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Explicit Writing Instruction: Effects on Sixth Grade Students' Writing and Reading Achievement

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EXPLICIT WRITING INSTRUCTION: EFFECTS ON SIXTH GRADE STUDENTS' WRITING AND READING ACHIEVEMENT

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by

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Abstract

The purpose of this quantitative study was to examine the effect of explicit writing instruction on sixth grade students' writing growth and achievement as measured by holistic and analytic assessment. This research responds directly to the need for additional research on effective reading and writing instruction (Langer & Allington, 1992; The College Board, 2003). The preponderance of research in writing has been devoted to early writing. Less evidence is available to examine the effect of writing instruction at the sixth grade level.

Writing samples from 124 sixth grade students at two elementary schools were used in this study. The two elementary schools were located within one mile of each other, and had similar student populations. Both schools were located in a low socio-economic area. Student writing was assessed both analytically and holistically. One measure of assessing the students' writing progress was based on a five-minute writing sample. Students' writing samples were collected for analytic scoring at the beginning of the research, then once a month for four months. Factors such as fluency, number of sentences, number of words per sentence, number of clauses, clauses per sentence, errors, errors per sentence, as well as

punctuation, capitalization, grammar, and spelling were measured in the analytic assessment. Longer writing samples that were holistically scored using a rubric were collected as pre- and post- assessments. This research provides documentation of how explicit writing instruction affected the writing and reading progress of sixth grade students. Specifically two research questions guided this investigation: (a) What is the impact of explicit writing instruction on sixth grade student's writing growth and achievement as measured by holistic and analytic assessments? (b) What effect does explicit writing instruction have on sixth grade students' reading achievement? The findings confirmed that the students who received explicit writing instruction showed significant improvements in writing. Though both groups made significant gains in reading, the difference between the groups was not significant.

This is dedicated to all who need to write.

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This has by far been the most incredible journey of my life. People in the cohort I have made this journey with have compared it to a roller coaster ride and a marathon. Never quit on an uphill climb. Make it to the top, then decide if you want to keep going. And we always did.

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Chapter 1

Introduction

Students enter each school year at varying cognitive levels. This is the challenge faced by all teachers regardless of what subject or what grade level they teach. For example, some students start kindergarten with a vast knowledge of language arts ranging from knowing the alphabet to being able to read, while other students have very little awareness of print or how it works. According to research conducted for Maryland's department of education, only "40.1 percent of the children were fully ready for kindergarten" (Olson, 2001, p.5).

By the time the well-prepared students are reading at "grade level" in sixth grade they have gained years of achievement growth beyond some of their peers who have slipped further behind each year. The gap between the varying capabilities of students does not lessen as they progress through the grades, but becomes wider each year. Considering the outcome of the 2000 National Assessment of Educational Progress in reading, Manzo (2001) stated, "while the disparity in the scores of white and minority students persists, the divide between the highest- and lowest-performing students on the test has grown still wider, the results reveal" (p. 1).

Some students do not have the initial language arts foundation other students bring to school. Some children have been read to, encouraged to scribble/write, and have taken part in conversations to develop their vocabulary and speaking skills. In contrast, some students hold, see, and hear a book read for the first time in their kindergarten class. While their peers continue to make progress, some students continually struggle to catch up. "Students' academic self-concept is compromised when they are constantly reminded that they are not achieving at the level of their classmates" (Townsend, Fu, & Lamme, 1997).

School should not be a continual up-hill battle for students, a daily fight just to stay academically alive. If students are not achieving, they are going to stop trying because failure based on lack of effort is more plausible to the individual than failure in spite of diligent work (Covington, 1992).

Students who encounter problems early in developing their language arts skills often continue to struggle with life-long difficulties in reading and writing (Gittleman, 1985). When describing the Matthew Effect in reading, or how the rich-get-richer and the poor-get-poorer, Stanovich (1986) explained that early development of reading skills leads to faster rates of skill improvement with the result

that the disparity between more skilled and less skilled readers widens over time. There is a critical need to examine instruction that would assist all students in being more successful literacy learners (Delpit, 1991; Goodman, 1986; Huck & Pinnell, 1991). Allington and Cunningham (2002) advocates the need for teachers to become researchers for the purpose of carefully examining instruction and student progress, in conjunction with a school that encourages teacher inquiry/research.

President George W. Bush's No Child Left Behind (NCLB) legislation of 2001 has changed the role of the federal government in K-12 education. In an effort to raise the level of accountability of schools, there are now federal mandates stipulating annual testing of students. To document and monitor educators' attempts to close the achievement gap between disadvantaged, minority, and at-risk students and their peers, NCLB has instituted compulsory annual testing for students. The concern is that if the gap between at-risk students and those students who are meeting grade level expectations continues, those disadvantaged students are in jeopardy of dropping out of school for reasons such as pregnancy, drug abuse, or criminal activity. "Researchers have been documenting and analyzing for years the ways in which different 'at risk'

populations of students continually fall through the cracks of the traditional American system of schooling" (Groves, 1998, p.251). To accomplish the goal of closing the gap, the use of scientifically based teaching methods for mathematics, reading, and writing is promoted in NCLB.

A Focus on Writing

Researching teaching methods and educating teachers about effective practices for teaching writing is one of the objectives of The National Writing Project (NWP). NWP is a grant program of the Office of Innovation and Improvement (OII), U.S. Department of Education. OII directs funds from NCLB to programs as they relate to supplemental educational services. The National Writing Project's philosophy is articulated in its list of Basic Assumptions, where it states, "Writing is as fundamental to learning in science, mathematics, and history as it is to learning in English and the language arts" (NWP, 2002, para. 5).

In order to achieve academic success, students need basic literacy tools. These tools include the ability to read, write, speak, and listen in order to assimilate the information they encounter on a daily basis. Their success in each subject area is intertwined with their ability to write with clarity and cohesion. Writing is an essential

part of the curriculum from research reports and presentations in social studies or science, to documenting students' problem-solving skills in math.

Heller (1991) spoke of the recursive quality of reading and writing and emphasized that when both of these literacy skills are strong, comprehension of content area texts increases. Through exploration of the reciprocal relationship between reading and writing, Heller found that strong reading skills allow students to be better writers and vice versa. "If we take an integrated approach, which emphasizes reading-writing connections, we are primarily concerned with an interactive viewpoint: Reading and writing are the processes of constructing meaning from and with print, respectively" (p.72).

The actions of reading and writing are multifaceted, and learning them includes the ability to change current knowledge to accommodate new information. Based on seminal research in early writing (Chomsky, 1971; Clay, 1970), it is reasonable to conclude that through explicit instruction in writing, students gain knowledge of how language works. The reading-writing connection has focused on the value of relating reading and writing experiences at every level of competency. "Both are language and experience based, both require active involvement from language learners, and both

must be viewed as acts of making meaning for communication" (Vacca, Vacca, & Gove, 1995, p. 148).

The Need for Research in Writing

In examining the literature, it appears the majority of research in literacy continues to be in reading. During a specific EBSCO Research Database inquiry on April 1, 2004, the parameters of the search looked specifically at the journal *Reading & Writing Quarterly*. When directed to find "reading research" there were 72 articles found. When the search was for "writing research," there were only four articles. Using ProQuest, another research database, a more general search was conducted specifying "scholarly journals," the subject "reading," and specifically "reading research." On April 1, 2004, there were 537 articles on reading research. Using the same parameters, but changing "reading" to "writing," the search produced 90 articles on writing research.

Additional research in writing is essential to examine instructional techniques with potential for helping teachers support young writers. Best practices need to be examined and researched within the classroom (Allington & Cunningham, 2002). A concern conveyed in *The Neglected "R"* (2003) is that by twelfth grade "most students are producing relatively immature and unsophisticated writing"

(p.17). So what can be done to prevent this? What research needs to be done to illuminate instruction that works?

Those are the questions that guided the focus of this research. In an endeavor to investigate best practices in the classroom, the following specific question that was addressed: What is the effect of a planned and systematic delivery of writing instruction on sixth grade students' writing achievement?

Furthermore, it seems that the preponderance of research to assess the recursive benefits of reading and writing has occurred in kindergarten through second grade (Clay, 1975, McCarrier, Pinnell & Fountas, 2000, McGee & Richgels, 1990, Newman & Dickinson, 2001). Are the recursive benefits of reading and writing only found in primary grades? This leads to a second question: Will sixth grade students become better readers as they become better writers?

Statement of the Problem

A need to consider an alternative to current writing instruction has become apparent. According to the report from the National Assessment of Educational Progress (NAEP) 2002 Writing Assessment, using scores that range from 0 - 300, the average score for fourth graders nation-wide increased only four points over the past four years. Eighth

grade saw a smaller gain of only three points, while twelfth grade students registered a decline of two points. As new assessments were administered in 1998, those results established the initial midpoint of 150. Four years later, the 2002 scores of 154, 153, and 148 documented minimal change in fourth, eighth, and twelfth grade scores respectively.

The writing test consists of students replying to two separate writing prompts for 25 minutes each. Compared to scores nationally, California still ranks below the national average. The national average in 2002 (public school scores only) for fourth grade students was 153, while California's state average was 146. Looking at achievement levels for writing spanning from below Basic, Basic, Proficient, to Advanced, only 23% of California's fourth grade students received scores of proficient or above in 2002. Eighth grade students in California scored below the national average in 1998 and 2002. In 1998 and 2002 the national average scores were 148 and 152 respectively. California's eighth grade students for those same years received scores of 141 and 144.

The NAEP 1996 *Trends in Writing: Fluency and Writing Conventions* (Ballator, Farnum, & Kaplan, 1999), outlining trends in writing from 1984 to 1996, reported that students

in eighth and eleventh grades had made only modest improvements in the use of English writing conventions over the 12 years. During this time, the instructional emphasis had been on writing processes. As a part of Gambrell's (2000) study of literacy research, she noted that Graves' work on process writing was the most influential research in writing instruction during the 1980s. Research details the mismatch of student's concepts about the processes involved in writing to those of skilled writers (Resnick, 1987). Students need to be explicitly taught the structures and conventions utilized by good writers (Stein, 1986).

Clay (2001) explains that teachers need to know when and how to prompt students regarding what they already know about language through reading and apply that expertise to their writing. She notes, "Once the child has a sense that knowledge can flow in either direction from writing to reading and from reading to writing, the pool of knowledge from which the child can draw is immediately enlarged" (p.32).

Purpose of the Study

This research investigated the impact of explicit writing instruction on students' writing growth and achievement as measured by holistic and analytic assessment. The study explored the academic gains of

students who received explicit writing instruction in the areas of sentence-writing, paragraphing, punctuation, capitalization, grammatical structures, and spelling. Additionally, this study looked at the effect of explicit writing instruction on students' reading achievement.

Those who believe in a contextualized approach to writing instruction insist that the subject matter cannot be scripted or supplied in a program's teacher's manual, but must be individually built on the growth and improvement of every student (Craig, 2001). Continuous assessments provide data for teachers to use in focusing instruction for student's individual needs. The instructional focus of this study was to build a strong foundation of basic writing skills within the contexts of the students' own writing.

Research Questions

The research questions were originally created from the question of time. As teachers are inclined to devote a greater amount of instructional time to subjects evaluated on standardized state tests, the question of how to teach writing effectively and efficiently must be considered. The National Commission on Writing in America's Schools and Colleges stated in *The Neglected "R":*

> The sheer scope of the skills required for effective writing is daunting. The mechanics of grammar and punctuation, usage, developing a "voice" and a feel for the audience, mastering the distinctions between expository, narrative, and persuasive writing (and the types of evidence required to make each convincing) - the list is lengthy. These skills cannot be picked up from a few minutes here, and a few minutes there, all stolen from more "important" subjects. (p.20)

This led to the consideration of direct, explicit instruction in the areas of sentencing, paragraphing, grammar, punctuation, and grammatical structures as an efficient use of time, creating more time to teach other aspects of writing.

A review of the literature on writing instruction resulted in the following questions to guide this research:

1. What is the effect of explicit writing instruction on students' writing growth and achievement as measured by holistic and analytic assessments?
2. What effect does explicit writing instruction have on reading as measured by diagnostic assessments?

Significance of the Study

Gallagher (2003) explained there are concerns about current writing instruction as educators reflect on scores

earned in the writing portion of the Spring 2002 California High School Exit Exam. The results showed that on a 4-point rubric nearly, two-thirds of the students did not score higher than a 2.

The significance of this research will be to add to the body of literature available to provide specific instructional information for classroom teachers. There is a longer history of research devoted to reading than there is to writing, partially evidenced by the NAEP 1996 *Trends in Academic Progress* that reports research dating back to 1971 in reading, and only as far back as 1984 in writing (Campbell, Voelkl, Donahue, 1997). There continues to be a need for additional research on effective reading and writing instruction (Langer & Allington, 1992). "Reading, 'riting, and 'rithmetic have always been the keystones of educational policy. Yet writing is truly the neglected "R" in the school reform movement (National College Board, 2003).

The focus of this study was to explore the effect of systematic and intentional writing instruction on sixth grade students' writing. The preponderance of research in writing has been devoted to early writing. Less evidence is available which examines the effect of writing instruction at the sixth grade level (Dahl & Farnan, 1998).

Definition of Terms

The following section explains vocabulary and definitions in order to minimize misunderstandings over specific terminology and how it is applied in this study.

- Analytic assessment - Designed to give information on criteria related to writing. Provides data that can be used to identify instructional needs.
- Holistic scoring - Considers an entire piece of writing as a whole, resulting in a score based on a rubric describing desired features.
- Intentional instruction - "Purposeful, systematic instruction that is driven by the expectation of improved learner performance. Nearly synonymous with *direct instruction*" (Fearn & Farnan, 2001, p.500).
- Power Writing - "A structured free-write where the objective is quantity alone" (Fearn & Farnan, 2001, p. 501). Students write to their choice of one-word cues for one-minute. Students are instructed to write "as much as they can, as well as they can." The purpose is to promote fluency.
- Read 180 - A computer based reading intervention program published by Scholastic.

Assumptions and Limitations

One limitation to this study is that I am both teacher and researcher. I had to constantly be aware of my own subjectivity and choices of methodology as the teacher of students who received the treatment. Students in the control group were students from another school.

This is a quasi-experimental design, as the treatment and control groups could not be randomly assigned. All sixth grade students at "X Elementary" were in the treatment group. The control group was comprised of sixth grade students at " Y Elementary." This was a sample of convenience as the students from each school could not randomly be placed in either the treatment or control group.

Since this is a quasi-experimental design, there is a need for replication by additional studies to determine the effectiveness of explicit writing instruction. Different grade levels and/or a larger sample size would be appropriate for further study.

Another possible limitation of this study is the duration of the research. Four months may not be adequate time to produce or investigate potential results. Perhaps this will show the need for studies of longer duration.

Chapter 2

Literature Review

This review of the literature describes the history of how young writers have been taught to write. Both teaching techniques and levels of enthusiasm within the teaching community vary, and personal and political points of view fuel the debate about how writing should be taught.

The purpose of this review is to examine theories and research associated with writing instruction to include the connection between reading and writing. The review first looks at the literature to examine theories and instruction from an historical standpoint. Then, mechanics/conventions are discussed. Other aspects of the craft of writing, including fluency and voice, are explored as well. Other elements of instruction are addressed such as Writers' Workshop, teacher conferences, modeling, and sentence combining. Finally, the connection between reading and writing is investigated.

Theories of Teaching Writing

Interventionism and maturationism have been identified by Kroll (1980) as the two dominant, yet opposing, theoretical perspectives concerning writing instruction. Each has had an impact on how writing instruction has been, and continues to be, implemented. The opposing perspectives

of "nurture" and "nature" within the field of human development have brought about the same opposing approaches to teaching writing. These underlying opposing paradigms define the tasks of education in interactionism and maturationism. Kroll explained:

> Proponents of the "nurture" theory maintain that the environment is the essential source of development. Thus the basic educational task is one of systematically arranging specific environmental "inputs" so that learning of essential skills is assured. Proponents of the "nature" theory assert that the individual organism contains the seeds of its own growth. Thus, the basic educational task is one of providing those general conditions of freedom and security within which an individual can find fulfillment. (p. 742)

Interventionism

Hayes (1983) claimed that within the interventionist standpoint, the function of teacher and textbooks is to mediate the teaching of standard practices, conventions, and usage. This would seem to be the theory espoused by school districts that select textbooks for the sole purpose of addressing the state's writing standards. Instruction would focus on such exercises as diagramming sentences and

studying parts of speech, using lessons and practice sentences printed in a textbook. To the interventionist the purpose of education is to convey essential knowledge, while the purpose of the writer is to describe the world precisely using acceptable conventions and form. Rundle (1992) clarified:

> Interventionist textbooks do not emphasize what has come to be called the 'process' of composing. Instead, they present writing as a learnable skill that can be mastered if the student follows a prescribed sequence of steps and masters the conventions that traditional authorities have agreed upon in their analysis of well-composed products. (p. 30)

Maturationism

The contrary perspective to interventionism is maturationism (Kroll, 1980). What is most important to the maturationist is not the writer's proper use of conventions, but the various realities of the writer's mind. Writing should be focused on the personal events and feelings the student brings to the writing, thus nurturing individual progress. Stewart (1972) saw the dominance of this theory in writing programs, claiming "the primary goal of any writing course is self-discovery for the student and that the most viable indication of that self-discovery is

the appearance, in the student's writing, of authentic voice" (p. xii).

Teachers and curriculums that advocate maturationist concepts place a high priority on increasing fluency by allowing the student's progress to determine what is pertinent to improving their writing. For example, a teacher following this theory would not point out what is wrong with a piece of writing, but instead what is right, encouraging students to self-select what direction their writing will take. At the same time, however, a teacher would not totally disregard rules of form or style (Hayes, 1983). Murray (1968) suggested, "The successful writer does not so much correct error as discover what is working and extend that element in writing" (p. 146).

Interactionism

Interactionism advances the notion that there is a middle ground between interventionism and maturationism. Interventionism places an emphasis on conventions and the idea that teaching editing is teaching writing, while maturationism emphasizes the growth of the writer by developing voice through expressive writing. The interactionist emphasizes the communication between writer and reader using a chosen voice, form, and message for a chosen circumstance or audience (Hayes, 1983).

This study would generally be aligned with interactionist theory as it demonstrates the benefits of directly teaching writing conventions with the purpose of allowing the writer to pay more attention to the message they are trying to convey.

Kroll (1980) explained the concept of interactionism as the responsibility of education being shared by the teacher and the student. The teacher must assign purposeful, thought-provoking projects to promote the acquisition of specific skills. The role of the student is to be committed to the project and work with the other students in the classroom. Fountas and Pinnell (2001) stated:

> Effective literacy programs foster active, responsible learning. They help students begin to use literacy as a tool that gives them the power to find the information they need, to express their opinions, to take positions. Active learners have their own goals and are engaged over time. They recognize the teachers' requirements but also recognize that fulfilling these requirements will help them achieve their goals. (p.3)

Teachers who believe in the importance of a balanced writing curriculum and that student needs should direct the

instruction would most likely align themselves with this theory.

Theories and Research Influence Instruction

In alignment with the interventionist theory and support of the belief that if students followed given steps they would become masterful writers, the formulaic writing process was devised. Since the early 1970s, writing instruction has focused on a model emphasizing the writing process which has been described and taught as a linear progression involving prewriting, writing, rewriting, and editing (Britton, Burgess, Martin, McLeod & Rosin, 1975).

In the 1980s, research questioned this linear model of writing as being the only writing process. Influenced by the maturationist theory, some researchers noted that writing does not happen in a linear fashion but rather in ebb and flow between what the writer has already written and in introspective checks to see if those words correspond with their ideas (Bertoff, 1981; Britton, 1982; Perl, 1980). If writers are not comfortable enough with their craft to recognize and use this ebb and flow, the quality of their writing is affected. "Writers rely on this sense to determine whether or not to continue writing or to revise" (Brannon, p. 11).

A more balanced approach to writing instruction came from the interactionist theory, valuing both the interaction between writer and reader, as well as learning the conventions to manage clear written communication. Balanced writing instruction considers the activities that will best teach the desired standards or conventions and the assessments that will most effectively measure improvement and determine future instruction. Deliberate instruction is crucial in a balanced writing curriculum, as is the "balance among craft, processes, and relationships between form and function" (Fearn & Farnan, 2001, p. 499).

Appropriate support materials can maintain writing instruction and curriculum. Stein, Stuen, Carnine, and Long (2001) provided guidelines to assist educators during textbook evaluation and adoption processes. One of the guidelines addressed the need for skills and concepts to be intentionally and strategically integrated. Integrating the teaching of skills and concepts is difficult. The guidelines suggest an alternative to teaching skills only within context would be to pre-teach the skills that are then later incorporated into an appropriate context.

Sensible instructional design ought to adhere to a progression of lessons that integrate the teaching of prerequisite knowledge, the teaching of strategies that

combine knowledge and skills, and then offering opportunities that provide time and practice for the use of those skills to become automatic (Stein et al., 2001). As students continue to become more proficient in the areas of organization, and writing conventions, they can then evaluate their own work for their use of creativity and mechanical skills as they write. Stein et al. also stated:

> Before students can apply self-editing strategies, they must have the prerequisite knowledge that allows them to identify problems with their own writing. Self-editing is a strategy that allows the integration of both creative efforts (i.e., structure and organization of content) and more mechanical skills (grammar, punctuation, and spelling). (p. 20)

Research by Bereiter and Scardamalia (1987) revealed the importance of explicitly giving students the skills they need for writing and revising. As indicated by their research, if students possess the expertise, they are very proficient at assessing and identifying problems in their writing and have the ability to make the correct revisions.

Explicitly teaching students the conventions of writing can only enhance their ability to revise their work considering that when the skills of controlling writing conventions become automatic, then writers can focus on the

creativity and message of their writing. "For example, young writers cannot both write well and find writing reinforcing until they can focus their attention on the purpose for their writing, and that occurs fully only when mechanical details occur correctly and because they are automatic" (Fearn & Farnan, 2001, p. 27).

Mechanics

The National Center for Education Statistics, National Assessment of Educational Progress (NAEP), tracked the average changes in writing mechanics from 1984 to 1996 based on writing assessments from fourth, eighth, and eleventh grade students (U.S. Dept. of Ed, 1999). Some of the areas that showed no statistically significant change in the 12-year period were the average number of words per sentence, the average number of all errors per 100 words, and percentage of spelling errors.

Though the changes were not statistically significant, the average number of errors per 100 words increased in fourth, eighth, and eleventh grade between 1984 and 1996. Eleventh graders went from 7.0 to 7.4 errors per 100 words, eighth graders increased from 9.2 to 10.2 errors, and fourth graders went from 15.5 to 17.2 errors per 100 words (U.S. Dept. of Education, 1999).

The average number of words per sentence did not show any statistically significant differences except in those students who scored in the lower half of the writing scale in fourth grade. Though the students scoring in the lower half went from 14.3 in 1984 to 16.1 words in 1996, those students scoring in the upper half of the scale decreased from 16.8 words per sentence, to 16 in 1996. Overall average sentence length for eleventh grade decreased from 18.2 in 1984 to 17.7 words in 1996. Eighth grade had a slight change from 17.3 in 1984 to 17.7 in 1996. Students in fourth grade went from 15.1 in 1984 to 16.1 words in 1996, but these changes were slight, not statistically significant (U.S. Dept. of Education, 1999).

Both the overall average of the number of sentences per paper showed a statistically significant increase for eighth grade and eleventh grade, as well as the overall average number of full words per paper. However, fourth grade showed no change from 1984 to 1996, with the average number of sentences per paper staying at 2.6. Though the fourth grade average number of full words per page went from 33.8 in 1984 to 35.4 in 1996, this change was not statistically significant (U.S. Dept. of Education, 1999).

There was a statistically significant decrease in the percentage of complex or compound sentences in eighth and

eleventh grade writers between 1984 and 1996. Fourth grade also showed a decrease in compound sentences from 54.8 in 1984, to 52 in 1996, though not statistically significant. The percentage of simple sentences increased in eighth and eleventh grade, but the only statistically significant increase was in eleventh grade.

Comparing word-level conventions showed a statistically significant increase in the percentage of incorrect word choices in fourth grade between 1984 and 1996. The percentage of spelling errors did not demonstrate a significant change in fourth, eighth, or eleventh grade for the same time period.

Percentage of incorrect word choice increased in fourth grade. This increase was detected in students scoring in the lower half of the scale as well as those scoring in the upper half. There was no statistically significant change in eighth and eleventh grade.

The percentage of spelling errors remained unchanged between 1984 and 1996.

The punctuation error rate (not including omissions) did decrease in eighth and eleventh grades, but it remained unchanged in fourth grade. Yet omission errors remained unchanged from 1984 to 1996.

The Nation's Report Card: Writing Highlights 2002 (NCES, 2003) showed that the average score for fourth graders nation wide increased only 4 points over the previous 4 years. Eighth grade saw a smaller gain of only 3 points, while 12th grade students registered a decline of 2 points.

The average writing scores are also reported by gender. In 2002 fourth grade females scored an average of 17 points higher than fourth grade males, which made the gap one point wider than it was in 1998. In eighth grade there was a 21-point gap between the higher female scores and the male scores, one point higher than in 1998. Statically significant was the widening of the gap in the twelfth grade with females scoring 19 points higher in 1998, and 25 points higher in 2002.

Elements of the Craft of Writing

Fluency

As far back as the 5th century B.C., the ancient Greeks used pre-existing manuscripts to teach students fluency as they generated their own texts (Welch, 1990). The model approach supposed that a student could learn writing skills through imitation even before they are aware of what those skills are. In the Roman educational system during the first century Marcus Fabius Quintilianus promoted fluency

in both spoken and written Greek and Latin. "If oral eloquence was the desired product of the schools, writing was a major means to that end" (Murphy, 1990, p. 19). Students under a Quintilian education model were asked to study precisely chosen classical works and then mimic that style in their own texts (Bloodgood, 2002). The idea was that giving students a model or pattern to follow would provide the scaffolding they need to write a similar piece themselves (Fisher & Frey, 2003).

Developing reading fluency follows in the same way. "When we read to students, we need to model reading with expression ourselves so that students develop an idea of what fluent, expressive, and meaningful reading is all about" (Rasinski, 2003). In this way providing a model of writing shows students an example of what expressive and meaningful writing is like. Providing a model, either explaining to students how a piece of writing was completed or how it looks now that it is complete is one way to get students started with a new writing concept.

Though the argument has been made that the use of models is one approach to teaching writing, it should not be implemented exclusively as the only mode of instruction. Hillocks (1984) warned that writing curriculums are less effective when they depend heavily on teaching writing

through the use of models. Perhaps this is because mimicking writing concentrates on the written product rather than the process. Teaching students to write by imitating models does not address how the students should learn the constructive skills that good writers use when they write.

Changes have occurred over time addressing the long-standing theory of how writing skills are developed. The long accepted sequence of teaching skill acquisition to develop correctness first, which leads to clarity, and finally to fluency, was questioned and reversed to developing fluency first, to increasing clarity, then finally correctness (Mayher, Lester, & Pradi, 1983).

An early advocate of free writing, Elbow (1973) noted that students might be overly concerned about mistakes and messiness, inhibiting them from putting anything down on paper for fear of not doing it correctly. Fluency, control, and expressiveness follow from practice "just as in learning speech, control follows and is closely linked with fluency. Getting it right comes from getting it down" (Kirby & Liner, 1981, p. 16).

The ability to "get it down" right is an issue of automaticity. In reading, practicing a passage several times can develop greater automaticity and expression in a

student's reading (Rasinski, 2003). Likewise, practicing the conventions required for writing can help them become automatic. If the mechanics of writing were automatic for the writer, attention could be focused on fluency rather than punctuation. "In the absence of automaticity, or mastery of the aspects of writing, which occurs through practice, writing is forever a labor of divided attention and frustration" (Fearn & Farnan, 2001, p.42)

Voice and audience

An aspect of writing instruction from the maturationist perspective is the importance of voice and audience (Elbow, 1973; Murray, 1983; Kelly, 1972). The focus of student writing should not be directed to the teacher as the only audience merely to obtain a grade but should be written with the reader's response in mind. Students should not write within prescribed formulas, but find and use their "own voice" (Kelly, 1972, p. 348).

Bakhtin (1986) describes voice as "an imprint of individuality" (p. 75). Voice is the ability of a writer to use words that enable the reader to "hear" the intention of the author. Elbow (1994) describes this as the audible voice where the reader can listen to the author as being close and present in the text, or the writer can select words that are different from the author's speech thereby

distancing the writer from the words. Elbow also suggests that there are a total of five characterizations of voice in writing. In addition to audible voice there is dramatic voice whereby the reader would hear a character in the text. Distinctive voice is exactly that, the voice that can be distinguishable and attributed to an individual. Self-assured writing that expresses intensity and certainty is written in an authoritative voice. The resonant voice is when the writing comes from the heart of the writer, and that realness can be "heard."

Showing students examples of how voice is used in a particular book or a sample of student writing with a strong voice is a way to help students understand and develop their own voice in their writing (Routman, 2000). "Voice is hard to define, but when it's in - or missing from - a piece of writing, you sense it. Writing with voice has richness and sparkle, a distinct human spirit that makes you feel you know the writer" (p. 222).

Bloodgood (2002) expressed concern that the current testing and assessments for accountability may have teachers inadvertently working against helping students develop their own voices. In a race to prepare students for state writing tests, students may be losing their chance to develop their own voice. In addition, the only audience and

purpose they are learning to write for is the unknown person that will be assigning a score to their writing. In many classrooms, teachers feel compelled to teach students how to quickly get to the final product, teaching the formula of a quick brainstorm, quick draft, and a quick look for mistakes. "Students spend their writing time responding to artificial prompts and following formulas rather than exploring topics of interest and developing confidence in their thinking and writing skills (Bloodgood, 2002, p.30).

Developing writers must learn to relate to their reading audience. Dossin (2003) highly recommended using peer critiquing as a way for students to be able to develop voice, to learn how to write to an audience. Tompkins (2001) concluded that "the students moved from writing for themselves to writing for their classmates during the semester, and this change impacted on the language and style of their writing" (p.185).

Elements of Instruction

Writers' workshop

Writers' workshops have also been used to help developing writers. Writers' workshops allow students to consider themselves as authors, to acquire an awareness of

audience, and to take with them the understanding that what they are writing is important (Heller, 1991).

The distinction should be made clear that what is being described is *writers'* workshop. It is a specific activity where students read their writing to a group of five or six students and receive feedback from an audience of peers. The term *writing* workshop refers to a time during which students are involved in different writing activities. Atwell (1987) described some of the specific practices for writing workshop that are aimed directly at student needs such as:

> helping writers discover topics and helping blocked writers become unblocked; learning how to talk to writers in sensible, sensitive ways and giving them ways of conferring with each other; figuring out effective means of helping kids control format and mechanics; making room for audiences other than the teacher by developing ways younger writers could go public; and organizing our classrooms so they allowed the time writers need to write well, accommodated all the activities in which writers engage, and offered all the materials writers use. (p. 18)

Vygotsky (1962) indicated that what students learn while working together, they will be able to do

independently at a later time. During writers' workshops students are supported in assessing their own work, as well as the writing from the rest of the class. Students become aware of what is working well, and what could be done to make their writing better (Bloodgood, 2002). Research by Farnan and Fearn (1993) confirmed, "Through the eyes and ears of peers, middle school students can acquire the critical and discerning view necessary to revise insightfully" (p.62).

Additional benefits are developing writers' desire, the sense of unity (Dyson, 1989). "Supportive social structures with the classroom help facilitate students' engaged interactions and positive peer influences for finding "worthwhileness" in reading and writing" (Oldfather, 2002, p. 250).

Corden (2002) examined research produced by 14 teachers working as research partners considering how children developed as reflective writers. They determined that writers' workshops were "absolutely essential because they allow children to engage in authorial activity and experience writers' perspectives and readers' demands" (p. 252). This study also showed that there was considerably less achievement made by students without the opportunity to work on comprehensive pieces during writers' workshops.

Teacher conferences

Helping students monitor their work and find what is working well can be accomplished through brief and frequent writing conferences with the teacher (Murray, 1983). Within the conference, the teacher has the opportunity to identify patterns of errors and to assist the student by uncovering why those errors are being made (Kroll and Schafer, 1978). When teachers understand a student's specific learning needs, they can make purposeful instructional decisions based on the knowledge that makes teacher/student conferences more efficient and meaningful. Skills learned from the context of a student's own work will become a more permanent part of that student's repertoire (Graves, 1983).

Often involving lessons that have already been explicitly taught, the teacher may now conference with the students and give precise support directed by student needs. Corden's (2002) study showed that well thought-out scaffolding of students' learning had favorable affects on most students. The students responded confidently to clear, realistic learning goals and constant support all the way through their writing process.

Supporting conferencing with students, Barnitz (1998) stated one of the benefits is teaching within the context of the student's first language. He explained that during

this exchange the teacher may ask specific questions about a certain sentence structure or word choice in the student's first language. This places the emphasis on the writing concepts instead of communication problems or misunderstandings caused by a language barrier.

Heller (1991) acknowledged that writers need a reader's response to make sure a specific message was received. This is the time that students can develop their own questions about their writing. "When this happens the child has become a thinking individual who has learned to learn through reading and writing" (p. 285).

Graves (1983) also observed the power of questioning during conferences. The knowledge that is gained by a student explaining the thought process it took to come to a particular decision about a piece provides the student with the opportunity to talk about writing.

Collective modeling / "Sharing the pen"/ Interactive writing

In modeled writing the teacher demonstrates how to write a specific text. The teacher is the scribe as the teacher and students work together "first to discuss and then to compose a common text" (Fountas & Pinnell, 2001, p. 16).

Modeling writing with the students as they observe and participate provides an example of the thought processes a writer might experience. This, in turn, helps writing become not as much of a puzzle to be solved, as an event to be shared (Bloodgood, 2002). Collective modeling, where students are active participants and the teacher makes writing processes transparent, varies from the modeling used by ancient societies and discussed in a previous section. Through the interaction of collective modeling, students are taught how to mimic proficient models of writing.

Investigations in writing have pointed to the benefits of collaborative writing, showing that the text created during a shared writing project reveals the development of writing skills beyond what the student could have done working alone, without the help of another (Bruffee, 1984).

Teachers can take advantage of that "teachable moment" as they write with the students. The teacher's level of involvement varies, leading to lessons on punctuation, spelling, vocabulary, using the authentic language and ideas directly from the students (Fearn & Farnan, 2001).

Sharing the development of a piece of writing with students can help make the progression of what a writer

does more transparent. Atwell (1987) suggested, "We need to write, share our writing with our students, and demonstrate what experienced writers do in the process of composing, letting our students see our own drafts in all their messiness and tentativeness" (p. 18).

Sentence combining

One method of teaching students to write more complex sentences is to teach them sentence combining. Plainly stated, the instruction asks students to take two simple sentences and combine them to make one sentence. Early research in sentence combining with seventh grade students by O'Hare (1973) showed that when compared to control groups, experimental groups "wrote significantly more clauses and these clauses proved to be significantly longer" (p. 67). Three studies were completed at The University of West Florida concerning sentence combining (Evans, Venetozzi, Bundrick, & McWilliams, 1988). One of the findings was that sixth grade students in the experimental group significantly outperformed the control group as measured by Sentence Expansions, Sentence Structure knowledge, and Reading Comprehension.

Sentence combining brings the teaching of writing to the more manageable sentence level rather than trying to teach writing by using entire essays. Myers (1978)

expressed that teaching more complex writing at the sentence level gave the teacher and student a more refined focus to view the fundamental standards of writing. Fearn and Farnan (2001) explained sentence combining as useful for "moving young writers toward the ability to write increasingly sophisticated syntax that includes not only compound sentences, but longer and better-constructed simple sentences as well" (p.108).

Critics of teaching sentence combining claim that it is nothing more than reproducing a construct like mimicking models of writing. They are right to the degree that sentence combining should not be used exclusively as a comprehensive writing program, just as using models of writing should not be considered the all inclusive way to teach writing. A sustained systematic approach that teaches sentence combining does assist students to create more advanced and complex writing (Mellon, 1969).

This advances the notion that the reconstruction of two sentences is more powerful than simply mimicking a model. It compels the writer to create a new sentence through production rather than imitation. "It is one thing to identify the characteristics of a piece of writing, but quite another to produce an example of the type" (Hillocks, 1987, p.73).

Reading-Writing Connection

Studies in language arts have regarded the development of reading and writing as an integrated and reinforcing process. Although most research in reading has been dedicated to the acquisition and development of reading skills, a smaller amount of research has focused on methods used to teach writing. Only a fraction of the research in reading considers the impact of direct writing instruction to promote an increase in reading proficiency (Clay, 2001). Nor has a great deal of writing research focused on the impact of reading instruction on developing writing skills.

Aulls (1975) pointed out that both reading and writing activities supply models for reading or writing instruction including the syntactic, semantic, and organizational configurations that lead to the comprehension of expressed ideas. Though it was a long-held assumption that by age six children have already acquired virtually all of the syntactic structures they will ever use, others recognized the need to teach syntactic structures throughout the elementary school years (Bormuth, Manning, Carr, and Pearson, 1971; Chomsky, 1969; Clay, 2001; Olds, 1968).

Tompkins' (2001) writing research studied seventh grade students who were struggling in reading. She worked with a classroom teacher to evaluate an intervention

program that provided additional reading and writing instruction to low achieving readers. This intervention program was developed by teachers within the school district using authentic reading and writing activities. In addition, they created structured lessons for reading and writing skills. As a participant observer, Tompkins worked with the students individually and in small groups, as well as teaching lessons to the whole class. She also observed the teacher as she taught. Her research shared the instructional strategies that were effective for struggling writers.

At the beginning of the semester, students' spelling, capitalization, punctuation, and grammar errors obstructed the ability of the reader to understand the ideas they had written. Tompkins (2001) found that by the end of the semester, students were making far fewer mechanical errors, though a considerable number of errors still remained. The length and sophistication of students' writing also improved throughout the semester.

Tompkins (2001) wrote, "Using a combination of authentic writing activities and skills lessons, these students grew in their abilities to use writing for genuine communication processes" (p. 192).

A pilot study to the current research was conducted in July 2001 (Hamby, unpublished). Although the instructional time consisted of only a few weeks of writing instruction, the students made remarkable progress in all areas measured. Using paired t-tests, results were analyzed to see if there were significant differences between pre- and post assessments.

Table 1

Differences at pre- and post-assessments

Pre assessment			Post assessment		
N=24	Mean	Standard Deviation	Mean	Standard Deviation	P value
Fluency (# of words)	31.33	18.68	45.88	20.21	.0002*
Number of sentences	3.67	2.60	5.00	3.20	.0361*
Number of clauses	4.58	2.76	6.67	3.33	.001*
Clauses per sentence	1.36	.36	1.41	.34	.478
Words per sentence	9.15	2.33	10.10	3.87	.249
Errors per sentence	4.58	1.83	3.97	2.08	.145

*$p<.05$

It was noteworthy that while students gained fluency, they did not increase their error rate. In fact, there was a trend showing they decreased the number of errors made, which was all the more dramatic because fluency increased

by 46 percent, while errors in mechanical control decreased by 14 percent.

Summary

The first part of this chapter discussed the opposing theories of interventionism, with its focus on the content of instruction, and maturationism, where the focus is on the person. Interactionism is a middle ground that encourages the interactions between the individual and the environment. For the interactionist the goal of education is to develop intelligence through reflective thinking.

Mechanics were examined with data from the National Assessment of Educational Progress (NAEP) and The Nation's Report Card: Writing Highlights 2002. The nation's students have shown little progress since national assessments first started in 1984. These dismal results prompted The College Board to respond with the article, *The Neglected "R"* (2003).

The elements of craft in the areas of fluency, voice, and audience were incorporated, as well as elements of instruction. Writers' Workshop and teacher conferences were both found to be an important part of a successful classroom. Modeled/shared writing is essential for students to hear, see, and participate in collaborative writing. The

reading-writing connection was addressed, as well as the results of a pilot study.

Conclusion

The focus of this study was to explore the effect of systematic and intentional writing instruction on sixth grade students' writing. The preponderance of research in writing has been devoted to early writing. Less evidence is available which examines the effect of writing instruction at the sixth grade level (Dahl & Farnan, 1998). It is imperative that writing instruction becomes a greater focus of the language arts curriculum. One area of focus must be fluency. To be successful writers, individuals need to be fluent (Fearn & Farnan, 2001). One of the focuses of this research was to measure systematic writing instruction and its influence on fluency.

"There are two purposes for teaching conventions for young writers. One is to cause young writers (that is, help them learn) to write conventionally accurate language. The second is to give young writers knowledge they can use to edit their work" (Fearn & Farnan, 1998, p. 3). Systematically teaching the conventions of writing to sixth graders was the main focus of this study. Through explicit lessons, writing conventions were taught and reinforced

through teacher conferences, writers' workshops, and shared writing experiences.

As students advance through the grades, the maturity in their writing should be a reflection of that growth. Encouraging students to work in writers' workshops will allow students to "try out their ideas for different audiences and help them clarify their knowledge and ideas about certain subjects" (Arnold & Peterson, 2003, p.19).

Direct writing lessons, including instruction on specific writing conventions at the word, sentence, and paragraph level, were provided to the students. Sharing ideas, shared writing experiences, and learning to combine sentences were some of the strategies used to develop more mature and complex writing with the sixth graders in this study. The questions guiding this research were as follows:

- What is the effect of a planned and systematic delivery of writing instruction on sixth grade students' writing achievement?
- What is the effect of a planned and systematic delivery of writing instruction on sixth grade students' reading achievement?

Chapter 3

Methodology

Using quantitative research methods, this study investigated the effectiveness of an explicit writing curriculum for sixth grade students. Two types of writing samples were collected and analyzed. One measure was the district's writing assessment that was scored holistically using a rubric. This served as pre-and post assessment data. The other measure collected was a five-minute writing sample that was scored analytically. The information from each writing sample was analyzed using Paired T-tests and an Analysis of Variance (ANOVA).

The type of quasi-experimental design that was be used is a *nonequivalent group design*. According to Cook and Campbell (1979):

> Nonequivalent group designs are typically those in which responses of a treatment group and a comparison group are measured before and after a treatment. This would be the case where two school classes are compared to each other and measures, perhaps of achievement, are collected at the beginning and end of the school year. (p. 6)

Teacher as Researcher

As a result of the demand for increased accountability, teachers are being asked to document student progress by measuring teacher success by the criterion of students' academic achievement (Elmore, 2002). As he wrote about Action Research, Fischer (2001) noted, "To be a teacher means to observe students and study classroom interactions, to explore a variety of effective ways of teaching, and to build conceptual frameworks that can guide ones work" (p. 29).

The fact that the teacher is also the researcher needs to be acknowledged. Allington and Cunningham (2002) noted that schools should support teacher inquiry/research. Specifically they stated, "Having teachers research their own practices in their schools seemed one way to enhance the salience of inquiry into practice" (p. 183).

Design of Study

The study was designed to examine the effectiveness of explicit writing instruction on sixth grade reading and writing achievement.

Null Hypothesis - H_o: $\mu_{ewi} = \mu_{dwp}$

ewi - explicit writing instruction

dwp - district writing program

The Null Hypothesis is that there will be no difference in writing scores between students who receive explicit writing instruction in addition to the district writing curriculum when compared to the scores of the students who receive only the district writing program.

Alternate Hypothesis- H_a: $\mu_{ewi} > \mu_{dwp}$

A directional hypothesis states that the scores of the students who receive explicit writing instruction in addition to the district writing curriculum will increase more than the scores of the students who receive only the district writing program.

The same Null Hypothesis and Alternate Hypothesis will be used to determine the effectiveness of explicit writing instruction relative to reading scores for students enrolled in the Read 180 reading intervention program.

Null Hypothesis - H_o: $\mu_{ewi} = \mu_{dwp}$

The Null Hypothesis is that there will be no difference in reading scores between students who receive explicit writing instruction in addition to the district writing curriculum when compared to the scores of the students who receive only the district writing program.

Alternate Hypothesis- H_a: $\mu_{ewi} > \mu_{dwp}$

A directional hypothesis states that the reading scores of the students who receive explicit writing

instruction in addition to the district writing curriculum will increase more than the reading scores of the students who receive only the district writing program.

This study was designed to determine the changes made in student achievement in writing and reading over a four-month period. Student work was accumulated from two schools. Students were in one of four groups. Placement into these groups was determined by two factors. One condition was which school the students attended, making this a sample of convenience.

	Treatment	Control	Read 180	District Curriculum Language Arts Writing Instruction
Group A - X Elementary	***		***	***
Group B - X Elementary	***			***
Group C - Y Elementary		***	***	***
Group D - Y Elementary		***		***

Figure 1. Distribution of students in treatment and control groups.

Students who attended X Elementary were in Treatment Groups A and B, and received the explicit writing instruction. Students in Groups C and D attend Y Elementary, and therefore were not a part of the treatment. Students in Groups A and C are only differentiated as a

result of their placement in the Scholastic Read 180 reading intervention program at each school. These students were not reading at grade level, and generally scored below the 25th percentile on the state's standardized test. At Y Elementary there were 18 students from this study who were also in the Read 180 program. Y Elementary School used Read 180 as a pullout program. At X Elementary there were 27 students enrolled in Read 180. Read 180 was in the classroom at X Elementary and was incorporated into the daily schedule.

Read 180 is a comprehensive reading intervention program by Scholastic. It is designed for students whose reading achievement is far below grade level. Because part of the instruction is computer based, it is designed to directly address individual needs through instructional software. Read 180 uses high-interest literature as well as direct instruction to teach reading skills.

All of the students in both the treatment and control groups received reading and writing instruction as directed in the Holt, Rinehart, and Winston language arts program that had been adopted by the school district. Specifically addressing the writing process, an overview of the program organization in the teachers, manual states:

> Holt Literature and Language Arts provides a complete curriculum for standards-based instruction in vocabulary, reading, literature, writing, speaking, and listening, and media. The instructional content of the program is divided into quarters to enable teachers to anticipate and administer the quarterly assessments required by California.(p. 491A)

Writing lessons are divided into units on narration, exposition, response to literature, research, persuasion, and learning about paragraphs. In each unit is a model of the genre written by a professional author. Conventions and grammar lessons are imbedded in the writing units with lessons that involve copying and correcting sentences from the book.

Treatment group

Groups A and B were at X Elementary, and were the treatment group that received explicit writing instruction as shown in Figure 1. Students in Group A were in a class where they received remedial reading instruction through the Scholastic Read 180 reading program as well as explicit writing instruction. They also received writing instruction that was embedded in the language arts program implemented throughout the school district.

Students in Group B were a part of the treatment group who received explicit writing instruction; however, they did not receive instruction through the Read 180 program.

Control group

Groups C and D were the control group at Y Elementary. They did not receive the explicit writing instruction. They were, however, given writing instruction as prescribed in the language arts program. As determined by their level of reading, Group C received instruction within the remedial reading program Read 180. Group D did not take part in the Read 180 reading program, nor the explicit writing instruction, but did receive writing instruction that is a part of the district adopted language arts program.

Sample and Population

Scores from a total of 164 sixth grade students in two elementary schools were collected in this study. Scores from 61 students from Y Elementary School, and 63 students from X Elementary were used in the final analysis. The schools were located within one mile of each other and had similar student populations.

Both elementary schools were located within the same low-socioeconomic area and shared similar school demographics. Approximately 70 percent of the students at each school were designated as low-income. This compares

to a county average of 47 percent and a state-wide average of 55 percent. The two schools were designated as school-wide Title I, indicating that at least 50 percent of the students receive free or reduced lunch (National School Lunch Program). Approximately 65 percent of the students at both schools were English Language Learners.

The Academic Performance Index (API) is a measure used to rate schools statewide. API scores for these schools were similar; X Elementary's API score was 680, and Y Elementary's API score was 670. The average for elementary schools state-wide is 729.

Schedule for Treatment Group

During the explicit writing instruction students created and wrote sentences. The instruction of the following topics was embedded in the student generated writing. The lessons that were taught to the treatment group included the following topics:

Week 1 - November 3 - November 7

November 3 - Five minute writing sample

Lesson 1: End punctuation in sentences
Lesson 2: Commas in dates
Lesson 3: Commas in items in a series
Lesson 4: Commas in addresses

Week 2 - November 10 - November 14

Lesson 5: Apostrophes in contractions
Lesson 6: Periods in abbreviations
Lesson 7: Commas in compound sentences

Lesson 8: Punctuation in dialogue

Week 3 - November 17 - November 21

Lesson 9: Apostrophes in singular and plural possessives
Lesson 10: Commas in complex sentences
Lesson 11: Quotation marks and underlining in published titles
Lesson 12: Commas in a series of adjectives

Week 4 - November 24 - November 25

Lesson 13: Commas to set off appositives
Lesson 14: Commas after introductory words

Week 5 - December 1 - December 5

Lesson 15: Commas after introductory phrases
Lesson 16: Commas in compound-complex sentences
Lesson 17: Commas to set off parenthetical expressions
Lesson 18: Dashes and parentheses to set off parenthetical expressions

Week 6 - December 8 - December 12

December 8 - Five minute writing sample

Lesson 19: Colons in sentences
Lesson 20: Semicolons in sentences
Lesson 21: Capital letters to begin sentences
Lesson 22: Capital letters in names

Week 7 - December 15 - December 18

Lesson 23: Capitalizing I
Lesson 24: Capital letters in days of the week and months of the year
Lesson 25: Capital letters in place names (including direction words)

Week 8 - January 5 - January 9

Lesson 26: Capital letters in a person's title
Lesson 27: Capital letters in published titles
Lesson 28: Capital letters to show nationality, ethnicity, and language
Lesson 29: Capital letters in trade names, commercial products, company names

Week 9 - January 12 - January 16

January 13 - Five minute writing sample

Lesson 30: Capital letters in names of institutions, associations and events
Lesson 31: Finding main ideas in single sentences
Lesson 32: Writing main ideas in single sentences

Lesson 33: Expanding sentences to make meanings

Week 10 - January 20 - January 22

Lesson 34: Writing main ideas in multiple sentences
Lesson 35: Writing main ideas in triple sentences

Week 11 - January 26 - January 30

Lesson 36: Writing complex sentences

Lesson 37: Writing compound sentences
Lesson 38: Writing is the reason for spelling
Lesson 39: Reconfiguring sentences: finding and making meaning
Lesson 40: Punctuation and capitalization review

Week 12 - February 2 - February 6

Lesson 41: Using capital letters: review
Lesson 42: Using punctuation: commas and quotation marks
Lesson 43: Writing nouns and pronouns in sentences
Lesson 44: Writing sentences with nouns and verbs, adjectives, and adverbs

Week13 - February 10 - February 13

February 11 - Five minute writing sample

Lesson 45: Writing sentences with new words
Lesson 46: Paragraph completion - writing to main ideas
Lesson 47: Finding paragraphs - arranging sentences

Week 14 - February 17 - February 20

Lesson 48: Talking and writing about paragraphs - main idea
Lesson 49: Analyzing paragraphs - enhancing the main idea

Lesson 50: Writing a story - story grammar

Week 15 - February 23 - February 27

Lesson 51: Writing a story - inventing your own starter
Lesson 52: Writing reports of information in four parts
Lesson 53: The autobiographical incident

Week 16 - March 1 - March 5

Lesson 54: Your opinions in writing - persuasive writing
Lesson 55: Writing letters - formal and informal

March 10 - Five minute writing sample

Weekly Schedule

	Monday	Tuesday	Wed.	Thursday	Friday
8:15 8:45	Writing Instruction	Writing Instruction		Writing Instruction	Writing Instruction
8:45 9:15	Reading Instruction	Reading Instruction		Reading Instruction	Reading Instruction
9:15 9:35	Writer's Workshop	Journal Writing		Writer's Workshop	Writer's Workshop
9:35 9:55	Small group conference	Small group reading		Small group conference	Small group reading
9:55 10:15	Independent reading	Independent reading		Independent reading	Independent reading
10:15 10:35	Read social studies	Discuss S.S. text		Social Studies	Social Studies
10:35 10:55	Reading comprehension	Reading vocabulary		Reading pairs	Comprehension check
10:55 11:15	Independent writing	Independent writing		Independent writing	Independent writing

Figure 2. Weekly schedule - one-hour direct instruction, and six rotations through work centers.

Typically, the weekly schedule for the treatment group consisted of four lessons per week, and the fifth day accommodated most of the out-of-classroom activities such as P.E., library time, tests, and music. A sample of how a

weekly schedule was structured is demonstrated in Figure 2. The first hour is direct/intentional instruction for writing and reading.

During the second two hours of the morning, the students rotated through six centers. This was the time the teacher conducted one-to-one or small group conferences. One center was Writers' Workshop where students shared their writing and received feedback from their peers. Other centers provided time for independent reading and writing activities. At this school the sixth grade students stayed with the same teacher for language arts and social studies, and had another teacher for math, science, and physical education; thus the other content area that was covered during the language arts block was social studies.

Explicit Writing Lesson

Explicit writing instruction was done daily for approximately 30 minutes. The emphasis of explicit writing lessons was to have the students thinking about writing and immediately applying the instruction. For example, one series of lessons was on writing sentences with nouns and verbs, adjectives and adverbs (Fearn & Farnan, 1999, pp. 114 - 121). It started with direct instruction to the whole class about nouns and how they are modified using

adjectives. During direct instruction the teacher wrote a sentence on the board, "It was noon when the bright sun seemed to hang motionless overhead." Then the teacher directed the class discussion about the word "sun" (the noun) and the word "bright" as it modified the word "sun."

The teacher instructed the students, "Think about a sentence in which an adjective modifies the noun, sidewalk." Several students shared their sentences, and the class members discussed the adjective and the noun. Another sentence was written on the board, and the students were shown how to draw arrows from the adjective to the noun it was modifying.

During the next part of the lesson the students applied their new knowledge by writing to the following prompt, "Write another sentence with an adjective in the fourth position and a noun in the fifth. When you have your sentence written, make an arrow to show which word the adjective modifies" (Fearn & Farnan, 1999, p.116). During this time the teacher was able to observe the work of students as they wrote. The teacher was also able to monitor the students' understanding when they read their sentences aloud.

Calling the students' attention back to the board, sentences were created using two and three different nouns

with different adjectives. Students were asked to think of their own sentences with two or three nouns, and then asked to share them with the class. After several practices with this oral language activity, the students were asked to write their own sentences with one, two, and three nouns, with different adjectives. Students were always invited to share their writing.

Essential cornerstones of the explicit writing instruction were production, attention, and cognition. Students immediately used what they learned. Students wrote and produced sentences during the lesson. The lesson, and therefore the students' attention, was focused on a specific aspect of writing. Students were also taught to think about their writing before putting pencil to paper. During the lessons students were asked to "think of a sentence," reinforcing that writing begins with thought. Everyone actively participated in the lessons and made them personally meaningful by using their own words.

Observations

An independent researcher made classroom visitations. The observer regularly supervised student teachers as a part of her position at the state university. The purpose of these visitations was to observe and document the environment and the general delivery of writing

instruction. These observations were to verify the similarities and note any differences between the classrooms, teachers, and students who produced writing samples for this research. The first visit to the treatment group lasted approximately one hour. The next visitation was to the control group's classroom. One more observation was made in the treatment classroom to verify the comparison. After each visit the observer spoke with the teacher to verify time spent writing, and where each teacher was in the district writing curriculum.

In addition to the observer's experience working with pre-service teachers at the university, the observer was also trained as a Beginning Teacher Support and Assessment (BTSA) provider to focus on making unbiased judgments while observing instruction.

After reviewing teacher schedules, materials, and speaking with each teacher, the observer concluded that the classrooms, student populations, and the time devoted to writing in the classrooms were comparable between the treatment and control groups.

Instrumentation

Writing assessments

The Analytic Writing Assessment (Farnan & Fearn, 2002) was used to measure progress according to the following:

number of words (fluency), number of sentences, number of clauses, number of words per sentence (sentence length), number of clauses per sentence (a measure of sentence complexity), errors (capitalization, punctuation, spelling, and word use), and total errors per sentence. The researcher and two trained research assistants counted each of these elements as they occurred in the five-minute writing sample created by the students. During scoring, each student's paper was identified by number rather than name to ensure anonymity and blind scoring. Only the researcher had access to the names that corresponded with the numbers.

All writing samples were scored at least twice. At the beginning of each scoring session two or three papers were scored by all of the readers to make certain that everyone was in agreement about what represented an error. If there was a discrepancy between scores, the reason for the discrepancy was discussed. If an agreement could not be reached, a third reader would score the writing.

Holistic scores from the school district's writing assessments were also used as pre- and post-assessments. District writing assessments were administered at the end of the fall and winter trimesters. They were scored with a four-point rubric that included scores in three categories

(see Appendix C and D). The papers were scored in the areas of applications, strategies, and conventions. The score in applications considered how the writer organized the writing. Strategies looked at how the student wrote to a particular purpose or audience. The convention score reflected the writer's use of grammar, capitalization, spelling, and word usage.

District writing assessments were double-blind scored by teachers who had been trained in the scoring procedures. The papers were folded in such a way that students' names were not visible to the readers. Using a rubric provided by the school district, papers were scored by a teacher. Then a second teacher, without looking at the first scores, gave a second score using the same process. If both scores were the same, that was the score for the paper. If the scores were not the same, a third or even a fourth teacher read the paper until two sets of readers agreed on a score.

Reading

Lexile scores were used to measure reading growth. Lexile scores are a measurement that considers a student's reading ability and comprehension in relation to the difficulty of specific texts. By predicting the match of readers to books, the lexile locates the level at which a student is being challenged by exposure to new vocabulary

and concepts without being frustrated (www.nwea.org/resources/sotm/lexile.pdf). Lexile scores from assessments given through the Read 180 reading program were used as pre-and post-assessments to measure student progress for students in Groups A and C.

Data Collection

Writing

An initial writing sample was collected at the beginning of November before the commencement of explicit writing instruction. Five writing samples were collected between November and March. Teachers at Y Elementary collected writing samples on the second Wednesday of each month. Writing samples at X Elementary were collected during the second week of each month.

Assessment of students' writing progress was based on five-minute writing samples. Teachers at both elementary schools used the same protocol (see Appendix A) to solicit the writing samples from the students. Although the prompt differed each month, the same basic protocol was followed. Students were prompted to write on a particular subject or a choice of subjects. They were instructed to write "as much as you can as well as you can" (Fearn & Farnan, 2001, p. 241). Students wrote for five minutes for each writing sample.

Each writing sample was assessed using the Analytic Writing Assessment (Fearn & Farnan, 1999, 2001). A data sheet (see Appendix B) was stapled to the front of each writing sample. Each data sheet contained only the student's identification number to ensure anonymity. The number of words, number of sentences, number of clauses, and number of errors in spelling, punctuation, capitalization, and word use, culminating in the total number of errors, were recorded on the scoring sheet. After counting the number of words and errors, the words per sentence, clauses per sentence, and errors per sentence were calculated.

The district's writing assessments were used as pre- and post-assessments. A total of two writing assessments were used. The fall writing assessment was the pre-assessment, and the winter writing assessment was the post-assessment. These writings were holistically scored using a rubric that included examining the students' use of applications, strategies, and conventions (see Appendix C and D).

Reading

Read 180 is a computer-based reading intervention program. Testing the students on comprehension and vocabulary related to specific texts generates the lexile

score. Lexile scores from the first trimester of school and the first week of March were used as pre- and post-assessment.

Data Analysis

Writing

Scores from writing samples were analyzed to determine the impact of explicit writing instruction on students' writing growth and achievement as measured by holistic and analytic assessments. Student work was blind-scored by two trained researchers. For reliability the researcher, and two trained research assistants scored and verified scores for each writing sample.

The five minute writing samples were scored using the following measures:

- Fluency - Reflected the total number of words written.
- Number of sentences - Determined growth and maturity of writing.
- Number of words per sentence - A measure of maturity of writing.
- Number of clauses and clauses per sentence - Determined growth in complex writing and thought processes.

- Errors - Errors in punctuation, capitalization, word use, and spelling, each counted separately.
- Errors per sentence - Total errors divided by total sentences. Provides evidence of control of conventions by the writer.

Scores from the five-minute writing samples were analyzed using Independent Samples T-Tests, Paired Samples T-Tests, and ANOVA to determine differences in pre- and post-assessments, as well as the Ryan-Einot-Gabriel-Walsch F post hoc test to show changes over time

Holistic writing scores from the district's writing assessments were analyzed using Paired T-Tests and ANOVA to reveal any significant within-group or between-group variations between the treatment group and control group.

Reading

To measure what effect explicit writing instruction had on reading, lexile scores from those students in the Read 180 program were used for pre- and post-assessment. These data were analyzed using Paired T-Tests and ANOVA.

Results

All of the data analyses are presented using tables and figures to explain the differences that were measured as mean gain scores between the treatment group and the control group. Analyses showing the differences between the

groups at the beginning of the research as well as at the end are presented to show any change between the groups over time. The final analysis of the analytic data is the change shown within each group, including all five samples.

The data from the holistic writing scores, as well as the lexile scores as assessments for reading, are also presented.

Chapter 4

Results

To determine the effects of explicit writing instruction on sixth grade students' writing performance, this four-month study examined writing samples from two elementary schools. The two elementary schools were located within one mile of each other in a low-socioeconomic area. Demographics of the student populations were comparable. Both schools were designated as school-wide Title I. One criterion to be designated school-wide Title I is at least 50 percent of the students receive free or reduced lunch (National School Lunch Program). Approximately 65 percent of the students were English Language Learners at both schools. Of the two sixth grade teachers at Y Elementary, one had taught for six years and the other for seven years, all at the sixth grade level. The teacher of the treatment group had been teaching for 15 years; however, this was her first year teaching at the sixth grade level.

The five-minute writing samples used for the pre-assessment were collected the second week of November. For the next four months, student writing samples were collected during the second week of each month and analytically scored. That is, they were scored to count the number of words written within the five-minute limit. The

number of sentences and clauses were counted to assess the complexity of the students' writing. Data collection included the number of errors in spelling, punctuation, capitalization, and word-use. A word-use error was counted when a word was used incorrectly, or when a word was omitted that was necessary for the sentence to be grammatically correct.

In addition, scores from the district's writing assessments were collected from the control and treatment groups. The district's writing assessments were scored holistically. That is, they were scored using a rubric (see Appendix C and D), and the writing was evaluated as a whole piece of work. The district writing assessments involved prewriting, and the students took approximately 30 minutes to complete the writing segment.

After the writing samples had been collected and scored, the information was put into a data set using SPSS software. This research used analysis of variance (ANOVA) with Ryan-Einot-Gabriel-Welsch F Post Hoc tests when appropriate. Also Paired Samples t-tests and Independent Samples t-tests were used.

The purpose of this research was to examine whether there were differences in reading and writing between students who received explicit writing instruction and

students who did not. The data were organized to examine the effect of explicit writing instruction on each of the measures that were scored. The results of the data analysis are represented first as the analysis of mean gain score. An example of this table is Table 2. The treatment group was compared to the control group on gain scores of Writing Sample 5 compared to Writing Sample 1. Since Writing Sample 1 was done at the beginning of the treatment program and Writing Sample 5 was at the end, it could be assumed that the gain score would reflect the changes made over the time of the research.

The next table will illustrate the differences between the control group and the treatment group for Sample 1 and also at Sample 5. An example of this table is Table 3.

The final analysis shows the changes over time within the treatment group and the control group (see Tables 4 and 5). The Ryan-Einot-Gabriel-Welsch F Post Hoc assessment shows the change over time in the variable being measured and reports at what point significant change occurred. An ANOVA was used to determine the significance of change for each measure. The level of significance was set at 0.05 to test differences between the samples.

The initial data that are presented are from the analytic assessment of the writing samples. The first

variables that are examined are those measures at the word and sentence level that show the fluency, number of sentences, words per sentence, number of clauses, and number of clauses per sentence. These measures are informative for the data they present, and they are presented first to establish the basis on which the other variables can be compared.

Then the information showing the analysis of the remaining six variables is presented. The data showing spelling errors, punctuation errors, capitalization errors, word-use errors, the total number of errors, and errors per sentence are shown as a comparison of the mean gain scores, the differences between the groups, and the changes over time within the control group and the treatment group.

After the analysis of the analytic assessment measures, data from the holistic scoring of the district writing assessment are presented. These data are presented using mean gain scores showing the differences in growth between the groups, as well as the differences between the mean scores of the treatment and control group.

Finally, analysis of pre and post lexile scores was used to show the reading achievement for students in the Read 180 reading intervention program.

Fluency Results

Fluency was measured as the number of words written by each student during a particular time frame. In this study, five minutes was allowed for each fluency task.

Table 2 shows that both the control and treatment group were writing more by the end of the study. Although the treatment group made more of a gain than the control group, there was not a significant difference between the two groups.

Table 2

Fluency - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	11.23		
Treatment	63	12.41		
			-.287	.774

At the beginning of the study the difference in fluency between the control group and the treatment group was not significant, nor was the difference significant at the end. It is noted, however, that the control group consistently had higher fluency scores than the treatment group as indicated in Table 3.

Table 3

Fluency - Differences at Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	103.21		
	Treatment	63	94.52	1.90	.06
Sample 5	Control	61	114.44		
	Treatment	63	106.94	1.60	.112

Table 4 shows the mean number of words written by students in the control group for each sample. The table is organized from the sample that had the lowest mean fluency (Sample 2) to the sample that had the highest (Sample 4).

An Analysis of Variance was performed to test for differences between the means for the five samples. Table 3 shows that the control group wrote significantly fewer words in Samples 1, 2, and 3 than in Samples 4 and 5 [$F(4, 300) = 5.518$, $p < .001$]. A post hoc comparison test using the Ryan-Einot-Gabriel-Walsch F (R-E-G-W F) was run and Table 4 shows that means for Samples 1, 2, and 3 were similar to each other but were significantly different from Samples 4 and 5.

Table 4

Fluency - Control Group

# of words

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05	
Sample #		1	2
2	61	98.57	
3	61	101.97	
1	61	103.21	
5	61		114.46
4	61		114.93

The mean number of words written by students in the treatment group is represented in Table 5. Arranged from the lowest mean to the highest, Table 5 shows that after the first writing sample, students wrote about 10 percent

less during Sample 2 and Sample 3 than they did during Sample 1. Though by Sample 4 the students were nearly writing as much as they had for Sample 1, it was not until Sample 5 that the treatment group finally wrote more words than they had originally written at the onset of this study.

The treatment group showed a significant decrease in fluency between Sample 1 and Sample 3, but then a significant increase in fluency from Samples 1 and 3 to Sample 5 as shown in Table 5 [$F(4, 310) = 7.569$, $p < .001$]. The R-E-G-W F post hoc comparison shows that students wrote similar amounts in Samples 2, 3, and 4, with Sample 3 being the lowest score. Samples 1, 2, and 4 were also similar to each other, but all Samples were significantly less than Sample 5.

Table 5

Fluency - Treatment Group

# of words

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05		
Sample #		1	2	3
3	63	84.30		
2	63	85.67	85.67	
4	63	94.73	94.73	
1	63		95.24	
5	63			106.94

Number of Sentences

The number of sentences was counted for each writing sample and recorded as part of the documentation for analysis.

Table 6 shows that the gain by the control group was significantly greater than that of the treatment group. This is an important factor considering that while the number of sentences increased for the control group, the number of words per sentence (see Table 10) decreased for the control group while increasing for the treatment group.

Table 6

Number of sentences - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	1.69		
Treatment	63	-.08		
			2.87**	.005

**p < .01.

At the onset of the study the difference between the control and treatment group was not significant, yet by the end of the study the control group was writing a greater number of sentences, showing a significant difference between the groups in Table 7.

Table 7

Number of sentences - Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	8.18		
	Treatment	63	8.46	-.51	.612
Sample 5	Control	61	9.87		
	Treatment	63	8.38	2.75**	.007

**p < .01.

Table 8 shows the mean number of sentences written by students in the control group. The table is organized from the sample that had the lowest mean number of sentences (Sample 1) to the highest (Sample 4).

An Analysis of Variance was performed to test for differences between the means for the five samples. Table 8 shows that the control group wrote significantly fewer sentences in Sample 1 than in Samples 4 and 5 [$F(4, 300) = 6.905$, $p < .001$]. Though Samples 1, 2, and 3 are all similar, and Samples 2, 3, and 5 are all similar, Sample 4 is significantly higher than all of the other samples. This coincides with data shown in Table 12 that while the control group wrote the most sentences during Sample 4, they wrote the fewest number of words per sentence in Sample 4 as well.

Table 8

Number of sentences - Control Group

# of sentences

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05		
Sample #		1	2	3
1	61	8.18		
2	61	8.82	8.82	
3	61	9.34	9.34	
5	61		9.87	9.87
4	61			11.00

The mean number of sentences written by students in the treatment group is represented in Table 9. The mean

scores are arranged from the lowest to the highest. Table 8 shows that there was no significant difference in the number of sentences written during each sample [$F(4, 310) = 1.747$, $p = .139$]. The treatment group maintained the number of sentences they wrote throughout the research period, and the number of words per sentence grew significantly from Sample 1 to Sample 5 as shown in Table 9.

Table 9

Number of sentences - Treatment Group

# of sentences

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05
Sample #		1
3	63	7.43
2	63	7.54
4	63	7.70
5	63	8.38
1	63	8.46

Words per Sentence

Words per sentence was calculated by dividing the total number of words by the total number of sentences. This computation was conducted by the SPSS software that was used for data analysis and is stored as one of the variables on the database.

Table 10 indicates that the control group showed a decline in the mean gain score for the number of words per sentence while the treatment group showed an increase. The

difference between the mean gain scores for the control and treatment group is significant.

Table 10

Words per sentence - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	-1.21		
Treatment	63	1.42		
			-3.31**	.001

**$p < .01$.

At Sample 1 there was a significant difference between the control group and the treatment group with the control group writing a greater number of words per sentence than the treatment group. At the end of the research period there was no longer a significant difference between the groups, and as shown in Table 11, the treatment group was now writing more words per sentence than the control group.

Table 11

Words per sentence - Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	13.52		
	Treatment	63	11.95	2.49*	.014
Sample 5	Control	61	12.32		
	Treatment	63	13.37	-1.85	.066

*$p < .05$.

Table 12 shows the mean number of words per sentence for the students in the control group, where the fewest number of words per sentence occurred in Sample 4 to the most number of words per sentence in Sample 1.

An Analysis of Variance was performed to test for the differences between the means for the five samples. Table

12 indicates there was a significant decrease in the number of words per sentence from Sample 1 to samples 3 and 4 in the control group [$F(4, 300) = 5.104$, $p = .001$]. Samples 2 through 5 were comparable, as were Samples 1, 2, and 5, but Sample 1 was significantly higher than Samples 3 and 4.

Table 12

Number of words per sentence - Control Group

Words per sentence			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
4	61	11.0471	
3	61	11.4606	
2	61	11.9289	11.9289
5	61	12.3173	12.3173
1	61		13.5238

There was a significant increase in words per sentence for the treatment group from Sample 1 to Sample 5 as shown in Table 13 [$F(4, 310) = 2.427$, $p = .048$].

Table 13

Number of words per sentence - Treatment Group

Words per sentence			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
1	63	11.9504	
3	63	12.0621	12.0621
2	63	12.1771	12.1771
4	63	13.0179	13.0179
5	63		13.3742

Number of Clauses

The number of clauses was counted as the total number of clauses in the sample. A simple sentence (one verb, one subject) was counted as one clause, and more complex sentences may have contained two or more. A clause was considered as "a group of words that contains a subject and verb" (Venolia, 1988, p. 115).

As shown in Table 14, both the control group and the treatment group were writing more clauses by the end of the study. The gain by the treatment group was only slightly more than the control group, and there was not a significant difference between the two groups.

Table 14

Number of clauses - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	1.15		
Treatment	63	1.17		
			.035	.972

As in the mean gain score, the differences between the groups at Sample 1 and Sample 5 was also minimal. Although both groups wrote more clauses by the end of the reporting period, there was not a significant difference between the groups at Sample 1 or at Sample 5 as shown in Table 15.

Table 15

Number of clauses - Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	12.57		
	Treatment	63	12.26	.421	.675
Sample 5	Control	61	13.72		
	Treatment	63	13.44	.372	.711

Table 16 illustrates the mean number of clauses written by students in the control group for each sample. The table is organized from the sample that had the lowest mean number of clauses (Sample 1) to the sample that had the highest (Sample 4).

An Analysis of Variance was performed to test for the differences between the means for the five samples. Table 15 shows that the mean number of clauses in the control group was significantly higher in Sample 4 than Sample 1. [$F(4, 300) = 2.718$, $p = .03$]. A post hoc comparison test using R-E-G-W F showed that 1, 2, 3, and 5 were similar, but Sample 1 was significantly lower than Sample 4.

Table 16

Number of clauses - Control Group

# of clauses

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05	
Sample #		1	2
1	61	12.57	
2	61	13.15	13.15
3	61	13.34	13.34
5	61	13.72	13.72
4	61		14.82

The mean number of clauses written by students in the treatment group is represented in Table 17. Arranged from the lowest mean to the highest, Table 17 shows that after the first writing sample the number of clauses that students wrote dropped dramatically at first.

The treatment group showed a significant decrease in the number of clauses from Sample 1 to Samples 2 and 3, but then the group wrote significantly more clauses in Sample 5 as seen in Table 17 [$F(4.310) = 4.291$, $p = .002$]. The R-E-G-W F post hoc comparison shows that students wrote a similar number of clauses from Sample 1 to Sample 4. Students also wrote a comparable number of clauses in Samples 1, 4, and 5, but Samples 2 and 3 are significantly less than Sample 5.

Table 17

Number of clauses - Treatment Group

# of clauses			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
2	63	10.84	
3	63	11.10	
4	63	12.22	12.22
1	63	12.27	12.27
5	63		13.44

The post hoc comparison shows significant differences within each group, but these changes occurred in both the control and treatment group.

Clauses per Sentence

Clauses per sentence were calculated by dividing the number of clauses by the number of sentences for each writing sample. This computation was conducted by the SPSS software that was used for statistical analysis and is stored as one of the variables on the database.

Table 18 shows that the control group wrote fewer clauses per sentence, while the treatment group showed an increase by the end of the study. As the control group decreased, and the treatment group increased, by the end of the study there was a significant difference between the two groups.

Table 18

Clauses per sentence - Between group differences

	N	Mean Gain Score	t	p
Control	61	-.17		
Treatment	63	.15		
			-4.77***	.000

***$p < .001$.

At the beginning of the study the difference in clauses per sentence between the control group and the treatment group was not significant. At Sample 1 the treatment group was writing fewer clauses per sentence than the control group. It is noted, however, that by the end of the study the treatment group was writing significantly more clauses per sentence than the control group as indicated in Table 19.

Table 19

Clauses per sentence - Sample 1 to Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	1.58		
	Treatment	63	1.49	-1.63	.106
Sample 5	Control	61	1.42		
	Treatment	63	1.65	-4.52***	.000

***$p < .001$.

Table 20 shows the mean number of clauses per sentence written by students in the control group for each writing sample. The table is organized from the Sample 4 that had the least number of clauses per sentence, to Sample 1 that had the most.

The control group wrote significantly more clauses per sentence in Samples 1 and 2 than in Samples 4 and 5 as shown in Table 20 [$F(4, 300) = 5.306$, $p < .001$]. The R-E-G-W F post hoc comparison showed that the means of Samples 1, 2, and 3 were similar to each other, as were Samples 3, 4, and 5, but Samples 1 and 2 were significantly different than Samples 4 and 5.

Table 20

Number of clauses per sentence - Control Group

Clauses per sentence			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
4	61	1.3934	
5	61	1.4144	
3	61	1.4532	1.4532
2	61		1.5525
1	61		1.5808

The mean number of clauses per sentence written by students in the treatment group is represented in Table 21. The table is organized from the lowest mean number of clauses in Sample 2 to the highest in Sample 5.

The treatment group showed a significant increase in the number of clauses per sentence in Samples 4 and 5 compared to Samples 1 and 2 [$F(4,310) = 4.289$, $p = .002$]. The R-E-G-W F post hoc comparison shows that students wrote similar numbers of clauses per sentence in samples 1, 2, and 3. Samples 3, 4, and 5 were also similar to each other, but Samples 1 and 2 were significantly less than Samples 4 and 5.

Table 21

Number of clauses per sentence - Treatment Group

Clauses per sentence			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
2	63	1.4745	
1	63	1.4928	
3	63	1.5260	1.5260
4	63		1.6311
5	63		1.6450

The next information presented will be data from the measurements on errors. Errors in spelling, punctuation, capitalization, and word-use, as well as total errors and errors per sentence, will be reported.

Spelling Errors

The number of words students spelled incorrectly during the writing samples were used as the measure for spelling errors. Spelling errors were counted and recorded as a part of the documentation for each writing sample.

Table 22 shows that the control group increased spelling errors, yet the treatment group was making significantly fewer spelling errors by the end of the study.

Table 22

Spelling errors - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	.69		
Treatment	63	-1.92		
			2.98**	.003

**$p < .01$.

At the beginning of the study the treatment group was making more spelling errors than the control group, but by the end of the study the treatment group was making fewer spelling errors than the control group as indicated in Table 23. However, none of the differences were significant.

Table 23

Spelling errors - Differences at Samples 1 and 5

		N	Mean	*t*	*p*
Sample 1	Control	61	5.90		
	Treatment	63	6.90	-.88	.38
Sample 5	Control	61	6.60		
	Treatment	63	4.99	1.74	.08

Table 24 shows the mean number of spelling errors made by students in the control group for each sample. Though there was an increase in spelling errors over time for the control group, these numbers were not statistically significant [$F(4, 300) = .242$, $p = .914$].

Table 24

Number of spelling errors - Control Group

Spelling errors		
Ryan-Einot-Gabriel-Welsch F		
	N	Subset for alpha = .05
Sample #		1
1	61	5.90
3	61	6.28
5	61	6.59
4	61	6.72
2	61	6.74

Table 25 shows the mean number of spelling errors for students in the treatment group. Though there was a trend that showed a decrease in spelling errors over time, these differences were not statistically significant [$F(4, 310) = 2.10$, $p = .081$].

Table 25

Number of spelling errors - Treatment Group

Spelling errors		
Ryan-Einot-Gabriel-Welsch F		
	N	Subset for alpha = .05
Sample #		1
5	63	4.98
3	63	5.11
4	63	5.16
1	63	6.90
2	63	6.92

Punctuation Errors

Punctuation errors were measured on the basis of commas, quotation marks, and end marks. A punctuation error was counted for the omission or misplacement of punctuation marks and recorded as a part of the documentation for each writing sample.

Table 26 shows that the control group increased in punctuation errors, while the treatment group showed a decrease. There is a significant difference between the mean gain scores for punctuation errors for the control and treatment group.

Table 26

Punctuation errors - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	2.59		
Treatment	63	-4.92		
			7.54***	.000

****p* < .001.

At the beginning of the study the differences in punctuation errors between the control group and the treatment group were significant. The treatment group was making approximately 60 percent more punctuation errors than the control group. At the end of the study, however, the treatment group had reduced their punctuation errors by more than half while the control group showed an increase from the beginning of the study. Table 27 shows that that

were significant differences in mean punctuation scores at Sample 1 and Sample 5.

Table 27

Punctuation errors - Differences at Sample 1 and 5

		N	Mean	t	p
Sample 1	Control	61	5.90		
	Treatment	63	9.30	-3.67***	.000
Sample 5	Control	61	8.49		
	Treatment	63	4.38	4.93***	.000

***$p < .001$.

Table 28 shows the mean number of punctuation errors written by students in the control group for each sample. The table is organized from Sample 1 that had the lowest mean, to Sample 4 that had the highest.

An Analysis of Variance was performed to test for differences between the means for the five samples. Table 28 shows the control group made significantly more punctuation errors in Samples 4 and 5 than in Sample 1 [$F(4, 300) = 4.487$, $p = .002$].

Table 28.

Number of punctuation errors - Control Group

Punctuation errors

Ryan-Einot-Gabriel-Welsch F

	N	Subset for alpha = .05		
Sample #		1	2	3
1	61	5.90		
2	61	6.80	6.80	
3	61	7.49	7.49	7.49
5	61		8.49	8.49
4	61			9.38

The mean number of punctuation errors made by students in the treatment group is represented in Table 29. Arranged from the lowest mean (Sample 4) to the highest (Sample 1), Table 29 shows a declining number of punctuation errors in the treatment group.

The treatment group showed a significant decrease in punctuation errors from Sample 1 to Samples 4 and 5. The punctuation errors in Samples 4 and 5 were significantly less than in Samples 1 and 2 [$F(4, 310) = 12.243$, $p < .001$]. The R-E-G-W F post hoc comparison shows that students made similar numbers of punctuation errors in Samples 2 and 3. A similar number of errors was made in Samples 3, 4, and 5. Showing a steady decrease over time, all Samples contained significantly fewer punctuation errors than Sample 1, and Samples 1, 2, and 3 were significantly greater than Samples 4 and 5.

Table 29

Number of punctuation errors - Treatment Group

Punctuation errors				
Ryan-Einot-Gabriel-Welsch F				
	N	Subset for alpha = .05		
Sample #		1	2	3
4	63	3.94		
5	63	4.38		
3	63	5.97	5.97	
2	63		6.62	
1	63			9.30

Capitalization Errors

Capitalization errors were counted for errors of use and omission. An error was recorded when a capital letter was required and not used, or when it was used incorrectly.

Table 30 shows that the control group was making more capitalization errors by the end of the study. The treatment group decreased the number of capitalization errors made. As the control group increased and the treatment group decreased, there was a significant difference between the groups.

Table 30

Capitalization errors - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	1.82		
Treatment	63	-4.06		
			5.59***	.000

****p* < .001.

At the beginning of the study the control made significantly fewer errors than the treatment group. With the control group increasing their errors, and the treatment group decreasing, the two groups were no longer significantly different as shown in Table 31.

Table 31.

Capitalization errors - Sample 1 to Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	3.13		
	Treatment	63	7.87	-4.52***	.000
Sample 5	Control	61	4.95		
	Treatment	63	3.81	1.11	.267

****p* < .001.

Table 32 shows the mean number of capitalization errors written by students in the control group for each sample. The table is organized from Sample 1, with the fewest errors, to Sample 4 with the greatest amount of errors.

An Analysis of Variance was performed to test for differences between the means for the five writing samples. The control group's capitalization errors significantly increased between Sample 1 and Samples 3 and 4 as seen in Table 32 [$F(4, 300) = 4.13$, $p = .003$]. A post hoc R-E-Q-W F showed that the means of Samples 1, 2, and 5 were similar, but Sample 1 is significantly lower than Samples 3 and 4.

Table 32

Number of Capitalization Errors - Control Group

Capitalization errors			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
1	61	3.13	
2	61	4.44	4.44
5	61	4.95	4.95
3	61		5.38
4	61		5.75

The mean number of capitalization errors written by students in the treatment group is represented in Table 33. Arranged from the lowest mean to the highest, Table 33 shows that from the first sample students steadily decreased their capitalization errors.

The treatment group showed a significant decrease in the number of capitalization errors from Samples 1 and 2 to Sample 5 as shown in Table 33 [$F(4, 310) = 4.144$, $p = .003$].

Table 33

Number of capitalization errors - Treatment Group

Capitalization errors				
Ryan-Einot-Gabriel-Welsch F				
	N	Subset for alpha = .05	*t*	*p*
Sample #		1	2	3
5	63	3.86		
4	63	4.14	4.14	
3	63	5.49	5.49	5.49
2	63		7.14	7.14
1	63			7.87

Word-use Errors

Word-use errors were counted as the number of words that were used incorrectly or omitted. Word-use errors were counted and recorded as a part of the documentation for each writing sample.

Table 34 shows that the control group was making more word-use errors by the end of the study, while the treatment group was making fewer. The difference between the groups was significant.

Table 34

Word-use errors - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	1.03		
Treatment	63	-.83		
			3.36**	.001

**$p < .01$.

At the beginning of the study the difference in word-use errors between the control group and the treatment group was not significant. However, as the control group increased in the number of errors and the treatment group decreased, by the end of the study the treatment group was making significantly fewer word-use errors than the control group as shown in Table 35.

Table 35

Word-use errors - Differences between Sample 1 and Sample 5

		N	Mean	t	p
Sample 1	Control	61	1.72		
	Treatment	63	2.24	-1.23	.222
Sample 5	Control	61	2.75		
	Treatment	63	1.41	2.78**	.006

**$p < .01$.

Table 36 shows the mean number of word-use errors made by students in the control group for each sample. The table is organized from the sample that had the fewest errors (Sample 2) to the sample with the highest (Sample 5).

An Analysis of Variance was performed to test for differences between the means for the five samples. Table 36 shows the control group made fewer errors from Sample 1 to Samples 2 and 3. Then there was a significant increase in word-use errors from Samples 2 and 3 to Sample 5 as seen in Table 36 [$F(4, 300) = 3.117$, $p = .016$].

Table 36

Number of word-use errors - Control Group

Word use errors			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
2	61	1.34	
3	61	1.46	
1	61	1.72	1.72
4	61	2.56	2.56
5	61		2.75

The mean number of word-use errors made by the treatment group is represented in Table 37. Arranged from the fewest number of errors to the most, Sample 1 showed the greatest number of word use errors, while Sample 4 showed the least.

Table 37 shows there was a significant decrease in the number of word-use errors from Sample 1 to Sample 4 [$F(4, 310) = 2.528$, $p = .041$]. An R-E-G-W F post hoc showed that Samples 2 through 4 were similar, but there was a significant difference between Sample 1 and Sample 4.

Table 37

Number of word-use errors - Treatment Group

Word use errors			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
4	63	1.17	
5	63	1.41	1.41
3	63	1.51	1.51
2	63	1.63	1.63
1	63		2.24

Total Errors

The total number of errors is calculated as the sum of the spelling, punctuation, capitalization, and word-use errors. This computation was conducted by the SPSS software that was used for statistical analysis and is stored as one of the variables on the database.

Table 38 shows that the control group's writing included more errors by the end of the study, and the treatment group's writing included fewer. This difference in mean gains scores shows a significant difference between the groups at the end of the study.

Table 38

Total errors - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	6.13		
Treatment	63	-11.52		
			8.34***	.000

****p* < .001.

At the beginning of the study there was a significant difference between the control group and the treatment group. The control group had significantly fewer total errors than the treatment group. However, by the end of the study the treatment group had fewer errors than the control group had at the beginning, and the control group was making more errors than the treatment group had at the beginning of the study as shown in Table 39.

Table 39

Total errors - Differences between Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	16.65		
	Treatment	63	26.32	-3.96***	.000
Sample 5	Control	61	22.79		
	Treatment	63	14.78	3.45**	.001

**$p < .01$. ***$p < .001$.

Table 40 shows the mean number of total errors made by students in the control group for each sample. The table is organized from Sample 1 showing the fewest total errors, to Sample 4 showing the most.

An Analysis of Variance was performed to test for differences between the means for the five samples. Table 40 shows that the control group wrote significantly more total errors in Sample 4 than in Sample 1 [$F(4, 300) = 3.50$, $p = .008$]. A post hoc comparison test using R-E-G-W F showed that means for Samples 1, 2, 3, and 5 were similar to each other, but Sample 1 is significantly less than Sample 4.

Table 40

Total number of errors - Control Group

Total errors			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
1	61	16.66	
2	61	19.33	19.33
3	61	20.61	20.61
5	61	22.79	22.79
4	61		24.41

The mean number of total errors made by students in the treatment group is represented in Table 41. Arranged from the lowest mean to the highest, Table 41 shows that Sample 1 showed the highest number of total errors, and Sample 4 was the lowest.

The treatment group showed a significant decrease in the number of total errors from sample 1 to Sample 3, and then again from Sample 2 to Samples 4 and 5 in Table 41. [$F(4, 310) = 8.833$, $p < .001$]. The R-E-G-W F post hoc comparison showed that students made a similar number of errors in Samples 1 and 2, and were similar again between Samples 2 and 3. Samples 3, 4, and 5 showed similar numbers of errors, but Samples 4 and 5 showed a significant decrease in the total number errors when compared to Samples 1 and 2.

Table 41

Total number of errors - Treatment Group

Total errors				
Ryan-Einot-Gabriel-Welsch F				
	N	Subset for alpha = .05		
Sample #		1	2	3
4	63	14.41		
5	63	14.63		
3	63	18.08	18.08	
2	63		22.32	22.32
1	63			26.32

Errors per Sentence

Errors per sentence was calculated by dividing the total number of errors by the number of sentences. This computation was conducted by the SPSS software that was used for statistical analysis and is stored as one of the variables on the database.

Table 42 shows that the control group increased while the treatment group decreased the number of errors. The difference between the two groups was significant.

Table 42.

Errors per sentence - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	61	.14		
Treatment	63	-1.25		
			5.90***	.000

****p* < .001.

At the beginning of the study the difference between the groups was significant, and the treatment group was making more errors per sentence. By the end of the study there was still a significant difference, and the treatment group was making significantly fewer errors per sentence than the control group as shown in Table 43.

Table 43

Errors per sentence - Differences at Sample 1 and Sample 5

		N	Mean	*t*	*p*
Sample 1	Control	61	2.31		
	Treatment	63	3.13	-2.81**	.006
Sample 5	Control	61	2.45		
	Treatment	63	1.88	2.18*	.031

**p* < .05. ***p* < .01.

Table 44 shows the mean number of errors per sentence made by the control group for each sample. Though Sample 1 was the lowest, and Sample 5 was the highest, there was not a significant difference for errors per sentence between any of the samples in the control group [$F(4, 300) = .356$, $p = .84$].

Table 44

Number of errors per sentence - Control Group

Errors per sentence		
Ryan-Einot-Gabriel-Welsch F		
	N	Subset for alpha = .05
Sample #		1
3	61	2.3070
2	61	2.3081
1	61	2.3125
4	61	2.3918
5	61	2.5736

Arranged from the fewest errors (Sample 5) to the most errors (Sample 2), there was a significant decrease in errors in the treatment group between Samples 1 and 2, and Sample 5 shown in Table 45 [$F(4, 310) = 4.384$, $p = .002$].

Table 45

Number of errors per sentence - Treatment Group

Errors per sentence			
Ryan-Einot-Gabriel-Welsch F			
	N	Subset for alpha = .05	
Sample #		1	2
5	63	1.8796	
4	63	2.2767	2.2767
3	63	2.8274	2.8274
1	63		3.1294
2	63		3.2678

Summary From Analytic Assessments

Fluency

The measures against which all other scores are evaluated are fluency and the number of sentences. In other words, there was a mean gain in fluency for both groups, but those gains were not significantly different between the groups. The number of words for the treatment group in Sample 1 was 95.24, while the control group wrote 103.21. The treatment group increased to 106.94, and the control group increased to 114.46. Neither Sample 1 nor Sample 5 was considered to have a significant difference between the groups. It should be noted that fluency did not decrease as errors decreased for the treatment group. However, as fluency increased for the control group, so did the errors.

For the treatment group, Table 5 shows that the number of words written in the first writing sample was only exceeded by the fifth writing sample. The first writing sample also contained the highest number of errors (see Table 41).

Like the treatment group, the control group wrote more words by the fifth writing sample. In fact, the control group showed a significant increase in fluency from Samples 1, 2, and 3 to Samples 4 and 5. However, unlike the treatment group that reduced its errors over time, the

control group's total number of errors increased over time, showing significantly higher errors in Samples 4 and 5 than in Sample 1.

Sentences

Regarding the number of sentences, the treatment and control groups were not significantly different in Sample 1, but by Sample 5 there was a significant difference between the control group with 9.87 sentences and the treatment group with 8.38 sentences per sample.

For the treatment group the number of sentences written did not change significantly over time although the number of words increased, therefore showing a significant change in the words written per sentence over time (see Table 13). As the treatment group received lessons on the use of adverbs, adjectives, and the use of exact vocabulary, they used these skills in their writing, generating significantly longer sentences, along with significantly fewer errors per sentence (see Table 45). Students became more skillful writers as they wrote longer and more complex sentences with fewer errors.

This coincides with the fact that their sentence structures became more complex over time as the number of clauses (see Table 17), as well as the clauses per sentence (see Table 21), increased over time. Similar to the number

of sentences, the number of clauses written in Sample 1 was exceeded by the number of clauses only in Sample 5.

The control group did show a significant increase from the number of sentences written in Sample 1 to the number written in Sample 5 (see Table 8). Although they wrote more sentences, the sentences were shorter. The number of words per sentence declined significantly from Sample 1 to samples 3 and 4. Sample 5 showed an increase, but it was not significantly higher than samples 3 and 4, and it did not reach the number of words per sentence from the first sample. In addition, as the length of their sentences became shorter, the number of errors per sentence showed no significant change (see Table 44).

Consistent with the number of sentences, the number of clauses in the control group increased significantly from Sample 1 to Sample 4 (see Table 16), but the number of words per sentence decreased creating more, but shorter sentences. The complexity of their sentences was compromised by the fact that the number of clauses per sentence was significantly lower in samples 4 and 5 than in samples 1 and 2 (see table 20).

Though both groups increased in the number of clauses, there was no significant difference between the groups during Sample 1 or Sample 5. The control group went from

12.57 to 13.72. The treatment group increased from 12.27 to 13.44.

Regarding the number of clauses per sentence, there was no significant difference between the control and treatment group at Sample 1. Then, the control group decreased from 1.58 in Sample 1, to 1.41 in Sample 5. The treatment group increased the clauses per sentence from 1.49 to 1.64. The difference between the control and treatment group was found to be significant by Sample 5.

This same decrease in complex or compound sentences was also seen in national writing assessments from 1984 though 1996 in eighth and eleventh grade writers (Campbell, Voelkl, & Donahue, 1997). Yet only the control group followed this trend of showing a decrease in the number of clauses per sentence. The treatment group not only neglected to follow the trend, but actually showed an increase in the complexity of their sentences.

Errors

Spelling and word-use errors

The number of spelling errors increased for the control group, while the treatment group showed a decrease in spelling errors. The mean gain score was significantly different between the two groups.

Spelling errors decreased for the treatment group from 6.90 in Sample 1 to 4.98 in Sample 5. The control group's errors increased from 5.90 in Sample 1 to 6.59 in Sample 5, showing a significant difference between the groups.

The number of spelling errors in the treatment group decreased from Samples 1 and 2 to Sample 5, from 6.92 errors in Sample 2, to 4.98 errors in Sample 5, a difference of nearly 2 spelling errors per writing sample (see Table 8). However, the range of spelling errors for the control group increased from 6.13 in Sample 1, to 6.78 in Sample 2. The change in spelling errors was not found to be statistically significant within either group.

The mean gain score for word-use errors was significantly different between the control and treatment group. The control group showed an increase in the mean gain score, while the treatment group showed a decrease.

Word-use errors in Sample 1 were not significantly different between the groups. From Sample 1 to Sample 5 the control group went from 1.71 word use errors to 2.75. The treatment group decreased their errors from 2.24 to 1.41. By Sample 5 there was a significant difference between the groups.

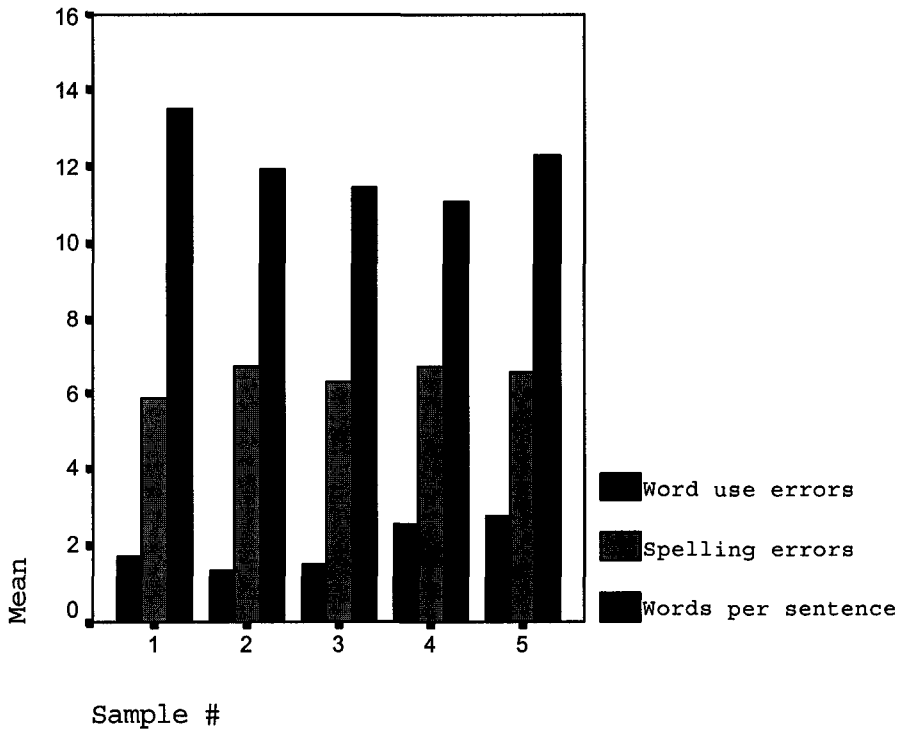

Figure 3. Control group - mean spelling errors and word use errors are shown in comparison to mean words per sentence written for consecutive writing samples.

Figure 3 more clearly illustrates that while the control group showed a decrease in the length of sentences, spelling errors and word-use errors increased. Although from Sample 1 to Sample 2 there was a decrease in word-use errors, there were consecutive increases in Samples 3 through 5.

In contrast, however, the treatment group results were opposite that of the control group. While the number of

words per sentence increased, spelling errors decreased, as was the general trend for word use errors.

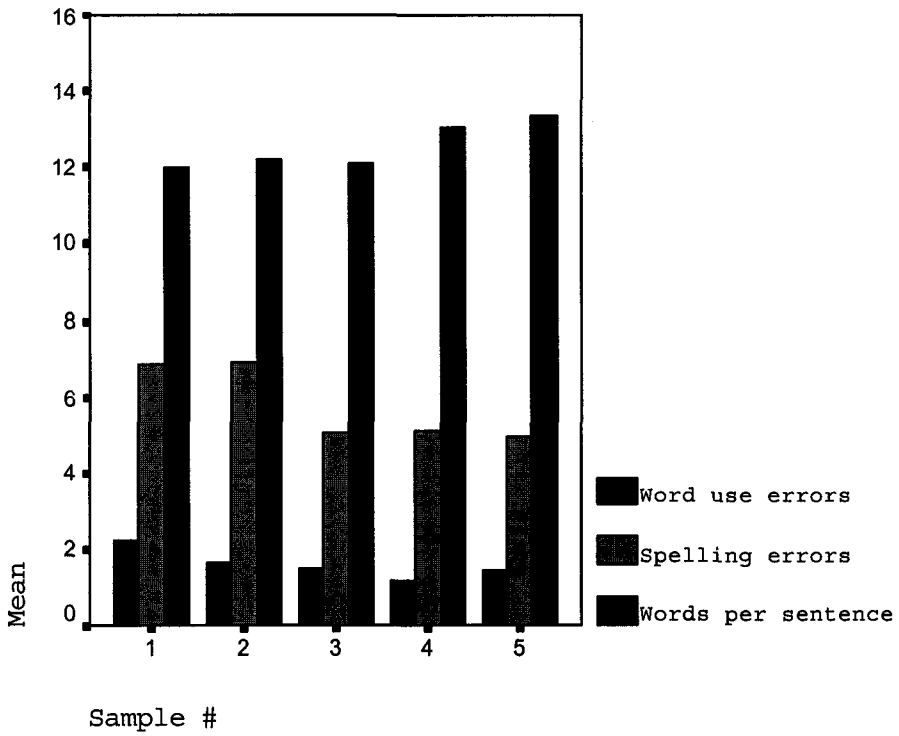

Figure 4. Treatment group - mean spelling errors and word use errors are shown in comparison to mean words per sentence written for consecutive writing samples.

Figure 4 shows that word-use errors in the treatment group made a significant decrease over time. In contrast there was a significant increase in word-use errors detected in the control group.

The 1996 National Assessment of Education Progress (NAEP) 1996 Trends in Academic Progress reported that from 1984 to 1996 there was a significant increase in the

percentage of incorrect word choice for fourth grade writers (Campbell, Voelkl, & Donahue, 1997). The students in the control group seemed to have followed this trend. However, students in the treatment group did not follow the national trend, but in fact significantly decreased their errors in word use.

Punctuation and Capitalization Errors

Punctuation and capitalization errors showed significant changes in and between the treatment and control groups. The mean gain score illustrated an increase in punctuation errors for the control group and a decrease in punctuation errors for the treatment group, showing a significant difference between the two groups. The differences between the groups for punctuation errors were found to be significant for both Sample 1 and Sample 5. The control group showed an increase in errors from 5.90 in Sample 1, to 8.49 in Sample 5. The treatment group began with 9.30 errors in Sample 1, and decreased to 4.38 in Sample 5.

There was also a significant difference between the control group and treatment group mean gain scores for capitalization errors. The control group increased errors, while the treatment group decreased capitalization errors.

During Sample 1 there was a significant difference between the groups in capitalization errors. The control group had 3.13 errors, while the treatment group made 7.87 errors. By Sample 5, however, the control group had increased to 5.93 errors, while the treatment group had decreased to 3.86. The differences between the groups by Sample 5 were no longer significant.

Figure 5 shows that the control group punctuation and capitalization errors significantly increased as the number of sentences increased (see Table 9).

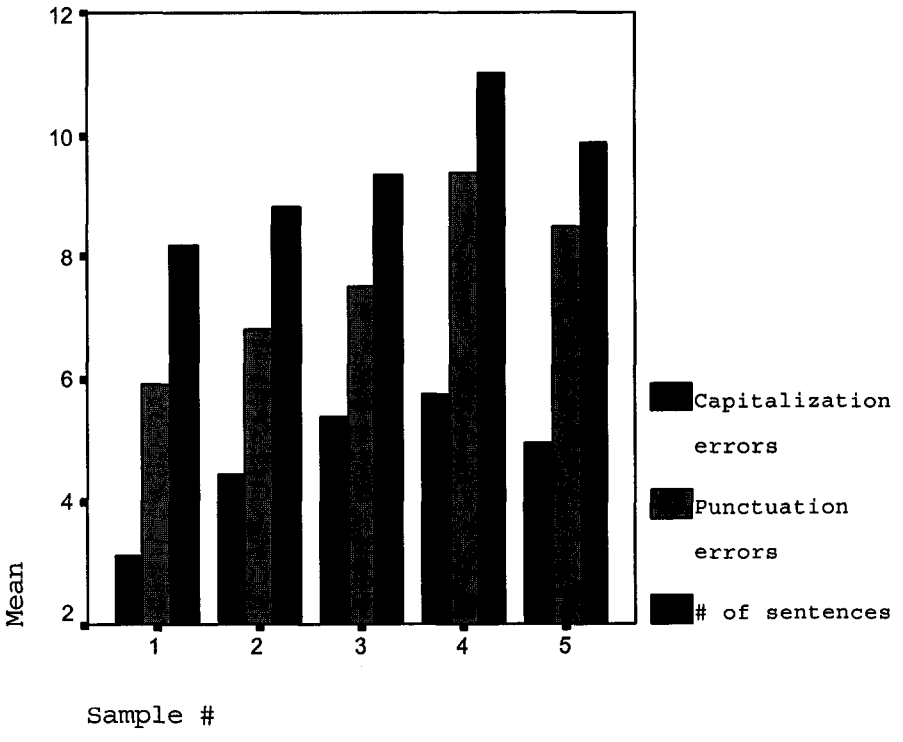

Figure 5. Control group - mean punctuation and capitalization errors compared to number of sentences written for each writing sample.

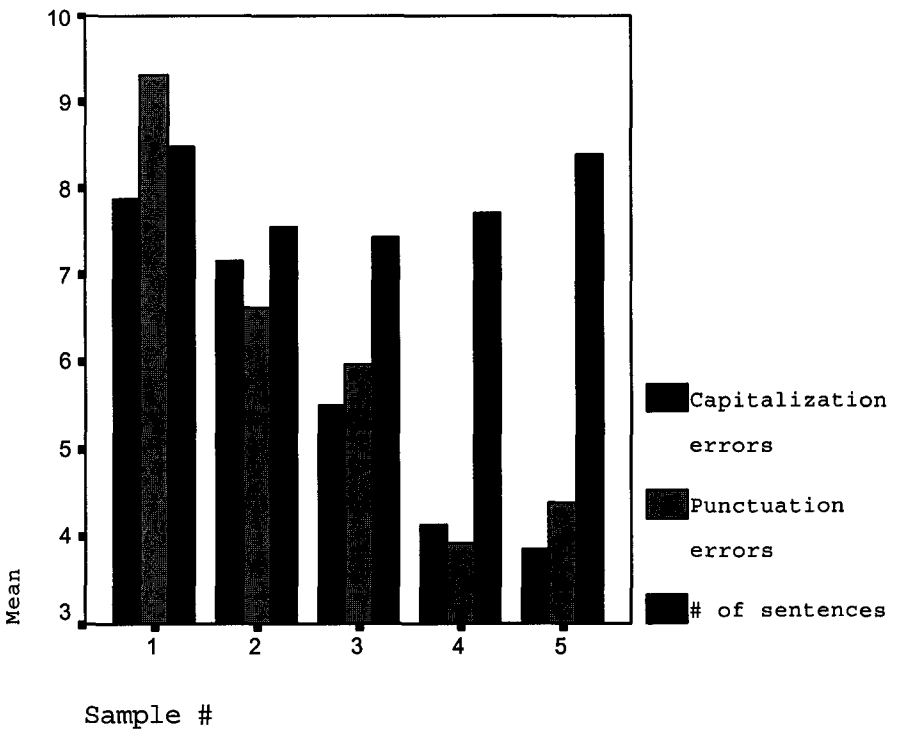

Figure 6. Treatment group - mean punctuation and capitalization errors compared to number of sentences written for each writing sample.

Conversely, however, Figure 6 illustrates that errors decreased over time in the treatment group (see Table 10), even as words per sentence and clauses per sentence increased.

Capitalization errors also showed a significant decrease within the treatment group, but a significant increase in the control group (see Tables 11 and 12). With each writing sample the treatment group made fewer

capitalization errors, even though their sentence complexity and words per sentence was increasing.

While the treatment group showed a significant decrease, the control group presented a significant increase in capitalization errors. As the control group increased the number of words and number of sentences, there was also an increase in the number of punctuation and capitalization errors.

Total Errors

Total errors were significantly different between groups in Sample 1 and Sample 5. The differences, though, once again were reversed as the control group increased the number of errors from 16.66 to 23.77, and the treatment group decreased their number of errors from 26.32 to 14.63.

The total number of errors per writing sample revealed a significant decrease in the treatment group (see Table 39). There was a change from a mean of 26.32 errors in the first sample, to 14.64 errors in the fifth sample. In addition, the errors per sentence were significantly less between Sample 1 and Sample 5 (see Table 43). Taking into consideration that the errors per sentence decreased, while the words per sentence increased, this seems to indicate a greater command of the skills required to write effectively.

On these same measures, the total number of errors for the control group were significantly higher in Samples 4 and 5 than the number of errors in Sample 1. The mean total errors for Sample 1 were 16.66, even as the students produced their highest number of words per sentence (see Table 12) during Sample 1. Yet, by Sample 5 the total errors was 23.77, an increase of over 7 errors, having increased the number of words from Sample 1 by approximately 12 words (see Table 3).

Errors per Sentence

Errors per sentence is another example of the differences between the groups being significant in both Sample 1 and Sample 5, but the control group increased it's errors from 2.31 to 2.57, while the treatment group decreased the errors per sentence from 3.12 to 1.88.

The control group decreased in words per sentence from 13.52 to 12.31, and the treatment group increased from 11.95 to 13.37. Although the difference was significant at Sample 1, by Sample 5 there was no significant difference.

Holistic Writing Scores

In addition to the analytic scoring of the five writing samples, pre- and post-assessments were conducted using the school district's writing assessment that is scored using a holistic 4-point rubric (see Appendix C and

D). The writing assessment given at the end of the first trimester was used as the pre-assessment. The writing assessment given at the end of the second trimester was used for post-assessment.

Table 46 shows that both the treatment group and control group scored higher on each of the measures (applications, strategies, conventions) during the second trimester assessment. The mean gain score was significantly higher for the treatment group in all three measures signifying that the treatment group made greater improvement than the control group.

Table 46

District Writing Assessments - Group differences

			N	Mean Gain Score	t	p
Applications-	pre/post	Control	58	.07		
		Treatment	60	.53	-4.17***	.000
Strategies -	pre/post	Control	58	.19		
		Treatment	60	.73	-4.67***	.000
Conventions -	pre/post	Control	58	.09		
		Treatment	60	.45	-4.25***	.000

***p < .001.

An Independent-Samples t-test was used to determine if there were any differences between the groups. The students were given scores in three different areas. The first score is writing applications. This indicates how well the student communicates their thoughts. Writing strategies has to do with a student's ability to demonstrate an awareness

of audience and show clear and effective organization. The score for writing conventions is where all grammar, punctuation, spelling, and word usage is assessed.

For the pre-assessment there were significant differences indicated between the groups in the areas of writing applications and writing strategies(see Table 47). There was however, no significant difference between the control and treatment groups in the conventions category.

The post-assessment showed there was still a significant difference between the control and treatment groups in the area of applications. There was, however, no longer a significant difference in the area of strategies. The treatment group scored higher than the control group in conventions, yet there was no significant difference between the two groups.

Table 47

District writing pre- and post-assessment

		N	Mean	*t*	*p*
Applications -pre	Control	58	2.71		
	Treatment	60	1.92	7.85***	.000
Applications- post	Control	58	2.78		
	Treatment	60	2.45	3.44**	.001
Strategies - pre	Control	58	2.47		
	Treatment	60	1.73	6.05***	.000
Strategies - post	Control	58	2.66		
	Treatment	60	2.47	1.89	.061
Conventions - pre	Control	58	2.16		
	Treatment	60	1.95	1.88	.073
Conventions - post	Control	58	2.24		
	Treatment	60	2.40	-1.45	.149

**p < .01. ***p < .001.

The mean for each rubric score for the control group is represented in Table 48. The control group showed a significant increase only in the area of writing strategies. Though there was some improvement in the areas of applications and conventions, they were not were not significant.

Table 48.

District Writing Assessments - Control Group

		N	Mean	*t*	*p*
Applications	(pre)	58	2.71		
Applications	(post)	58	2.78	-1.00	.322
Strategies	(pre)	58	2.47		
Strategies	(post)	58	2.66	-6.11*	.015
Conventions	(pre)	58	2.16		
Conventions	(post)	58	2.24	-1.93	.058

*p < .05.

Table 49 shows that the students who received explicit writing instruction demonstrated significant gains in all measures of the district writing assessment.

Table 49.

District Writing Assessments - Treatment group

		N	Mean	*t*	*p*
Applications	(pre)	60	1.92		
Applications	(post)	60	2.45	-6.11***	.000
Strategies	(pre)	60	1.73		
Strategies	(post)	60	2.47	-8.29***	.000
Conventions	(pre)	60	1.95		
Conventions	(post)	60	2.40	-6.17***	.000

***p < .001.

To summarize the data from the district writing assessments, Figures 7 and 8 graphically illustrates the

growth that was made by the control group in contrast to the growth achieved by the treatment group.

The treatment group's pre-assessment scores were much lower than the control group in all measures; however, by the post-assessment only writing applications was still significantly different. Writing conventions did not show a significant difference between the two groups, it should be noted that the treatment post-assessment scores for writing conventions surpassed those of the control group.

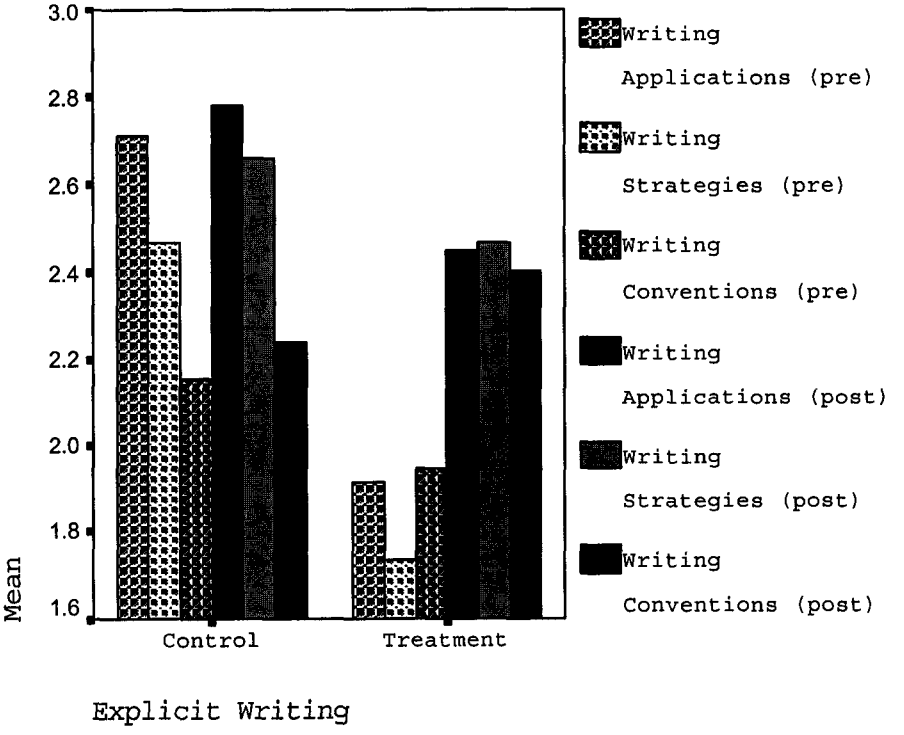

Figure 7. Changes in each group for pre- and post-assessment scores on the district writing assessment.

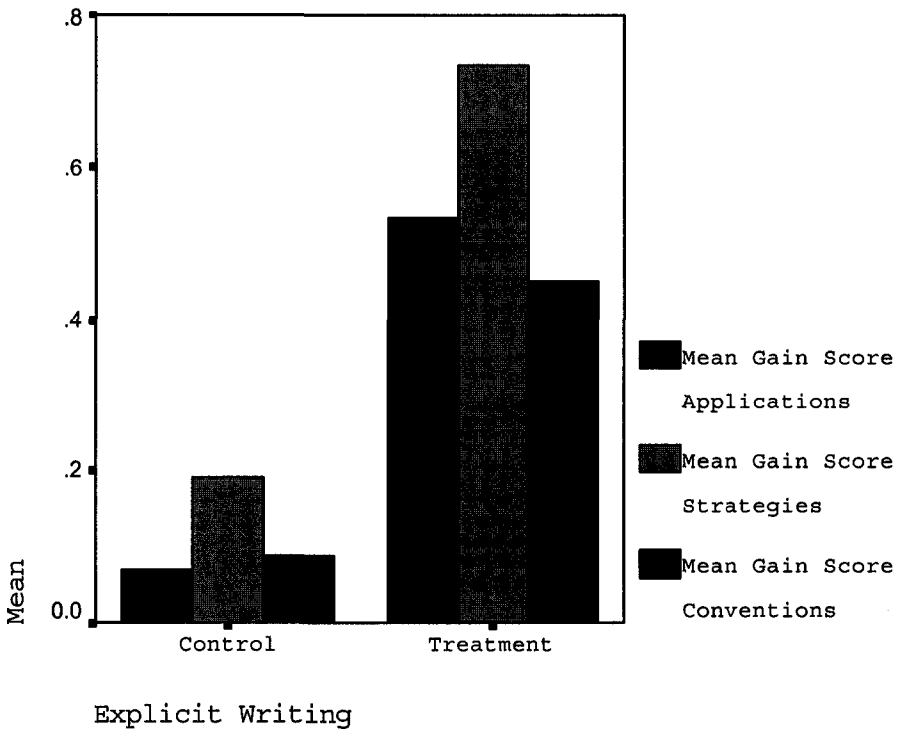

Figure 8. Growth made in each area of the district writing assessment.

Reading assessment

Table 50 shows that both the control group and the treatment group had made gains in their reading lexile scores. Though the treatment group made more of a gain than the control group, there was not a significant difference between the two groups.

Table 50

Read 180 - Between group differences

	N	Mean Gain Score	*t*	*p*
Control	18	92.28		
Treatment	27	126.85		
			-.81	.424

At the beginning and the end of the study the lexile scores for the control group were significantly higher than the treatment group as shown in Table 51.

Table 51

Read 180 - Differences between pre- and post-assessment

		N	Mean	*t*	*p*
Sample 1	Control	18	645.89		
	Treatment	27	421.11	4.02***	.000
Sample 5	Control	18	738.17		
	Treatment	27	547.96	4.04***	.000

***p < .001.

There was a significant difference between the treatment group and control group's lexile scores for November and March from the students in the Read 180 reading intervention program. Although both groups made significant increases, the students in the control group produced significantly higher lexile scores in November and in March than the treatment group. The treatment group, however, showed a mean increase of 126.85 on their lexile scores from November to March, while the control group increased 92.27, yet the difference between the mean gain scores was not significant.

There was no significant difference between the mean gain scores of the treatment and control groups. Unable to demonstrate that there was a correlation between the writing instruction and an increase in reading scores, this study fails to reject the null hypothesis.

Conclusion

Explicit writing instruction positively affected writing performance for the treatment group. Results of this study indicated statistically significant differences between the treatment and control groups in number of sentences, spelling errors, punctuation errors, capitalization errors, word-use errors, total errors, errors per sentence, words per sentence, and clauses per sentence. Additionally, in the general impression scores of the holistic writing assessments, the treatment group made significant gains.

Hypothesis

There will be no difference in scores between students who receive explicit writing instruction in addition to the district writing program, compared to the scores of the students who only receive the district writing program.

Null Hypothesis - H_o: $\mu_{ewi} = \mu_{dwp}$

(ewi - explicit writing instruction)

(dwp - district writing program)

Alternate Hypothesis - H_a: $\mu_{ewi} \quad \mu_{dwp}$

There will be a difference in scores between students who receive explicit writing instruction in addition to the district writing program, to the scores of the students who only receive the district writing program.

In a between groups measurement of the differences between Sample 1 and Sample 5, mean gain scores were calculated. These mean gain scores showed the treatment group made significant improvements over the control group in eight of the eleven variables measured. Table 52 details the improvements shown in these areas.

Table 52

Between group differences at Samples 1 and 5

		N	Mean Gain Score	t	p
Spelling errors	Control	61	.69		
	Treatment	63	-1.92	2.98**	.003
Punctuation errors	Control	61	2.59		
	Treatment	63	-4.92	7.54***	.000
Capitalization errors	Control	61	1.82		
	Treatment	63	-4.06	5.59***	.000
Word-use errors	Control	61	1.03		
	Treatment	63	-.83	3.36**	.001
Total errors	Control	61	6.13		
	Treatment	63	-11.52	8.34***	.000
Errors per sentence	Control	61	.14		
	Treatment	63	-1.25	5.90***	.000
Words per sentence	Control	61	-1.21		
	Treatment	63	1.42	-3.31**	.001
Clauses per sentence	Control	61	-.17		
	Treatment	63	.15	-4.77***	.000

**p < .01. ***p < .001.

The treatment group showed a slight, though not significant, decrease in the number of sentences. However, as the control group increased while the treatment group decreased, there was a significant difference in the gain between the groups as shown in Table 53. This was the only

measure where the control group showed a significant desired increase and the treatment group did not.

Table 53

Between group differences at Samples 1 and 5

Number of sentences	Control	61	1.69		
	Treatment	63	-.08	2.87**	.005

**p < .01.

Table 54 shows students within the treatment group and the control group made significant increases in fluency, but these gains were the same for each group; therefore, the mean gain was not significant. The number of clauses does not show a significant difference between the two groups, though it should be noted that that gain within the treatment group was significant; however, the control group did not show a significant gain.

Table 54

Between group differences at Samples 1 and 5

Fluency	Control	61	11.23		
	Treatment	63	12.41	-.29	.774
Number of clauses	Control	61	1.15		
	Treatment	63	1.17	.04	.972

The treatment group achieved significantly improved scores when compared to the control group in nine of eleven measures. In those nine measures the treatment group showed significant improvements within the treatment group. Based on these results, the null hypothesis was rejected.

Chapter 5

Discussion

The purpose of this research was to determine the differences in reading and writing between students who received explicit writing instruction and students who did not.

Writing samples were collected from sixth grade classes at two elementary schools. The two elementary schools were very similar in student population and location. Both elementary schools were within the same low-socioeconomic neighborhood and were designated as school-wide Title I. Approximately 65 percent of the students at each school were English Language Learners. The teacher of the treatment group had been teaching for 15 years, though this was her first year teaching sixth grade. Of the teachers at the control school, one had been teaching for four years and the other for six years, all at the sixth grade level.

Five-minute writing samples were collected at the beginning of November, then once a month through March. These writing samples were scored analytically counting the number of words, sentences, and clauses the students wrote in five minutes. Errors in spelling, punctuation, capitalization, and word-use were also counted.

The school district's writing assessments were used as an additional pre- and post-assessment measure. These longer writing samples were scored holistically using a rubric (see Appendix C and D).

Writing samples were collected, scored, and the information was put into a data set using SPSS software. Analysis of Variance (ANOVA), Ryan-Einot-Gabriel-Welsch F (R-E-G-W F) post hoc tests, paired samples t-tests, and independent samples t-tests were used to analyze the data.

An analysis of pre and post lexile scores was used to show the reading achievement for those students in the Read 180 reading intervention program.

The treatment group showed growth that was significantly different from the control group in the areas of punctuation errors, capitalization errors, spelling errors, word-use errors, total errors (punctuation, spelling, word-use, and capitalization), errors per sentence, clauses per sentence, and words per sentence. Although the improvements in fluency and number of clauses were not significantly different between the treatment and control group, there were improvements.

At the beginning of the study, the scores from the control group showed they were starting on a higher level than those students in the treatment group. The control

group wrote more words, more words per sentence, and more clauses per sentence than the treatment group. The control group also made fewer spelling, punctuation, capitalization, and word-use errors than the treatment group. The control group also had higher scores than the treatment group on the district writing assessment as well as the Read 180 lexile scores. As the demographics for both schools are very similar, the difference in initial scores was unexpected. Both schools are in a low-socioeconomic area, both schools are designated as school-wide Title I, and the majority of students are English Language Learners, yet the students from the control school started with more favorable scores at the beginning of the research.

By the end of the study, however, the treatment group made significant gains, and the control group actually posted lower scores than at the beginning of the study. The control group was writing more sentences, but they were shorter by Sample 5 than they were at Sample 1. They were also writing fewer clauses per sentence showing less complexity. In addition, in all error measures the control group made more errors at the end of the study than at the beginning. It was surprising that not only did the treatment group make significant gains in skills and ability, the control group showed a loss.

Figure 9 shows a summary of the analytic data. The importance of the fluency measure is how the other variables relate to it. For example, while the number of sentences decreased for the treatment group, fluency increased showing growth in words per sentence. This together with an increase in clauses and clauses per sentence shows improvement in sentence complexity.

Variable	Results
Fluency	• Treatment and control groups showed significant increase • Samples 4 and 5 were best for both groups • No difference in gain between groups as both groups made gains.
Number of Sentences	• Treatment group showed slight decrease • Control group increased significantly • Control group showed a significantly higher mean gain score.
Words per sentence	• Treatment group increased significantly • Control group decreased • Treatment group showed a significantly higher mean gain score.
Number of clauses	• Treatment group increased significantly • Control group increased • No difference in gain between groups as both groups made gains.
Clauses per sentence	• Treatment group increased significantly • Control group decreased significantly • Treatment group showed a significantly higher mean gain score.

Figure 9. Analytic data of fluency and sentences.

Conversely, the control group increased in fluency, the number of sentences, and the number of clauses. This created a decrease in the words per sentence and clauses per sentence. In essence, the control group was writing shorter less complex sentences by the end of the research.

The NAEP 1996 Trends in Writing: Fluency and Writing Conventions documented the same decrease in complexity as seen in the control group. The report showed that from 1984 to 1996 the percentage of complex or compound sentences show a decrease from 54.8 to 52.0 for fourth grade students, though this decrease was not significant. Eighth grade students decreased significantly from 49.8 in 1984 to 44.8 in 1996. There was also a significant decrease for eleventh grade students from 52.4 to 44.0.

The role of intentional instruction seems to mitigate against these national trends in students' writing achievement. While control group students' showed a decrease in important writing skills of increasing maturity and decreasing errors in conventional use of written language, students in the treatment group showed an increase in measures of increasing maturity and decreasing errors. This is even more noteworthy because of the nature of student demographics. Students in the sample of this research are often referred to as at-risk. Both schools are

in a low-socioeconomic area, both schools are designated as school-wide Title I, and the majority of students are English Language Learners.

Variable	Results
Spelling errors	• Treatment group decreased significantly • Control group increased • Gain scores showed significant difference
Punctuation errors	• Treatment group decreased significantly • Control group increased significantly • Gain scores showed significant difference
Capitalization errors	• Treatment group decreased significantly • Control group increased significantly • Gain scores showed significant difference
Word-use errors	• Treatment group decreased significantly • Control group increased significantly • Gain scores showed significant difference
Total errors	• Treatment group decreased significantly • Control group increased significantly • Gain scores showed significant difference
Errors per sentence	• Treatment group decreased significantly • Control group increased • Gain scores showed significant difference

Figure 10. Analytic data for all errors

Figure 10 shows a summary of data for all the errors measured. In all measures the treatment group made fewer errors than the control group by Sample 5. As complexity decreased for the control group, error rates increased.

The improvement shown in spelling errors for the treatment group was significant. The mean number of spelling errors dropped from 6.90 in Sample 1, to 4.98 in Sample 5, and the same trend was seen in other measurements of students' writing. It is when students are putting words on paper that they are most aware of the recurring exclusive nature of language and spelling (Clay, 2001). As students were able to practice and use other conventions more routinely, increased attention could be given to their spelling.

Throughout the explicit writing instruction, students were given the opportunity to practice and acquire skills through an increasingly consistent use of writing conventions. The first months of instruction focused on punctuation and capitalization, and significant gains were made in both areas during that same time period. Not only were significant gains made at the beginning, but these gains were retained and continued through the end of the research period. This is important because it speaks to the purpose for developing the use of writing conventions to a

level that makes them nearly automatic. "Young writers, for example, must achieve sufficient automaticity that they can deliberately focus on the point of the message they're constructing while their sentence writing, paragraph organizing, punctuating, spelling, and word finding skills occur virtually automatically" (Fearn & Farnan, 2001, p. 28). It can be argued that because so many other facets of students' writing were becoming "automatic," they were able to devote attention and show improvements in other areas such as spelling and word-use.

As an example of how the students' writing changed over time, the following are writing Sample 1 and Sample 5 of one student in the treatment group. Sample 1 included 120 words with 48 errors.

> I one That I liked was with my Family because you can't lose till like About 18 And up or maybe higher because SoMe one is going to have to do your or Read you babybe. That's All The Reason's you might need A Family because you can't do Any thing with out them. I Also liked A little bit of The Friend's hanging out whith your Friend's is Fun you get to play outside And play checkers An have Fun when your bored. iF you have A Friend it makes you Feel happy And That's what I like About Friends is That AT least have one Friend

on your side. The other one I liked is going to mountains (Sample 1)

After four months of explicit writing instruction the same student wrote the following for Sample 5. This sample contained 114 words with 12 errors.

My favorite person is my dad. He's always nice to me and I'm always nice to him. He never grounds me he Just says that you won't do that again. Sometimes my dad gives me money For lunch but I bearly need it because my mom is the one that writes a check for me. They let me go play but only iF I do my chores and listen to them about strangers. My other Favorite person is my teacher. She teaches us lots oF stuff. She's very nice and looks great in light colors like her yellow skirt and Dress. She tries hard to teach us to become smart, and go to college. (Sample 5)

This student's writing is becoming more focused, more complex, and more precise. Though the fluency dropped slightly, the number of errors dropped dramatically.

Concerning the initial drop in fluency from Sample 1 to Samples 2 and 3, one can speculate that the students slowed down to give more thought to the conventions of their writing until their use became more automatic. Their focus changed from simply writing as many words as

possible, to writing *as much as they could, as well as they could*. Even though their fluency did not exceed their first sample until the fifth sample, the number of errors became consistently fewer over time.

In the same way, while the students in the treatment group slowed down to write more carefully, the number of clauses decreased from Sample 1 to Sample 2, then slowly increased until they finally wrote the most clauses in Sample 5. However, the number of clauses per sentence, representing complex sentence structure, showed a steady increase from Samples 1 and 2, through Sample 5. This coupled with the steady decrease in errors per sentence is strong evidence of improvement of the students' ability to manage their writing.

Why This Study Matters

It is clear that direct, explicit writing instruction substantially improved the skills students used during writing. These findings about explicit writing instruction are important considering current political climate created by President Bush's No Child Left Behind Act of 2001. The call for "research based" curriculum and instruction heightens the urgency for teachers to identify instructional practices that meet the requirements for the

State's standards, in addition to addressing the specific learning needs of all students.

This research shows that direct, explicit writing instruction caused students to reduce the number of errors without sacrificing fluency. In this study, the treatment group significantly decreased the number or errors in spelling, punctuation, capitalization, and word-use. At the same time the control group showed a significant increase in errors in punctuation, capitalization, and word-use as the fluency increased.

The treatment group also showed a significant increase between pre- and post-assessment scores in all three areas (applications, strategies, conventions) as measured by the district holistic writing assessment. The control group showed a significant increase only in the area of strategies.

During the process of analyzing and reporting this research, I often found myself asking, "Why doesn't everyone know this?" Moreover, I engaged in self-reflection wondering, "Why didn't I know this?" This leads to the question of whether there are adequate course requirements within teacher preparation programs providing effective instruction about how to teach writing. The College Board (2003) related that few states even require

courses in how to teach writing for certification, even for elementary school teachers. "All prospective teachers, no matter their discipline, should be provided with courses in how to teach writing" (p. 3).

Surprisingly, the National Center for Education Statistics (NCES) has information on writing dating back only to 1998 using the current writing assessments. Prior to 1998, data on writing were collected for 12 years between 1984 and 1996. This is a relatively short amount of time devoted to data collection compared to mathematics, for which data were collected since 1973; reading, since 1971; and science, from 1969. Clearly, research on writing is relatively new compared with other academic subject areas. Realizing the importance of writing and the need for research to inform instruction, I am filled with a sense of urgency.

It is important for students to learn to write well. This is reflected by The College Board:

> If students are to make knowledge their own, they must struggle with the details, wrestle with the facts, and rework raw information and dimly understood concepts into language they can communicate with someone else. In short, if students are to learn, they must write. (p. 9)

There are many reasons students need to be confident, competent writers. For example, students today are being educated to be successful in jobs that have not even been imagined yet. As computers become increasingly common in all aspects of life from home to work, the ability to write well can no longer be assumed to be the domain of the gifted writer, but a necessity for communication. Writing "is also the currency of the new workplace and global economy where it often has to be produced instantly and effectively" (National Writing Project, 2002).

Some people tend to perceive technological advances as replacements for basic academic skills. For example, many people rely on calculators when balancing checkbooks and performing other regular mathematical tasks. However, there has been a constant, if not increasing, need to write well with the prevalence of communication via email. Many conversations conducted by telephone in the past are now performed in writing on a computer.

Not only from a technology standpoint, but from the perspective of basic daily functioning, people need to be able to write and communicate their thoughts clearly. There are applications for employment and college admission that require clear and concise written communication. Jobs in the fields of advertising, print media, speech writing,

theater, music, and technical writing for instruction manuals, all require the ability to write. Even the fields that have traditionally been more science or math oriented "like engineering emphasize the written materials, such as proposals and interim and final reports, that are essential by-products of technical work" (The College Board, 2003, p. 11).

Teaching students how to write, teaching them how to use conventions accurately, and enabling comprehensible written communication should be a high priority goal for education. Students who received explicit writing instruction for four months showed a significant decrease in all measurements of errors and significant gains in all measurements of the holistic writing assessment. To communicate through written language demands the ability to be able to write relatively error-free. Students in the treatment group showed a significant decrease in errors in spelling, punctuation, capitalization, and word-use.

Implications

This research has many implications even beyond those made clear by the statistical analysis. Initially, analyzing data to find statistical significance was the primary intent of this research. It did not take long to recognize that there were other benefits to teaching

writing through explicit instruction. The careful assessment and analysis of students' writing shows the teacher specifically what the students' needs are as well as focusing the students on aspects of writing that they can be working on.

Some change was immediately evident. For example, one reason for the dramatic change in punctuation errors for the treatment group from Sample 1 to Sample 2 might be due to the fact that the first direct writing lessons focused on punctuation. The numbers show that the treatment group's punctuation errors continued to decrease, demonstrating the conventions of punctuation becoming more automatic as students continue to practice and acquire new writing skills.

Instructional Process

Oral component

As students learned a new concept, they would first practice the writing orally. Creating the sentence first mentally, then sharing with peers sitting beside them or with the whole class. The oral component of the explicit writing instruction was purposeful.

Students were able to hear sentences modeled correctly before attempting to write them on paper. This was especially helpful to the English Language Learners as they

could hear the language and how it was constructed. Language learning is an oral phenomenon, and written language has a sound that proficient writers hear as they write. Only through oral input can students become increasingly proficient at developing a sense of sentence by hearing the sounds of sentences.

Also, the teacher was able to observe mastery or misunderstandings before practice became permanent. Before the students wrote their sentences, the teacher was able to listen to the sentences being offered as examples. Even as students shared their sentences orally with a partner, the teacher was able to circulate through the classroom to proved immediate input and feedback to students as they orally articulated their sentences.

Finally, when the students had finished practicing their sentences, they were able to write what they had already practiced orally, allowing them to concentrate on the skills or conventions they were learning.

Engagement/focus

During explicit writing instruction, students focused on writing. This occurred within the context of students' own writing. Their attention was focused on learning to become increasingly effective writers in the process of writing, rather than through the process of working with

text written by someone else. The application of the learning in the context of what is being learned (i.e., writing skill development) helped to focus students cognitively on what they were learning.

This study shows that students actively focused their cognitive attention during explicit writing lessons, and in so doing significantly reduced the number of errors they made in their writing.

Transient Populations

One important benefit of this study was to observe the improvements among individual students and the classroom as a whole that could be made in four months. This type of instruction was beneficial even in classrooms that have transient populations. Of the initial 70 writing samples obtained at the beginning of the research from the treatment group, four months later only 63 of the original 70 students completed the final writing sample. A cursory look at the number of participants suggests there was only a difference of seven students, but upon closer examination, student Samples 2, 3, and 4 revealed that the population was not stable and that several students arrived and left during the four months. There were students who turned in two or three writing samples, but were not in attendance from November to March.

It is important for teachers to understand that students' writing growth improved even with the high mobility rate of the classrooms. For teachers who work with mobile populations, this is an important implication. With daily explicit writing instruction, in the model proposed in this study, students are able to join a class and participate in the writing instruction at their level of writing from their first day in the classroom. The writing lessons are designed so students are writing sentences and learning from their own writing.

The teacher observes and assesses the students' writing, even on the first day, and knows what instruction each student needs. Students who have been receiving the explicit instruction are able to continue with their progress without being hindered by the teacher having to get the new students "caught up."

Such an environment focuses attention on individual students' needs rather than a "one-size-fits-all" method. This approach honors students' abilities and can instill a sense of confidence when individuals experience meaningful growth at their own pace. Intentional, explicit writing instruction uses what the student knows, and allows subsequent assessments to direct the instruction based on student needs.

Implications - transient populations

Because some measures showed significant improvements within one or two months, the study reinforces the need for daily explicit writing instruction. This keeps the students who have been in the classroom progressing in their writing skills and gives the new student a feeling of accomplishment by being able to successfully participate in classroom discussions and lessons on his/her first day. As students write their own sentences during lessons, everyone is able to participate by sharing what they wrote and learning from those who share. Through the analytic assessment of a five-minute writing sample, a teacher does not have to wait to collect data on a new student. A teacher is able to assess specific student needs from the beginning.

Conventions Need To Be Automatic

As evidenced by the improvements the treatment group made on the holistically scored district writing prompt, the fact that the use of writing conventions was more automatic to the students made it possible for them to pay more attention to what they wanted to write. According to Fearn and Farnan (2001), "Young writers, for example, must achieve sufficient automaticity that they can deliberately focus on the point of the message they are constructing

while their sentence writing, paragraph organizing, punctuating, spelling and word finding skills occur virtually automatically" (Fearn & Farnan, 2001, p. 29). The importance of automaticity in reading has been acknowledged through research and practice (Clay, 1991; Fountas & Pinnell, 2001). Likewise, the awareness of automaticity as a necessary component of effective writing is a relatively new concept, and definitely worth further investigation.

Implications - conventions

When it comes to allowing students time to write, "in spite of what everyone says, practice does not make perfect; instead, practice makes permanent" (Fearn & Farnan, 2001, p.41). Teachers must make sure that what the students are producing is correct; if it is not, the teacher must correct it by teaching before it becomes automatic. Any time students are writing, whether it is during explicit writing instruction or writing for another purpose, the teacher must be actively teaching and assessing students' writing to insure that students do not develop incorrect writing habits.

Students need to be provided with several opportunities to write during the day. Like practicing to drive, it takes some time to stop looking directly in front

of the car, and to look beyond the bend in the road. As soon as a few skills become automatic, one no longer has to think about every detail involved with operating a vehicle. So it is with students' writing. When the correct use of conventions becomes automatic, they can think about the message or meaning they want to convey and the direction they want their writing to go.

Students not only learn what they pay attention to, but they also learn what the teacher pays attention to. When students see that writing is a daily part of classroom instruction, its importance is valued. Moreover, through teachers' explicit attention to and modeling of correct conventions, students can also learn to value the importance of correct conventions.

Student Needs

As data were kept for each student during analytic scoring in this study, the specific writing problems students were experiencing quickly became evident. By assessing writing using such distinct factors as capitalization, punctuation, spelling, and word use, individual needs were exposed.

It is important to point out that the writing instruction in the treatment group was driven by the students' needs. Starting with the initial five-minute

writing assessment, individual student needs were addressed. During subsequent writing instruction the correction of specific problems was monitored. For example, it was noted during the analytic scoring of the first writing sample that one student insisted on writing a capital "J" anytime a "J" was required. An example of what this student wrote is, "…and the big people Just start talking." It did not matter if it was in the middle of a word, or the middle of a sentence, only a capital "J" was used.

During the next explicit writing lesson, the same student used a capital "J" while writing "I'll Just go to the mall." So it was carefully and quietly pointed out to the student that there is no need for a capital "J" in this word, and to write a lower case "j". Upon a second pass by the student's desk it was noticed that the student had erased the capital J, but had not yet written it in lower case. Finally realizing the dilemma the student (a sixth grader) was in, the researcher discreetly wrote a lower case "j" on the top of the paper, and the student was able to copy it.

This research showed that by discovering the incorrect habits that students were already making, it was possible to directly and explicitly teach them the correct writing

conventions. In addition, teaching new conventions as they used their new knowledge by producing their own writing made the correct use of the convention more concrete and automatic. For example, during the lesson for learning how to use commas in a series, students are able to write their own sentences putting words in a series that are relevant to them. For young writers to improve and acquire new skills, they need to be able to rely on their own knowledge, ability, desire, and self-regulation (Hayes & Flower, 1986; Scardamalia & Bereiter, 1986).

Implications - student needs

It is imperative that a teacher is aware of the writing conventions their students are and are not using correctly. From the first writing sample the teacher knows at what levels of expertise each student is writing and those characteristics of writing students need assistance with.

For example, lessons can be planned to meet student needs during whole group or small group instruction. Even during whole group instruction the teacher has time to walk from student to student looking at their writing, and watching for the development of specific skills.

A clipboard can be used to hold short notes about what the teacher may want to be watching for with each student.

Knowing that habits are hard to break, teachers want to make sure that the skills that are becoming automatic are the correct ones.

Students can also be encouraged to make notes of specific conventions to be aware of, or are trying to remedy. During independent writing and discussions during writer's workshop, students can refer to their notes to make sure they are addressing the conventions they are acquiring.

It's About Time

Teaching writing using explicit writing instruction is certainly efficient. The treatment group was involved in short engaging lessons that had the students involved and writing daily. At least once a month the students in the treatment group produced a five-minute writing sample that was used for analytic assessment. The time it took to create that writing sample was time well spent. From a five-minute investment of classroom time, there was a wealth of information to be gained about the students' writing ability, and the students themselves.

The writing sample is a brief window into students' worlds and what they are thinking. They write openly and candidly about whatever they know about the topic they have chosen. Because they only have five minutes to write, this

does not leave them a lot of time to filter what they want to say.

If there were a concern about not being able to afford the time it takes to score the writing samples, the answer would have to be that a teacher cannot afford not to. In order to know where the students are as writers, what their instructional needs are, one must take the time to find out specifically what students need to learn. Why waste time teaching concepts and skills that they have already acquired? This research showed that by being constantly aware of the needs of the students, and focusing instruction on those needs, significant gains were made.

Implications - time

Teachers need to take time to make connections with the students. This was an unexpected benefit of this study that it was possible to learn so much about each student. Most often, students wrote about their family or their friends. One student wrote, "My favorite person is my grandma because my grandma (has) been taking care of me." Knowing that this was an unusual circumstance for this student presented an opportunity for me to communicate a message of care and concern. It was helpful to learn about special events that were happening with the students like weddings and birthdays. It was also beneficial to know

about sorrowful events like a death or divorce that may affect a student's attitude or behavior at school.

A personal connection with a teacher can often make a difference in student motivation (Furrer & Skinner, 2003). On the same clipboard with the notes about what to watch for during writing, quick notes about what the student wrote about during the five-minute writing sample can spark whole conversations. "How was the basketball game?" or "Did you get to go shopping this weekend?"

The benefits of personally acknowledging what students write about are two-fold. One advantage is that it does help to form a bond and a trust between the teacher and the student. The second benefit is it helps the student to realize the power of writing as communication.

Summary - Teachers and Administrators

One benefit of explicit writing instruction is in the short duration. Even with transient populations the students are able to join a class, participate in the writing instruction, and in a short time glean information they can use immediately.

Explicitly teaching and giving students time to practice writing correctly helps bring the proper use of conventions to a level of automaticity that frees students

to think creatively and thoughtfully about what they are trying to communicate.

Teachers simply do no have time to waste in the classroom. It is effective and efficient to use instructional time on new learning rather than on what students already know. As analytic scoring drives the instruction, teachers always know what the student has learned, and what they still need to be taught. Teaching and scaffolding students specifically at their level prevents the need for teachers to do constant proofreading and correcting because the student did not previously learn the convention.

Summary - District Curriculum Advisors

Student achievement was documented during this study. Student achievement was attained without the addition of another textbook for the students. There was not a workbook for the students to open and work in. The instruction model used in the treatment group was to have students write. Students wrote the "action words" and learned about verbs. Students wrote items in a series and learned about commas. Students wrote guided by carefully crafted intentional instruction.

The entire four months of explicit writing instruction was based on two books used by the teacher, reams of paper,

and pencils (see Fearn & Farnan, 1999). The expense was minimal considering the cost of textbook and workbook materials.

Summary - Teacher Preparation Programs

It is crucial that teacher preparation programs take the advice of the College Board (2003) that all teachers, no matter what subject they are preparing to teach, need to be ready to teach writing. This researcher has been a teacher for 15 years, yet felt unprepared to teach students how to write. One colleague shared, "Sure we do writing. We write a lot, but I don't teach it."

Conclusions

It is clear from this research that explicit writing instruction was beneficial to the students who participated in the treatment group. There were areas when the control group started higher than the treatment group, yet by the end of the research the treatment group had closed the gap. This is particularly evident in the pre and post district writing assessments. The growth made by the treatment group is significantly higher than the growth made by the control group (see Table 31). What is of concern is the data from the control group. It was obvious from the data that even though the students in the control group were writing more, writing more words, writing more sentences,

they were not writing better at the end of the four month period. In fact, in some measures, they were writing significantly worse. The control group showed an increase in the number of spelling errors, punctuation errors, capitalization errors, word use errors, total errors, and errors per sentence between sample one to sample five, while the treatment group showed a decrease in the number of these errors. The control group also showed a decrease in the number of words per sentence and clauses per sentence, while at the same time the treatment group showed an increase.

Students learn what they are taught and what they practice. If incorrect conventions are practiced over and over again, year after year, students, as in this study showed, arrive in sixth grade without knowing how to write well.

Students must be given the proper tools to become effective writers. Teachers need to teach students how to write. We need to provide students with instruction that is explicit and intentional.

With an increasing emphasis being placed on writing skills educators can no longer afford to simply assign writing; they must incorporate explicit into their curriculum on a daily basis.

Future Research

This research was limited by time and location. Long-term research is required to indicate how much more growth a treatment group receiving explicit writing instruction would make in six months, a year, or multiple years.

Therefore, a longitudinal study would be beneficial to investigate whether the skills obtained and practiced with explicit (i.e., intentional) writing instruction do, in fact, become automatic and permanent.

This study looked at only 124 sixth grade students at two schools in southern California. Would the results be different at different grade levels? Was the location of the schools a factor? Did other demographic factors influence results?

Further study is also needed to identify what factors specifically contributed to student achievement. What worked and what did not work? Additional investigations into why there were not greater gains shown by the treatment group when compared to the control group in the areas of fluency and clauses are also needed.

Qualitative studies utilizing surveys and interviews would yield additional information about students' perceptions about writing. What are their perceptions about their progress? What do treatment students perceive

contributed to their writing achievement? What do they perceive that they learned to do well? What do they perceive that they still need to learn? What problems do they identify in their writing as their skills develop? Similarly, what perceptions do control group students have about their writing skills and development?

Finally, it is the researcher's speculation that students' writing performance in all subject areas became more controlled and precise. No specific data were gathered to confirm this belief so additional research is necessary. It would be interesting to document students' writing development across the curriculum as a result of intentional instruction in writing.

Final Thoughts

It is difficult to end this document and this research. It is difficult because I know the research will never really be complete. Yet, the ending of this study is in fact the beginning of a new way for the teacher researcher to approach writing assessment and instruction. The students will benefit from new insights and methodologies that better target students' needs.

Students will always struggle to understand. Teachers will always have too much to teach in too little time. But somehow, if in that struggle of understanding and time,

this study has helped teachers and students meet, it has all been worth it.

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Appendix A
Sample Protocol for Analytic Writing Assessment

A Protocol for
Schoolwide Writing Assessment
Leif Fearn and Nancy Farnan
Fall 2002

The writing samples should all be taken during the same week of school, and the directions should be followed as close to how they're written as possible.

All students should use 8 1/2 x 11 lined paper and a dark writing implement (pen or dark pencil).

1. **All students write their name on the paper and the date.**
2. **Teacher directions: I'm asking you to write for a few minutes. I want you to write as much as you can as well as you can on the topic I give you. Now, think of a place where you feel especially comfortable, safe, happy, secure, peaceful, or confident. It's a good place, maybe the gym, or a park, a walk in the woods, a room in your house, a boat on the lake. Call it your favorite place, if you like. In your mind, go there. Notice what you see and hear. What does the place feel like when you are there? Who is there? Why did you select this particular place, of all the places you know, to write about? You're going to write about that place. Write as much as you can as well as you can. You have five minutes, exactly. Begin."**
3. **In five minutes, call time, even if they're in the middle of a sentence. They stop at five minutes. Direct them to count the words they wrote (except for their name and date). For elementary students, direct them to count the words again, and put both totals at the top of their paper.**
4. **That's it. Prompt them, time them, stop them, they count the words, you collect the papers.**

Appendix B
Sample Data Sheet

Data Sheet

Student Name _____ Class code_____ #_____

Number of words - _____

Number of sentences - _____ words per sentence_____

Number of clauses - _____ clauses per sentence_____

Errors – spelling - _____

Errors – punctuation - _____

Errors – capitalization - _____

Errors – word use - _____

Total Errors - _____ errors per sentence_____

Appendix C
Holistic Assessment Rubric - Response to Literature

Score	Writing Applications: Response to Literature	Writing Strategies	Written Language Conventions
4 Advanced (Exceeds Grade Level Standards)	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ Demonstrates *in-depth* understanding of the literary work. ◆ Uniquely supports ideas with clear examples and quotes directly from both the text and prior knowledge.	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ Is uniquely engaging. ◆ Uses advanced vocabulary and/or vivid language. ◆ Uses voice appropriately.	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ Uses a variety of sentence types appropriately. ◆ Contains **few, if any**, errors in grammar, punctuation, capitalization, and spelling. *Errors do not interfere with the reader's understanding of the piece.*
3 Proficient (Meets Grade Level Standards)	◆ Develops appropriate interpretations that demonstrate careful reading and understanding of the text. ◆ Organizes the interpretation around several clear ideas, premises, or images. ◆ Develops and justifies interpretation through use of textual evidence. ◆ Reflects personal insight and experiences.	◆ Demonstrates awareness of audience and purpose and addresses prompt. ◆ Organizes writing clearly and effectively (introduction/ supporting evidence/ conclusion restates position). ◆ Engages the interest of the reader and states a clear purpose. ◆ Uses effective, coherent organizational patterns.	◆ Uses complete and correct sentences. ◆ Contains **some** errors in grammar, punctuation, capitalization, and spelling. *Errors are **first draft in nature** and do not interfere with the reader's understanding of the piece.*
2 Basic (Approaches Grade Level Standards)	◆ Demonstrates a limited understanding of the text. ◆ May contain interpretations that are vague, overly simplistic, inaccurate, or unrelated to the ideas in the text. ◆ Provides few, if any, textual examples and details to support interpretations.	◆ Demonstrates *some* awareness of audience, purpose and prompt. ◆ Uses *simplistic* organization (introduction/ body/ conclusion). ◆ May be difficult to follow due to under-developed organizational structure. ◆ Provides details with *little* support.	◆ Uses correct sentences inconsistently. ◆ Contains **several** errors in grammar, punctuation, capitalization, spelling, and word usage. *Errors may interfere with the reader's understanding of the piece.*
1 Below Basic (Below Grade Level Standards)	◆ Demonstrates no understanding of the text. ◆ Is only a retelling of the story without interpretation. ◆ Provides no examples, details, or evidence from the text.	◆ Does not demonstrate awareness of audience and purpose. ◆ Has little or no organization or paragraph development. ◆ Provides few details, if any.	◆ Uses many incomplete and/or incorrect sentences. ◆ Contains **serious** errors in grammar, punctuation, capitalization, spelling, and word usage. *Errors interfere with the reader's understanding of the piece.*

Appendix D
Sample Holistic Assessment Rubric - Persuasive Composition

Score	Writing Applications: Persuasive Composition	Writing Strategies	Written Language Conventions
4 Advanced (Exceeds Grade Level Standards)	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ Uses clear, *thoughtful* logic to convince the reader that the proposed thesis is *undoubtedly* correct. ◆ Has *sophisticated* or *unique* ideas.	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ *Skillfully* exhibits awareness of audience and purpose and addresses prompt. ◆ Includes *precise*, *vivid* vocabulary ◆ Uses voice appropriately.	"4" papers meet all of "3" requirements, in addition to elements beyond the sixth grade level. ◆ Uses an abundance of varied sentence types and grammatical forms to present a lively and effective personal style. ◆ Contains **few, if any**, errors in grammar, punctuation, capitalization, spelling, and work usage. *Errors do not interfere with the reader's understanding of the piece.*
3 Proficient (Meets Grade Level Standards)	◆ States a *clear* position on a proposition or proposal. ◆ Supports the position with organized and relevant evidence. ◆ Anticipates and addresses reader concerns *and* counterarguments.	◆ Demonstrates awareness of audience and purpose and addresses prompt. ◆ Organizes writing clearly and effectively (introduction/ supporting evidence/ conclusion restates position). ◆ Engages the interest of the reader and states a clear purpose. ◆ Uses effective, coherent organizational patterns.	◆ Uses correct sentence types and grammatical forms. ◆ Contains **few** errors in grammar, punctuation, capitalization, spelling, and word usage. *Errors are **first draft in nature** and do not interfere with the reader's understanding of the piece.*
2 Basic (Approaches Grade Level Standards)	◆ States a position on a proposition or proposal, but may be unclear, vague or overly simplistic. ◆ Supports the position with *limited* and/or illogical evidence. ◆ Weakly or minimally addresses reader concerns or counterarguments.	◆ Demonstrates *some* awareness of audience, purpose and prompt. ◆ Uses *simplistic* organization (introduction/ body/ conclusion). ◆ May be difficult to follow due to under-developed organizational structure. ◆ Provides details with *little* support.	◆ Has little sentence variety. ◆ Contains **several** errors in grammar, punctuation, capitalization, spelling, and word usage. *Errors may interfere with the reader's understanding of the piece.*
1 Below Basic (Below Grade Level Standards)	◆ Does not state position or proposal. ◆ Provides no evidence. ◆ Does not address reader concerns or counterarguments.	◆ Does not demonstrate awareness of audience and purpose. ◆ Has little or no organization or paragraph development. ◆ Provides few details, if any.	◆ Uses simple or incorrect sentences. ◆ Uses grade level grammatical forms incorrectly. ◆ Contains **serious** errors in grammar, punctuation, capitalization, spelling, and word usage. *Errors interfere with the reader's understanding of the piece.*