the improvement of some writing and/or reading subskills. However, the research conclusions of this study provided strong implications that by teaching reading and writing as interrelated processes, overall reading achievement and reading attitude can be improved.

The results of this study have reinforced the researcher's assumption that teaching language arts through an integrated approach has merit. Although the literature clearly indicated that a holistic approach to curriculum development and related instruction results in higher student achievement, teachers must first develop confidence in this approach.

An observable need is for classroom teachers to become involved in projects that encourage them to develop and adapt curriculum which is reflective of current research findings. Both teachers and students may become more productive through participation in such projects. Teachers are allowed the flexibility to experience new instructional strategies and are encouraged to become curriculum decision makers as well as critical evaluators. In addition, students are exposed to a variety of instructional strategies which will enable them to develop skill in evaluating their personal learning styles and abilities.

Continued study of the processes involved in learning and how these processes affect the product must be a priority of education. To become more knowledgeable about how students learn, their individual learning needs, and how curriculum and instructional practices affect student achievement must continue to be a priority of teachers.

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APPENDIXES

APPENDIX A

DISCUSSION SESSION I AND II--BIBLIOGRAPHY

EXPERIMENTAL GROUP

Discussion Session I

Bibliography

Experimental Group

Topic: Whole Language Defined

Goodman, K. S. (1985). Growing into literacy. Prospects, 15(1), 58-65.

Topic: Whole Language Versus Subskill Instruction

Goodman, K. S. (1989). Whole language is whole: A response to Heymsfeld. Educational Leadership, 46(6), 69-70.

Heymsfeld, C. R. (1989). Filling the hole in whole language. Educational Leadership, 46(6), 65-68.

Topic: Reading and Writing Connections

Smith, F. (1983). Reading like a writer. Language Arts, 60(5), 558-567.

Tierney, R. I. and Pearson, D. P. (1983). Toward a composing model of reading. Language Arts, 60(5), 568-580.

Topic: Emphasis on Process, Not Product

Harp, B. (1988). When the principal asks. Reading Teacher, 42(2), 160-161.

Topic: Developing Whole Language Materials

Duffy, G. G., Roehler, L. R., and Putnam, J. (1987). Putting the teacher in control: Basal reading textbooks and instructional decision making. Elementary School Journal, 87(3), 358-373.

Smith, F. (1981). Demonstrations, engagement and sensitivity: The choice between people and programs. Language Arts, 58(6), 634-642.

Spiegel, D. L. (1989). Content validity of whole language materials. Reading Teacher, 43(2), 168-169.

Discussion Session II

Bibliography

Experimental Group

Topic: Process Writing Instruction

Gaskins, I. W. (1982). A writing program for poor readers and writers and the rest of the class too. Language Arts, 59(8), 854-862.

Harms, J. M. and Lettow, L. J. (1986). Fostering ownership of the reading experience. Reading Teacher, 40(3), 324-330.

Suggested Books:

Atwell, N. (1987). In the Middle. Portsmouth, NH: Heinemann.

APPENDIX B

IN-SERVICE DISCUSSION SESSIONS

PROCESS WRITING PLAN--EXPERIMENTAL GROUP TEACHERS

CLASSROOM INSTRUCTION--CONTROL GROUP TEACHERS

Process Writing Plan

Experimental Group Teachers

Teachers of the experimental group were from varied teaching backgrounds. Two teachers had more than 10 years of elementary teaching experience, and the third teacher had one year of teaching experience. Classroom practices of all three teachers were reflective of a subskill reading instruction philosophy.

In order to exercise some control over the influence of teaching effectiveness, experimental group teachers received two (approximately four hours total) in-service discussion sessions. The two consecutive sessions (approximately two hours each) were scheduled to address the following objectives:

1. Familiarize teachers with the philosophy and concepts of process writing from which this study was developed.

2. Provide teachers with information on four major components of process writing instruction: method of instruction, review of the research procedure, and measurement procedures.

Key concepts of the whole language philosophy and related teaching implications were discussed in the first discussion session. Topics for discussion were initiated through a review of related reference articles selected by the researcher. Copies of the reference articles were provided to the teachers of the experimental group (Appendix A). Topics of discussion were:

1. Whole language defined.
2. Whole language versus subskill based instruction.
3. Reading and writing connections.
4. Emphasis on process, not product.
5. Developing whole language materials.

The second discussion session consisted of a review of four major components for developing process writing instruction. The session concluded with an explanation of the step-by-step plan of instruction, the weekly schedule for instruction, and an explanation of the research procedure.

The components discussed for developing process writing were: (1) time, (2) children's literature, (3) student-centered curriculum, and (4) mini-lessons. Included in the discussion session was a review of the treatment method and the weekly schedule for instruction. The treatment method, a step-by-step plan for teaching process writing, was expanded from Atwell's (1987) guidelines. Following is the step-by-step plan of the treatment method, process writing:

1. Choose a topic. Student discussion followed by group brainstorming of ideas.

2. Write a draft. Students read children's literature selections to help formulate ideas.

3. Peer editing sessions. Students revise their first drafts, after peer editing.

4. Proofread. Students proofread and self-edit their drafts, then make revisions.

5. Teacher conference. Student/teacher discussion of any problems that may surface through writing. If additional revisions are needed, students make final revisions.

6. Final draft. Students write a final draft and submit their work to be published.

The weekly schedule for the experimental group was developed according to Atwell's (1987) suggestion that students should be given time to

read, write, and reflect if they are expected to become writers. The weekly schedule for the experimental group was as follows:

PROCESS WRITING INSTRUCTION

WEEKLY SCHEDULE

(Experimental Group)

Day	Student Activity
Monday	Process writing
Tuesday	Reflection and reading (Children's literature selections)
Wednesday	Mini-lesson
Thursday	Reflection and reading (Children's literature selections)
Friday	Process writing

Copies of reference articles related to the second discussion session were provided to the teachers of the experimental group (Appendix A). In addition, the experimental group teachers were provided a list of the children's literature selections to be used in the study (Appendix D).

The discussion session concluded with an explanation of the measurement and research procedures. Teachers of the experimental group were scheduled to meet weekly with the researcher as a method of monitoring the research project. The objectives for the weekly meetings were to discuss student response to process writing instruction, to determine student instructional need, and to develop mini-lessons as instructional needs were determined.

Classroom Instruction Plan

Control Group Teachers

Teachers of the control group were from varied teaching backgrounds. Two teachers had more than 10 years of elementary teaching experience, and the third teacher had nine years of teaching experience. Classroom practices of all three teachers were reflective of a subskill reading instruction philosophy.

Prior to the beginning of the study, one in-service discussion session was scheduled with the teachers of the control group. Control group teachers were given limited information regarding the research study. Therefore, the objectives for the discussion session were:

1. Familiarize the control group teachers with the weekly instruction schedule for the control group.
2. Explain the measurement procedure.
3. Schedule two additional discussion sessions during the research study.

The weekly instructional schedule for the control group may be found on the next page.

CLASSROOM INSTRUCTION

WEEKLY SCHEDULE

(Control Group)

Day	Student Activity
Monday	Writing assignment (Related to reading instruction)
Tuesday	Reading instruction
Wednesday	Reading instruction
Thursday	Reading instruction (Children's Literature Selections)
Friday	Writing assignment (Related to reading instruction)

The control group teachers reviewed procedures for administering the pretest and scheduled two future discussion sessions with the researcher. One discussion session was scheduled during the fourth week of the study; the second session was scheduled two days prior to the pretesting. The purpose of the sessions was to monitor problems that might surface during the study.

SCHEDULE OF ACTIVITIES FOR RESEARCH STUDY

(Experimental and Control Groups)

Activities	Dates		
	March	April	May
1. Proposal submitted	XXXXXXXXXX		
2. Selection of subjects	XXXX		
3. Pre-testing		XXXX	
4. Treatment		XXXXXXXX	XXXXXX
5. Posttesting			XXX

March 25, 26, 27	Research review with teachers
April 3	Pre-test subjects
April 8	Research project begins according to weekly schedule
May 30	Posttesting

APPENDIX C

MINI-LESSONS I THROUGH IX

EXPERIMENTAL GROUP

MINI-LESSON I

Topic: Procedure for Process Writing

Objective: Students will demonstrate, through daily use, their understanding of the process of writing.

Materials: Chalkboard. Writing Survey. Individual Student Folder.

Individual Folder Contents:

1. A weekly schedule of class activity.
2. A copy of process writing step-by-step plan.
3. A record for students to record their progress.

Teaching Suggestions:

1. Teachers: Write the following two questions on the chalkboard.
   a. Think of as many reasons as possible: Why it is important to know how to express your ideas in writing?
   b. Think about what actually takes place: What do writers do when they express their ideas through writing?

2. Teachers: Explain the weekly schedule and the step-by-step plan for process writing.

3. Teachers: Explain the purpose of the writing folders and review the folder contents with the students.

4. Teachers: Explain the student's responsibilities in keeping records of their writing activities.

5. Teachers: Explain the responsibilities of peer editing and the classroom guidelines for teacher conferences. Students must conference with the teacher before beginning their final draft

6. Teachers: Handout writing survey and explain the contents. Give students clues and examples of possible answers to the questions. Allow about ten minutes to complete the survey. Explain that students should keep the reading survey in their reading folders until the end of the eight weeks study. Then they will review it again.

7. Students: Complete the survey with honest answers. After completion of this survey, use the remainder of time to think about and list answers to question A on the chalkboard.

8. Teachers: Give students time to continue to answer question A. Encourage class discussion of the students' answers, giving all students the opportunity to provide answers while the teacher records the answers on the chalkboard. Discuss each student response as it is given.

9. Students: Discuss question B using the same procedure used for question A.

10. Teachers: Explain the purpose of process writing instructions: to develop an understanding of the elements used in writing, to develop language skills through experience, to develop a sense of how language reads, and to encourage all students to become writers.

11. Teachers: Explain that students will have the opportunity to complete two writings over the next eight week period; a narrative and an expository writing. Students will have the opportunity to select a subject by brainstorming and to generate ideas for writing activities.

Hoskisson and Tompkins (1987) state:

> The real life role for writing is "author." Authors write for real purposes and for genuine audiences. Students, in contrast, often write so that the teacher will have something to grade. Explaining to students that the writing process they are using is similar to the one that authors use is one way to help students think of themselves as authors (p. 93).

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Hoskisson, K and Tompkins, G. E. (1987). Language Arts Content Teaching Strategies. Columbus, OH: Merrill.

MINI-LESSON II

Topic: Getting Started

Objectives: Students will demonstrate, through writing projects, the concept of "process" involved in writing.

Students will be able to identify the differences between a narrative writing and an expository writing.

Students will demonstrate their understanding of the purpose of writing in drafts.

Materials: Chalkboard. Individual Student Folders. Children's Literature Selections:

(1) Grandpa's Face, Eloise Greenfield
(2) The Popcorn Book, Tomie de Paola

Teaching Suggestions:

1. Teachers: Review the six step-by-step plan for process writing. Question students regarding their understanding of the steps to establish reinforcement of the procedure.

2. Teachers: Stress the following concepts to students.

A. Writing is a trial and error process. Students cannot expect to be expert writers without practice. Writers revise their writing several times before completion. The first draft is an attempt to get ideas down on paper. Students should not worry about spelling, just put their ideas down on paper. Corrections can be made later during editing sessions.

B. Double space the first draft so revisions can be made on the blank line. Students should keep all work in the writing folder so it will be organized to begin the writing assignment each day.

C. After deciding on a topic and writing the first draft, students are ready for the peer editing session. Explain again, the peer editing guidelines and stress that each student is expected to follow the guidelines for editing.

D. After the peer editing session, more revisions, using the dictionary and language books to find corrections for errors.

E. Students are now ready to read their own work carefully. Then more revisions!

F. Students should have revised and corrected their work indicating they are ready to conference with the teacher. The student/teacher conference will provide the writer with information on ways to improve the writing and revisions for the final copy.

G. After teacher conferencing, students should begin the final draft. This draft is turned in when students feel the writing is near perfect.

3. Teachers: Explain that the first assignment will be a narrative writing. Encourage students to observe the differences in the stories that will be read. Read the two children's literature selections to students.

4. Students: Analyze and discuss the similarities and differences in the two stories. Through discussion, students draw conclusions about the characteristics of narrative and expository writing.

5. Teachers: Encourage students to define their topics and offer suggestions when needed. Allow time, if possible, for students to begin writing.

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Atwell, N. (1987). In the Middle. Portsmouth NH: Heinemann.

MINI-LESSON III

Topic: Descriptive Words

Objectives: Students will demonstrate, through use, their understanding of the purpose of words that describe.

Students will be able to identify descriptive words in other author's work.

Students will be introduced to the concept of adjectives and adverbs.

Materials: Chalkboard. Children's Literature Selection. One of the following:

A(1) Who Owns the Sun?
Stacy Chbosky
Emphasis should be that the author of this book is a child!

A(2) Dakota Dugout
Ann Turner

A(3) Song and Dance Man
Karen Ackerman

Teaching Suggestions:

1. Teachers: Write the following sentence on the chalkboard. The girl ran.
On the opposite side of the board write the following subjects:
   1. A snowy day
   2. Night by moonlight
   3. A stormy sea
   4. Glucks from the planet Zorion
   5. An icy lake
   6. The hungry pelican
   7. The quiet of night
   8. The angry elephant
   9. The frightened little bear
   10. The spring rain

2. Teachers: Read the children's literature selection. After completion, encourage students to recall the images that were formed in their minds and recall the words that helped them form those images.

3. Teachers: Encourage students to develop the sentence that is written on the chalk board, The girl ran, into a more interesting sentence by using descriptive words. Encourage the use of both adjectives and adverbs.

4. Teachers: Rewrite the sentence using student suggestions.

5. Students: Conclude that some descriptive words tell which one, what kind, or how many.

6. Teachers: Explain these descriptive words as adjectives.

7. Students: Conclude that some descriptive words tell how, when and where.

8. Teachers: Explain these descriptive words as adverbs.

9. Teachers: Encourage students to conclude the importance of descriptive words to both the writer and the reader.

10. Students: Possible conclusions would be that descriptive words are important to the reader to help form images of what the author is writing about. They are important to the writer because they allow the writer to make his/her ideas more interesting. Descriptive words allow the writer to give the reader more information about a person, a place, an object, a feeling, or an action.

11. Teachers: Explain and have students to volunteer to read the list of subjects on the board. Instruct students to select one and write a paragraph to describe the subject. Explain to students that they should not mention the subject in the paragraph, just describe it.

12. Students: After writing the paragraph, volunteers are selected to read their descriptive paragraphs to the other students. The class will attempt to identify the subject that was written about.

13. Teachers: Conclude by reviewing the purpose of writing and reading and encourage students to use descriptive words in their own narrative writing. Encourage students to observe, in their reading selections, how different authors use descriptive words.

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Bennett, B. (1983). Words Take Wing. Ames, Iowa: Iowa State University Press.

MINI-LESSON IV

Topic: Story Plot Patterns

Objectives: Students will develop an understanding of the purpose of plot in writing.

Materials: Chalkboard. Plot pattern reference sheet for students to keep in their writing folders as a reference. Children's Literature Selections.

A(1) Cross Country Cat
Mary Calhoun

A(2) The Three Bears
Paul Galdone

Teaching Suggestions:

1. Teachers: Provide a copy of the plot pattern reference sheet to each student with instructions to keep the sheet in the reading folder for reference purposes.

2. Teachers: Equate writing a story with building a house. Explain to students that authors use plans for writing just as contractors use plans for building.

3. Students: Conclude that a group of words do not make a story. A good story must be planned.

4. Teachers: Explain that authors use plots in developing plans for writing a story. Explain each part of the story plot.

Introduction: Stress the importance of using descriptive words in writing the introduction. Explain the different types of introductions: description of a place, description of a character, description of a flashback, description of time, description of a scene, or description of an important object in the story.

Problem: The problem is stated. The problem can be a conflict.

Complications: Problem can't be solved. Obstacles and interferences prevent the problem from being solved.

Climax: Something happens that allows or leads to the problem being solved.

Solution: Problem is solved.

Short Ending: A short ending refers to the past or may look toward the future.

5. Teachers: Read the story of The Three Bears. When finished, encourage students to determine the part of the story that is related to each part of the story plot. Record students answers on the board.

6. Students: Developed a blueprint of the author's plot for the story of The Three Bears.

Introduction:
Description of house and bears.
Problem:
Porridge is too hot, too cold.
Complications:
Goldilocks eats the food. Breaks the chair. Falls asleep. Bears come home.
Climax:
Bears go into the bedroom where Goldilocks is asleep.
Solution:
She jumps out of the window, to the relief of the bears.
Short Ending:
The bears never see her again.

7. Teachers: Read the story Cross Country Cat by Mary Calhoun.

8. Students: Discuss the elements of plot in Cross Country Cat.

9. Teachers: Record students conclusions on the board under each element of plot.

10. Teachers: Encourage students to identify the elements of plot in the stories they are writing and attempt to discover elements of the author's plot in different types of books.

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Bennett, B. (1983). Words Take Wing. Ames, Iowa: Iowa State University Press.

MINI-LESSON V

Topic: Story Sequence

Objectives: Students will demonstrate, through writing, their understanding of sequence of events in a story.

Materials: Chalkboard. Individual Student Folders. Children's Literature Selection.

The True Story of the 3 Little Pigs! By A. Wolf. Told by Jon Scieszka.

Teaching Suggestions:

1. Teachers: Write the name of the story in the center of the chalkboard; leaving room to do sequencing.

2. Teachers: Write the following events from the story on the chalkboard.

   1. The second pig's house fell in.
   2. Al started to make a birthday cake.
   3. Al ran out of sugar.
   4. Al had a cold.
   5. Al sneezed a great sneeze.
   6. Al walked to the first pig's house.
   7. Al went to the second pig's house.
   8. Al sneezed a second great sneeze.
   9. Al ate the first pig.
   10. Al ate the second pig.
   11. Al went to the third pig's house.
   12. Al sneezed a third great sneeze. He sneezed again and again.
   13. Al ended up in jail.
   14. The newspaper wrote about Al.

3. Teachers: Review students on how authors use plot as a pattern for writing. Explain that sequence is used by the author to determine which event should be written about first, second, etc., in order to make the story more meaningful.

4. Students: Volunteers read the sentences on the chalkboard.

5. Teachers: Explain the major events in the story The True Story of the Three Little Pigs. Encourage students to decide which order the events should be placed in to make the story meaningful. Discuss as a class with input from all students, if possible.

6. Teachers: Read the story to the students.

7. Students: Discuss the sequence of events in the story and revise the events on the board, one at a time, to the correct sequence of the story.

8. Teachers: Encourage students to determine the sequence in other books they are reading

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Bennett, B. (1983). Words Take Wing. Ames, Iowa: Iowa State University Press.

MINI-LESSON VI

Topic: Dialogue

Objectives: Students will demonstrate, through writing, how to create interest in story writing by using character conversation.

Materials: Teachers use a story from personal experience. Individual Student Folders.

Teaching Suggestions:

1. Teacher: Tell students a story of a personal, embarrassing experience. Use character conversation with numerous, I said, they said, etc. Keep the story short.

2. Teacher: Ask student volunteer to retell the story without the character conversation.

3. Students: Indicate which story was more interesting, the first version or the second version.

4. Teacher: Encourage the students to conclude that just as descriptive words add interest to a story, so does character conversation.

5. Teacher: Explain that character conversation in a story is called dialogue. Dialogue is important in a story because it provides the reader with details about the story. The characters are sometimes lost when you try to write a description of what took place, instead of writing what actually was said by the characters.

6. Teachers: Ask student volunteer to explain to the class how dialogue can be identified in a story and how to use quotation marks.

7. Teachers: Write the different types of dialogue sentences on the board correctly so the students can see how to use quotation marks.

8. Teachers: Explain that writers use tools in their work. Quotation marks are considered a type of writer's tool. They allow the writer to indicate to the reader when someone is talking.

9. Teachers: Encourage students to think of other tools that writers use. Encourage students to name as many punctuation and capitalization rules as possible.

10. Students: Form small groups. Each group writes their version of Little Red Riding Hood. Two groups will use predominately dialogue between Little Red Riding Hood and the Big Ugly Wolf. Two groups will write their version without using dialogue. When complete, one volunteer from each group will read the stories.

11. Students: Discuss the differences in the two versions.

12. Teachers: Encourage students to use dialogue in their narrative writing to add interest to their stories. Encourage students to observe the way other authors have used dialogue and attempt to visualize how different the story would be if the author had not used dialogue.

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Bennett, B. (1983). Words Take Wing. Ames, Iowa: Iowa State University Press.

MINI-LESSON VII

Topic: Combining Rules into Different Points of View

Objectives: Students will demonstrate, through writing, how the author's viewpoint can change the way a story reads.

Students will develop an understanding of how different points of view affect writing.

Materials: Chalkboard. Children's Literature Selection. Individual Student Folders.

The Pain and the Great One, Judy Blume

Teaching Suggestions:

1. Teachers: Review basic elements of a story.

On the chalkboard, write the following:

All complete stories have three parts. Ask students to name the three story parts and write their answers under the appropriate heading.

Stories

1. Beginning
2. Middle
3. Ending

2. Teachers: Write the three answers in columns on the board. Beginning (Writers put these things in the beginnings of stories). Middle (Writers put these things in the middle of stories). Ending (Writers put these things in the ending of stories).

Beginnings	Middle	Endings
1.	1.	1.
2.	2.	2.
3.	3.	3.

3. Teachers: Tell students to think about their own writings and help fill in the story elements that go under each part of the story.

4. Teachers: Encourage students to refer to their folders for information, if needed. Discuss as a class the placement of the different elements of their own stories.

5. Teachers: Encourage students to discuss description and dialogue and how these two elements could be used under each of the columns. After, discussion of each story element, recap the entire process with the help of the students.

6. Teachers: Explain that all stories have the same elements in common. They all have a beginning, middle, and end. They all have a plot pattern and they all have a sequence of events in the plot pattern. They all use dialogue and descriptive words to make their stories more interesting, and they are all written using writers tools, such as punctuation, spelling, etc.

7. Teachers: Read the story written by Judy Blume.

8. Students: Discuss how the story is different from most stories. Point out that stories can be written from different points of view. <u>The Pain and the Great One</u> is written from a different point of view. How do the two points of view effect the story?

9. Teachers: Explain that writers tell stories from different points of view. Write on the chalkboard:

    1. A character is telling his/her own viewpoint using "I". This is called first person point of view.

    2. The writer sees all or knows all about the characters.

    3. The writer focuses on one character and tells the story as that character thinks and feels.

4. The writer focuses on the sequence of events in the story and does not tell what the characters are thinking or feeling.

10. Students: Discuss how the point of view influences the way the story reads. Which point of view was used in the story just read? Discuss as a class.

11. Teachers: Encourage students to discuss the point of view used in their own story? Call on several students to comment. How could you change the point of view in your story? Would it make your story more interesting or change the way your story reads? Discuss as a class.

12. Teachers: Encourage students to determine the point of view used to write the literature selection they are reading. Would the story meaning change if the author had used a different point of view to write the story? How would the meaning change?

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Hoskisson, K. and Tompkins, G. D. (1987). Language Arts Content Teaching Strategies. Columbus, OH: Merrill.

MINI-LESSON VIII

Topic: Introduction to Expository Writing

Objectives: Students will be able to identify and define expository writing.

Students will demonstrate, through writing, ways to formulate research questions.

Students will demonstrate the use of "clustering" to organize and gather information for expository writing.

Materials: Chalkboard. Individual Student Folders. Selected Children's Informational Books. An example of "clustering" pattern for student's reference material in folders.

Teaching Suggestions:

1. Students: Describe the difference between the books previously read in class and the books they are reading now.

2. Teachers: Write student comments on the board under the headings:

   Narrative Stories Informational Stories

3. Students: Determine differences through class discussion.

4. Students: Explain a writer's purpose for writing informational books. Contrast, through class discussion, the difference in how a writer generates topics and ideas to write about both narrative and expository writing.

5. Teachers: Stress the following concepts through class discussion.

   A. Concepts to be stressed:

      1. Authors write narrative stories by using their imagination to write about an experience that they are aware of. Authors write informational books to provide the reader with factual information about an event or a subject.

2. In order to write informational books the writer must first research the subject or event. How do you research a subject or event? Discuss the different ways to research and collect information about a subject. Read (books, magazine articles) any information you can find about the subject or event. Interview (collect information from the experts in the field). Take notes (keep notes on all information collected until ready to write).

3. A writer cannot be an expert on a particular subject or event until he/she has researched completely the factual information on that subject. This process requires the writing of many reports containing factual information on the subject or event. This type of report writing is called expository writing.

6. Teachers: Explain two important writing techniques that a writer must use when doing expository writing. The first one is to decide what they want to know about a subject or event. This is called the research question. Write on the board Research Questions. As students discuss ways to select research questions, write student responses under the appropriate heading. Examples: By reading about a subject and forming questions that might not be answered in the content. By forming hypothesis about a subject and trying to prove the hypothesis through study of content, etc.

The second technique writers use in expository writing is to decide on a method to gather and organize his/her information after the research question(s) have been determined. Recall the plot patterns that writers use as plans to write stories. Writers also use patterns for expository writing. These plans are called "clustering". "Clustering" can be used by writers to organize and gather information which can be used in expository writing.

An example of a cluster is provided for you to put in your folder to refer to as you develop your own cluster when you begin expository writing. The example cluster is on the subject of hermit crabs. Look at the four research questions and then observe the details providing information about each of the questions.

7. Students: Develop a topic that the class can make a cluster from and put the research questions on the board. Fill in the details, as a class, around each question.

8. Teachers: Allow students to practice developing clusters on their own topics. After completion, share and discuss work as a class.

9. Teachers: Explain to students that their next writing assignment will be an expository writing on any subject they choose. In order to begin their expository writing they need to use the writing techniques that have been discussed. The next fifteen minutes think about your subject and begin to formulate your research questions by starting a "cluster" for your report. Remember, you can't complete your cluster until you have collected the details through the methods we have discussed earlier. After collecting information and completion of your cluster, you are ready to begin writing your report using your cluster as the writing plan.

10. Teachers: Explain to students that their record keeping for this writing will be the same as for the narrative writing and the process writing steps will also be followed as before. The only change is in the content (what you are writing about) and the different techniques for developing the content Teachers might want to suggest that the students write about a subject that is consistent with the literature that is available for them, otherwise, they will have difficulty in finding information on their subject of interest.

Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Hoskisson, K. and Tompkins, G. E. (1987). Language Arts Content Teaching Strategies. Columbus, OH: Merrill.

MINI-LESSON IX

Topic: Student Comments and Evaluation of Process Writing

Objective: Students will demonstrate, through writing, the affective value of process writing instruction

Materials: Chalkboard. Individual Student Folders. Selected Children's Informational Books

Teaching Suggestions:

1. Teachers: Explain that students will have another week to complete their expository writing; however, this is the last mini-lesson they will have.

2. Teachers: Encourage discussion of what students have learned through their writing activities.

3. Students: Volunteer to list the answers on the board under the title Writing Activities. Discuss each answer as a class.

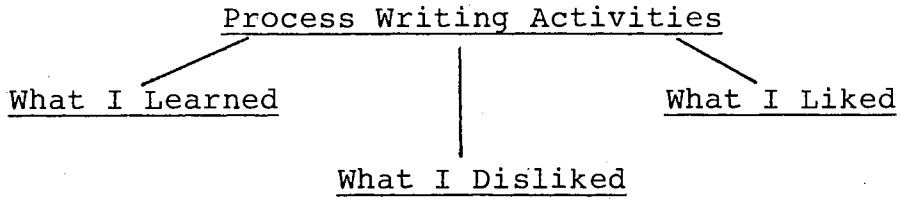
4. Teachers: Encourage students to organize their thoughts according to the skills with which they have had experience.

5. Teachers: Explain that this lesson will focus on what you have learned about writing and how you feel about the writing projects you have completed. Your assignment is to write a friendly letter to me. Tell me what you have learned about process writing.

6. Teachers: Review the parts of a friendly letter with students. Return address, greeting, body, closing, and signature.

7. Teachers: Encourage and instruct students to begin by the construction of a cluster as their plan for writing their letter. Use group brainstorming to construct an example of an appropriate cluster on the board as an example. Then encourage students to develop their own cluster.

An example might be as follows:



Developed by: Harris, B. S. and Experimental Group Teachers (1991).

Resource: Hoskisson, K. and Tompkins, G. E. (1987). Language Arts Content Teaching Strategies. Columbus, OH: Merrill.

APPENDIX D

SELECTED CHILDREN'S LITERATURE

EXPERIMENTAL GROUP

SELECTED CHILDREN'S LITERATURE

Ackerman, Karen	Song and Dance Man
Atwater, Richard and Florence	Mr. Popper's Penguins
Auch, Mary Jane	Pick of the Litter
Azlesworth, Thomas G.	Mysteries from the Past
Blume, Judy	Freckle Juice
Blume, Judy	Otherwise Known as Sheila the Great
Boardman, Fon W. Jr.	Tyrants and Conquerors
Boyd, Candy Dawson	Charlie Pippin
Bradford, Ernle	Christopher Columbus
Branley, Franklin M.	Columbia and Beyond
Branley, Franklin	The Nine Planets
Buehr, Walter	The World of Marco Polo
Bunting, Eve	Sixth-Grade Sleepover
Burt, Katharine Newlin	Smarty
Burton, Hester	In Spite of All Terror
Byars, Betsy	Cracker Jackson
Byars, Betsy	The 18th Emergency
Byars, Betsy	The Cartoonist
Byars, Betsy	The Glory Girl
Byars, Betsy	The Not-Just-Anybody Family
Byars, Betsy	The Pinballs
Byars, Betsy	Trouble River
Calhoun, Cary	Honestly Katie John
Calhoun, Mary	Cross-Country Cat
Carol, Bill J.	Crazy Leggs Merrill
Carrick, Carol	Stay Away from Simon
Carrick, Carol	The Elephant in the Dark
Chbosky, Stacy	Who Owns the Sun?
Christopher, Matt	Catch That Pass
Clark, Arthur C.	Dolphin Island

Clayton, Barbara	Pepper Pot
Cleary, Beverly	Henry and Beezus
Cleary, Beverly	The Mouse and the Motorcycle
Coldrey, Jennifer	The Crab on the Seashore
Conford, Ellen	Dreams of Victory
Corbett, Scott	Steady, Freddie
Corcoran, Barbara	I am the Universe
Cross, Wilbur	Egypt
Cross, Wilbur and Susanna	Space Shuttle
Crow, Sandra Lee	The Wonderful World of Seals and Shales
Cullen, Countee	My Lives and How I Lost Them
Dahl, Roald	Charlie and the Great Glass Elevator
Dahl, Roald	James and the Giant Peach
Dana, Barbara	Zucchini
Danziger, Paula	The Cat Ate My Gymsuit
Darling, David J.	The Planets
Darling, David J.	Where Are We Going In Space?
De Clements, Barthe	The Fourth Grade Wizards
Diamond, Donna	Bridge to Terabithia
Douty, Ester M.	The Brave Balloonists
Fagg, Christopher	Ancient Greece
Fife, Dale	Destination Unknown
Fleischman, Sid	The Whipping Boy
Fleming, Susan	The Pig at 37 Pinecrest Drive
Fradin, Dennis Brindell	Earthquakes
Fradin, Dennis Brindell	Hurricanes
Fradin, Dennis Brindell	The Republic of Ireland
Fradin, Dennis Brindell	Volcanoes
Friedman, Estelle	Digging into Yesterday
Galdone, Paul	The Three Bears
George, Jean	My Side of the Mountain
Giff, Patricia Reilly	The Gift of the Pirate Queen
Gilson, Jamie	Can't Catch Me, I'm the Gingerbread Man
Gilson, Jamie	Do Bananas Chew Gum?
Gilson, Jamie	Hello, My Name is Scrambled Eggs
Gilson, Jamie	Thirteen Ways to Sink a Sub
Graeber, Charlotte Towner	Fudge

Graff, Stewart	The Story of World War II
Greene, Carol	England
Greene, Carol	Japan
Greene, Carol	Yugoslavia
Greenfield, Eloise	Grandpa's Face
Hicks, Clifford B.	Alvin Fernald, Mayor for a Day
Hintz, Martin	Norway
Hintz, Martin	Sweden
Horton, Casey	Ancient Greeks
Howe, James	Nighty Nightmare
Hutton, Clarke	A Picture History of Britain
Kettlekamp, Larry	Lasers
Kirby, George	Looking at Germany
Lambert, David	The Solar System
Lasky, Kathryn	Sugaring Time
Lauber, Patricia	Dinosaurs Walked Here
Lauber, Patricia	Journey To The Planets
Lenski, Lois	Strawberry Girl
Lepthien, Emilie U.	Australia
Levinson, Marilyn	And Don't Bring Jeremy
Lewis, Bruce	What is A Laser?
Lindbergh, Anna	Nobody's Orphan
Little, Jean	Mine For Keeps
Lowry, Lois	All About Sam
McLenighan, Valjean	China - A History to 1949
Miles, Betty	Sink or Swim
Miquel, Pierre	Life in Ancient Greece
Miquel, Pierre	Life in Ancient Rome
Murph, Shirley Rousseau	Elmo Doolan and the Search for the Golden Mouse
Neville, Emily	It's Like This Cat
Oates, David and Joan	The Rise of Civilization
Park, Barbara	Almost Starring Skinnybones
Patent, Dorothy Hinshaw	How Insects Communicate
Patterson, Francine, Dr.	KoKo's Kitten
Peck, Robert Newton	Soup in the Saddle
Phaidon, Elsevier	The New World

Pringle, Laurence	Dinosaurs and People
Radley, Gail	C.F. in His Corner
Rios, Tere	The Fifteenth Pelican
Riskind, Mary	Apple Is My Sign
Roberts, Willo Davis	Megan's Island
Robinson, Nancy K.	Oh Honestly Angela
Rounds, Glen	Mr. Yowder and the Train Robbers
Ruckman, Ivy	This is Your Captain Speaking
Scieszka, Jon	The True Story of the 3 Little Pigs! By A. Wolf
Seger, Gerhart H.	Germany
Shahan, Sherry	There's Something in There
Simon, Seymour	Killer Whales
Smith, Howard E., Jr.	Living Fossils
Smith, Robert Kimmel	Chocolate Fever
Snyder, Louis L.	The Soviet Union
Speare, Elizabeth George	The Sign of the Beaver
Stahl, Hilda	The Tyler Twins, Pet Show Panic
Stein, R. Conrad	Italy
Sutherland, Dorothy B.	Scotland
Taylor, Theodore	Air Raid - Pearl Harbor
Turner, Ann	Dakota Dugout
Watson, Jane Werner	The Soviet Union
Westman, Paul	Jacques Cousteau
Wohlrabe, Raymond and Werner Krusch	The Land and People of Germany

APPENDIX E

STUDENT FOLDER MATERIALS

EXPERIMENTAL GROUP

PROCESS WRITING PROCEDURE

1. CHOOSE A TOPIC
2. WRITE A DRAFT
3. PEER EDITING SESSION
4. PROOFREAD
5. TEACHER CONFERENCE
6. FINAL DRAFT

WEEKLY SCHEDULE

Monday: Process Writing

Tuesday: Read and Reflect

Wednesday: Mini-Workshop

Thursday: Read and Reflect

Friday: Process Writing

STUDENT: _____

Assignment: Narrative Writing

Title:	Date of 1stDraft	Date of Peer Editing	Date of Teacher Conference

Finished Piece Submitted: Date: _____

Skills Used Correctly:

_____ Punctuation.

_____ Use of my own word list of frequently misspelled words.

_____ Watch for too-short, choppy paragraphs. Combine these.

_____ Proofread and circle errors for correction later.

_____ Use descriptive words for interest.

_____ Distinguish between expository and narrative writing.

_____ Organize information into a writing plan.

_____ Provides enough details to make writing clear and descriptive.

_____ Watch for saying the same thing more than once.

_____ Capitalization where appropriate.

STUDENT: _____

Assignment: Expository Writing

Title:	Date of 1stDraft	Date of Peer Editing	Date of Teacher Conference

Finished Piece Submitted: Date:_____

Skills Used Correctly:

_____ Punctuation.

_____ Use of my own word list of frequently misspelled words.

_____ Watch for too-short, choppy paragraphs. Combine these.

_____ Proofread and circle errors for correction later.

_____ Use descriptive words for interest.

_____ Distinguish between expository and narrative writing.

_____ Organize information into a writing plan.

_____ Provides enough details to make writing clear and descriptive.

_____ Watch for saying the same thing more than once.

_____ Capitalization where appropriate.

STUDENT GUIDELINES FOR EXPOSITORY WRITING

1. Each expository writing should contain an introduction to attract the reader's interest.

2. Develop several research questions to be answered about the subject.

3. Provide supporting information (3 to 5 details) for each research question.

4. Write at least one paragraph for each research question.

5. Conclude with a brief summary of the information presented.

REMEMBER!!

Expository writing is used for the purpose of providing the reader with information about a subject or event. It is used to inform the reader on a specific subject or event.

Can you think of other types of expository writing besides report writing?

Example: A letter

Topic: Finalize Process Writing Instruction Project

Suggestions:

1. Teacher explains to students:

   A. All writing assignments should be completed.

   B. Student record keeping on both writing assignments should be filled out.

   C. Students should use the bottom of the record sheet to make comments about the two writing assignments. Teachers should encourage student comments.

   D. Writing folders should be organized in the order that assignments were given.

   E. All folders must be given to the teacher for review. Folders should be submitted within two days.

   F. Students should complete the final writing survey, compare the one they completed at the beginning of the study with the final one and place both surveys at the front of the writing folder.

   G. Students will have the opportunity to read their completed writings and to allow their writings to be read by other students during the last day of writing instruction.

Student: _____

STUDENT CONFERENCE RECORD:

Title of Piece & Date	Skills Used Correctly	Skills That Need Reinforcement

APPENDIX F

LETTERS OF PERMISSION TO PARTICIPATE

April 1, 1991

Dear Parents of Wilson Sixth-Grade Center:

Please read the attached letter, sign and return the form to your child's teacher tomorrow.

Research projects of this type will provide beneficial information which could strengthen current curriculum, as well as curriculum in the future.

Mrs. Harris has several years of teaching experience in the public school system. I have checked her references and feel very confident that this project will be conducted in a professional manner.

_____

Mr. Roger Pritchard
Principal

March 27, 1991

Dear Parents:

I am a doctoral candidate at Oklahoma State University and am conducting a study for my doctoral dissertation. Mr. Pritchard and your child's teacher are permitting me to conduct this research study at Wilson Sixth-Grade Center in your child's reading classroom.

The research study will require your child to take two reading assessments, one at the beginning and one at the end of the eight week study. The two assessments will provide me with information on each child's reading achievement and reading attitude.

Information obtained on student achievement during the study will remain confidential. The name of the school will not be reported. Any individual information will not be reported. The research will only report group data.

In order for your child to participate in this research project, please complete the permission form below and return it to your child's teacher by Wednesday, April 3rd.

If you have any questions regarding this project, feel free to contact me or Mr. Pritchard at the Wilson Sixth-Grade Center.

I sincerely appreiciate your consideration and help in conducting this study.

Sincerely,

Betty Harris
Doctoral Candidate
Oklahoma State University

PERMISSION TO PARTICIPATE FORM

Please check and complete both the form below and the Testing Permission form and return to your child's teacher by Wednesday, April 3rd

_____ I give my permission for (Child) _____ to participate in the above research project.

_____ I do not want (Child) _____ to participate in the above research project.

TESTING PERMISSION FORM

I give my permission for the school to administer a group reading achievement and a group reading attitude test to

_____.

(Student's Name)

I understand that the results of these tests, along with any other information obtained, will be kept confidential and used for research purposes only.

_____ Date: _____

(Parent/Guardian Signature)

_____

(Phone)

**** RETURN WITH THE PERMISSION TO PARTICIPATE FORM TO YOUR CHILD'S TEACHER BY WEDNESDAY, APRIL 3RD.

APPENDIX G

RAW DATA ON PRETEST AND POSTTEST SCORES

EXPERIMENTAL AND CONTROL GROUPS

Subject	Group	Reading Achievement		Reading Attitude	
		Pre	Post	Pre	Post
1	CL	70.000	73.000	25.000	26.000
2	CL	50.000	51.000	45.000	44.000
3	CL	44.000	46.000	58.000	43.000
4	CL	58.000	55.000	35.000	36.000
5	CL	30.000	25.000	55.000	50.000
6	CL	29.000	25.000	41.000	40.000
7	CL	43.000	41.000	45.000	39.000
8	CL	29.000	32.000	40.000	39.000
9	CL	37.000	31.000	42.000	30.000
10	CL	36.000	38.000	40.000	38.000
11	CL	26.000	28.000	26.000	25.000
12	CL	43.000	41.000	57.000	55.000
13	CL	42.000	42.000	46.000	49.000
14	CL	49.000	47.000	51.000	43.000
15	CL	74.000	66.000	39.000	36.000
16	CL	36.000	36.000	44.000	40.000
17	CL	26.000	21.000	48.000	41.000
18	CL	60.000	59.000	40.000	40.000
19	CL	70.000	62.000	52.000	49.000
20	CA	51.000	51.000	61.000	54.000
21	CA	61.000	64.000	45.000	40.000
22	CA	57.000	56.000	38.000	25.000
23	CA	38.000	35.000	65.000	67.000
24	CA	69.000	51.000	52.000	55.000
25	CA	64.000	60.000	46.000	49.000
26	CA	63.000	55.000	58.000	50.000
27	CA	51.000	52.000	46.000	45.000
28	CA	46.000	46.000	51.000	45.000
29	CA	55.000	52.000	37.000	35.000
30	CA	75.000	64.000	57.000	62.000
31	CA	47.000	42.000	53.000	51.000
32	CA	69.000	71.000	58.000	51.000
33	CA	59.000	63.000	43.000	41.000
34	CA	74.000	72.000	52.000	35.000
35	CA	53.000	40.000	53.000	38.000
36	CA	58.000	57.000	54.000	50.000
37	CA	55.000	50.000	62.000	59.000
38	CH	94.000	93.000	60.000	58.000
39	CH	86.000	83.000	61.000	56.000
40	CH	67.000	67.000	37.000	37.000

Subject	Group	Reading Achievement		Reading Attitude	
		Pre	Post	Pre	Post
41	CH	58.000	57.000	40.000	38.000
42	CH	88.000	90.000	27.000	22.000
43	CH	78.000	74.000	55.000	53.000
44	CH	68.000	66.000	45.000	48.000
45	CH	79.000	79.000	54.000	53.000
46	CH	64.000	66.000	47.000	44.000
47	CH	43.000	49.000	49.000	43.000
48	CH	67.000	59.000	41.000	34.000
49	CH	83.000	73.000	65.000	41.000
50	CH	94.000	89.000	67.000	62.000
51	CH	67.000	67.000	45.000	45.000
52	CH	48.000	49.000	64.000	56.000
53	CH	45.000	40.000	47.000	48.000
54	CH	82.000	84.000	74.000	51.000
55	CH	76.000	78.000	56.000	56.000
56	CH	68.000	71.000	56.000	61.000
57	CH	82.000	81.000	51.000	35.000
58	CH	75.000	63.000	62.000	56.000
59	CH	56.000	51.000	57.000	48.000
60	EL	24.000	25.000	27.000	42.000
61	EL	22.000	35.000	38.000	40.000
62	EL	38.000	45.000	41.000	54.000
63	EL	33.000	52.000	42.000	53.000
64	EL	40.000	42.000	50.000	56.000
65	EL	34.000	35.000	34.000	36.000
66	EL	24.000	27.000	33.000	36.000
67	EL	22.000	23.000	38.000	64.000
68	EL	36.000	43.000	46.000	58.000
69	EL	37.000	57.000	22.000	25.000
70	EL	47.000	57.000	43.000	52.000
71	EL	32.000	43.000	45.000	43.000
72	EL	36.000	39.000	27.000	23.000
73	EL	22.000	26.000	30.000	44.000
74	EL	30.000	32.000	31.000	55.000
75	EA	48.000	54.000	61.000	64.000
76	EA	42.000	48.000	48.000	52.000
77	EA	51.000	59.000	56.000	57.000
78	EA	72.000	79.000	63.000	62.000
79	EA	46.000	50.000	40.000	38.000
80	EA	64.000	79.000	44.000	49.000

Subject	Group	Reading Achievement		Reading Attitude	
		Pre	Post	Pre	Post
81	EA	51.000	68.000	48.000	55.000
82	EA	44.000	54.000	39.000	48.000
83	EA	49.000	54.000	41.000	40.000
84	EA	65.000	74.000	45.000	46.000
85	EA	31.000	35.000	26.000	30.000
86	EA	36.000	43.000	33.000	37.000
87	EA	59.000	73.000	46.000	52.000
88	EA	49.000	68.000	25.000	25.000
89	EA	46.000	53.000	22.000	46.000
90	EA	50.000	54.000	23.000	45.000
91	EA	59.000	72.000	60.000	66.000
92	EA	71.000	78.000	46.000	50.000
93	EA	36.000	49.000	63.000	66.000
94	EA	51.000	64.000	52.000	66.000
95	EH	61.000	69.000	51.000	58.000
96	EH	74.000	78.000	56.000	56.000
97	EH	65.000	62.000	48.000	54.000
98	EH	73.000	80.000	48.000	54.000
99	EH	81.000	83.000	74.000	76.000
100	EH	96.000	96.000	75.000	76.000
101	EH	58.000	67.000	40.000	65.000
102	EH	77.000	86.000	46.000	48.000
103	EH	76.000	84.000	39.000	48.000
104	EH	83.000	86.000	70.000	71.000
105	EH	53.000	70.000	57.000	57.000
106	EH	47.000	58.000	71.000	68.000
107	EH	43.000	50.000	56.000	76.000
108	EH	52.000	65.000	43.000	51.000
109	EH	56.000	62.000	50.000	51.000
110	EH	73.000	79.000	51.000	55.000
111	EH	80.000	85.000	61.000	63.000
112	EH	67.000	70.000	54.000	54.000
113	EH	70.000	75.000	60.000	57.000
114	EH	50.000	67.000	38.000	45.000
115	EH	57.000	70.000	41.000	52.000
116	EH	72.000	73.000	34.000	39.000
117	EH	70.000	79.000	30.000	32.000

VITA

Betty S. Harris

Candidate for the Degree of

Doctor of Education

Thesis: PROCESS WRITING: EFFECTS ON READING ACHIEVEMENT AND READING ATTITUDE OF SIXTH GRADE STUDENTS

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born in Okmulgee, Oklahoma.

Education: Graduated from Morris High School, Morris, Oklahoma, in May, 1958; received Bachelor of Science degree in Secondary Education from Oklahoma State University in December, 1977; received Master of Science degree in Curriculum and Instruction from Oklahoma State University in December, 1984; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1993.

Professional Experience: Teacher, C. E. Donart High School, Stillwater, Oklahoma, 1978; Okmulgee Public Schools, Okmulgee, Oklahoma, 1980-81; Seminole Public Schools, Seminole, Oklahoma, 1981-84; Okmulgee Public Schools, Okmulgee, Oklahoma, 1984-89; Adjunct Instructor, Tulsa Junior College, Tulsa, Oklahoma, Fall Semester, 1989; Instructor of Education, Hardin-Simmons University, Abilene, Texas, August, 1991-92; Assistant Professor, Cameron University, Lawton, Oklahoma, August, 1992 to present.

Professional Organizations: Phi Delta Kappa, Association for Supervision and Curriculum Development, International Reading Association, Oklahoma Association of Teacher Educators, Oklahoma State Teacher of the Year Selection Committee, 1990, Oklahoma Professional Standards Board for Certification and Accreditation of Teacher Education Programs, 1989-91.