

ABSTRACT

Title of dissertation: THE EFFECTS OF COLLABORATIVE STRATEGIC READING AND DIRECT INSTRUCTION IN PERSUASION ON SIXTH-GRADE STUDENTS' PERSUASIVE WRITING AND ATTITUDES

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This study examined the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. Students in three intact classes were assigned to one of three treatment conditions: Collaborative Strategic Reading and direct instruction in persuasion or direct instruction in persuasion or a control group.

Treatment effects were examined using six measures of persuasive writing: the Adapted Toulmin Scoring Criteria (claim, data and backing); coherence and organization; five-paragraph structure; and essay length. In addition, the Writer Self-Perception Scale was administered to assess the relationship between students' attitudes toward writing at the beginning of the study and at its conclusion. Finally, three students from each treatment condition in the study were observed and interviewed for the case study.

Analyses revealed significant findings. First, the students engaged in Collaborative Strategic Reading and direct instruction in persuasion performed significantly better on all six measures of persuasive writing than students in the other two treatment conditions. During the case study, the same students were observed to spend more time on task and were engaged more than students in the other two treatment conditions over the six-week intervention when working in collaborative groups. In the direct instruction in persuasion group, students did not perform significantly better on the six measures of persuasive writing compared to the other two treatment conditions. However, the students in the case study indicated that direct instruction in persuasion does benefit their writing. Finally, students' attitudes toward writing in all three treatment conditions were not found to change significantly from pre-test to post-test but the students' responses in the case study indicated that if students have positive attitudes about their writing they will most likely write more often and more effectively.

Overall the findings from the present study suggest Collaborative Strategic Reading and direct instruction in persuasion is a powerful combination for teaching students to write persuasively. However, more research is needed to determine the effects of direct instruction on persuasion and students' attitudes toward writing. Limitations of the present study and directions for future research are presented.

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INSTRUCTION IN PERSUASION ON SIXTH-GRADE STUDENTS' PERSUASIVE
WRITING AND ATTITUDES

by

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To my husband, James Standish,
who gave me the confidence to believe I could do this

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TABLE OF CONTENTS

| | |
|--|------|
| List of Tables..... | viii |
| List of Figures..... | ix |
| Chapter I: Introduction..... | 1 |
| Problem Statement..... | 2 |
| Rationale..... | 3 |
| Reading Comprehension..... | 4 |
| Narrative vs. Expository Text..... | 4 |
| Strategy Instruction..... | 5 |
| Collaborative Strategic Reading (CSR)..... | 6 |
| Theoretical Framework/Reading Instruction..... | 6 |
| Research Findings in Reading Instruction..... | 8 |
| Writing and Learning Connections..... | 9 |
| The Writing Process..... | 11 |
| Theoretical Framework/Persuasive Writing..... | 11 |
| Research Findings/Persuasive Writing..... | 13 |
| Writing Interest Survey..... | 14 |
| Conclusion..... | 14 |
| Definition of Terms..... | 15 |
| Purpose of the Present Study and Research Questions..... | 17 |
| Chapter II: Review of the Literature..... | 19 |
| Introduction..... | 19 |
| Reading in Middle School..... | 20 |
| Reading Comprehension..... | 20 |
| Reading and Writing Connection..... | 22 |
| Narrative Text in Middle School..... | 26 |
| Expository Text in Middle School..... | 26 |
| Improving Students' Reading of Expository Text in Middle School..... | 27 |
| Collaborative Strategic Reading..... | 28 |
| Strategy Instruction..... | 29 |
| CSR: What Is It?..... | 30 |
| Theoretical Framework..... | 35 |
| Research Findings..... | 42 |
| Conclusion..... | 51 |
| Writing and Learning Connections..... | 52 |
| The Writing Process..... | 53 |
| Theoretical Framework..... | 54 |
| Application of Toulmin's Model in the Present Study..... | 61 |
| Research Findings..... | 61 |
| Conclusion..... | 73 |

| | |
|---|-----|
| Persuasive Writing in the Present Study..... | 73 |
| Writing Interest Survey..... | 74 |
| Student Attitude Inventory and Research Basis..... | 75 |
| Strengths of Survey..... | 77 |
| Limitations of Survey..... | 79 |
| Conclusions..... | 80 |
| Conclusion..... | 80 |
| | |
| Chapter III: Method..... | 81 |
| Present Study..... | 81 |
| Participants..... | 81 |
| Shared Culture..... | 85 |
| Qualitative Methods..... | 86 |
| Design and Analysis..... | 86 |
| Instruction..... | 89 |
| Measures..... | 90 |
| Materials..... | 93 |
| Validity of the instructional sessions..... | 93 |
| Validity of reading materials..... | 93 |
| Validity of the Writer Self-Perception Scale..... | 94 |
| Validity of the Adapted Toulmin Scoring Criteria..... | 94 |
| Validity of the Coherence and Organization Rating Scale... | 95 |
| Validity of the Five-paragraph Format rubric..... | 96 |
| Validity of case study interview questions..... | 96 |
| Procedures..... | 97 |
| Qualitative Method..... | 99 |
| Case Study..... | 99 |
| Description of Setting..... | 99 |
| Description of Teachers..... | 102 |
| Description of Participants..... | 104 |
| Data Gathering..... | 105 |
| Conclusion..... | 106 |
| | |
| Chapter IV: Results..... | 107 |
| Quantitative Results..... | 107 |
| Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?..... | 107 |
| Interpretation of Table 4..... | 109 |
| Interpretation of Table 5..... | 110 |
| Interpretation of Table 6..... | 111 |
| Interpretation of Table 7..... | 112 |
| Interpretation of Test Results..... | 113 |
| Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than | |

| | |
|--|-----|
| students in the CSR/direct instruction in persuasion group or the students in the control group?..... | 113 |
| Interpretation of Table 8..... | 115 |
| Interpretation of Table 9..... | 115 |
| Interpretation of Test Results..... | 116 |
| Question 3: Do students' attitudes towards writing affect their persuasive writing scores?..... | 117 |
| Interpretation of Table 10..... | 117 |
| Interpretation of Table 11..... | 118 |
| Interpretation of Table 12..... | 119 |
| Interpretation of Table 13..... | 119 |
| Interpretation of Table 14..... | 120 |
| Interpretation of Table 15..... | 121 |
| Interpretation of Table 16..... | 121 |
| Interpretation of Test Results..... | 122 |
| Comparison of Students' Attitude Scores with Normative Data..... | 122 |
| Qualitative Results..... | 122 |
| Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?..... | 123 |
| Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?..... | 123 |
| Question 3: Do students' attitudes toward writing affect their persuasive writing scores?..... | 124 |
| Conclusion..... | 125 |
| Conclusion..... | 125 |
| Chapter V: Summary and Discussion..... | 127 |
| Summary of the Research Study..... | 127 |
| Explicit Strategy Instruction..... | 128 |
| Theory: Social Constructivism and Schema Theory..... | 129 |
| Research in CSR..... | 129 |
| Toulmin's Model of Argument Structure..... | 130 |
| Research in Persuasive Writing..... | 131 |
| Writing Interest Survey..... | 131 |
| Research Questions..... | 132 |
| Summary of Research Methods..... | 132 |
| Discussion of Results..... | 134 |
| Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control | |

| | |
|---|-----|
| group?..... | 134 |
| Quantitative results: The effectiveness of CSR..... | 134 |
| Qualitative results: The effectiveness of CSR..... | 136 |
| Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?..... | 138 |
| Quantitative results: The effectiveness of direct instruction in persuasion..... | 138 |
| Qualitative results: The effectiveness of direct instruction in persuasion..... | 139 |
| Question 3: Do students' attitudes toward writing affect their persuasive writing scores?..... | 143 |
| Quantitative results: Students' attitudes toward writing..... | 143 |
| Qualitative results: Students' attitudes toward writing..... | 145 |
| Conclusion..... | 151 |
| Limitations of the Study..... | 151 |
| Participant Sample..... | 152 |
| Classroom Intervention Timing..... | 152 |
| Researcher Bias..... | 152 |
| Comparison of the Results with Previous Research..... | 152 |
| Other Possible Explanations for Results..... | 155 |
| Implications for Future Research..... | 159 |
| Conclusion..... | 160 |
| Appendices..... | 162 |
| Appendix A Persuasive Writing Script..... | 162 |
| Appendix B Sample Script..... | 164 |
| Appendix C Writing Prompts..... | 166 |
| Appendix D Outline for 24 Instructional Sessions..... | 167 |
| Appendix E Writer Self-Perception Scale (WSPS)..... | 168 |
| Appendix F Adapted Toulmin Scoring Criteria..... | 170 |
| Appendix G Coherence and Organization Rating Scale..... | 171 |
| Appendix H Five-paragraph Format Rubric..... | 172 |
| Appendix I Parent Consent and Student Assent Forms..... | 173 |
| Appendix J Case Study Interview Questions..... | 184 |
| Appendix K Pilot Study..... | 186 |
| Appendix L National Standards..... | 196 |
| Appendix M Comparison of Students' Attitude Scores with Normative Data..... | 197 |
| References..... | 199 |

LIST OF TABLES

| | |
|---|-----|
| 1. Comparison of Student Characteristics by Groups..... | 83 |
| 2. Research Design..... | 86 |
| 3. Interrater Agreement Level Based on Rater Consensus..... | 92 |
| 4. Means for CSR Comparison of Pre-test Scores..... | 109 |
| 5. Means and Standard Deviations for CSR Comparison of Post-test Scores... | 110 |
| 6. Analysis of Variance for the CSR Comparison..... | 111 |
| 7. Analysis of Covariance for the CSR Comparison..... | 112 |
| 8. Analysis of Variance for the Direct Instruction in Persuasion Comparison with no Covariate..... | 114 |
| 9. Analysis of Covariance for the Direct Instruction in Persuasion Comparison with Pre-measure as Covariate..... | 115 |
| 10. Mean Scores for Comparison of Students' Pre-test Attitude Scores..... | 118 |
| 11. Analysis of Variance for Students' Pre-test Attitude Scores..... | 118 |
| 12. Analysis of Variance of Pre-test Attitude Survey Scores..... | 119 |
| 13. Analysis of Variance of the Effect of Instruction as Measured by the Six Measures of Persuasive Writing on Attitude (Pre-test Scores)... | 119 |
| 14. Mean Post test Attitude Survey Scores..... | 120 |
| 15. Analysis of Variance of Attitude Scores of Post-test Attitude Survey Scores..... | 121 |
| 16. Analysis of Covariance for Post-test Attitude Scores with Pre-attitude as Covariate..... | 121 |
| 17. Interrater Reliability for Scoring of Pilot Study Persuasive Essays..... | 193 |
| 18. Comparison of Students' Attitude Scores with Normative Data..... | 198 |

LIST OF FIGURES

1. Toulmin's Model of Argument Structure..... 60

CHAPTER I

Introduction

“Writing today is not a frill for the few, but an essential for the many” (College Entrance Examination Board, 2003, p. 11). The authors of this statement chaired the National Commission on Writing committee and believe that writing impacts political life and popular culture, and is a powerful source for expressing a range of emotions. They state, “writing has helped transform the world, revolutions have been started by it, oppression has toppled by it and it has enlightened the human condition” (p. 10).

Reading and writing are interwoven in the process of developing literate students. The present study highlights the need to establish a commitment to integrating reading and writing through investigating the following issues: the importance of Collaborative Strategic Reading, the importance of direct instruction in persuasive writing and the importance of students’ attitudes toward writing tasks. The results of this study will add to knowledge on how to improve the persuasive writing skills of middle school students through collaborative processing of expository text and developing argument structure.

Students must be provided with the tools to enable them to think, reason and communicate through the written word. By providing access to carefully crafted persuasive writing skills, teachers can empower students to take an active role in political, ethical and social issues that are pertinent to our society. History has shown us that this access should not be limited to a privileged few, but should be an integral part of the experience of all students who enter our nation’s schools. This chapter outlines the rationale for the present study, provides a definition of terms, gives an overview of the purpose of the present study and rehearses the research questions.

Problem Statement

Declining reading scores in the United States have propelled a series of national studies into the nature of reading instruction (Snow, 2002; Snow, Burns, & Griffin, 1998). The national attention on reading has resulted in media attention, presidential speeches and state agendas focusing precisely on this issue. Much of the impetus for this attention has come from the results of the National Assessment of Educational Progress (NAEP).

The NAEP is America's only nationally representative, long-term, continuous assessment in various subject areas. The subjects included in the NAEP testing are reading, mathematics, science, writing, U.S. history, civics, geography and the arts. The NAEP project is administered by the Commissioner of Education Statistics, head of the National Center for Education Statistics in the U.S. Department of Education. The National Assessment Governing Board (NAGB) is a bipartisan, separate body from the Department of Education and develops the framework and test specifications for NAEP (2003).

NAEP reports the results for populations of students, including fourth, eighth and twelfth grade students. The achievement levels for NAEP are defined in three categories: basic, proficient and advanced. Basic refers to "partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade." Proficient refers to "solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills

appropriate to the subject matter.” Advanced refers to “superior performance” (NAEP, 2003, p. 1).

The NAEP data indicate that students have basic reading skills, but that a very small percentage of students have the reading skills necessary to comprehend passages that are more complex or deal with complex content. NAEP assesses reading achievement in grades four, eight and twelve. The 2003 results indicate that 32% to 43% of students scored at the basic reading achievement level. Between 24% and 31% of students scored at the proficient level. Finally, only 3% to 7% of all students tested scored at the advanced level for reading achievement (NAEP, 2003).

Students’ scores for writing achievement evidence even more disappointing results. The majority of students scored higher on narrative, descriptive and expository tasks than persuasive tasks. The 2002 results show that students scored between 51% and 58% on the basic level and between 22% and 29% on the proficient level. However, only 2% of students at all grade levels scored on the advanced level. The NAEP results also indicate that the majority of students cannot produce persuasive writing that is rated as “adequate or better” (NAEP, 2002).

Rationale

Despite the disappointing NAEP results outlined above, literacy demands have become increasingly more complex and sophisticated as students enter middle school. Teachers are required to cover extensive content, which often involves dense textbook reading. Studies estimate that students spend as much as 75% of class time and 90% of homework time involved with textbook material (Katims & Harmon, 2000; Woodward & Elliot, 1990).

Reading Comprehension

The idea of creating meaning and constructing knowledge from text is commonly referred to as reading comprehension. Snow and colleagues (2002) state that comprehension involves three elements: the reader, the text and the activity. These three elements occur within a larger socio-cultural context that includes the classroom learning environment, classroom instruction, social interaction with peers, school culture, socio-economic background, ethnicity, student's self concepts and instructional history (Snow, 2002).

The reader is the person interacting with text to create meaning and understanding. This occurs with a combination of the reader's cognitive abilities to analyze, infer and apply appropriate strategies and instruction in text features, vocabulary and comprehension strategies. The text element is an important consideration in reading comprehension; it includes factors such as features of text, complexity of text and the abilities of the reader. The comprehension activity includes setting a purpose for reading and is influenced by the before, during and after reading segments of the comprehension process (Snow, 2002).

Narrative vs. Expository Text

Snow and colleagues (2002) indicate that the text is a very significant factor in reading comprehension. There is a growing expectation in schools that students will read more text and more challenging text. Most students enter school with significant experience in comprehending narrative text. Narrative text is familiar to children and follows a predictable and linear format that includes an initiating event, followed by a series of occurrences that lead to a climax and a resolution (Gunning, 2004).

However, as students reach upper elementary and middle grades, the literacy skills demanded of them increase, and they are required to read more sophisticated and complex expository text found predominantly in their textbooks (Katims & Harmon, 2000; Woodward & Elliot, 1990).

The complex nature of reading expository materials in middle school is further complicated by the fact that NAEP data indicate students do not have the reading skills necessary for the demands of expository text, and that many textbooks are constructed in such a way as to make comprehension difficult (Katims & Harmon, 2000; NAEP, 2003).

The increased demand to read complex expository text in middle school emphasizes the fact that students need careful instruction in reading and writing strategies. As students grapple with complex concepts, attention to detailed information and more taxing metacognitive requirements, teachers must increase their instruction of effective reading comprehension strategies. These include previewing, self-monitoring, main idea and higher-level questioning strategies (Katims & Harmon, 2000; Klingner, Vaughn, Dimino, Schumm & Bryant, 2001; Snow, Burns & Griffin, 1998).

Strategy Instruction

An integration of reading and writing comprehension strategies into the content area (all academic subjects other than language arts) will enable students to frame, apply and extend reading and writing processes. Researchers have found that as teachers have limited time for instruction they must ensure they provide students with knowledge and understanding of their assigned tasks. This objective has been found to be more effective with the use of explicit strategy instruction (Vaughn, Chard, Bryant, Coleman, Tyler, Linan-Thompson, & Kouzekanani, 2000). Research has also shown that when teachers

present content area text strategically and effectively, students find it easier to learn material and are more likely to transfer the strategies modeled by the teacher (Day & Elksin, 1994).

Collaborative Strategic Reading (CSR)

Despite the current trend toward explicit phonics instruction, there is a growing body of students who can read at the word level but struggle with meaning, or who can comprehend text adequately but struggle with the skills needed to acquire knowledge from more complex text (NAEP, 2003; Vaughn, Klingner & Bryant, 2001)

The present study uses a cognitive strategy, Collaborative Strategic Reading (CSR), created to enhance middle school students' comprehension of expository text. CSR was designed for students to be taught to activate and refine their reading comprehension skills. Students work in collaborative groups with defined roles to engage in meaningful encounters with conceptual ideas from expository text.

Theoretical Framework/Reading Instruction

CSR takes a social constructivist approach to learning with expository text. Students are actively engaged in constructing meaning from text and must work together on meaningful tasks to make sense of the text (Katims & Harmon, 2000). The social constructivist approach has its roots in the work of John Dewey, Jean Piaget and Lev Vygotsky (Dewey, 1916; Vygotsky, 1934; Wadsworth, 1989). These views are outlined in the following paragraphs.

CSR reflects many of the social constructivist views held by Dewey. For example, Dewey believed that the social function of the group was to engage students in cooperative learning and shared goals. CSR reflects this belief as students initiate the

comprehension strategies in small collaborative groups of four or five. The learning takes place in a cooperative format where students complete shared goals while taking a significant role within the group (Dewey, 1916).

Piaget's theory requires children to act on objects in their environment and interact with people in order to construct knowledge. Complete understanding of an issue or event cannot occur from just reading or listening to people talk. Research in CSR found that students are actively involved in information gathering and meaning making through their ongoing experiences with the text in their collaborative groups. Through interacting with members of their group, students construct knowledge about the text in a social environment (Wadsworth, 1989).

CSR uses social interaction to enhance students' inherent ability, which reflects Vygotsky's theories on learning. As students read new expository text, they discover discrepancies between this new knowledge and existing experiences. For example, in a recent CSR lesson a group of students were discussing an article about albino kangaroos in the Austrian zoo. Their comments on the reading in the final CSR segment (wrap-up) indicated that their prior knowledge on kangaroos was adapted to include the new knowledge of albino kangaroos, their geographic location and their habitat (Vygotsky, 1934).

Social constructivism is an important theoretical framework for Collaborative Strategic Reading and is complemented by schema theory (Rumelhart & Ortony, 1977). Schema theory emerged from the field of cognitive psychology and involves the way knowledge is stored and represented in the memory. Research indicates that although

teachers should create a schema for students' learning, they are often ill prepared to scaffold the literacy needs of their students (Katims & Harmon, 2000).

Anderson (1984) proposed six functions of schemata that affect a reader's interaction with text. The first is that schema provides a slot or file for text information that helps the reader to assimilate text information. The second is that schema functions as a sieve to determine the important aspects of a text so the reader will filter out unimportant information and access the most important information. Third, schema aids the reader in making inferences about the text, which is vital as no text is completely explicit. Fourth, the reader can use schema in a logical manner to search the memory categories or files to access the information needed to understand the text. Fifth, the schema aids the reader in editing and summarizing text as it contains criteria of importance. Finally, schema enables the reader to generate hypotheses about text when there are gaps in the schema.

The theories of social constructivism and schema theory establish a theoretical framework for Collaborative Strategic Reading. The next section of this dissertation examines the current research in CSR and its effectiveness as a reading strategy with expository text in the content area.

Research Findings in Reading Instruction

Research conducted on the effectiveness of CSR as a reading strategy for content area reading highlights five important results. First, researchers found that students using the CSR strategy scored higher on tests of reading comprehension. The tests included standardized reading comprehension texts such as the Gates-MacGinitie Reading Comprehension Test and Passage Comprehension, as well as textbook unit tests

(Klingner, Vaughn & Schumm, 1998; MacGinitie & MacGinitie, 1989; Palinscar & Brown, 1984). Second, research in discourse analysis of student interactions indicated that up to 98% of the class time was on task dialogue (Klingner & Vaughn, 2000; Klingner, Vaughn & Schumm, 1998). Third, researchers found a close link between fluency and comprehension instruction (Bryant, Ugel, Vaughn, Linan-Thompson, Hamff & Hougen, 2000; Vaughn, Chard, Bryant, Coleman, Tyler, Linan-Thompson and Kouzekanani, 2000). Fourth, the implementation of CSR was effective in teaching content but time consuming for teachers (Klingner, Vaughn, Hughes & Arguelles, 1999). Finally, research indicated that small groups of student-led instruction are highly useful for comprehending content texts (Bryant, Ugel, Hougen, Hamff, & Vaughn, 1999).

Writing and Learning Connections

Researchers have consistently found that an integration of reading and writing instruction is beneficial to students. However, in practice, reading has dominated writing instruction and these two fundamental literacy areas have been taught in isolation. For example, in an important 1968 study researchers found that reading received roughly three and a half times more attention than writing in English classrooms, and more teacher time was spent in proofreading papers at home than in classroom instruction. During the 1980's, national reports showed that less than 10% of the English class was spent in writing composition (Clifford, 1987; Emig, 1982; Squire & Applebee, 1968).

More recently, the National Commission on Writing (2003) reassessed the writing issue in our nation's schools. The National Commission on Writing in America's Schools and Colleges was created in September 2002 by the College Board, a nonprofit membership organization of approximately 4,300 schools and colleges. The major

impetus behind the creation of the commission was the plan to create a writing assessment in the 2005 SAT and the perception of educators, business leaders and policy-makers that the level of writing must be improved in our schools. The commission reviewed research, policy proposals and discussed major issues in writing instruction. The commission included an advisory panel of teachers, superintendents and representatives from institutions of higher education. The commission defined the role of writing in education and created a set of recommendations to improve writing quality in America (College Entrance Examination Board, 2003).

The National Commission on Writing (2003) found that during the last twenty years the emphasis in school reform has been on the teaching of reading and math, resulting in increased regulation and assessment in these areas, while writing has been overlooked. The panel discovered that most fourth grade students spend less than three hours a week writing and that only about half the nation's twelfth graders report being regularly assigned papers of three or more pages in length. Almost half indicate that they never or hardly ever get such writing assignments (College Entrance Examination Board, 2003).

In a 1987 analysis of research, Clifford found the following: 1) writing is often assigned to test what students have read, 2) writing is given limited instructional time as compared to reading, 3) there is less educational research in writing compared to reading, 4) writing instruction in traditional basal series has been limited to supplying one-word answers, and 5) that these conditions exist despite the acknowledgement of the importance of integrating reading and writing instruction. Actual change in the practice of teaching of writing has been painfully slow. I contend in the present study that an

integration of reading and writing in the content area, along with expert strategy instruction, will prove beneficial to middle school students.

The Writing Process

In order for middle school students to produce persuasive texts, they must engage in the writing process. “The term writing process refers to collecting information, planning ideas, translating ideas into text, or reviewing ideas and text” (Kellogg, 1994, p. 26). The writing process usually begins with collecting information, which involves searching for source materials and reading information that will be transferred into the writing task. This stage is also commonly referred to as the prewriting phase. Once the writer has collected sufficient background material, they move into the planning phase. Planning involves the writer creating personal symbols such as mental or textual outlines of the general plan of the potential first draft. The planning phase is central to the next stage of the writing process, which engages the writer in translating ideas into text.

During the translating stage, writers generate conventional text that translates meaning. Translating ideas into text is also commonly referred to as the first draft of a text. The final phase of the writing process is called reviewing. This stage involves evaluating and editing the text that has been created in the collecting, planning and translating phase. Initially, it is also important to acknowledge the potential audience for the text and how the reader will perceive the writer’s intended meanings (Kellogg, 1994).

Theoretical Framework/Persuasive Writing

In order to provide students with the framework to write persuasively, the present study uses Toulmin’s model of argumentation and schema theory as its theoretical basis. Argumentative uses of language have been described as “those utterances that succeed or

fail only to the extent that they can be ‘supported’ by arguments, reasons, evidence or the like and that are able to carry the readers or the hearer along with them only because they have such a ‘rational foundation’” (Toulmin, Rieke & Janik, 1984, p. 5). These uses of argument usually fall along the continuum between inquiry (reasoning designed to lead to a novel discovery) and advocacy (reasoning to support an established claim). Toulmin’s model of argument structure is one of the most widely used and cited models to analyze argumentation or to teach persuasive writing (Rumelhart & Ortony, 1977; Toulmin et al., 1984; Voss & Van Dyke, 2001).

A concise description of Toulmin’s model is outlined in the paragraphs below. Toulmin’s model is based on two levels of argument. The first level of analysis involves claims, data, warrants and backing. The second level of analysis involves qualifiers and rebuttals. The components of these two levels of argument will be defined and summarized in the following paragraphs. It is interesting to note that although they can be described individually, they also act together to create a cohesive argument structure (Toulmin et al., 1984).

The present study focuses on three elements of Toulmin’s model: claim, data, and backing. Middle school students who have not previously been introduced to Toulmin’s Model of Argument Structure will benefit from direct instruction in persuasion in these components of the model. The students will be introduced to the final three components during further research. The claim is defined as the central idea or the thesis statement. These are well-supported conclusions that can be arrived at through evidence, called data. The evidence is a set of facts, statistical data, personal testimony or examples that support

the claim. Finally, the backing provides support in the form of categorical facts to ensure a reliable argument (Chambliss & Garner, 1996; Toulmin et al., 1984).

Toulmin's model has been used in many research studies to analyze students' text and to teach a method of persuasive writing. The present study was based on Toulmin's model for instruction and analysis of students' work. The constructivist perspective provides a basis for the instructional principles of the present study as students actively participate in collaborative groups to read and construct meaning from expository text. The present study was also informed by schema theory, which was previously discussed in the theoretical framework for Collaborative Strategic Reading. By creating a schema for writing strategies and argument structure, students' ability to write persuasively will be enhanced and teachers will be able to scaffold their students' writing needs. The following section provides a review of the existing literature on persuasive writing.

Research Findings/Persuasive Writing

Research findings in the area of persuasive writing outline five important issues involved in enhancing students' ability to write persuasively. First, explicit instruction in argument strategies and knowledge about argument structure improves students' persuasive writing (Crammond, 1998; Gleason, 1999; McCann, 1989; Yeh, 1998). Second, the use of expository text as content for argument and a model for writing improves students' persuasive text (Gleason, 1999). Third, students' ability to write persuasively increases with age and grade level (Crammond, 1998; McCann, 1989). Fourth, the social situation and context of the writing environment affect students' persuasive ability (Reznitskaya et al., 2001; Voss & Van Dyke, 2001). Finally, though young children exhibit complex oral persuasive abilities, they need to be provided with

instruction in the process and techniques of writing persuasively (Voss & Van Dyke, 2001; Weiss & Sachs, 1991). These five issues form the basis for the literature on persuasive writing in the present study.

Writing Interest Survey

The present study addresses the importance of teaching skills and strategies for reading and writing complex texts in middle school classrooms. However, students' attitudes toward writing are also of central educational importance for the present study. Students' attitudes, beliefs, values and motivation toward writing are of particular concern to classroom teachers and researchers. In order to address these issues, students' attitudes toward writing will be evaluated by the Writer's Self-Perception Scale (WSPS) (Bottomley, Henk & Melnick, 1998; Hogan, 1980).

The WSPS is based on Bandura's (1977, 1982 as cited in Bottomley, Henk, & Melnick, 1998) theory of perceived self-efficacy, which predicts that a child's self-perception will affect their writing growth. The theory indicates that students with positive self-perceptions about their writing ability will most likely write more often and more effectively. The WSPS will be administered to students at the beginning and the end of the present study to address the issue of students' attitudes toward writing (Bottomley et al., 1998).

Conclusion

The present study highlights the need to establish a commitment to integrating reading and writing through investigating the following issues: 1) the importance of Collaborative Strategic Reading, 2) the importance of direct instruction in persuasive

writing, and 3) the importance of students' attitudes toward writing tasks. The following section defines important terms in the present study.

Definition of Terms

Narrative Text

Narrative text includes linear and structured information in a predictable format, including an initiating event, followed by a series of occurrences that lead to a climax and resolution (Gunning, 2004).

Expository text

Expository text is writing designed to explain or provide information (Gunning, 2004).

Collaborative Strategic Reading

An approach to enhancing the reading comprehension skills of students. This approach was developed from reciprocal teaching and includes the following four strategies: preview, click and clunk (fix-it strategies), get the gist (main idea) and wrap-up (summarizing and questioning strategies). These strategies are implemented in collaborative groups of four or five students in defined roles (Vaughn & Klingner, 1999).

Persuasive Writing

Persuasive writing seeks to influence the reader to take some action or bring about change. It may contain factual information, such as reasons, examples, or comparisons; however, its main purpose is not to inform, but to persuade, e.g. persuasive letters, newspaper editorials, arguments, or debates. Argument and persuasion are terms that are used interchangeably (Gleason, 1999; McCann, 1989; NAEP, 2003).

Argument Structure

Toulmin's model of argument structure includes claims, data, warrants, backing, qualifiers and rebuttals (Toulmin, Rieke & Janik, 1994).

Rubric

A type of scoring guide that has set criteria for each level of performance. Each level of performance corresponds to a number on a rank scale (U.S. Department of Education, 1999).

Strategy Instruction

Approaches and techniques that students need to become successful and independent learners (Day & Elksnin, 1994).

Writing Interest

Individual appraisal of a child's literacy motivation (Henk, Bottomley & Melnick, 1996).

Writing Prompts

A prompt is a statement or group of statements about a specific topic, constructed to motivate students' thoughts and elicit their best writing. Prompts are provided to the students to specify a purpose and audience, and to elicit the form of writing expected (Pennsylvania System of School Assessment, 2003).

Instructional Scripts

Instructional scripts are created by teachers and researchers to identify the strategies and skills used in the context of reading and writing that help students develop a clear understanding of how to use those strategies, e.g. mini-lessons, teacher-modeling and thinking aloud (Montgomery County Public Schools, 2003).

Purpose of the Present Study and Research Questions

As outlined in the rationale, reading and writing are interwoven in the process of creating literate students. The present study incorporated the research into the cognitive strategy of Collaborative Strategic Reading (CSR) with the research in persuasive writing. The purpose of the present study was to inquire into the efficacy of using cooperative groups to implement research-based comprehension strategies in students' background reading of expository text, along with direct instruction in argument structure to improve their persuasive writing. In addition, the students' attitudes toward writing were assessed to determine their response to the instruction and to examine their perceptions about themselves as writers.

The present study adds knowledge to the research literature in the area of the intersection of processing complex expository text and explicitly teaching argument structure to middle school students in order to improve their persuasive writing skills. Current research does not combine the use of CSR and argument structure. The research questions for the present study were as follows:

- 1.) Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?
- 2.) Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?
- 3.) Do students' attitudes towards writing affect their persuasive writing scores?

In this chapter I have discussed the purpose and rationale for the present study, provided an overview of important terms and outlined the research questions. In chapter two I will review the literature in the following areas: narrative and expository writing, the reading and writing connection, the need for strategic learning in middle school, the Collaborative Strategic Reading approach, persuasive writing and students' attitudes toward writing.

CHAPTER II

Review of the Literature

If writing is thinking and discovery and selection and order and meaning, it is also awe and reverence and mystery and magic (Morrison, 1996).

Introduction

American middle schools have long been thought of as breeding grounds for apathy toward academic prowess and higher-level reasoning. The introduction of reading complex expository text and writing persuasive papers into the middle school provides the antidote to this situation. Research has shown that students in middle school are indeed capable of these tasks when they are provided with the optimal skills and strategies by competent and creative teachers (Day & Elksnin, 1994; Klingner, Vaughn, & Schumm, 1998; Vaughn, Hughes, & Arguelles, 1999; Vaughn & Klingner, 1999). The present study highlights the need to establish a commitment to integrating reading and writing through investigating the following issues: the importance of Collaborative Strategic Reading, the importance of direct instruction in persuasive writing and the importance of students' attitudes toward writing tasks.

This chapter reviews the existing body of literature in four areas. First, the emphasis shift from reading narrative to expository text and how to improve students reading of expository text. Second, the need for strategic learning in middle school content area reading through the use of a set of four strategies entitled Collaborative Strategic Reading (CSR). The chapter also describes CSR and reviews the literature in this area. Third, there is a section on writing and learning connections in the middle school where the need for persuasive writing is established. The final section describes

the need to evaluate student attitudes toward writing and the strategies presented in the present study through a writing interest survey. This survey is described and the research basis for the survey is established.

Reading in Middle School

In order to become competent persuasive writers, it is essential that students master the art of reading expository text. Expository text is an indispensable tool for constructing knowledge, developing new insights and understanding the multifaceted perspectives of the issue of study. Learning with text is not a one-way process. Readers have to actively contribute as they interact with text to create meaning and construct knowledge, and then use that new material to develop a coherent and persuasive argument in their writing (Katims & Harmon, 2000; Klingner, Vaughn, & Schumm, 1998).

Reading Comprehension

The idea of creating meaning and constructing knowledge from text is commonly referred to as reading comprehension. Snow and colleagues (2002) assert that comprehension involves three elements: the reader, the text and the activity. These three elements occur within a larger socio-cultural context that includes the classroom learning environment, classroom instruction, social interaction with peers, school culture, socio-economic background, ethnicity, students' self-concepts and instructional history.

The reader is the person interacting with text to create meaning and understanding. In order to comprehend a text, the reader must engage in cognition, be motivated and bring various types of knowledge to the task. Specifically, cognition includes factors such as memory, analysis of text, the ability to infer and attention to detail. Although much work needs to be done in the field of motivation, it is apparent that

students do need a purpose for reading, an interest in the text and self-efficacy as a reader. Finally, in order to comprehend, a reader needs vocabulary knowledge, background knowledge on the topic, a repertoire of comprehension strategies and knowledge of how to use them, as well as linguistic and discourse knowledge. Along with the abilities of the reader, effective comprehension of a text involves instruction on the material in the text, introducing comprehension strategies to the students and aiding them to become active, metacognitive readers (Snow et al., 2002).

The text element of comprehension is very significant in this area as the nature and complexity of text has changed over time. An expectation that students will read more text and more challenging text has also increased the complexity of creating proficient readers. The reader interacts with text and must be able to decode the words, and understand the meaning and mental models represented in the text. The text features as well as the knowledge and abilities of the reader determine the difficulty of a text. These two factors have been exacerbated by unconventional postmodern text features as well as electronic text (Snow et al., 2002).

The activity, which includes setting a purpose for reading, is an important dimension of the comprehension process. The purpose for reading can be reader generated or intrinsically motivated or an external body can impose it. The purpose is also influenced by the before, during and after reading segments of the comprehension process (Snow et al., 2002).

The comprehension process is constantly in a state of flux as the reader develops over time through instruction, cognitive development, and experience with more challenging texts (Snow et al., 2002). This description of the nature of reading

comprehension is important as a basis for discussing the following section on reading expository text. However, before reading expository text is addressed, it is important to discuss historical and current trends in the connection between reading and writing.

Reading and Writing Connection

There has been an interest in the connection between reading and writing for many years in the education community, however, in the past thirty years this interest has intensified. Emig (1982), a proponent of a closer integration of reading and writing, maintained that the language arts cannot be taught in isolation from one another and that reading, writing, listening and speaking are not discrete processes but act to transform one another. This view has not been widely practiced in our schools. American schools have traditionally taken a fragmented approach to language arts instruction (Clifford, 1987).

Writing instruction has been subsumed by the heightened emphasis on reading in research, funding, testing and instruction. Interestingly, in 1894 the report of the Committee of Ten (the first national report on secondary school issues) maintained that writing and reading were of equal importance, yet that writing should only receive half the time allocated to reading. More recently, the National Council of Teachers of English (NCTE) indicated that more time is spent in reading than all the other elements of the English program. Specifically, national reports found that less than 10% of American schools' English programs was spent in writing. Squire and Applebee (1968) studied 168 premier high schools during the 1960's and reported that reading received approximately three and a half times more attention than writing. They also found that English teachers classified instruction in writing as grading papers and proofreading rather than actual

instruction time (Clifford, 1987). More recently, the National Commission on Writing (2003) found that during the last twenty years the emphasis in school reform has been on the teaching of reading and math, resulting in increased regulation and assessment, while writing has been overlooked. The panel discovered that most fourth grade students spend less than three hours a week writing and that only about half of the nation's twelfth graders report being regularly assigned papers of three or more pages in length. Almost half indicate that they never or hardly ever get such writing assignments (College Examination Board, 2003).

The National Commission on Writing in America's Schools and Colleges was created in September 2002 by the College Board, a nonprofit membership organization of approximately 4,300 schools and colleges. The major impetus behind the creation of the commission was the plan to create a writing assessment in the 2005 SAT and the perception of educators, business leaders and policy-makers that the level of writing must be improved in our schools. The commission reviewed research and policy proposals, and discussed major issues in writing instruction. The commission included an advisory panel of teachers, superintendents and representatives from institutions of higher education. The commission defined the role of writing in education and created a set of recommendations to improve writing quality in America (College Entrance Examination Board, 2003).

Teachers' approaches to writing instruction in elementary schools also demonstrate the subordination of writing to the reading program. For example, Anderson and colleagues found that students in grades one, three and five spent only 15% of the school day in writing, and that two thirds of that time was spent in workbook copying

exercises (Anderson, Heibert, Scott & Wilkinson, 1984). Studies have also found that reading instruction sets the agenda in curriculum, grouping and time management. Middle school teachers are not immune to the domination of reading in their instructional practice, as seen in the common practice of requiring students to respond to reading as a test of comprehension rather than effective writing instruction and practice (Clifford, 1987).

Many leaders in the education community have shown good intentions in fostering the relationship of reading and writing. An example of this can be seen in *Project English*, a 1960's middle school curriculum spearheaded by the United States Office of Education. This was an integrated approach to reading and writing instruction that encouraged reading, writing and speaking about literature as well as students' personal experiences. However, despite positive precedents such as this, much of writing instruction has been intended to test students' reading comprehension and has resulted in writing becoming a "punishment for reading", as in the case of the dreaded book report (Clifford, 1987).

The NAEP results have made public the disappointing writing scores of American students. Yet writing instruction does not appear to have improved, nor has research funding been more equitable. For instance, out of the eighty-five two-volume yearbooks published by the National Society for the Study of Education, nine have focused on reading, six on language arts issues other than writing and only two on writing (Clifford, 1987; NAEP, 2003). Donald Graves noted "for every \$3000 spent on children's ability to receive information, \$1 was spent on their power to send it in writing" (Graves, 1980, p. 914).

In the past, NCTE has been active in promoting effective integration of reading and writing. However, basal approaches to language arts instruction taught children to underline, circle and write one-word responses. Elementary schools waited until third grade to begin writing instruction due to the belief that children must be able to read and master penmanship before they could write (Clifford, 1987).

The 1990's ushered in a decade of research into the reading and writing connection which built on the 1980's work on reading as composing, invented spelling, comprehension as an act of constructing meaning and an acknowledgement of the writing process in schools. There was a theoretical acknowledgement of the integrated process. The early years of the twenty-first century foreshadow a new era of reading and writing connections, as seen by the development of a set of standards for the English language arts by the National Council of Teachers of English (NCTE) and the International Reading Association (IRA) (Clifford, 1987; NCTE, 1996).

Current research indicates that reading and writing involves an ongoing dynamic process of constructing meaning that students are engaged in from early primary grades throughout their school career. Students who go through the motions of reading and writing without purpose or commitment do not improve their thinking or learning. As students mature in their reading and writing skills they learn strategies to help them experiment with ideas and explore concepts as they acquire content knowledge. Students interact with two types of texts in school, narrative and expository. In order to establish a basis for the present study, it is important to understand the role each of these types of texts play in the education process (Day & Elksnin, 1994; Katims & Harmon, 2000).

Narrative Text in Middle School

Most students enter school with relatively well-developed understanding of narrative texts through adults reading to them and simple narratives being played out on television. Upon entry into school, most children do well in comprehending age-appropriate narrative texts. This is primarily why simple narratives are used as reading material in the primary grades (Graves, Juel & Graves, 2003).

Most narrative texts are linear and structured into a predictable format that includes an initiating event, followed by a series of occurrences that lead to a climax and a resolution. Narrative texts are familiar to children and provide an initiation into the reading and writing process. However, if students are presented with narrative text only, they tend to focus on linear thinking. In order to promote a full range of cognitive reading and writing skills, students must be introduced to expository text (Gunning, 2004).

Expository Text in Middle School

Researchers have found that as students reach upper elementary and middle grades, the literacy skills demanded of them increase. These demands increasingly move away from narrative texts that they have become very comfortable with in the primary grades and toward sophisticated and complex expository texts found predominantly in their textbook reading. Despite a growing body of research indicating the strengths of primary source documents and multiple resources, textbooks are the major instructional tool for middle and secondary content area classrooms. Researchers have found that students spend 90% of their homework time and 75% of their class time engaged in textbook-related learning (Katims & Harmon, 2000; Woodward & Elliot, 1990).

Some studies have found that textbooks are constructed in such a way as to make comprehension difficult due to sentence structure, addition of irrelevant graphics and seductive details, technical vocabulary and complex concepts (Webb, 1995). A textbook-centered approach that includes teacher lectures and discussions, textbook-constructed tests and silent and oral readings by the students provides inadequate instructional design and support for students (Katims & Harmon, 2000).

Improving Students' Reading of Expository Text in Middle School

The complex nature of reading expository materials in middle school is further complicated by the fact that the NAEP data indicates that students have the reading skills necessary to perform uncomplicated reading tasks, but very few are able to comprehend passages that are more complex or deal with complex content (Brozo & Simpson, 2002; NAEP, 2003). Therefore, although students are being required to use progressively more complicated content area reading materials in the middle grades, they do not have the reading skills and strategies necessary to perform this task.

This disconnect between requirements and skills emphasizes the fact that students need scaffolded reading and writing experiences with expository texts. As students grapple with complex concepts, attention to detailed information and more taxing metacognitive requirements, teachers need to supplement their existing instructional frameworks to increase students' reading comprehension skills. Students need meaningful encounters with expository texts and teachers must engage in essential reading comprehension strategies that have been found effective. These include previewing, self-monitoring, main idea and higher-level questioning strategies (Katims & Harmon, 2000; Klingner, Vaughn, Dimino, Schumm & Bryant, 2001).

The National Research Council's report on the prevention of reading difficulties supports the inclusion of the strategies outlined above. The panel found that word recognition skills and comprehension skills are critical elements for effective reading instruction. The authors of this report indicate that reading instruction should be explicit and should include predicting, drawing inferences, summarizing the main idea and self-monitoring (Snow, Burns & Griffin, 1998).

Researchers have consistently shown that students do not acquire the strategies outlined above independently. Students need to take an active role in their learning through systematic development of reading comprehension strategies (Katims & Harmon, 2000). In order for students to be active in the process of meaningful interaction with expository text, it is important to teach specific strategies and not to overwhelm them with too many strategies (Klingner et al., 2001). It is for this reason that the present study includes just four of the predominantly research-based comprehension strategies outlined in the following section entitled Collaborative Strategic Reading (CSR).

Collaborative Strategic Reading

The reading results from the National Assessment of Educational Progress (NAEP) indicate that many fourth grade students are still failing to read fluently and answer comprehension questions accurately. Low reading scores are attributed to lack of alphabetic principle, phonological awareness, and other phonics-related skills that many perceive as missing from traditional reading instruction. Despite the new attention to phonics-related instruction, there is still a growing body of students who can read at the word level but struggle with meaning, or who can comprehend text adequately but

struggle with the skills needed to acquire knowledge from text (NAEP, 2003; Vaughn, Klingner & Bryant, 2001)

The need for strategy instruction in the area of comprehending expository text is outlined in the present study. This section focuses on the need for strategy instruction, a description of Collaborative Strategic Reading (CSR), the theoretical framework for CSR and a review of the literature on CSR.

Strategy Instruction

Because teachers have a limited amount of time to teach reading, it is critical that the time they do have available is well designed to ensure knowledge and understanding of their text. This can be accomplished more effectively with the use of explicit strategy instruction to monitor and act on improving reading comprehension (Vaughn, Chard, Bryant, Coleman, Tyler, Linan-Thompson & Kouzekanani, 2000).

Cognitive strategies that assist students in processing text-based information can be taught to middle school students. Through strategy instruction, students can be empowered to take control of their own learning through a series of steps to organize, retain and express content knowledge (Katims & Harmon, 2000).

Effective use of strategies by middle school students involves knowing how to use the strategy as well as when to use the strategy (metacognition). As teachers consider introducing strategies to students in the content area classroom, it is vital that students not only understand the strategy being taught, but also know how the strategy can be used to approach, complete or modify a literacy task. Students must see a connection between the demands of expository text and the need to use the strategy that they have learned. The

ultimate success of the implementation of a strategy is when students can modify the strategy to improve their learning (Day & Elksnin, 1994).

Increasing emphasis is being placed on strategic learning in the content area. Researchers have found that when teachers present content area texts strategically and effectively, students find it easier to learn the material and are more likely to adopt the strategies modeled by the teacher to enhance their own learning. An integration of strategies into the content area learning will enable students to frame processes, apply processes and extend processes (Day & Elksnin, 1994; Vaughn et al., 2001).

The present study utilizes a cognitive strategy, Collaborative Strategic Reading (CSR), created to enhance middle school students' comprehension of expository text. CSR was designed for students to be taught to activate and refine their reading comprehension skills as they work in collaborative groups with defined roles to engage in meaningful encounters with conceptual ideas from expository text.

CSR: What Is It?

CSR was designed to address three important issues in reading instruction. The first, was meeting the needs of the increasingly diverse classrooms in the United States, including English-language learners and students with learning disabilities. Second, CSR provided strategy instruction that increased the students' comprehension of text and their ability to retain and transfer their new knowledge. Third, CSR was designed to facilitate collaborative, peer-mediated instruction among students in the content area classroom (Vaughn et al., 2001).

CSR was designed to be a strategy-based instructional tool that incorporated the research-based knowledge that children need four or five specific strategies so as not to

be overwhelmed when they must decide which to use in an authentic reading situation. CSR uses four specific strategies and specific procedures for how to apply them independently. Students use these strategies in collaborative groups of four or five, with each group member assuming a critical role (Klingner et al., 2001; Pikulski, 1998; Vaughn et al., 2001).

The strategies found in CSR are introduced first to the class as a whole. The teacher presents the first strategy in three separate sessions. First, she employs a modeling phase, which incorporates the strategy, text and think-alouds by the teacher. Second, she uses a teacher-assisted phase where students are actively involved with the process of learning the strategy as a whole group. Third, the students are involved in an independent phase where they review the strategy and then work with a partner to use the strategy with their text. This instructional framework is used with each of the four strategies included in CSR (Klingner et al., 2001).

The four strategies used in CSR are research-based and designed to incorporate the four best practices in making meaning from expository text (Palincsar & Brown, 1984; Pressley, Brown, El-Dinary, & Afflerbach, 1995). The first strategy, preview, is designed to activate the students' background knowledge and to make predictions about the text before they begin to read. The second strategy, click and clunk, is designed to assist the students in monitoring their reading and enhancing their vocabulary development during their reading. The third strategy, get the gist, teaches the students to identify the main ideas in each section of text while they are reading. The fourth strategy, wrap-up, asks the students to summarize key ideas from the text and to generate questions about the material after reading (Vaughn et al., 2001).

The preview strategy activates background knowledge and establishes predictions about the text by scanning the pictures, captions, graphics, title, headings, subheadings and key words. The objective of the preview strategy is to stimulate the students' background knowledge about the topic, encourage interest and motivation to read the text, to make informed predictions about the text, to set a purpose for reading and to share and learn from other members of their group (Vaughn & Klingner, 1999; Vaughn et al., 2001).

After the students preview the text, they begin reading as they employ the click and clunk strategy. This second strategy is a self-monitoring device to be used during the students' reading of expository text. When the students click, they are recognizing words and their meanings in the context of the text. When they come to a clunk in their reading, they have found a word or section that they do not understand, which is inhibiting their comprehension of the text. Students write down their clunks in their learning logs. After the students finish a section of the text, they discuss and solve their clunks. Solving clunks is termed de-clunking in CSR and involves the use of four "fix up" strategies. The students work in their groups to solve the clunks with the "fix-up" strategies, including rereading, context clues, prefixes or suffixes and morphemic analysis (Klingner et al., 2001; Vaughn et al., 2001).

Get the gist, also known as finding the main idea, is practiced while reading the text. The students are required to get the gist after reading each section of the text. This strategy is specifically taught to the students in the teacher modeling and assisting phase and may need to be re-taught as the students acquire mastery of this difficult strategy. Students are taught to first identify the most important person, thing or place in a section

of text. The students should then brainstorm to establish the most important idea of the passage and then rephrase that idea in ten words or less. They learn to elicit the main idea while filtering out unnecessary details (Vaughn et al., 2001).

After the students have read the text, they engage in wrap-up. In this process, the students identify questions about the text from a set of question stems that were adapted from Rosenshine and Meister (1992). These questions should identify the significant ideas from the entire text and promote understanding and transfer of the material. The students may answer these questions in their group or pose them to the entire class (Klingner et al., 2001; Vaughn et al., 2001).

After instruction in the strategy is complete and students feel comfortable working in pairs or as a class with the CSR formula, the students are then formed into heterogeneous groups of four or five. In their cooperative groups the students are required to perform two tasks. First, they must complete the assigned expository reading task. Second, they must ensure that all the members of their group also complete the task. The students work with shared goals in cooperative groups to maximize their learning as well as the learning of the members of their group (Klingner et al., 2001).

Research has found that students not only benefit socially and academically from cooperative learning, but they also prefer it to other formats. Elbaum, Schumm, and Vaughn (1997) surveyed students from grades three through five in over 500 elementary schools to ask what grouping patterns they preferred. The survey included whole class, mixed-ability groups, same-ability groups, mixed-ability pairs, same-ability pairs, and independent. Of those six options, the data from the surveys indicated that the students preferred mixed-ability groups and pairs over the other four alternatives. In follow-up

interviews with fifty-five elementary school students, the researchers similarly found that students preferred mixed-ability groups.

Johnson and Johnson (1991) found that five elements should be included for a lesson to be cooperative. The first is positive interdependence, which involves students' belief that their work benefits the group and that their group members' efforts benefit them. This can be fostered by students having specific roles that work to benefit the group. The second element is to promote interaction among students by encouraging and supporting one another's learning. The third involves individual accountability, where students' performance in the group is regularly assessed. Group members must all work effectively for the good of the group, which can be achieved by informal questioning, completing individual learning logs or group evaluations. Fourth, social skills must be taught, as members must cooperate with each other to be effective. Teachers must define and model behavior and students should practice these behaviors through simulation and role-play. Finally, at the end of the session, students should evaluate how well they worked together (Klingner et al., 2001).

CSR uses the preceding guidelines to provide meaningful roles for each student in the group. Before students assume their role for CSR they should have time to practice the expectations associated with that role. CSR suggests six roles: leader, clunk expert, gist expert, encourager, announcer and timekeeper. Of those six, leader, clunk expert and gist expert are essential; the other three can be combined. Each of the roles has a cue card and specific responsibilities that are described in the following paragraph (Klingner & Vaughn, 1998).

The first role students can assume in CSR is the leader. The leader guides the group in the four CSR strategies, prompts the group members when to do their jobs and helps the group stay on task. The announcer calls on group members to read or share an idea, ensures that all group members have an opportunity to share and reminds the group that one person at a time may speak. The clunk expert asks the group if they have any clunks, helps the group figure out the clunks and summarizes the meaning of each clunk so they can write it in their learning logs. The gist expert works with the group to decide on the best gist and assists the group in writing it in their learning logs. The encourager lets the group members know when they have worked together well or how they helped each other to learn. Finally, the timekeeper sets the timer for each portion of the CSR and then lets the group know when to begin (Klingner & Vaughn, 1998; Klingner et al., 2001).

CSR is the tool used in the present study to aid in students' comprehension of text and to facilitate cooperative group learning in expository text. This section has outlined the nature of CSR and how it works in practice. The next section of the chapter outlines the theoretical framework that supports the practice.

Theoretical Framework

CSR is grounded in what we know about reading as a transactive, socially constructed process and in our understanding of cognitive strategy instruction. Meaningful encounters with text result from interaction between a reader's prior knowledge and experience, information found in the text and the broader social context of learning (Katims & Harmon, 2000).

CSR takes a social constructivist approach to learning with expository text.

Students are actively engaged in constructing meaning from text. Students must work together on meaningful tasks to make sense of the text (Katims & Harmon, 2000).

The social constructivist approach has roots in the work of John Dewey. Dewey's writings encouraged teachers to engage students in real life, problem-solving situations where the students conduct the inquiry. He argued that learning should have a purpose and that this could be accomplished by organizing students into small groups to pursue problem-solving activities (Arends, 2003; Dewey, 1916).

Dewey (1916) had specific views on the social function of education that are consistent with those proposed in the present study. Dewey comments specifically on the social function of the group to engage students in cooperative learning and shared goals. He stated that "making the individual a sharer or partner in the associated activity so that he feels its success as his success, its failure as his failure, is the completing step...[when] he is possessed by the emotional attitude of the group, he will recognize...its aims and the means...to secure success. His beliefs and ideas...will take a form similar to those of others in the group" (p. 14).

The theory of social constructivism is also evidenced in Dewey's writings promoting the social environment of education. He discusses the interactive nature of education as "...truly educative...in the degree in which an individual shares or participates in some conjoint activity" (p. 22). It is Dewey's view that by taking on a significant role in a group, students will become familiar with the methods and acquire the skill to be learned while being "saturated" by the spirit of the group (Dewey, 1916).

CSR reflects many of the social constructivist views held by Dewey. For example, students initiate the comprehension processes in small collaborative groups of four or five

as they process text and gather meaning to complete the task. The learning takes place in a cooperative format where students complete shared goals while taking a significant role within the group.

Theoretical support for social constructivism also comes from the work of Jean Piaget. His research with young children led him to believe that learners are actively involved in the process of acquiring information and constructing knowledge. According to Piaget, knowledge is constantly changing and evolving as learners have new experiences and build on their existing knowledge and experiences (Arends, 2003; Wadsworth, 1989).

Piaget's theory required children to act within their environment if cognitive development was to occur. The development of cognitive structures necessitated the assimilation and accommodation of stimuli in the environment. Also important to social constructivism are Piaget's theories on social knowledge. He stated that it is central that children act on objects and interact with people in order to construct knowledge. Complete understanding of an issue or event cannot occur from just reading or listening to people talk. According to Piaget, full knowledge can only be constructed by experience in a social environment (Wadsworth, 1989).

Research in CSR found that students are actively involved in information gathering and meaning making through their ongoing experiences with the text in their collaborative groups. Through interacting with members of their group, students construct knowledge about the text in a social environment.

Piaget's work in social constructivism closely aligns with the research of Lev Vygotsky. Like Piaget, his theories posit that intellect develops as individuals have new

experiences and work on solving the discrepancies between the new and existing experiences. Vygotsky placed more emphasis on the social aspect of learning than did Piaget. Vygotsky believed that social interactions aided in the construction of new ideas and the development of students' intellect, and that cognitive development occurs when concepts learned through social interaction are internalized and become part of the learner's inherent ability (Arends, 2003; Vygotsky, 1934).

A vital component of Vygotsky's social constructivist theories involves the zone of proximal development. He writes that learners have two levels of development: the level of actual development and the level of potential development. The level of actual development is what the learners are capable of learning on their own. The level of potential development is the level that learners can accomplish with the support of others such as teachers, parents or peers. The zone of proximal development is the area between the individual's current ability and potential ability. Vygotsky theorized that learning occurs through social interaction with teachers and peers (Vygotsky, 1934).

Vygotsky (1934) dismissed the psychological investigations that measured a student's level of cognitive development by solving standardized problems on their own. He indicated that this only measured part of the child's development. Vygotsky conducted his research by establishing the mental age of a child, then giving that child more difficult problems than they were capable of while providing assistance such as the first step in the solution or a leading question. Vygotsky conducted this research on two eight-year-old students and found that with cooperation, one student was able to solve problems designed for a twelve-year-old while the other was able to solve problems designed for a nine-year-old. He described the difference between the students' mental

age and the problem they were able to solve as the “zo-ped” (zone of proximal development). The zone for the first child was four and for the second it was one. He posits that with cooperation a child can do more than what he can do individually, supporting the theory of social constructivism.

CSR reflects Vygotsky’s theories as this approach incorporates social interaction to enhance students’ inherent ability. As students read new expository text, they discover discrepancies between this new knowledge and existing experiences. For example, in a recent CSR lesson a group of students were discussing an article about albino kangaroos in the Austrian zoo. Their comments on the reading in the wrap-up segment indicated that their prior knowledge on kangaroos was adapted to include the new knowledge of albino kangaroos and their habitat.

Social constructivism is an important theoretical framework for Collaborative Strategic Reading and is complemented by schema theory. Schema theory emerged from the field of cognitive psychology and involves the way that knowledge is stored and represented in the memory. Teachers must create a schema for students’ learning; however, they are often ill prepared to scaffold the literacy needs of their students (Katims & Harmon, 2000).

The term schema refers to an individual’s knowledge structure or the way information has been stored in the memory. Individuals develop a schema through the experiences they have encountered, often termed prior knowledge. Anderson (1978) referred to a schema as “generic knowledge” that an individual holds to be true about people, places, events and situations.

A metaphor that theorists have used for an individual's schema is that it is like a large filing system. Knowledge and information is stored in files or slots (schema). As new knowledge is acquired, the brain creates new files (new schema) or adds that knowledge to existing files. Over time the schema expands and develops. Mental systems are created to retrieve information from the files when it is needed (Anderson, 1978; Arends, 2003).

Anderson (1978) also describes schema as a knowledge "structure". There are typical relationships among the "components" that interact with one another at various levels of abstraction. Rumelhart and Ortony (1977) describe these levels of abstraction and the level to which the structures of knowledge are imbedded within one another. When an individual is accessing information from a schema slot or file, they retrieve that knowledge at various levels of abstraction, beginning with the dominant schema and then accessing the embedded knowledge as needed for specificity.

Schema theory has specific implications for reading and interpreting a message within text. Anderson (1978) describes it this way: "To comprehend a message is to place a construction upon it that gives a coherent formulation of its contents. In schema terms, a 'coherent formulation' means a one to one correspondence between the slots in a schema and the 'givens' in the message" (p. 68). Specifically, students are able to comprehend a message in a passage as each word in the sentence that can activate the schema slots or files for the actions, objects and events in the material.

Bobrow and Norman (1975) introduced the idea of context-dependent descriptions comprised in a set of active schemata. They describe the active schemata as using the context of the description to provide an automatic process for retrieving the

necessary information from the schema slots or files. This model asserts that the retrieval mechanism uses descriptions and context meaningfully to access the necessary information to comprehend the message directed to the student.

In applying schema theory specifically to reading and writing, there is a simultaneous analysis at many different levels due to the interaction of author, reader and text. As a reader interacts with text, the interpretation of the text depends on the analysis of print (bottom-up or data-driven processes) and on the hypothesis in a person's mind (top-down or hypothesis driven) (Anderson, 1984; Bobrow & Norman, 1975).

Anderson (1984) proposes six functions of schemata that affect a reader's interaction with text. The first is that schema provides a slot or file for text information that helps the reader to assimilate text information. The second is that schema functions as a sieve to determine the important aspects of a text so the reader will filter out unimportant information and access the most important information. Third, schema aids the reader in making inferences about the text, which is vital as no text is completely explicit. Fourth, the reader can use their schema in a logical manner to search the memory categories or files to access the information they need to understand the text. Fifth, the schema aids the reader in editing and summarizing text as it contains criteria of importance. Finally, schema enables the reader to generate a hypothesis about text when there are gaps in the schema.

Social constructivism and schema theory establish a theoretical framework for Collaborative Strategic Reading. The next section of this chapter examines the current research in CSR and its effectiveness as a reading strategy with expository text in the content area.

Research Findings

The preceding sections have established the importance of strategy instruction in a literacy program and have described the nature and theoretical framework of a particular set of strategies known as CSR. This section of the paper reviews the current research on CSR and establishes its effectiveness in real life settings.

A preliminary study was conducted by Klingner and Vaughn (1996) prior to the full establishment of CSR. The study was designed to implement reciprocal teaching with learning-disabled students. The researchers set out to examine the best elements of what others had already designed to enhance reading comprehension and content learning. The authors conducted their research in a middle school with twenty-six Latino students with learning disabilities. The study was conducted in two phases of twenty-seven sessions. The first phase involved the reciprocal teaching intervention (Palincsar & Brown, 1984), where the researchers modeled comprehension strategies to small groups of students and then scaffolded their attempts to implement the strategies with small group instruction and discussions about implementation.

In the second phase of the study, the researchers randomly divided the participants into two groups. One group tutored younger students with learning disabilities in the comprehension strategies while the other group implemented the strategies in collaborative, student-led groups (Klingner & Vaughn, 1996).

The researchers found that both groups were able to implement the strategies and that their reading comprehension scores increased. Results from pre- to post-test gains on the Gates-MacGinitie Reading Comprehension Test (MacGinitie & MacGinitie, 1989) and Passage Comprehension (Palincsar & Brown, 1984) tests were statistically

significant. These findings promoted refinements of the collaborative student-led strategy instruction for a follow-up strategy outlined next titled Collaborative Strategic Reading (Klingner & Vaughn, 1996).

The participants felt that having the strategy instruction in middle school rather than fourth grade was one of the major limitations of this study. Other limitations of this study were that there was a small n (26) and a homogenous grouping (Latino), and the research occurred on one site, making it difficult to generalize to the general population. This being noted, the study did serve its purpose of introducing the strategy instruction and gaining feedback to implement the following study. The research also had some significant strengths to build on for future research, including explicit instruction by the researchers, valid standardized comprehension tests for data analysis (Gates-MacGinitie Reading Comprehension test and Palinscar & Brown's Passage Comprehension) and twenty-seven instructional sessions (Klingner & Vaughn, 1996).

Klingner, Vaughn and Schumm (1998) investigated the effectiveness of CSR in three heterogeneous fourth grade classrooms in a suburban elementary school in a large metropolitan area in the southeastern United States. Three classes consisting of thirty-nine males and forty-six females were assigned to a CSR intervention condition, and two classes of twenty males and thirty-six females to a control condition. The classes were assigned as a result of the Woodcock & Johnson Tests of Achievement word identification subtest, and then the classes were paired and randomly assigned to a condition.

The students in all five groups worked on the same unit on Florida state history from a textbook over eleven instructional sessions. Each session lasted 45 minutes and

homework was assigned from the district guidelines. The researchers taught the lessons and a participant observer was in the class to document the lessons, monitor procedures and collect data. The intervention condition included CSR instruction, modeling and small group practice in preview, click and clunk, get the gist and wrap-up. The control condition included the researcher introducing the vocabulary, previewing the pictures in the text, round-robin reading of the chapter and then researcher-led summarizing and questioning, followed by classroom discussion of the important concepts (Klingner et al., 1998).

The procedures used in the research, such as random assignment to condition, control conditions, a diverse sample of students with an $n=141$ and an eleven-session instructional period, strengthened the reliability and validity of the findings in the study. The researchers used a standardized reading test; a social studies unit test and they audiotaped the discussions in the intervention group in order to analyze the discourse during cooperative learning groups. Analysis of these conditions indicated that students in the CSR intervention condition had higher scores in reading comprehension and equal gains in content knowledge, even though the students were self-taught rather than teacher-taught (Klingner et al., 1998).

Discourse analysis of peer talk in the intervention conditions indicated that 65% of the discourse was academic and content-related, 25% was related to procedure, 8% was group feedback and 2% was off-task dialogue. The researchers also found the students implemented click and clunk and the main idea strategies most consistently (Klingner et al., 1998).

A limitation of this study was the fact that the researchers found no significant difference between achievement and condition. However, the authors noted that patterns in the scores indicated that over time or with a larger sample this could change. Another strength of the study was the increased reliability and validity of the dependent measures, standardized comprehension test and the social studies unit test (Klingner et al., 1998).

Vaughn, Chard, Bryant, Coleman, Tyler, Linan-Thompson, and Kouzekanani (2000) engaged in a study to assess the effects of fluency and comprehension instruction in students with learning disabilities and students who were low to average achieving students. In order to accomplish this study, the researchers used Partner Reading (PR) to foster reading fluency and CSR to foster comprehension of text. This differs from Klingner, Vaughn, and Schumm's (1998) study as this research adds the fluency component under the premise that researchers have found that an increase in fluency leads to an increase in comprehension.

This study involved two schools of primarily third grade students, fifty-five students in a CSR intervention group and fifty-six students in a PR intervention group. Eight teachers were trained in PR and CSR for the purpose of the study and implemented the strategies two to three times a week for twelve weeks. This study is strengthened by the fact that the research was conducted in an authentic classroom setting, over a significant twelve-week intervention period, with a large *n* of 111 students (Vaughn et al., 2000).

Analysis of the data indicates that there is a close link between fluency and comprehension instruction, and that the rate of reading and the correct words read per minute increased. However, neither group made significant gains in accuracy or

comprehension. These results were found to be true for the students with learning disabilities and the low to average achievers (Vaughn et al., 2000).

The authors of this and the previous study indicate that a larger sample size could indeed produce different results. Future research could yield significant results with the inclusion of a PR and CSR group and a control group. The authors also note that the CSR group needed more time to implement the strategy before the study began for the students to be comfortable with the student-led tasks. Also, the CSR in this study was performed in pairs rather than homogenous groups of four or five (Klingner et al., 2000).

Research indicates that general education teachers can use intervention strategies such as CSR in their reading programs (Fuchs, Fuchs, Mathes, & Simmons, 1997; Klingner et al., 1998). In the previous two studies, intervention programs were implemented in classrooms by researchers and teachers respectively. However, do reading instructional practices such as these pass the test of time?

Klingner, Vaughn, Hughes, and Arguelles (1999) studied the phenomenon of sustained instructional practices in reading strategies. They examined the extent that a cohort of teachers who were engaged in professional development for a year continued to implement the practices that they had been taught. The researchers were interested in the ways that teachers incorporated the research-based interventions they had been taught into their existing teaching practices, personal teaching styles and problems that surfaced in the classroom.

This research study incorporates three major strengths based on an evaluation of previous research on professional development. First, the authors included effective supportive practices for the teachers in the study, which increased the possibility of

transferring the research practice into regular classroom instruction. For example, volunteering to participate, introducing only a few strategies, introducing the concepts behind the research-based strategies, ongoing coaching in the classroom, demonstrations of the strategies in the classrooms and regular cohort support group meetings. Second, the reading strategies taught to the teachers included three research-based approaches known as partner reading (PR), CSR and making words. A third strength of the study was the yearlong process of professional development for the seven general education teachers and their commitment to implement the practices for nine weeks. They were encouraged but not required to use the strategies on an ongoing basis after that period (Klingner et al., 1999).

During the second year of the study, four of the seven teachers' sustained implementation after the nine-week period was over. The final year evidenced three of the teachers maintaining use of the strategies at high levels in their classroom. The researchers found that teachers wanted strategies that were easy to implement and that could be used with the whole class effectively. Continued implementation of the strategies was dependent on a commitment to implement the program for nine weeks, demonstration lessons in their classrooms and follow-up meetings with the researchers and the cohort (Klingner et al., 1999).

Through the use of focus groups and individual interviews, observations, and checklists, the researchers found that PR was the practice that sustained the highest levels of implementation. The reasons for this, as outlined by the researchers, were that it had the highest precise routine, little teacher instruction and was perceived by teachers as reaching the widest range of students (Klingner et al., 1999).

Four specific issues impeded the implementation of CSR. The first involved teachers placing the strategies aside due to the pressure to prepare for standardized testing. A second dilemma teachers faced in implementing the strategies was the emphasis placed on covering the content. The teachers found CSR to be very effective in teaching the content material, but they could not afford the time to teach the topic in as much depth as CSR required. A third reason described by teachers included time constraints. Their schedules included 30 minutes in the day for social studies instruction, which resulted in not enough time to cover the content and the strategy. Finally, specific teachers felt uncomfortable with the cooperative learning component of CSR and did not have an in-depth understanding of how to implement the practice (Klingner et al., 1999).

These factors presented by Klingner and associates (1999) are important to consider when implementing the CSR strategy in a classroom for sustained use. It is also important to consider that the teachers were being presented with three complex strategies and then asked to maintain that implementation. It is interesting to note the two major limitations of the study. First, the researchers indicated that failure to implement the CSR strategy before the study was a limitation. PR was in full implementation by the second week, whereas CSR took four to twelve weeks to fully implement. Second, the teachers taught the interventions and recorded implementation data, which the authors indicated may be exaggerated. However, the results of the previous study enabled the researchers to refine the CSR model and make it easier for teachers to use.

Klingner and Vaughn (2000) followed up the fourth grade study by Klingner and colleagues (1998) with fifth grade bilingual and limited English-proficient students in CSR groups. An important emphasis of this study was on learning new vocabulary words

and on the levels of engagement in academic versus procedural discussion. The researchers used an expert teacher to give direct instruction in CSR procedures, which resulted in strengthening the study. However, due to the teacher's strong classroom management skills and ability to keep students on task for extended periods of time, the authors note that it may not constitute a realistic picture of CSR.

The authors found that students spent the majority of their time engaged in academic discussion and less than 1% of their time engaged in procedural discussion. They also discovered that students' pre- to post-test scores on researcher-constructed vocabulary tests were statistically significant in vocabulary improvement. The implications for classroom instruction included engagement in authentic language situations, enhancing vocabulary instruction, and combining CSR format and instruction to promote group function and facilitate strategic learning (Klingner & Vaughn, 2000).

This study was limited in that it only involved one class and did not involve a cross comparison of student discourse over other content area tasks. Inclusion of other comparative data such as a control group and CSR strategies in combination with other approaches would serve to strengthen the findings. A further limitation of the study involves the small *n* (one class of 37 students) and the fact that the results could have been skewed due to the expert teacher's observed ability to keep her students on task. The measures used by the researchers included discourse analysis, researcher-made vocabulary tests, classroom observations, and field notes including implementation validity. These measures could have been strengthened by including standardized comprehension pre- and post-testing as well as student interviews or reading interest surveys to supplement the data (Klingner & Vaughn, 2000).

The final study of CSR addressed the limitations of the Klingner and associates (2000) study, as the researchers (Bryant, Vaughn, Linan-Thompson, Ugel, Hamff & Hougen, 2000) studied ten sixth-grade middle school teachers in a six-month professional development and implementation program. This study addressed the length of instruction time lacking in the Klingner and colleagues (1999) study, the limitations of one class involved in the study in the Klingner and Vaughn (2000) study and the inclusion of learning disabled as well as low to average achievers lacking in the Klingner and Vaughn (1996) study. Also, the teachers were able to choose which of the three interventions they wanted to use in their classroom rather than be assigned all three. The interventions included partner reading (PR), CSR and word identification.

The authors found that in all three interventions, the students improved in accuracy and fluency of oral reading and made gains in word identification and comprehension. The teachers participating in the study reported that CSR helped students to master complex content area text. However, as indicated in other studies, the CSR strategy takes time to learn and may be too complex for students with severe reading difficulties who must have additional special education support for their learning (Bryant, Ugel, Hougen, Hamff & Vaughn, 2000).

Bryant and associates (2000) found that small group, student-led instruction was highly useful for students in comprehending content area texts as well as deciphering vocabulary and multisyllabic words. These findings led the researchers to work with the same middle school in order to examine CSR more specifically with comprehension strategy instruction. This study involved six seventh grade teachers in a yearlong study (Bryant, Vaughn, Linan-Thompson, Ugel, Hamff & Hougen, 1999).

Bryant and colleagues (1999) found that the teachers participating in the study reported that a higher percentage of their students passed high stakes tests than the previous year, that teacher support groups increased their ability to implement CSR and that CSR supported the students' learning in content area texts.

Consistent with previous research, the authors found that the limitations of this study included the fact that CSR took time to implement, teachers varied in their comfort levels with using cooperative groups and teachers supplemented some of the vocabulary instruction in the use of CSR in their classrooms. The strengths of this study, however, included the fact that it was a yearlong study, and it included support groups for the teachers, which provided time for problem solving and a sense accountability, as teachers knew they would be asked to share their experiences. The professional development experience used in the study is supported by research-based methods in relation to implementing new instructional methods (Bryant et al., 1999).

Conclusion

CSR is an effective research-based strategy to promote fluency and comprehension of difficult expository text-based materials that are a consistent part of content area instruction in middle school classrooms. The present study is designed to use CSR to aid in collaborative reading of expository text.

Despite the important reading and writing connection, the existing studies in CSR do not adequately explore this connection. It is the intention of the present study to add the reading and writing component to the existing body of research in CSR and persuasive writing. The following section explores the current research on persuasive writing.

Writing and Learning Connections

Providing students with the tools to write persuasively is central to empowering them as citizens in a democratic society. The ability to use persuasion to critique, analyze and motivate an audience is a highly crafted skill that can be developed in students from a young age (Crammond, 1998). The importance of writing persuasively to equip students to take an active role in political, ethical and social issues of society warrants extensive instruction in the school system. However, the current reality is that secondary school texts typically avoid persuasive writing until the junior year and elementary schools tend to avoid persuasive writing entirely. This theme is carried over to college composition classes where persuasion is taught toward the end of the course sequence (McCann, 1989).

Despite the importance of being able to write persuasively to participate in a democratic society, students evidence little skill in this arena. Just as research has shown that students are more comfortable reading narrative text than expository (Day & Elksnin, 1994; Graves et al., 2003; Katims & Harmon, 2000), so studies have provided evidence that students begin successfully writing narrative text early in their school careers. Researchers suggest that this is due to learning narrative in daily conversation, which implies that formal argument is not learned from oral exchanges but from strategic teaching (Stein & Glenn, 1979).

These results indicate that explicit instruction is necessary in writing persuasive text. Applebee (1981) performed extensive research on writing instruction in secondary schools and found that students not only have minimal instruction in writing but that they also wrote infrequently. Applebee found that, on average,

only three minutes elapsed from the time the teacher began explaining a writing topic until the time students were expected to begin to write. Discussion of the topic was rare; it usually took the form of teacher questions prompting brief student response. Rare too was any gathering or sorting of relevant information, whether through procedures such as brainstorming or through systematic reference work. Indeed, most writing assignments began with the expectation that the students already knew what to say and could rapidly begin to write (p.102).

Research results on persuasive writing reflect the difficulty students experience with writing persuasive text. NAEP data reveals that students score higher on narrative, descriptive and expository tasks than persuasive tasks. The NAEP results also indicate that the majority of students cannot produce persuasive writing that is rated as “adequate or better”. Other research indicates that students continue to have difficulty with persuasive writing after graduating from high school (Crammond, 1998; McCann, 1989; NAEP, 2003)

The ability to write persuasively incorporates skills and techniques from narrative, descriptive and expository tasks. It ensures success in the papers required of students in academic endeavors and, most importantly, it equips citizens to critique, analyze and comment on the kaleidoscope of issues arising in a democratic society (McCann, 1989).

The Writing Process

In order for middle school students to produce persuasive text, they must engage in the writing process. “The term writing process refers to collecting information, planning ideas, translating ideas into text, or reviewing ideas and text” (Kellogg, 1994, p. 26). The writing process usually begins with collecting information, which involves

searching for source materials and reading information that will be transferred into the writing task. This stage is also commonly referred to as the prewriting phase. Once the writer has collected sufficient background material, they move into the planning phase.

Planning involves the writer creating personal symbols such as mental or textual outlines of the general plan of the potential first draft. The planning phase is central to the next stage of the writing process, which engages the writer in translating ideas into text. During this stage writers generate conventional text that translates meaning. Translating ideas into text is commonly referred to as the first draft of a text.

The final phase of the writing process is called reviewing. This stage involves evaluating and editing the text that has been created in the collecting, planning and translating phase. It is also important to acknowledge the potential audience for the text and how the reader will perceive the intended meanings of the writer (Kellogg, 1994).

This section of the chapter provided some background into the writing process and the writing and learning connection. What follows is an outline of Toulmin's (1958) model of argumentative structure as the theoretical framework for the writing task, the research findings on the efficacy of persuasive writing and how persuasive writing will be used in the present study.

Theoretical Framework

In order to provide students with the framework to write persuasively, the present study uses Toulmin's model of argumentation and schema theory as its theoretical basis. Argumentative uses of language have been described as "those utterances that succeed or fail only to the extent that they can be 'supported' by arguments, reasons, evidence or the like and that are able to carry the readers or the hearer along with them only because they

have such a ‘rational foundation’” (Toulmin et al., 1984, p. 5). These uses of argument usually fall along the continuum between inquiry (reasoning designed to lead to a novel discovery) and advocacy (reasoning to support an established claim). Toulmin’s model of argument structure is one of the most widely used and cited models to analyze argumentation or to teach persuasive writing (Toulmin et al., 1984; Voss & Van Dyke, 2001).

Toulmin’s model has been both widely acclaimed and severely criticized in academic circles. It remains, however, the premier model that characterizes the structure and content of well-written persuasion. This model is applied across disciplines in the humanities, and research has shown that teaching with this model has improved students’ reasoning and persuasive skills. Application of the model has also improved cognitive development in the persuasive writing of minority students (Inch & Warnick, 2002; Yeh, 1998).

The criticisms of Toulmin’s model fall into three categories: basic criticisms, feminist perspective and non-Western perspective. The first basic criticism of Toulmin’s model is that middle school students have not developed the necessary schema to use an argument structure to write persuasively. Argument is described as a complex structure that is too abstract for middle school students to attempt. Yet other critics maintain that the Toulmin model focuses on a single argument and does not use higher-level thinking or problem solving to address pertinent issues (Berieter & Scardamalia, 1989; Voss & VanDyke, 2001). Both sides of this critique should be tempered by the fact that research in middle school gives evidence that with explicit instruction students not only use

Toulmin's model to persuade but that their writing can be compared to that of expert writers (Crammond, 1998; Gleason, 1999; Means & Voss, 1996; Yeh, 1998).

A second basic criticism of Toulmin's model notes that the focus is on constructing a logical argument and does not address issues of audience. Perelman and Olbrechts-Tyteca (1968) researched the importance of audience in persuasive writing and found that if an argument is to be successful, writers must keep their audience in mind when constructing text. Nystrand (1986) also critiques the Toulmin model for neglecting audience needs and relying on a formulaic writing structure. He contends that along with an assessment of audience needs, students should be exposed to a wider variety of writing tools for persuasion.

A final basic criticism of Toulmin's model is that it contributes to a trend in American education toward ratifying a thesis and confirming a result rather than promoting a culture of exploration of ideas and testing of hypotheses. Critics contend that the spirit of inquiry-based education is being lost (Zeiger, 1985). In defense of Toulmin's model, Inch and Warnick (2002) indicate that many criticize the model without taking the necessary preparation time or providing the instruction necessary for middle school students to be successful. This fact is borne out even in research studies where students are given little or no instruction time before being expected to write persuasive essays (Crammond, 1998; Means & Voss, 1996; McCann, 1989).

The feminist perspective also provides a critique of Toulmin's model. Feminists find inherent problems with models of argument such as Toulmin's, and they provide an alternative model that they propose is more beneficial, valid and inclusive in today's schools. Jenkins (1993) maintains that traditional models of rhetoric present the view that

there is only one correct way to write, which follows the thesis-supported, linear model favored by Aristotle and Toulmin. Jenkins proposes that female rhetoric does not follow a linear pattern but rather a more circular and experiential form. By promoting Toulmin's model in our middle schools, "writing instruction will be reduced to correctness...rather than facilitating learning" (p. 21). Jenkins promotes a "rhetorical pattern" that reflects the needs of women and many non-Western cultures, rather than the "adversarial nature of Toulmin's model" (Zeigler, 1985, p. 485). Along the same argument, Zeigler contends that the scientific, thesis-supported mode of writing should not be the only form of instruction as this "puts pressure on students to win an unequal 'battle' with the teacher when the aim of an essay is to prove or win a point" (p. 485)

Hairston (1976) also critiques the Toulmin model from a feminist perspective as attempting to convert people to your point of view by threatening them or challenging their values through argumentative structure. It is her contention that using traditional argument fails, especially in matters such as race, sex, morality and personal standards of behavior, as the parties involved in the debate are so emotionally involved. She claims that it is far more productive to teach argumentative structures that promote cooperation and communication, such as Hairston's four premises for argument structure. First, the writer should project respect for the reader and inspire trust and acceptance. Second, it is important to see issues from the audience's point of view. Third, the writer should use descriptive rather than evaluative language in order to reduce the potential threatening nature of the information or language. Fourth, the writer should conclude with an acceptable and reasonable solution for both parties.

Gearhart (1979) takes Hairston's views one step further, and cites Toulmin's model as "an attempt to persuade as an act of violence" (p. 195). She contends that the "conquest model" of argument aims to invade or violate the reader and to assure the reader that this is really what they want through "language and the mind, instead of with whips and rifles" (p. 195).

The non-Western perspective questions "the privileged position of traditional argument in order to meet the needs of women as well as an increasingly socially and culturally diverse population" (Jenkins, 1993, p. 19). This school of thought contends that argument structures are "phallogocentric, eurocentric and use essentialist linguistic strategies" to perpetuate dominant population groups (McPhail, 1989, p. 1). Jenkins posits the idea that there is a "truth myth" in traditional writing structures that elevate eurocentric modes of thought and style, and that students are denied the opportunity to communicate authentic meaning and experience in their writing. Interestingly, the views of the non-Western perspective should be tempered with research in writing instruction, such as Yeh's (1998). Yeh found that by utilizing strategy instruction by explicitly teaching traditional rhetoric and argument structure, minority students not only benefited in their writing but they were also empowered. Likewise, McCann (1989) found that providing students with instruction in traditional argument structures ensured not only success in papers, but provided them with the tools to critique, analyze and comment on the kaleidoscope of issues that arise in a democratic society.

A concise description of Toulmin's model is outlined in the paragraphs below. Toulmin's model is based on two levels of argument. The first level of analysis involves claims, data, warrants and backing. The second level of analysis involves qualifiers and

rebuttals. The components of these two levels of argument will be defined and summarized in the following paragraphs. It is interesting to note that they can be described individually, but they also act together to create a cohesive argument structure (Toulmin et al., 1984).

The claim is defined as the central idea of the argument or the thesis statement. These are well-supported conclusions that can be arrived at through evidence. The evidence is a set of facts, statistical data, personal testimony or examples that support the claim. Toulmin calls this evidence, data. The data builds on the claim and gives it credibility. The claim and data provide the basis for a simple argument structure. In order to persuade an audience, the writer must include reliable data to support their claim (Chambliss & Garner, 1996; Gleason, 1999; Toulmin et al., 1984; Voss & Van Dyke, 2001).

The basic argument structure of the data and the claim are connected by a warrant. Warrants act as the next step in validating the writer's argument. They provide genuine support for the claim and can be found in *if, then* or *since* statements. A warrant is usually implicit and employs basic assumptions, rules, and principles that most readers would agree with (Chambliss & Garner, 1996; Gleason, 1999; Toulmin et al., 1984; Voss & Van Dyke, 2001).

The final component of the first level of analysis is the backing, which provides support for the warrant in the form of categorical facts. Toulmin and colleagues (1984) emphasized that the coherence of an argument can be judged by how well the claims, data, warrants and backing are connected, as well as the reliability of the argument.

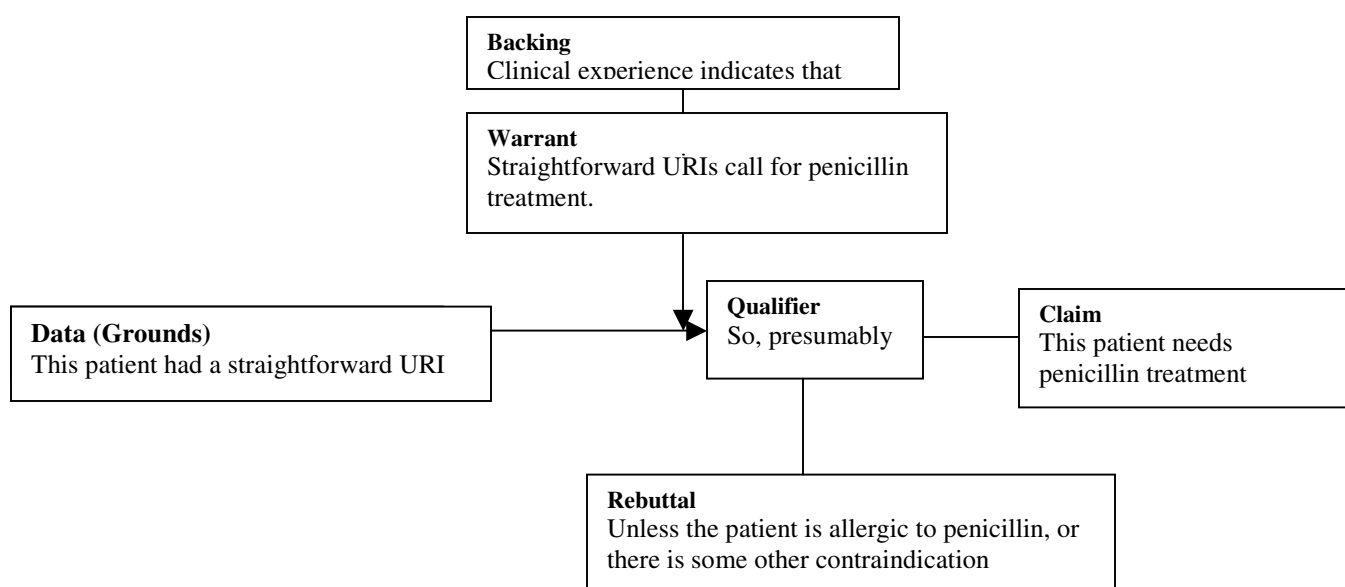
The second level of analysis provides two additional components to further convince the reader. Qualifiers add strength to the argument by limiting the range of the claim. Qualifiers in the form of adverbs and phrases such as *apparently*, *in all probability*, *very likely* or *maybe* narrow the scope of the claim and strengthen the warrant (Chambliss & Garner, 1996; Toulmin et al., 1984).

The final component of the model is the rebuttal. Toulmin and associates describe the possible rebuttals found in an argument structure as “the extraordinary or exceptional circumstances that might undermine the force of the supporting arguments” (Toulmin, Rieke & Janik, 1984, p. 95). The purpose of the rebuttal is to make references to multiple sides of an issue and anticipate the possible responses to the claim. By acknowledging alternate viewpoints, the writer exhibits their extensive knowledge of the issue and strengthens their position.

Toulmin and colleagues (1984) established a diagram (Figure 1) to illustrate the order of the argument structure and to aid students in conceptualizing the model.

Figure 1

Toulmin's Model of Argument Structure



Application of Toulmin's Model in the Present Study

Toulmin's model has been used in many research studies to analyze students' text and to teach a method of persuasive writing. The present study will be based on Toulmin's model for instruction and analysis of students' work.

The present study is also informed by schema theory, which was previously discussed in the theoretical framework for Collaborative Strategic Reading. By creating a schema for writing strategies and argument structure, students' ability to write persuasively will be enhanced and teachers will be able to scaffold their students' writing needs. The following section provides a review of the existing literature on persuasive writing.

Research Findings

Argumentation, or persuasion, remains one of the most universal forms of interaction among children and adults. Despite this, there is currently relatively little research on instruction in persuasive argumentation (Voss & Van Dyke, 2001). This review focuses on the limited research on the effectiveness of persuasive strategies used by children.

A number of research studies have established that children begin to engage in persuasive strategies at a young age. Some investigations have shown this to occur in children as young as three years old (Voss & Van Dyke, 2001). Weiss and Sachs (1991) conducted a research study designed to explore the kinds of persuasion used by preschool students. In this study, forty-four preschool children were engaged in two role-playing tasks to persuade a "mother" to buy a toy, or a "peer" to share a toy. A puppet manipulated by the researcher represented the "mother" and "peer". The children were

engaged in two role-playing situations in which the researcher followed a script, which asked the children to convince the “mother” or “peer”. The script included five reasons for refusing to comply with each request: a simple refusal, a lack of control on the part of the “mother” or “peer”, a statement of punishment or revenge, a question asking the child to defend how they would play with the toy and the quality of the toy, and anger or annoyance from the “mother” or “peer”.

The researchers coded the transcripts of the students’ replies into twenty-three categories of persuasive strategies (Falbo, 1977). The researchers found that preschool children have a wide variety of persuasive discourse, which was categorized into five new types: norm invocation, positive sanction, negative sanction, request and assertion. The authors found that the preschool children tended to be persistent and used a variety of statement categories, with bargains and guarantees being most frequent. They also found that the ability of the children to be strategic in their persuasion increased with age as they used offers, bargains and politeness with greater frequency, while reducing their dependence on forceful assertion (Weiss & Sachs, 1991).

The limitations of this study include the need for replication in order to generalize the conclusions. This study could also have benefited from a maturity scale in order to generalize about age and gender. The study could be critiqued as occurring in a contrived environment. Finally, the researcher’s re-classification of Falbo’s twenty-three categories to allow for statistical analysis could have been stronger by using a panel of experts to validate the new categories (Weiss & Sachs, 1991).

Means and Voss (1996) also studied persuasive strategies in two studies involving children in grades five through twelve. The students were asked questions to study two

factors: general mental ability and prior knowledge. The students were categorized into low, middle and high-ability categories. Transcripts of the students' answers were rated on persuasive measures including number of reasons, qualifiers, counterarguments, and type of argument structure generated.

The fact that the experiment was conducted twice increased the reliability of the study and gave more credence to the results. The researchers also used quantifiable measures to establish the ability levels of students based on the Stanford-Binet and the Wechsler Intelligence Scale for Children to classify them as gifted, average or low ability. However, expanding the population studied from solely the Pittsburgh suburbs to enable the research to be generalized to the wider population could have strengthened the research.

The researchers found that the students' persuasive ability increased over low, middle and high-ability students. Prior knowledge of the topic assisted students in the high group but did not affect students' responses in the low and middle-ability groups. This study shows that those students with high mental ability have reasonably well developed persuasive strategies, whereas those students with low to middle ability have relatively poor persuasive skills (Means & Voss, 1996).

Voss and Van Dyke (2001) discuss the apparent disagreement between these two studies. Weiss and Sachs found that as students increased in age, their ability to be strategic in their persuasion increased. Yet Means and Voss found that only the high-ability students' persuasive discourse was reasonably well developed. Voss and Van Dyke propose that this disparity can be explained by the fact that the ability of a student

to engage in complex reasoning depends on the context, the social situation and the content of the persuasive task.

The previous study indicates that young children are able to engage in complex persuasive discourse, but that persuasive writing is a more difficult proposition (Voss & Van Dyke, 2001). Knudson (1994) addressed the complexity of the written persuasive task by investigating the effects of instruction on students' persuasive writing at two grade levels (third and fifth) and the types of persuasion used by four grade levels (third, fifth, tenth and twelfth). The rationale behind this study is that students need a well-developed schema for written persuasion to transfer the oral strategies that they have developed into written form.

The students in the intervention were instructed in oral and written persuasion. This included: model persuasive texts (group 1); scales, questions and criteria to guide writing (group 2); model texts as well as scales, questions and criteria (group 3); and no instruction (control group 4). The persuasive essays were scored by two readers on Weiss and Sach's (1991) classification scale. The researchers did not find significant effects for instruction in any category. The researchers did find a significant main effect for grade, indicating that students in third grade used simple statements and no compromise whereas there was a gradual increase of the use of compromise over fifth (2.5%), tenth (9.8%) and twelfth (> 10%) grade students (Knudson, 1994).

The results of this study were surprising to the researcher, as they yielded no significant effect for instruction. The limitations of this study could explain its lack of significance. The first limitation is that the interventions included only fourteen days of instruction, while an intervention such as this should include at least six weeks of

instruction. The second limitation is the small number of students in each group. There were 139 students in the study and four treatment groups for the two grade levels (third and fifth). The treatment group analysis resulted in a small n size. Finally, the context, social situation and content of the persuasive task have been shown by Voss and Van Dyke (2001) to be integral to the students' ability to engage in complex reasoning. This is not fully explored in this study (Knudson, 1994).

Yeh (1998) also investigated the effectiveness of strategy instruction in persuasive writing in his study involving cultural minority middle school students. The study involved two strategies based on Toulmin's model of argument and classical rhetoric. The author's intent was to create a systematic plan or strategy to increase the quality of students' arguments and to empower traditionally disadvantaged groups by teaching them explicit strategies for persuasive writing, in the style of the dominant culture.

The participants included two teachers and four seventh grade classrooms with one hundred and sixteen students (71% Hispanic American, 14% African American, 9% white and % Asian American). The results of the pre- and post-test essays indicated that the students benefited from the explicit strategy instruction. This result is especially important, as the effects of site, teacher, classroom and school were not statistically significant. It is interesting to note that the students in the intervention group appeared to learn the principles of persuasive writing and were able to transfer these strategies to other tasks. Strategy instruction on argument structure aids students' ability to write logically connected arguments and as in this study, may improve cultural minority students' persuasive writing ability (Yeh, 1998).

Yeh's (1998) study lends support to the notion of using explicit instruction to teach persuasive writing. The study has a good design and a thorough theoretical framework. There are, however, two limitations of the study that should be considered. First, Yeh acknowledges that there is an unbalanced sample of cultural minorities in relation to students representing the dominant culture, which makes it difficult to provide results as to the efficacy of argument strategy benefiting minorities more than whites. The second limitation is that there was no pilot study, which could have bolstered the author's findings. By creating a pilot study, the strengths and weaknesses of the design can be addressed based on a small number of individuals participating in the test.

The importance of strategy instruction in creating effective persuasive texts is expanded in a study investigating the differences among student writers (grades six, eight and ten) and expert writers. Crammond (1998) analyzed samples of students' persuasive texts in order to identify developmental features and weaknesses. The author built on previous studies in persuasive writing through the following five strategies: 1) a comprehensive analysis of Toulmin's argument structure, 2) examining the uses of embedded arguments, 3) representing Toulmin's model as a semantic network, 4) analyzing students' and experts' persuasive texts, and 5) interpreting the results of the argument structure analysis.

Crammond (1998) based his study on Toulmin's model with the following modifications. First, the qualifier was expanded to include constraints that include conditions that are necessary for the claim to be applicable. Second, the backing element included the warrant and also the data element. Third, the element of reservation was added to the claim in order to indicate the circumstances where the claim would not be

valid. Fourth, countered rebuttals included the rebuttal of possible threats to the claim and also alternative solutions. Finally, subclaims were added to the claim element to refer to specific cases linked to the general claim.

The analysis of the data from twelve randomly selected essays from each grade level and seven expert writers found that most participants used argument structure in their organization of text, and that more than 80% of student writers used opposition in their argument. The data also revealed that embedded arguments differed from expert writers using countered rebuttals and students using subclaims or reservations, while expert writers tended to use more warrants, countered rebuttals and models. It was also interesting to note that students used more of the expert argument features as they increased in grade level (Crammond, 1998).

Crammond (1998) claims that a strength of the research is that it follows a product-based approach. However, this can also serve to be a limitation as researchers need to understand students' writing processes in order to effect change in the product. Two further limitations to consider in this study include questions about the representativeness of the population selected for the study and the lack of instruction in the study. The research site was located in the suburbs of a large city and the author does not discuss the socio-economic status of the population. This makes it difficult to generalize to inner city and rural areas. The author does not discuss any background material given students on the topic nor any instruction in argumentative structures, therefore the students are evaluated on a "one shot" writing attempt with no control for prior knowledge. The author does have a tremendous strength in the study in the

reliability and validity of the instruments used in the text analysis, as discussed in the article.

Crammond's (1998) study has four significant implications for classroom instruction in persuasive writing. First, it is important to provide students with persuasive writing topics for which they have a strong knowledge base. Second, teachers should enhance students' knowledge in argument structures to improve their persuasive texts. Third, students should be made aware of the importance of the audience for their final product and how to analyze and manipulate their audience. Finally, considering the social context of the writing of persuasive text will enhance a strategy for producing a well-developed argument structure and aid students' writing.

McCann (1989) also studied students' knowledge about argumentative text structures and their ability to produce persuasive essays. Participants in the study included ninety-five students from grades six, nine and twelve and twenty-two college professors and members of the National Council of Teachers of English writing committees. The study involved two tasks: The first was to ask the students and the expert writers to identify and rate argument in seven passages. The second was to write a persuasive essay in response to a prompt. Three experts using a scoring guide based on Toulmin's model of argument then graded the students' essays.

The analysis of the data showed that the ninth and twelfth grade students scored significantly higher than sixth-grade students in argumentative writing quality, as indicated by Toulmin's scoring criteria. The ninth and twelfth graders were more effective than the sixth graders in using claims and warrants, and the ninth graders were more effective in using qualifications and rebuttals than either group. It is interesting to

note that the results indicated that there were no significant differences among the students and the experts in their ratings of the argumentative text, and that all groups identified the passages as argumentative (McCann, 1989).

McCann's (1989) study provides an excellent theoretical base and rationale for the study, including a discussion of discourse schemata, previous research and NAEP data. A limitation of the study includes the fact that the author does not discuss validity of the Toulmin scoring guide used in the study. However, the reliability was carefully checked and recorded with an overall reliability factor of .825, using the Pearson product-moment correlations. Finally, while the author concedes that the population in the study may not be representative of the general population, he backs up his findings by asserting that they are similar to the NAEP findings.

This is an important study as the author concludes that elementary and high school students have knowledge about argument and are able to produce persuasive text. The study also supports the idea that younger writers are less strategic in producing persuasive text than older writers. The author concludes with the statement that more research is needed in the area of instructional strategies for students using data, warrants, qualifications and rebuttals (McCann, 1989). Gleason (1999) responds to this need for an instructional intervention to improve students' persuasive writing in the following study.

Gleason (1999) designed two versions of a six-week curriculum to teach persuasive writing to middle school students. The first version taught students to address audience and to plan their writing. It also included some basic elements of persuasive writing such as opinion, reasons, elaboration, and a concluding statement. The second version taught the basic elements of persuasion included in version one, as well as

addressing the arguments of the opposition, countering their points and establishing stronger grounds. The study involved three groups of high school students with learning disabilities and general education students for comparison. One group received the basic version of the curriculum, one group received the expanded version and a control group received regular instruction.

The students' essays were rated for persuasive writing ability with the Adapted Toulmin Scoring Criteria (Knudson, 1991 as cited in Gleason, 1999) and on a coherence and organization rating scale (Durst, Laine, Schultz, & Vilter, 1990 as cited in Gleason, 1999). The students were given pre-, mid- and post-tests to assess length, coherence and organization, and argumentative elements (Gleason 1999).

Gleason (1999) found that explicit instruction in how to use evidence is significantly more effective than providing evidence as part of the assessment tool. Gleason expanded this study to address the effect of using age-appropriate expository text as a source for evidence in argumentative writing. This expanded study took place with middle school students and the author found that after the explicit instruction in persuasive writing strategies the students wrote longer and more coherent and organized essays. She also found that the study used more evidence than the previous study with high school students.

Gleason's (1999) study has some significant strengths that warrant its inclusion in this review. First, the inclusion of two versions of a six-week training curriculum provides a significant instruction time to establish quantifiable results and a scaffolded curriculum where students gradually become more independent as they are exposed to the second, more elaborate curriculum. However, it is also true that experts were engaged to

teach the lessons and it could be argued that using experts to instruct the students could have resulted in improvement no matter what was taught. It is also worth considering the practicality of the model. Could this model be acquired by the general population of teachers without extensive training and modeling? Second, the author used quantifiable scoring criteria such as the Adapted Toulmin Scoring Criteria (Knudson, 1991 as cited in Gleason, 1999) and the coherence and organization rating scale (Durst, Laine, Schultz, & Vilter, 1990 as cited in Gleason, 1999). However, this also constitutes a weakness as there is no discussion of the reliability or validity of instruments. The study would also benefit from a discussion of the number of participants in the study and location of site to determine the generalizability to the general population and to analyze the findings.

The final two studies incorporate the task of collaboration into persuasive writing research. Reznitskaya, Anderson, McNurien, Nguyen-Jahiel, Archodidou & Kim (2001) used collaborative reasoning, a term for classroom discussion, to improve students' persuasive writing. The authors used collaborative reasoning for a five-week period to teach persuasive writing to fourth and fifth grade students. The teacher modeled persuasive skills and facilitated the students' discussion in the intervention. The students' persuasive essays included more arguments, counterarguments, rebuttals and other related persuasive tools in the collaborative reasoning intervention than in the control classroom. The authors also found that these skills transferred to another persuasive writing task.

The study provided a solid theoretical framework for the research, including schema theory and social interaction theory; however, there were also four limitations that should be considered when evaluating the effectiveness of the research. First, there

was no random assignment of participants to conditions. Nonetheless, there is still strong evidence provided in the study that students did acquire some generalized knowledge of argumentation. Second, the study could have been biased based on the fact that “effects were obtained not only on the primary measure of reasoned argumentation, but also on each of three alternate measures that excluded formal argument devices” (p. 172). Third, the study needs to be replicated over a longer period to ascertain whether the results can be applied to different texts, different kinds of writing prompts and assessment tasks. Finally, the use of Web-based forums for written discussions were a limitation as the students’ poor keyboarding skills and unfamiliarity with the medium created meager argument development (Reznitskaya et al., 2001).

Williams’ (1998) study on writing in residential schools brings an important dissenting voice to the idea of collaborative learning in schools. He maintains that collaborative learning can cause problems for students in the areas of the role of the teacher, the function of peer tutors, and the nature of feedback on students’ writing. He maintains that teachers cannot be mere facilitators in the writing process but must also be instructors. This study aims to address these issues in the following manner. First, the teacher researcher will play two roles, one as facilitator during CSR and the other as direct instructor during teaching of persuasive strategies. Second, students will be trained in CSR prior to the beginning of the study so that their function as peer tutors will be well defined and familiar. Finally, the feedback on student writing will come from the teacher researcher and peers, and will be structured and constructive in order to improve students’ persuasive writing abilities.

Conclusion

The review of the literature generated five important issues involved in enhancing students' ability to write persuasively. First, explicit instruction in argument strategies and knowledge about argument structure improves students' persuasive writing (Crammond, 1998; Gleason, 1999; McCann, 1989; Yeh, 1998). Second, the use of expository text as content for argument and a model for writing improves students' persuasive text (Gleason, 1999). Third, students' ability to write persuasively increases with age and grade level (Crammond, 1998; McCann, 1989). Fourth, the social situation and context of the writing environment affects students' persuasive ability (Reznitskaya et al., 2001; Voss & Van Dyke, 2001). Finally, even though young children exhibit complex oral persuasive ability, they need to be provided with instruction in the process and techniques of writing persuasively (Voss and Van Dyke, 2001; Weiss & Sachs, 1991). These five issues form the basis for the persuasive writing component of this study.

This review of the persuasive writing literature yielded important implications for designing the present study on the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. The following section examines these implications and outlines the direction that this study took to add to the established line of inquiry in the field of persuasive writing.

Persuasive Writing in the Present Study

The present study aimed to include explicit instruction in persuasive writing strategies, including Toulmin's model that used the five-paragraph essay structure. Students were also provided with pro and con articles on issues as models for their own

persuasive writing. These articles were from the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989). Students read these opinion articles on issues such as prisons, gun control and pollution to develop their argumentation skills.

The present study differs from those in the literature review by its inclusion of the Collaborative Strategic Reading model to read the expository text material from the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989) in order to prepare for writing. The inclusion of CSR addressed the social situation and context of the writing environment that Voss and Van Dyke (2001) found to be important in their research on persuasive writing.

The present study's innovative step of incorporating CSR into the persuasive writing task adding to the line of inquiry on improving students' persuasive writing. Marrying reading instruction, language instruction and classroom interaction is important in creating competent writers (Nystrand & Graff, 2001).

It is undoubtedly important to improve students' persuasive writing ability; however, it is also important to establish their attitude toward writing. The next section outlines the writing interest survey that was used in the present study to measure students' attitudes.

Writing Interest Survey

Student writing and achievement has been a concern of educators across disciplines in middle and high school classrooms (Krendl & Dodd, 1987). Skills and strategies for the teaching of writing are important for students' ability to write as well as students' attitude toward writing. The National Assessment of Educational Progress

(NAEP) illustrates the importance of attitudinal outcomes in their objectives for the student writing section. For example, objective six in the 2002 writing report states: “Students should value writing as a communicative activity. The writing assessment included ‘background’ questions, given to all participating students, which asked students whether they like to write. It also asked students about their writing practices at school and at home” (Hogan, 1980; NAEP, 2002).

The emphasis in this review of the literature has predominantly focused on strategy instruction and students’ academic achievements. However, students’ attitudes toward writing are also of central educational importance for the present study. Students’ attitudes, beliefs, values and motivation toward writing are of particular concern to classroom teachers and researchers (Bottomley, Henk, & Melnick, 1998; Hogan, 1980). In the present study, students’ attitudes toward the persuasive writing task as a result of the research interventions are of particular interest. The following section of this dissertation describes the student attitude inventory, provides a research basis for the instrument, and evaluates its strengths and weaknesses.

Student Attitude Inventory and Research Basis

Despite the concern among educators and researchers regarding students’ attitudes toward writing, there is a dearth of truly valid and reliable affective assessment instruments. Student reading interest inventories have become readily available in textbooks, as research instruments and in annual surveys (Hogan, 1980). The 1990’s produced some systematic attitudinal studies in the reading field. These include the Elementary Reading Attitude Survey (ERAS), which assesses students’ attitudes toward reading, and the Reader Self-Perception Scale (RSPS), which measures the attitudes of

upper-elementary students toward reading. Both surveys have been systematically assessed for validity and reliability. In response to the limited supply of writing attitudinal surveys such as these two reading instruments, Bottomley, Henk, and Melnick (1998) have constructed the Writer Self-Perception Scale (WSPS). The purpose of this survey is to provide data on fourth, fifth and sixth-grade students' attitudes toward writing (Bottomley et al., 1998).

The WSPS is based on Bandura's (1977, 1982 as cited in Bottomley, Henk, & Melnick, 1998) theory of perceived self-efficacy, which predicts that a child's self-perception will affect their writing growth. The theory indicates that students with positive self-perceptions about their writing ability will most likely write more often and more effectively (Bottomley et al., 1998).

The self-efficacy model promotes four basic factors as important when considering students' ability to write. The first is students' performance, which includes effort, teacher assistance, progress, attention to the task and effective instruction. The second is observational comparison, which includes the students' perception of how their writing ability compares to their peers'. The third is the input provided by teachers, peers and family members about the students' writing, termed social feedback. The fourth is physiological states, which includes the feelings that a child has about the experiences of writing (Bottomley et al., 1998).

In validation studies of the WSPS the authors found that the first factor was too broad and needed to be split into two categories, including general progress and specific progress. The specific progress category includes aspects of writing such as focus, clarity, organization, style, and coherence (Bottomley et al., 1998).

The items on the WSPS deal with overall writing ability and are worded in a simple manner to reduce reading difficulty. Students respond to a five-level Likert scale in order for ease of scoring and reporting results. For the present study, the WSPS was used as a pretest and post-test to compare the effects of the reading and writing interventions, as well as to serve as a basis for interview questions to collect data from children's verbal responses. The authors found that the five basic categories of information used in the WSPS overlapped and influenced each other (Bottomley et al., 1998).

The WSPS has a strong research base and addresses the writing attitudes of the students in the present study. The following section of the literature review gives an overview of the strengths and weaknesses of the WSPS for the present study.

Strengths of Survey

The WSPS includes five major strengths that make it a very useful instrument to assess student attitudes in the present study. The first strength of the survey is that the validity and reliability measures are very high for affective measures. The construction of the WSPS instrument included creating a conceptual and operational definition, choosing a scaling technique, conducting a review of the items, selecting a response format, preparing drafts of the instrument, piloting the items and evaluating the data, and collecting the final reliability and validity data. The items on the survey included writing performance and writer self-perception. The following items were indicators of writing performance: content, focus, clarity, organization, and coherence. The writer self-perception items included personal progress, performance of peers, social signals, and task success. The WSPS was tested on nine hundred and sixty four subjects in grades

four, five and six from three large school districts (Bottomley et al., 1998; Henk, Bottomley, Melnick, Truscott, Finke, Rickleman, Marinak, & Helfeldt, 1997).

The survey had a five-factor structure that included scales for General Progress (8 items), Specific Progress (7 items), Observational Comparison (9 items), Social Feedback (7 items), and Physiological States (6 items). Each of the items had factor loadings of .40 or greater and correlations among the five scales had significant relationships (ranging from .51 to .76) and scale distinctiveness (Bottomley et al., 1998).

The Cronbach Alpha reliability coefficients for the five scales were General Progress, .90; Scientific Progress, .89; Observational Comparison, .90; Social Feedback, .87; and Physiological States, .91. The WSPS also correlates significantly with the ERAS and the RSPS, as well as students' writing samples (Bottomley, 1998; Henk et al., 1996).

A second strength of the WSPS is the norming of the instrument. Of the few existing writing scales, the majority have been found to limit norming and to have a small number of items (Henk et al., 1996)

The third strength of WSPS is that it addresses specific aspects of writing. These include the students' attitudes toward actual writing experiences, specifically individual performance and feelings toward writing, as well as the social aspects of writing such as success as compared to peers and the influence of teachers, peers and families. These specific items on the survey increase the effectiveness of the WSPS and provide a strong rationale for its use in the present study (Bottomley et al., 1998).

The fact that the WSPS has a larger number of items than most existing scales is the fourth strength of this instrument. Most existing scales are marked by small numbers of items that do not include the five domains of self-efficacy. The variety of items

included in this survey increases its effectiveness for the present study (Bottomley et al., 1998).

Finally, the WSPS has strength in the versatility of the instrument to be used for whole group and individual assessments and interventions. The results of the survey can be used by teachers to assess student progress as well as the effectiveness of the group instruction. Teachers can use the results of the survey to modify instruction, model and provide constructive feedback, and guide the students in systematic self-assessment. Individual students' responses on surveys can be used to determine changes in students' perceptions over time, and teachers can determine which students could benefit from regular and specific illustrations of writing progress, decrease situations where peer comparison is possible, and model the personal gratification possible with writing (Bottomley et al., 1998).

The preceding five strengths of the survey make the WSPS an effective tool for evaluating students' attitudes about writing for the present study. However, it is also important to consider the limitations of the survey, as discussed in the following section.

Limitations of Survey

The limitations of the WSPS lie in its ability to meet the needs of the present study. The first is the lack of scales to measure the group effect of the CSR intervention. The CSR intervention is an integral component of the present study and it is important to elicit student responses to the intervention. The second limitation of WSPS also pertains to a missing component of the survey. For the present study it is also important to measure the students' attitudes toward the explicit instruction in the persuasive writing intervention.

Conclusions

The use of the WSPS is a vital component of the present study. The survey supports the underlying assumption of the present study that the process of reading and writing is complex and social. Based on this premise, the authors of the survey have included the classroom, the home and other social contexts for writing as useful sources from which to gather information about children as writers. Children's self-perceptions about how they write enhance their ability to be self-critical about their writing and to devise a plan to develop as writers. The ability to tap into students' attitudes about writing aids educators in developing students as expert, lifelong writers (Bottomley et al., 1998).

Conclusion

The major purpose of the literature review has been to establish the research base that already exists on Collaborative Strategic Reading and persuasive writing. This research indicates that students' ability to write persuasively will improve with the inclusion of explicit instruction, the use of expository text to provide content for the writer's argument, that CSR is an effective strategy to promote fluency and comprehension of expository text, and that the Writers Self-Perception Scale is a valuable tool for evaluating students' attitudes toward writing.

The purpose of the present study is to assess the effects of CSR and direct instruction in persuasion on students' ability to write persuasively, as well as students' attitudes toward writing. By including these aspects of the writing process, the present study will expand the line of inquiry into improving students' abilities and interest in writing persuasively.

CHAPTER III

Method

In this chapter, I describe the participants, design and analysis, instruction, measures, materials, and procedures for the present study conducted in the spring of 2004. A pilot study was also conducted in the spring of 2003. The results of the pilot study can be found in the appendix (see Appendix K).

The present study asked the question, What are the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes? Current research does not combine the use of CSR and the direct instruction of persuasive writing strategies. In order to examine these issues I asked the following research questions:

- 1.) Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?
- 2.) Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?
- 3.) Do students' attitudes towards writing affect their persuasive writing scores?

Present Study

Participants

The present study included sixth-grade students in three private schools located in the suburbs of a large city in the mid-Atlantic region. The present study was conducted in the second semester of the 2003-2004 school year. A total of 59 students participated in

the present study. Of this sample 26 were Caucasian, 14 were African-American, seven were Hispanic and 12 were Asian American.

Three sixth-grade classes were assigned to three treatments: Group 1 received instruction in CSR and had direct instruction in persuasion, group 2 received direct instruction in persuasion only, and group 3 served as the control group. The students were assigned to the treatment condition as the CSR/direct instruction in persuasion group (1) had previous training in CSR during their fifth grade year. The instructional sessions for groups 1 (CSR/direct instruction in persuasion) and 2 (direct instruction in persuasion) included 24 instructional sessions. Each instructional session was delivered during the 45-minute language arts block. Students in group 3 (control) were observed in their regular language arts class.

The three groups were selected as a convenience sample due to the following: access to the site, age group, school location, similar curriculum, similar demographics, a very low transfer rate and the students' four years of standardized test data on their literacy skills. The three schools administer the Iowa Test of Basic Skills (ITBS) every year in the fall. The students' scores in the literary component of this standardized test ranged from the sixth to ninety-eighth percentile (for sixth-grade reading comprehension and usage and expression test results).

Table 1

Comparison of Student Characteristics by Groups

| Measure | CSR/DI* (group 1) | DI* (group 2) | control (group 3) |
|-------------------------|---|---|---|
| Number of students | | | |
| in school | 215 | 301 | 142 |
| Grade/Age | 6 th grade 11-12 yrs | 6 th grade 11-13 yrs | 6 th grade 11-12 yrs |
| Location | suburbs of a large city mid-Atlantic region | suburbs of a large city mid-Atlantic region | suburbs of a large city mid-Atlantic region |
| Curriculum | based on national standards (see Appendix L) | based on national standards (see Appendix L) | based on national standards (see Appendix L) |
| ITBS range | 17 th –98 th percentile | 6 th – 99 th percentile | 6 th – 95 th percentile |
| Race | | | |
| <i>Caucasian</i> | 8 | 15 | 9 |
| <i>African American</i> | 5 | 2 | 8 |
| <i>Hispanic</i> | 5 | 4 | 0 |
| <i>Asian American</i> | 8 | 4 | 1 |
| Tuition | \$2,600 <i>members</i> | \$3,380 <i>members</i> | \$3,400 <i>members</i> |
| (per year) | \$5,500 <i>non-members</i> | \$6,000 <i>non-members</i> | \$5,400 <i>non-members</i> |

*DI direct instruction in persuasion

The students receiving the CSR/direct instruction in persuasion intervention attended a K-8 school with a population of 215 students. The school is a private Christian school with a diverse student body. The school is part of a system of 911 Christian schools in North America (United States and Canada) and 4,407 worldwide. The North American system bases its curriculum on the national standards for each subject area (see Appendix L) and mandates the Iowa Test of Basic Skills (ITBS, 2001) for students in

grades 2-12. The school is accredited by the Middle States Association of Colleges and Schools (MSACS) and has been in operation since 1958. The students follow a block schedule and rotate between three middle school teachers. The sixth-grade class composition includes, eight Caucasian, five African American, five Hispanic and eight Asian American students. The English teacher has a master's degree and has been teaching for 23 years. The cost per year is \$2,600 for students whose parents are members of the local churches that financially support the school, and \$5,500 per year for students of parents who are not members of those churches. In addition, tuition assistance is available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch.

The students receiving direct instruction in persuasion (without CSR treatment condition) attend a K-12 school with a population of 301 students. The school is part of the same school system as the CSR/direct instruction in persuasion group. It also has a diverse student population. The sixth-grade class composition includes, 15 Caucasian, two African American, four Hispanic and four Asian American students. The school is accredited by MSACS and has been in operation since 1943. The students rotate between the fifth and sixth-grade classroom for different subjects. The sixth-grade teacher has a master's degree and has been teaching for 11 years. The cost per year is \$3,380 for students whose parents attend local churches that financially support the school, and \$6,000 for children of non-members. In addition, tuition assistance is available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch.

The students in the third treatment group (the control condition) attend a K-10 school with a population of 142 students. The school is part of the same school system as the two other treatment groups. The sixth-grade class composition includes nine Caucasian, eight African American, no Hispanic and one Asian American students. The school is accredited by MSACS and has been in operation since 1956. The students are in a self-contained sixth-grade classroom. The sixth-grade teacher has a master's degree and has been teaching for 36 years. The cost per year is \$3,400 for the children of members of local churches that financially support the school and \$5,400 for the children of non-members. In addition, tuition assistance is available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch.

Shared Culture

The students in all three schools have a shared religious culture that should be considered as an important similarity across the three groups but also as a difference when comparing the results of the study with the public school culture or different religious or ethnic cultures. There are three important factors to consider when presenting the results of this study. First, the fact parents are choosing to send their children to a Christian school. Second, the parents are paying fees and contributing additional time to the school program. Finally, overall, in the majority of cases, parents value literacy in the home through religious activities and family time.

Quantitative Methods

Design and Analysis

The researcher used a quasi-experimental design to examine the following three treatment conditions: group 1 CSR/direct instruction in persuasion, group 2 direct instruction in persuasion and group 3 the control condition. The research questions and design are summarized in the following table.

Table 2

Research Design

| Research questions | Measures | Analysis |
|---|--|---|
| Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group? | Rubrics (raters' scores on persuasive ability, coherence and organization, five-paragraph format and length) | Regression ANOVA (post test data) ANCOVA (post-intervention measures using pre-measures as covariates) Case study |
| Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group? | Rubrics (raters' scores on persuasive ability, coherence and organization, five-paragraph format and length) | Regression ANOVA (post test data) ANCOVA (post-intervention measures using pre-measures as covariates) Case study |
| Do students' attitudes towards writing affect their persuasive writing scores? | Interviews Observations ITBS test scores WSPS | Regression ANOVA (pre-test and post-test data) ANCOVA (post-intervention measures using pre-attitude as covariates) Case study |

The method used to analyze the pre- and post-test essays was a content analysis of the students' essays through the use of persuasive writing measures (see Appendix F, G

and H). The pre- and post-test essays were scored for persuasive structure, coherence and organization, five-paragraph format, and length.

Three raters, the researcher, a trained English high school teacher and a middle school special education teacher scored each essay. The raters were trained to use the rubrics and read the typed essays blind. The percentage of exact agreement by raters was computed for all the analyses.

The data from the research was then analyzed in the light of the three research questions (see Table 2). The analysis is explained in greater detail in the steps below.

To begin, the first research question that I examined in the analysis looked at the difference between students in group 1 (CSR/direct instruction in persuasion) and students in group 2 (direct instruction in persuasion) and 3 (the control condition). To do this I considered the following research question:

Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?

I analyzed post-treatment measures of persuasive writing performance, using each equivalent pre-measure (claim, data, backing, coherence and organization, five-paragraph structure and length) as a covariate. The rationale for using covariate analysis was to rule out post-treatment effects (if any) as being caused by initial pre-treatment differences across the 3 groups. This was achieved in two steps.

First, I compared group 1 (CSR/direct instruction in persuasion) versus group 3 (the control condition). Then I compared group 2 (direct instruction in persuasion) versus group 3 (the control condition). Finally I compared group 1 (CSR/direct instruction in

persuasion) versus group 2 (direct instruction in persuasion) to look at differences between students who used CSR and students who did not use CSR to improve their persuasive writing skills. To do this I performed a regression ANOVA using simple contrasts with no covariate adjustment.

Second, I analyzed post-intervention measures using pre-measures as covariates (ANCOVA). To do this I compared students' post-test and pre test scores (claim, data, backing, coherence and organization, five-paragraph structure and length). This process of using pre-test measures as covariates enabled me to assess whether differences in students pre-test scores affected their post-test scores. For example, if students in group 1 (CSR/direct instruction in persuasion) scored much higher than group 2 (direct instruction in persuasion) and/or 3 (the control condition) in their pre-test essay it would be difficult to claim that higher post-test scores were the result of the intervention rather than the raw ability of the group 1 (CSR/direct instruction in persuasion) students. However, if students were all somewhat equivalent in the pre-test measures, then it seemed reasonable to consider significant differences in their scores on post-test measures to be due to the research intervention.

I used the same analysis to answer the research question:

Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?

Finally, the third research question that I examined in the analysis looked at the difference between the attitudes of the three groups toward writing based on their pre-

and post-test scores on the WSPS attitude survey. To do this I looked at the following question:

Question 3: Do students' attitudes towards writing affect their persuasive writing scores?

Step two investigates the relationship between attitude and pre-test performance, to see if attitudes relate to performance (in the absence of treatment differences). This involved two steps.

First, I computed single attitude measures. To do this I used a regression ANOVA to test if attitude influences performance, using only pre-test data. This ensured that there was no interference from the treatments.

Second, I investigated whether or not treatment effects influenced post-treatment attitude. This involved a regression ANCOVA with pre-attitude as covariate, as initial group differences had a p-value of 0.092. This process of using pre-test measures as covariates enabled me to assess whether differences in students' pre-test scores affected their post-test scores

Instruction

I conducted the six-week instructional period for treatment group 1 (CSR/direct instruction in persuasion) and group 2 (direct instruction in persuasion) from a sample outline of each lesson (see Appendix A). The use of an outline and a six-week-long instructional period provided consistency of instruction and validated the sample outline (Appendix A). The CSR/direct instruction in persuasion group (1) had prior instruction in the CSR reading strategies. This instruction consisted of training in the fifth grade social studies class for a period of six weeks. The CSR instruction took place two to three times per week for a period of approximately 45 minutes. Klingner and colleagues (1999) note

that prior instruction in CSR was an important factor in their research for implementing this collaborative strategy in the classroom.

The instructional script was based on Gleason's (1999) twelve-session script in her persuasive writing study. The modified and expanded script was supplemented with the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989) for pro and con evidence and introduction of components of the Toulmin model of argument structure (Toulmin et al., 1984). The modified script was tested in the pilot study and reviewed by a panel of five experts which included three English composition professors, one middle school English teacher and one middle school special education teacher. The prompts were also assessed by this panel for content and validity. The panel all approved the outlines with minor editing and content changes.

The control condition (group 3) had regular classroom instruction in language arts for the six-week research study. The teacher reviewed different forms of writing taught from the language arts text earlier in the year. For example, students were asked to write essays using comparison and contrast, time order words, adjectives, description and so on. I asked the teacher to continue with her regular classroom instruction. During the six-week study, I informally interviewed the teacher, collected samples of students' work, observed and wrote field notes.

Measures

The students' essays were analyzed using five different dependent measures. The first five measures were calculated pre- and post-test. The first measure was the Adapted Toulmin Scoring Criteria (Knudson, 1991 as cited in Gleason, 1999) and was used by

raters to score the persuasive essays (see Appendix F). The second measure was the coherence and organization rating scale (Durst, Laine, Schultz, & Vilter, 1990 as cited in Gleason, 1999) (see Appendix G). The third measure was the five-paragraph format rubric (Durst et al., 1990 as cited in Gleason, 1999) to assess the impact of the students' ability to structure their essays (see Appendix H). The fourth measure that was used in the present study was the actual count of the number of words written by the students. The fifth measure was the Writer Self-Perception Scale (WSPS) that was used to assess the children's self-perceptions about their writing ability (Bottomley, Henk, & Melnick, 1998).

To assess the dependent measures (claim, data, backing, coherence and organization and five-paragraph format) of students' persuasive writing ability, three trained raters scored each of the essays in the pre- and post-testing with the use of a rubric (see Appendix F, G, and H). Three raters analyzed the essays from the present study. One rater was the researcher, one a trained English teacher and the other a trained special educator and reading specialist. All three had prior experience in using rubrics such as those in the present study. Prior to the scoring sessions for the present study, the raters participated in a one-hour training session before the pilot study, the pilot study and a retraining session for the present study (see Appendix K). The raters scored the essays independently following the final training session.

The raters graded the pilot study data to establish interrater reliability, defined as the percent of essays with exact agreement (same score) between the raters. The three raters achieved an acceptable agreement level between 80% and 90%, with the exception of the ratings for claim, and coherence and organization (see Table 17). Interrater

reliability was established from a random selection of pre- and post-test essay scores by each of the three raters. Scores from each of the five measures (claim, data, backing, coherence and organization, and five-paragraph essay) were used to run the Cronbach's Alpha test of interrater reliability to determine the percentage values of rater agreement (see Appendix K).

In order to address the two interrater reliability scores that were in the unacceptable range from the pilot study test (claim, and coherence and organization). I met with the raters as a group to engage in systematic retraining. I randomly selected twelve essays from all three groups and methodically graded each one. To ensure acceptable interrater reliability, I used think-aloud strategies with the raters to resolve disagreements and obtain consensus on each paper.

The raters scored each of the twelve target essays using the same rubrics as the pilot study (see Appendix F, G and H). Based on the raters' consensus, we achieved an interrater agreement level between 90-100 percent.

Table 3

Interrater Agreement Level Based on Rater Consensus

| <i>Rubric</i> | <i>Agreement Level</i> |
|----------------------------|------------------------|
| Claim | 90-100% |
| Data | 90-100% |
| Backing/Warrant | 90-100% |
| Coherence and Organization | 90-100% |
| Five-paragraph Essay | 90-100% |

Note. n=12

Materials

The materials for the present study consisted of 1) two writing prompts (see Appendix C); 2) an outline for the 24 instructional sessions (see Appendix D); 3) *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989); 4) Writer Self-Perception Scale (see Appendix E); 5) scoring rubrics (see Appendix F, G, & H); 6) a parent consent form and student assent form (see Appendix I); and 7) case study interview questions (see Appendix J).

Validity of the instructional sessions

The scripts for the instructional sessions were developed from the outline used in Gleason's (1999) study. This outline was supplemented with other research-based techniques (Crammond, 1998; Knudson, 1994; Yeh, 1998). The outlines for the instructional sessions (see Appendix A) were also modified after a panel of five experts reviewed the script. The experts included three English composition professors, one high school English teacher and one middle school special education teacher. Following the modifications from the panel of experts, the outline was field-tested in the pilot study (see Appendix K).

Validity of reading materials

The reading materials were taken from the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989). This series was selected because of the topic relevance to middle school students and the potential to generate persuasive writing. The series has been used in other research on persuasive writing (Yeh, 1998). JoAnne Buggey, Ph.D., curriculum consultant from the College of Education at the University of Minnesota, evaluated each book used in this research.

Validity of the Writer Self-Perception Scale

The Writer Self-Perception Scale (WSPS) (see Appendix E) was administered to the sixth-grade students as a pre- and post-survey. The researchers who created this survey spent extensive time field-testing the instrument. The construction of the WSPS instrument included creating a conceptual and operational definition, choosing a scaling technique, conducting a review of the items, selecting a response format, preparing drafts of the instrument, piloting the items and evaluating the data, and collecting the final reliability and validity data. The items on the survey included writing performance and writer self-perception. The following items were indicators of writing performance: content, focus, clarity, organization, and coherence. The writer self-perception items included personal progress, performance of peers, social signals, and task success. The WSPS was tested on 964 subjects in grades four, five and six from three large school districts (Bottomley et al., 1998; Henk et al., 1997).

Validity of the Adapted Toulmin Scoring Criteria

The Adapted Toulmin Scoring Criteria (see Appendix F) were used to measure whether the quality of student essays improved as a result of the intervention. This instrument was chosen due to the wide use of the instrument in previous research studies. Toulmin's criteria were adapted from McCann's (1989) and Knudson's (1991 as cited in Gleason, 1999) studies with general education students. The criteria were also used for studies involving students with learning disabilities (Coleman & Gleason, 1997 as cited in Gleason 1999; Landsom & Gleason, 1997 as cited in Gleason, 1999; and Gleason, 1999).

The Adapted Toulmin Scoring Criteria (McCann, 1989) were also evaluated by a panel of experts including three English composition professors, a high school English teacher and a middle school special education teacher. The panel suggested some minor changes to the scoring criteria, which were implemented. The scoring criteria were also field-tested during the pilot study (see Appendix K). The field test indicated that the survey was valid as it measured the students' essays for persuasive elements. Due to the nature of using a rubric for assessing elements of students' writing, extensive training sessions for raters were necessary to clarify the scoring criteria.

Validity of the Coherence and Organization Rating Scale

Another measure of students' persuasive writing ability was the coherence and organization rubric (see Appendix G). Durst, Laine, Schultz and Vilter (1990 as cited in Gleason, 1999) constructed a rubric based on Bamberg's (1984) analysis of descriptive writing, which includes general writing elements such as discourse flow, mechanical errors, structure, organization, closure, and cohesive ties, as well as argument construction.

The rubric is generic and includes writing mechanics as well as general structural and content issues in students' essays. The rubric also includes some specific categories that address persuasive writing, e.g. writer clearly states main points of argument in introduction. Their analysis includes four categories to assess the coherence of the essay: fully coherent, partially coherent, not coherent, and nearly incomprehensible. The rubric assesses the interconnectedness of parts of the essay. At a micro level the rubric assesses whether sentences and paragraphs flow with transitional sentences and cohesive ties, and at a macro level the structure is assessed by the ability of the student to prepare the reader

for the argument structure in the introductory paragraph and a strong conclusion. Durst and colleagues found that the exact agreement for this analysis was 74%. Gleason (1999) also used the coherence and organization rating scale to assess the role of evidence in argumentative writing. The coherence and organization rating scale (Durst et al., 1990 as cited in Gleason, 1999) was field-tested in the pilot study (see Appendix K) and was evaluated by a panel of experts including three English composition professors, a high school English teacher and a middle school English teacher.

Validity of the Five-paragraph Format rubric

The five-paragraph format was chosen because it included a thesis support pattern that was necessary to incorporate the Toulmin model of argument structure (Toulmin et al., 1984). The outline involves the introduction with a thesis statement, followed by three supporting paragraphs and a conclusion that restates the initial thesis. The rubric includes the following categories: strong use of the five-paragraph structure, moderate use, some use and no use (see Appendix H). This rubric was created by Durst, Laine, Schultz and Vilter (1990 as cited in Gleason, 1999), who found that agreement among raters for the analysis was 84%. The rubric was used in the pilot study (see Appendix K) to assess students' essays and was evaluated by a panel of experts including an English composition professor, a high school English teacher and a middle school English teacher.

Validity of the case study interview questions

The interview questions for the case study were compiled from two previous student attitude scales. Emig and King (1979) created the Writing Attitude Scale for Students (WASS) from revisions of the Emig Writing Attitude Scale (EWAS)

constructed in 1977 for the New Jersey Writing Project. 25 teachers and 1,600 students participated in the 1977 study. The EWAS was reviewed by English education graduate students and English classroom teachers to ensure content validity of the WASS. Cronbach alpha reliabilities for the WASS were run on the three subscales in the instrument (perception .589; process .726; preference .716). The instrument was reviewed by a panel of experts for The Research Instruments Project (TRIP), which was funded by the National Council for Teachers of English (NCTE) Research Foundation grant.

The second instrument used to create the case study interview questions was from Krendl's (1987) study. The student writing attitude questionnaire was created for this longitudinal study to assess students' writing in order to aid language arts teachers in teaching writing more effectively. The study was based on the National Writing Project and students were asked to fill out the attitude survey each year for the three-year duration of the study. The writing committee for the study included eighteen high school English teachers and a university professor as an outside evaluator.

The two instruments were originally administered using Likert scales in their respective studies. In the present study, the questions were adapted into interview questions in order to elicit more information from the students about their attitudes toward writing. The questions were not changed from the original wording except to create a question rather than a statement. The purpose of keeping the questions the same as the original was to ensure validity.

Procedures

The procedures used for the present study are outlined in this section. First, the students in the CSR/direct instruction in persuasion group (1) had been trained in the

CSR strategies in their fifth grade year. The CSR/direct instruction in persuasion group (1) were also given a one-week refresher course before the present study began.

Second, on the first day of the present study students from all three treatment groups were informed about the purpose of the study and were given student assent forms to sign. The students were also sent home with parental permission forms to return to school that week.

Third, the students were presented with the pre-test writing prompt and were asked to write in response (see Appendix A). All the students in the three treatment conditions received the same instructions for this lesson. At the end of this session students from all three treatment groups were asked to complete the WSPS for comparison purposes. The present study examined the difference between the attitudes of the three groups toward writing based on their pre- and post-test scores on the WSPS attitude survey.

Fourth, the students in the CSR/direct instruction in persuasion group (1) and the direct instruction in persuasion group (2) participated in six weeks of instruction in persuasive writing strategies on three topics: prisons, pollution and gun control (see Appendix A and D). I observed language arts lessons by the classroom teacher in the control group (group 3) for the same six-week period.

Fifth, at the end of the six-week intervention the students in all three groups were given the final prompt and wrote the post-test essay. The students in all three groups were given the same background materials to read from the *Opposing Viewpoints for Juniors* series. The students also completed the WSPS survey as a post-test comparison measure.

The researcher used the ITBS (2003) scores to select six students who were part of the case study component of the present study. Three low-ability students (scoring between the 23rd and 59th percentile on ITBS in reading comprehension and usage and expression), three average-ability students (scoring between the 53rd and 71st percentile on ITBS in reading comprehension and usage and expression) and three-high ability students (scoring between the 66th and 98th percentile in reading comprehension and usage and expression) were chosen after comparing the ITBS results to the classroom teachers' rating of students' abilities. I interviewed the nine students three times using interview questions (see Appendix J). I also wrote field notes about the students in the case study and their classroom environment to aid in the analysis of the case study. The transcripts of the interview sessions, observations, WSPS results and the students' performance on the essays was used to complete the case study portion of this research.

Qualitative Method

Case Study

The case study portion of the present study provides further insight into the research questions regarding the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. This section describes the setting, the classroom teachers, the participants and the data gathering process.

Description of Setting

The CSR/direct instruction in persuasion group (1) have their language arts class in a second floor classroom with one of three junior high teachers. This room is housed in a building that was constructed in 1958. The classroom has one wall of almost full-length

windows that provides a lot of natural light. The desks are adjustable and have one shelf for books in the top. The desks are arranged in groups of five so that the students face each other as well as being able to turn to face the front of the room. The front of the classroom has a chalkboard running across the entire front wall and a lectern for the teacher that includes an overhead projector at the side. There is also a wall attachment with a TV/DVD at the side of the chalkboard. Above the chalkboard there is an inspirational quote and down the side wall, opposite the windows, there are two bulletin boards with the current social studies unit materials displayed along with student work. There is also a workstation under the bulletin boards that has two computers with Internet access and grade-appropriate software (Standish, 2004).

The teacher's desk sits at the side of the room in the front of the classroom under one of the bulletin boards. The teacher has a shelf and small cupboard behind her desk that stores teacher manuals and students' work to be graded. The back wall is lined with lockers that hold the eighth grade homeroom students' books and materials. The back wall also has two doors, one to the hall and one to the teacher's storeroom. The room is carpeted and very clean. It appears to be an environment conducive to learning (Standish, 2004).

The direct instruction in persuasion group (2) has a self-contained classroom; students only leave the classroom for specials such as PE, music, art and outdoor activities. The classroom is located on the ground floor of the school. The room is housed in a building that was constructed in 1943. The classroom has one wall of windows that provide natural light to the classroom. Under the windows are tables that hold computers for the students, providing Internet access and grade-appropriate software. Next to the

windows there is a section of shelving that holds the teacher's materials. Her desk is in front of those shelves. The side wall has storage cupboards and a shelf for students' work. The front wall of the classroom has two large whiteboards, a pull down screen and more shelving at the side. In front of the whiteboards are tables and a lectern with an overhead projector attached. The door to the corridor is at the side of this wall. A classroom telephone is next to the door attached to the wall. The students' desks are arranged in two U-shape areas. The final side wall has low bookshelves and a large couch for students to read on. The room is carpeted and, although a little cluttered, appears to be an environment conducive to learning (Standish, 2004).

The control group (3) has a self-contained classroom in the basement of the school. The school was built in 1956 and has a recent addition with new classrooms, technology and library space for the junior academy. Construction is still underway on the new addition. The classroom has a door to the outside stairwell with a window and basement windows lining the top of the rest of the wall. There is very little natural light coming into the classroom. Under the basement windows there are tables with six student computers. Above the computers are bulletin boards with student work on them. The teacher's desk is against this back wall, with a storage closet behind her. Two student desks are aligned with her desk for students with learning and behavioral management issues. The side wall houses a classroom library and comfortable chairs for the students to sit and read. This area also has a tape recorder and TV/VCR. The front wall of the classroom has a door to the school corridor and two large whiteboards. The teacher's lectern is in front of the whiteboards, with an overhead projector attached. The side wall of the classroom is lined with waist-high cupboards, and on top of the cupboards are three

large fish tanks with a variety of live reptiles in them. The desks are arranged in two groups of boys and girls, with the exception of four students who have desks near the other students but are seated on their own. This is also due to learning and behavioral issues. The classroom is carpeted and very clean. It appears to be conducive to learning (Standish, 2004).

Description of Teachers

The teacher from the CSR/direct instruction in persuasion group (1) has a master's degree and has been teaching for 22 years. She teaches the middle school students (sixth, seventh and eighth grade) language arts, Bible and social studies. She uses a combination of direct instruction, cooperative learning, problem solving, text-intensive instruction and self-directed instruction. Her language arts class is textbook-oriented and she is using a new series of books that are literature-driven. She has supplemented this series with an older grammar text, as she felt that the language arts series was weak on grammar. She also teaches writing with a writing model, which involves outlining and a scripted direct instruction format. She had only introduced the sixth-grade students to the narrative and descriptive sections of this method prior to the present study. By comparison, her social studies classes involve predominantly cooperative learning and self-directed instruction with the teacher as the facilitator. The students do a moderate amount of writing, creating mostly descriptive materials. The teacher appears to be well respected by the students and the students are all engaged and on task during class periods that I observed. The teacher has a calm, deliberate style of teaching and the students appear to be motivated to engage in class activities (Standish, 2004).

The teacher in the direct instruction in persuasion group (2) has a master's degree and has been teaching for 11 years. She teaches fifth and sixth-grade language arts, science, Bible, and math. She uses a combination of direct instruction, text-driven instruction, self-directed instruction and a small amount of cooperative learning. Her language arts class is textbook-driven, with specific instruction in writing models. She had also introduced narrative, descriptive and scientific hypothesis-based writing (for the students' science fair projects). She used a separate grammar text to supplement the language arts text. The teacher appeared to be well respected by the students and demonstrated a relaxed style of interaction with them. During instruction, the students appeared to be engaged in classroom activities (Standish, 2004).

The teacher in the control group (3) has a master's degree and has been teaching for 36 years. She has taught a combination class of fifth and sixth-grade for many years, but this year was teaching a sixth-grade class. She teaches all subjects in this self-contained class. She uses direct instruction, text-intense instruction and self-directed learning in her teaching methods. Her group-oriented classroom desk arrangement also allows for some cooperative learning. The students have a list of subjects and activities that will be covered over the course of the day on the chalkboard each morning to foster their independence. Some of the day they are able to work at their own pace through the assignments. Her language arts class is textbook-oriented. The writing instruction always comes at the end of the chapter and covers the content of the chapter, e.g. comparison and contrast. It appeared that the level of writing instruction in the 2003/04 school year was far more extensive after the pilot study in the 2002/2003 school year. The teacher appeared to be very comfortable with the students and they also appeared to like and

respect her as their teacher. After direct instruction and modeling, the teacher spent the remainder of class time assisting and guiding individual students. The students seemed to be comfortable in the classroom environment engaging in classroom activities (Standish, 2004).

Description of Participants

There were 23 students in the CSR/direct instruction in persuasion group (1). The students participating in the case study were three chosen by the teacher as a high-, middle- and low-achieving student based on their records and observation, and confirmed by their ITBS test data (usage and grammar section). The high-achieving student from this group was a female. She is verbally and musically gifted, and scored at the 87th percentile on the ITBS test. The middle-achieving student was also a female. She has verbal and artistic strengths and scored at the 71st percentile on the ITBS test. The lower-achieving student was a male. Although very verbal during the interview process, he scored at the 59th percentile on the ITBS test. All three students seemed to enjoy being interviewed and responded thoughtfully to the interview questions (Standish, 2004).

There were 21 students in the direct instruction in persuasion group (2). The students participating in the case study were three chosen by the teacher as a high-, middle- and low-achieving student based on their records and observation, and confirmed by their ITBS test data (usage and grammar section). The high-achieving student from this group was a female. She has verbal and logic strengths and scored at the 81st percentile on the ITBS test. The middle-achieving student was a male. He has moderate verbal strengths and scored at the 71st percentile on the ITBS test. The lower-achieving student was a female. She lacked verbal skills and scored at the 23rd percentile on the

ITBS test. All three students seemed to enjoy being interviewed and the higher and middle students responded thoughtfully to the interview questions. The lower student had trouble answering the questions and spent a great deal of time reflecting on the questions, with long pauses in between (Standish, 2004).

There were 15 students in the control group (3). The students participating in the case study were three chosen by the teacher as a high-, middle- and low-achieving student based on their records, observation and confirmed by their ITBS test data (usage and grammar section). The high-achieving student from this group was a female. She scored at the 66th percentile on the ITBS test. The middle-achieving student was a male. He has verbal and artistic strengths and scored at the 53rd percentile on the ITBS test. The lower-achieving student was a male. Although very verbal during the interview process, he scored in the 14th percentile on the ITBS test. All three students seemed to enjoy being interviewed and responded thoughtfully to the interview questions (Standish, 2004).

Data Gathering

I interviewed each of the nine students individually in a quiet location with little distractions. The questions were compiled from two previous research studies (Emig & King, 1979; Krendl & Dodd, 1987) and were read from an interview cue sheet to each student (see Appendix J). The students' answers were written down verbatim and later transcribed for accurate recording. The students were also asked at the end of the interview if they had anything else they would like to add, to give them an open-ended opportunity to comment on their views about writing. The questions were divided into three interview sessions to allow the students time to reflect on their answers and so the number of questions would not overwhelm them.

Following the transcription process, the students' responses were sorted between the three research questions. The students' responses were coded to find themes and issues pertinent to the research questions. The students' responses to the issues were then compared to the relevant literature to find supporting or disconfirming evidence.

Conclusion

This chapter outlines the participants, setting, design and analysis, measures, materials and procedures of the study. Chapter IV will present the results of the study described in this chapter.

CHAPTER IV

Results

In this chapter, I present the results of the present study in which I examined the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. The research questions for the present study were as follows:

- 1.) Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?
- 2.) Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?
- 3.) Do students' attitudes towards writing affect their persuasive writing scores?

Quantitative Results

Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?

To address this question I analyzed post-intervention measures of persuasive writing performance, using each equivalent pre-measure (pre-test data) as a covariate. There were several analyses on each measure (claim, data, backing, coherence and organization, five-paragraph essay and length). The rationale for using covariate analysis was to rule out post-intervention effects (if any) being caused by initial pre-intervention differences across the three groups.

First, I compared group 1 (CSR/direct instruction in persuasion) versus group 3 (control), and group 2 (direct instruction in persuasion) versus group 3 (control) to examine whether the CSR/direct instruction in persuasion intervention improved students' persuasive writing skills. For this analysis I performed a regression ANOVA using simple contrasts (group 1 CSR/direct instruction in persuasion vs. group 3 control, and group 2 direct instruction in persuasion vs. group 3 control) with no covariate adjustment (pre-test data).

Second, I analyzed post-intervention measures (ANCOVA) using pre-measures (pre-test data) as covariates. For this analysis I compared students' post-test and pre-test scores on the following measures of persuasive writing: claim, data, backing, coherence and organization, five-paragraph structure and length (word count). The process of using pre-test measures as covariates enabled me to assess whether differences in students' pre-test scores affected their post-test scores and to adjust for such effects if required. For example, if students in group 1 (CSR/direct instruction in persuasion) scored much higher than group 2 (direct instruction in persuasion) and/or 3 (control) in their pre-test essay, it would be difficult to claim that higher post-test scores were the result of the intervention rather than the initial ability of group 1 (CSR/direct instruction in persuasion) students. However, if students are all somewhat equivalent in the pre-test measures, then it seems reasonable to consider significant differences in their scores on post-test measures to be due to the research intervention.

Table 4

Means for CSR Comparison of Pre-test Scores

| Individual Group Scores | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
|--------------------------------|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| G1 CSR/DI | 3.13 | 3.65 | 0.61 | 2.13 | 1.17 | 113.57 |
| G2 DI | 2.76 | 3.43 | 1.81 | 2.76 | 1.62 | 207.86 |
| G3 control | 4.00 | 4.00 | 2.00 | 2.80 | 1.53 | 105.60 |

Interpretation of Table 4

Table 4 presents the mean and standard deviation scores for each measure of persuasive writing (claim, data, backing, coherence and organization, five-paragraph and length) scored by the raters for each group for pre-test data. The first set of figures presents scores broken down by the treatment groups. The control and the second set present the combined post-test scores for all three groups. Claim, data and backing were scored from 0-6, coherence and organization and five-paragraph structure was scored from 1-4, and the length were determined by Microsoft™ word count.

The difference in the n's between groups (group 1 n=23, group 2 n=21, group 3 n=15) is not important as the statistical analysis compares group means whether they are based on the same number of observations or not. The mean of 10 or 20 observations is an unbiased estimate of the population quantity of interest, irrespective of sample size.

Table 5

Means and Standard Deviations for CSR Comparison of Post-test Scores

| Individual Group Scores | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
|--------------------------------|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| G1 CSR/DI | 5.83 | 5.57 | 5.48 | 3.65 | 3.48 | 184.39 |
| G2 DI | 2.95 | 2.76 | 2.00 | 2.38 | 2.57 | 111.52 |
| G3 control | 3.73 | 3.33 | 1.33 | 2.67 | 1.40 | 98.87 |
| Combined Group Scores | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
| Minimum score | 0 | 0 | 0 | 1 | 1 | 36 |
| Maximum score | 6 | 6 | 6 | 4 | 4 | 314 |
| Mean | 4.27 | 4 | 3.19 | 2.95 | 2.63 | 136.71 |
| Std. Deviation | 1.946 | 1.93 | 2.201 | .936 | 1.128 | 59.964 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI).

Comparison group 3 was the control group.

^an=59 (group 1 n=23, group 2 n=21, group 3 n=15)

^bThe range for the scores for each of the measures are as follows: claim 0 (low score) to 6 (high score), data 0 (low score) to 6 (high score), backing 0 (low score) to 6 (high score), coherence and organization 1 (low score) to 4 (high score), five-paragraph essay structure 1 (low score) to 4 (high score), length 56 (lowest word count) to 246 (highest word count).

Interpretation of Table 5

Table 5 presents the mean and standard deviation scores for each measure of persuasive writing (claim, data, backing, coherence and organization, five-paragraph and length) scored by the raters for each group for post-test data. The first set of figures presents scores broken down by the treatment groups. The control and the second set present the combined post-test scores for all three groups. Claim, data and backing were scored from 0-6, coherence and organization and five-paragraph structure was scored from 1-4, and the length were determined by Microsoft™ word count.

Table 6

Analysis of Variance for the CSR Comparison

| Comparison group 1 (CSR/DI) vs. group 3 (control) | | | | | | |
|--|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
| Estimate | 2.09 | 2.23 | 4.15 | 0.99 | 2.08 | 85.52 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Comparison group 2 (DI) vs. 3 (control) | | | | | | |
| Estimate | -0.78 | -0.57 | 0.67 | -0.29 | 1.17 | 12.66 |
| p-value | 0.125 | 0.255 | 0.103 | 0.265 | 0.000 | 0.425 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 6

Table 6 presents the ANOVA test of post-test scores showing two contrasts (group 1 CSR/direct instruction in persuasion vs. group 3 control and group 2 direct instruction in persuasion vs. group 3 control). The estimate is simply a subtraction of the means from the groups in the contrast. For example, in group 1 (CSR/direct instruction in persuasion) vs. group 3 (control) the first section shows that the claim for group 1 = 5.83 and the claim for group 3 = 3.37, therefore $5.83 - 3.37 = 2.09$ (2.09 is the estimate for group 1 CSR/direct instruction in persuasion vs. group 3 control). The p-value indicates statistical significance at the 0.05 level. Treatment group 1 (CSR/direct instruction in persuasion) outperformed group 3 (control), showing statistical significance for all six measures. Treatment group 2 (direct instruction in persuasion) vs. 3 (control) shows only statistical significance for five-paragraph structure, with group 2 (direct instruction in persuasion) outperforming group 3 (control) on this measure.

Table 7

Analysis of Covariance for the CSR Comparison

| Comparison group 1 (CSR/DI) vs. group 3 (control) | | | | | | |
|--|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
| Estimate | 1.98 | 2.25 | 4.34 | 1.13 | 2.13 | 83.52 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Comparison group 2 (DI) vs. group 3 (control) | | | | | | |
| Estimate | -0.95 | -0.54 | 0.69 | -0.28 | 1.16 | -13.12 |
| p-value | 0.076 | 0.292 | 0.091 | 0.276 | 0.000 | 0.478 |
| Covariate | -0.14 | 0.06 | 0.14 | 0.21 | 0.16 | 0.25 |
| p-value | 0.288 | 0.707 | 0.300 | 0.228 | 0.352 | 0.017 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 7

Table 7 presents the ANCOVA test for the post-test scores. This test includes covariate control for the pre-test scores. This table is conceptually the same as table 6 but has covariate control. The results of this test indicate that there is no statistically significant possibility of students' having a pre-existing skill in any of five out of six measures (claim, data, backing, coherence and organization, and five-paragraph structure). The results do show that students who had the pre-existing skill of length (word count) had a similar level in the post-intervention test. For example, students who wrote longer papers for the pre-test essay also wrote longer papers for the post-test essay.

Interpretation of Test Results

The first contrast (group 1 CSR/direct instruction in persuasion vs. group 3 control) result indicated that the CSR intervention group demonstrated statistically greater mean test performance on all six measures (claim, data, backing, coherence and organization, five-paragraph essay and length) than the control group. However, the second contrast (group 2 direct instruction in persuasion vs. group 3 control) did not demonstrate statistical significance except for the five-paragraph measure. Therefore, the mean in the CSR group was statistically greater than the mean in the other two treatment groups (direct instruction in persuasion and control group). When controlling for pre-existing skills (pre-test), students' scores were not statistically significant except for length (word count).

Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?

To examine this question I analyzed post-intervention measures of persuasive writing performance, using each equivalent pre-measure (pre-test data) as a covariate. The rationale for using covariate analysis was to rule out post-treatment effects (if any) as being caused by initial pre-treatment differences across the three groups.

First, I compared group 1 (CSR/direct instruction in persuasion) vs. group 3 (control), group 1 (CSR/direct instruction in persuasion) vs. group 2 (direct instruction in persuasion) and group 2 (direct instruction in persuasion) vs. group 3 (control) to look at the effect of direct instruction in persuasion intervention on students' persuasive writing skills. To do this I performed a regression ANOVA using simple contrasts (group 1

CSR/direct instruction in persuasion vs. group 3 control, group 1 CSR/direct instruction in persuasion vs. group 2 direct instruction in persuasion and group 2 direct instruction in persuasion vs. group 3 control) with no covariate adjustment (only post-test data).

Second, I analyzed post-intervention measures using pre-measures as covariates (ANCOVA). To do this I compared students' post-test and pre test scores (claim, data, backing, coherence and organization, five-paragraph structure and length). This process of using pre-test measures as covariates enabled me to assess whether differences in students' pre-test scores affected their post-test scores. For example, if students in group 1 (CSR/direct instruction in persuasion) scored much higher than group 2 (direct instruction in persuasion) and/or group 3 (control) in their pre-test essay, it would be difficult to claim that higher post-test scores were the result of the intervention rather than the initial ability of the group 1 (CSR/direct instruction in persuasion) students. However, if students are all somewhat equivalent in the pre-test measures, then it seems reasonable to consider significant differences in their scores on post-test measures to be due to the instructional intervention.

Table 8

Analysis of Variance for the Direct Instruction in Persuasion Comparison with No Covariate

| Comparison group 1 (CSR/DI) vs. 2 (DI) | | | | | | |
|---|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
| Estimate | 2.87 | 2.80 | 3.48 | 1.27 | 0.91 | 72.87 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 8

Table 8 presents the ANOVA test of post-test scores, showing the added contrast (group 1 CSR/direct instruction in persuasion vs. group 2 direct instruction in persuasion). The estimate is simply a subtraction of the means from the groups in the contrast. The p-value indicates statistical significance at the 0.05 level. Treatment group 1 (CSR/direct instruction in persuasion) outperformed group 2 (direct instruction in persuasion), showing statistical significance for all six measures (claim, data, backing, coherence and organization, five-paragraph structure and length).

Table 9

Analysis of Covariance for the Direct Instruction in Persuasion Comparison with Pre-measure as Covariate

| Comparison group 1 (CSR/DI) vs. 2 (DI) | | | | | | |
|---|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (word count) |
| Estimate | 2.92 | 2.79 | 3.64 | 1.40 | 0.98 | 96.63 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 9

Table 9 presents the ANCOVA test of post-test scores. This test includes covariate control for the pre-test scores. The estimate is a subtraction of the means from the groups in the contrast (group 1 CSR/direct instruction in persuasion vs. group 2 direct instruction in persuasion) as well as the pre-test difference. The p-value results indicate that there is statistical significance at the 0.05 level. Treatment group 1 (CSR/direct instruction in persuasion) outperformed group 2 (direct instruction in persuasion), showing statistical significance for all six measures when controlled for pre-test differences.

Interpretation of Test Results

It is important to note here that by adding the third contrast, group 1 (CSR/direct instruction in persuasion) vs. group 2 (direct instruction in persuasion), there exists a possibility of conflicting conclusions. By testing group 1 (CSR/direct instruction in persuasion) vs. group 3 (control) and group 2 (direct instruction in persuasion) vs. group 3 (control), we can logically conclude that group 1 (CSR/direct instruction in persuasion) vs. group 2 (direct instruction in persuasion) will have differences. However, there is also a possibility that when running the test for group 1 (CSR/direct instruction in persuasion) vs. group 2 (direct instruction in persuasion), the ANOVA test could show no statistical difference. Although this did not happen in this case, it is important to acknowledge that this is a possible issue in testing three contrasts for three groups.

The results are somewhat conflicting when looking at these three contrasts in regard to the effects of direct instruction in persuasion on students' post-test essays. It is difficult to state that the direct instruction in persuasion intervention improved students' persuasive writing skills as in the first contrast, group 1 (CSR/direct instruction in persuasion) outperformed group 2 (direct instruction in persuasion). In the second contrast, group 1 (CSR/direct instruction in persuasion) outperformed group 3 (control). Also, in the third contrast (group 2 direct instruction in persuasion vs. group 3 control), results showed that the direct instruction in persuasion intervention group did not have statistically greater mean test performance than the control group.

Therefore, it is difficult to conclude from the data that direct instruction in persuasion has a statistically significant effect on students' persuasive writing skills. This conclusion arises from the analyses, demonstrating that although group 1 (CSR/direct

instruction in persuasion), which included direct instruction in the intervention, outperformed the control group, the performance of group 2 (direct instruction in persuasion) did not prove to be statistically higher than either group 1 (CSR/direct instruction in persuasion) or the control group.

Question 3: Do students' attitudes towards writing affect their persuasive writing scores?

The third research question investigated the relationship between attitude and pre-test performance, to see if attitudes relate to performance (in the absence of treatment differences).

First, I computed the students' pre-test data using the mean scores for each group from their combined scores on the attitude survey (WSPS). To do this I used a regression ANOVA to test if attitudes influenced performance, using only pre-test data. This analysis ensured that there was no interference from treatments.

Second, I investigated whether or not treatment effects influenced post-treatment attitudes. This analysis involved a regression ANCOVA with pre-attitude as covariate, since initial group differences have a p-value of 0.092. As with step one, this analysis of using pre-test measures as covariates enabled me to assess whether differences in students' pre-test scores affected their post-test scores.

Table 10

Mean Scores for Comparison of Students' Pre-test Attitude Scores

| GROUP | G1 (CSR/DI) | G2 (DI) | G3 (control) |
|--|------------------------|----------------|-------------------------|
| Attitude (pre-test) | 28.26 | 26.58 | 24.4 |
| N (number of subjects) | 19 | 19 | 12 |
| Range (lowest to highest possible scores in the WSPS) | 30-45 | 30-45 | 30-45 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 10

Table 10 presents the mean pre-attitude survey (WSPS) scores for each group and the number of students in each group (n). The range of attitude scores for each scale on the attitude survey was 30-45. The mean scores in this table for each group show the students' combined WSPS scores on the pre-test survey.

Table 11

Analysis of Variance for Students' Pre-test Attitude Scores

| Source | Model | DF | MS | F | P |
|------------------|--------------|-----------|-----------|----------|----------|
| Explained | 110.18 | 2 | 55.09 | 2.51 | 0.092 |
| Residual | 1030.80 | 47 | 21.93 | | |
| Total | 1140.98 | 49 | 23.29 | | |

Interpretation of Table 11

Table 11 presents the ANOVA summary table. This table indicates that overall, there is little difference among the three groups. The p value of .092 indicates that there is no statistical significance at the .05 level. As a consequence, we can see that the students' attitudes are consistent with the sampling population.

Table 12

Analysis of Variance of Pre-test Attitude Survey Scores

| | Est. | p-value |
|-------------------------------------|-------------|----------------|
| G1 (CSR/DI) vs. G3 (control) | 3.86 | 0.030 |
| G2 (DI) vs. 3 (control) | 2.18 | 0.213 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 12

Table 12 presents the ANOVA test of pre-attitude survey scores showing two contrasts (group 1 CSR/DI vs. group 3 control, and group 2 DI vs. group 3 control). The estimate is simply a subtraction of the means from the groups in the contrast. The p-value indicates statistical significance for group 1 (CSR/direct instruction in persuasion) vs. group 3 (control) contrast, but they do not differ that much.

Table 13

Analysis of Variance of the Effect of Instruction as Measured by the Six Measures of Persuasive Writing on Attitude (Pre-test Scores)

| | Claim | Data | Backing | Coherence & Organization | Five-paragraph | Length (Word count) |
|------------------------|--------------|-------------|----------------|-------------------------------------|-----------------------|----------------------------|
| Attitude effect | -0.02 | 0.02 | 0.00 | -0.02 | 0.01 | 3.42 |
| p-value | 0.623 | 0.553 | 0.981 | 0.331 | 0.753 | 0.137 |

Interpretation of Table 13

Table 13 examines the effect of instruction as measured by the six measures of persuasive writing (claim, data, backing, coherence and organization, five-paragraph and length) on students' attitudes. These results indicate that the relationship between attitude

and the six persuasive writing measures shows no statistical significance. This rules out the potential confounding variable, that students' attitude toward writing affects their persuasive writing performance.

The following section presents the results of the second part of the investigation on whether the treatment effects influenced post-treatment attitudes of the students in the present study

Table 14

Mean Post-test Attitude Survey Scores

| Group | G1 (CSR/DI) | G2 (DI) | G3 (control) |
|--|--------------------|----------------|---------------------|
| Attitude (post-test) | 28.20 | 28.18 | 24.62 |
| n (number of subjects) | 19 | 19 | 12 |
| Range (lowest to highest possible scores in the WSPS) | 30-45 | 30-45 | 30-45 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 14

Table 14 presents the mean post-attitude survey scores for each group and the number of students in each group (n). The range of attitude scores for each scale on the attitude survey was 30-45.

Table 15

Analysis of Variance of Attitude Scores of Post test Attitude Survey Scores

| | Est. | p-value |
|-------------------------------------|-------------|----------------|
| G1 (CSR/DI) vs. G3 (control) | 3.58 | 0.010 |
| G2 (DI) vs. G3 (control) | 3.56 | 0.011 |

Note. Group 1 was the Collaborative Strategic Reading (CSR) and direct instruction in persuasion (DI). Comparison group 2 was the direct instruction in persuasion only (DI). Comparison group 3 was the control group.

Interpretation of Table 15

Table 15 presents the ANOVA test of post-attitude survey scores showing two contrasts, group 1 (CSR/direct instruction in persuasion) vs. group 3 (control) and group 2 (direct instruction in persuasion) vs. group 3 (control). The estimate is simply a subtraction of the means from the groups in the contrast (group 1 vs. group 3, $28.20 - 24.62 = 3.58$). The p-value indicates that both contrasts show statistical significance at the 0.05 level.

Table 16

Analysis of Covariance for Post-test Attitude Scores with Pre-Attitude as Covariate

| | Est. | p-value |
|-------------------------------------|-------------|----------------|
| G1 (CSR/DI) vs. G3 (control) | 1.30 | 0.167 |
| G2 (DI) vs. G3 (control) | 2.28 | 0.015 |
| Attitude | 0.59 | 0.000 |

Interpretation of Table 16

Table 16 presents the regression ANCOVA with pre-attitude as covariate. This process of using pre-test measures as covariates enabled me to assess whether differences in students' pre-test scores affected their post-test scores. The results show that the

contrast group 2 (direct instruction in persuasion) vs. group 3 (control) was statistically significant.

Interpretation of Test Results

The results presented in tables 11 to 16 indicate that although there were some statistically significant results in the tables and attitudes may affect some of the contrasts, the relationship between attitude and the six measures of persuasive writing showed no statistical significance, therefore ruling out attitude as a potential confounding variable. Therefore, the analyses demonstrate that students' attitudes toward writing does not appear to affect students' ability to write persuasive essays.

Comparison of Students' Attitude Scores with Normative Data

The WSPS instrument includes normative data to allow for comparison of individual students and/or the entire group with the general population. A summary of the pre-test and post test survey scores for each group is compiled in Table 18 (see Appendix M).

This comparison table does not involve analytical statistics but does allow for a test between students' scores and normative data. This information supports the statistical findings from tables 11 to 16, that students' attitudes toward writing do not appear to significantly affect their ability to write persuasive essays.

Qualitative Results

As a result of the analysis of the data from the student interviews for the case studies, the following issues emerged for each of the research questions in the present study. The data from the interviews and observations were sorted into themes and refined as issues pertinent to each of the three research questions.

Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group and students in the control group?

There were three issues that emerged in response to the first research question. The first issue from the case study interviews regarding CSR was that students enjoy writing by themselves rather than in a group. There was a unanimous feeling among the students that writing individually was preferable to working as a group. The second issue that emerged from the interviews was the students' reluctance to choose the role of writer in a cooperative group. The third issue that emerged from the observations and field notes indicated that students were engaged and spent more time on task during the writing lesson when they worked collaboratively. The students in CSR/direct instruction in persuasion (group 1) also appeared to sustain interest in the persuasive writing process for the six-week intervention period, as opposed to the students in direct instruction in persuasion only (group 2) (Standish, 2004).

Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group and the students in the control group?

There were five issues that emerged in response to the second research question. The first issue that was evident from the research and also from the students' responses to the interview questions was that students perform well on persuasive essays when they choose the topic. If students were able to choose a topic that was relevant to their lives, they were more engaged and motivated during the direct instruction in persuasion.

The second issue that emerged from the students' interview responses was that their writing improved with direct instruction in planning and outlining their essay before they wrote. A third issue that emerged from the interviews was that the majority of the students would be interested in taking a writing class. The students indicated they would like to be engaged in more direct instruction about how to write.

The fourth issue that emerged from the students' responses indicated that the students in the case study were more confident in their writing when their teacher gave them explicit instruction. The final issue regarding the importance of direct instruction in persuasive writing that emerged from the interviews was that students need direct instruction in the mechanics and process of writing.

Question 3: Do students' attitudes towards writing affect their persuasive writing scores?

There were four issues that emerged in response to the third research question. The first issue that arose from the case study interviews regarding students' attitudes toward writing was students' perception of audience. The students' attitude toward writing was more positive if they perceived their writing as important. This was often evidenced by how widely read their work was through publishing and/or a wider audience than their teacher. The students' responses and my field notes indicated that they saw the teacher as their main audience; family and friends usually only served as proofreaders. They had no access to publishing through the school newspaper, yearbook or magazines and there was no audience besides their teacher, family and friends for their writing.

The second issue that emerged regarding students' attitudes toward writing was the importance of intrinsic interest in a topic or genre of writing. Students' attitudes

toward writing were more positive if they were able to choose their topic and/or genre and if they had time to work on their writing task. This was the main reason the students gave for preferring to write at home in their free time, as they could choose their writing assignment and they had the luxury of time to write.

The third issue that emerged as important to students' attitudes toward writing was self-perception. The students' positive attitudes toward writing were influenced by factors such as the usefulness of writing, the importance of writing to their future job prospects and their current success in school.

The final issue that influenced students' attitudes toward writing was their ability to be able to express their feelings and ideas in text. The students saw writing as an important medium to be able to express their ideas and feelings through various genres.

Conclusion

The case study gives further insight into the research questions by probing the students' thoughts through interviews. The case study was a valuable addition to the present study as it added a personal voice to the issues. The issues discussed by the students also showed a surprising response, indicating that students really enjoy writing especially at home. This is interesting in light of the findings by the National Commission on Writing (2003) and the NAEP (2002) report, which highlighted the disappointing results of students' scores in writing.

Conclusion

In this chapter, I have presented the results of the present study in which I examined the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes.

In Chapter V, I will discuss the results, rehearse the limitations of the present study, and discuss the implications for further inquiry.

CHAPTER V

Summary and Discussion

A commitment to writing, not simply among educators but also among policy makers and the general public, is one of the underdeveloped ingredients of American education. 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 to someone else. In short, if students are to learn, they must write (College Entrance Examination Board, 2003, p.9).

Reading and writing are interwoven in the process of developing literate students. This study incorporates the research in cognitive strategy of Collaborative Strategic Reading (CSR) with the research in persuasive writing. The present study addresses the declining ability of middle school students to engage in complex reading and writing tasks, a commitment to integrating reading and writing, and the importance of students' attitudes toward writing tasks.

In this chapter, I present a summary of the present study, a discussion of the results, the limitations of the study and the implications of this study for further inquiry.

Summary of the Research Study

Current research and NAEP reading and writing results indicate that students have difficulty reading complex text and producing adequate persuasive writing (College Entrance Examination Board, 2003; Katims & Harmon, 2000; NAEP, 2002, 2003; Snow, 2002; Snow, Burns, & Griffin, 1998; Woodward & Elliot, 1990). Despite these disappointing results, literacy demands have become increasingly more complex and sophisticated for middle school students. Teachers are required to cover extensive

content, which often involves dense textbook reading. Studies estimate that students spend as much as 75% of their class time and 90% of homework time in textbook material (Katims & Harmon, 2000; Woodward & Elliot, 1990).

The increased demand to read complex expository text in middle school emphasizes the fact that students need careful instruction in reading and writing strategies. As students grapple with complex concepts, detailed information and more taxing metacognitive requirements, teachers are required to supplement their existing instructional frameworks and increase their use of effective reading comprehension strategies (Katims & Harmon, 2000; Klingner, Vaughn, Dimino, Schumm & Bryant, 2001; Snow, Burns & Griffin, 1998).

Explicit Strategy Instruction

An integration of reading and writing strategies into the content area enables students to frame, apply and extend thought processes. Researchers have found that as teachers have limited time for instruction, they must ensure that students have knowledge and understanding of assigned tasks. This objective has been found to be more effective with the use of explicit strategy instruction (Vaughn, Chard, Bryant, & Coleman, 2000). Research has also shown that when teachers present content area text strategically and effectively, students find it easier to learn material and are more likely to internalize the strategies modeled by the teacher (Day & Elksin, 1994).

The present study uses a cognitive strategy, Collaborative Strategic Reading (CSR), to enhance middle school students' comprehension of expository text. CSR was designed to teach students to activate and refine their reading comprehension skills. CSR incorporates the following comprehension strategies: preview, predict, click and clunk

(fix-it strategies), get the gist (main idea) and wrap-up (summarizing and questioning). Students work in collaborative groups with the following defined roles: leader, clunk expert, gist expert and wrap-up expert. CSR was created to enable students to engage in meaningful encounters with conceptual ideas from expository text.

Theory: Social Constructivism and Schema Theory

The creators of CSR use a social constructivist theoretic framework to help us understand students' comprehension of expository text. Students are actively engaged in constructing meaning from text and must work together on meaningful tasks to make sense of the text (Katims & Harmon, 2000). The social constructivist approach has its roots in the work of John Dewey (1916), Jean Piaget (Wadsworth, 1989) and Lev Vygotsky (1934).

Social constructivism is an important theoretical framework for CSR and is complemented by schema theory. Schema theory emerged from the field of cognitive psychology and involves the way that knowledge is stored and represented in the memory. Research indicates that although teachers should link new information to old information (prior knowledge) to aid students' learning, teachers are often ill prepared to scaffold the students' learning (Anderson, 1978; Bobrow & Norman, 1975; Katims & Harmon, 2000; Rumelhart & Ortony, 1977).

Research in CSR

Research conducted on the effectiveness of CSR as a reading strategy for content area reading highlights five important results. First, researchers found that students using the CSR strategy scored higher on tests of reading comprehension (Klingner, Vaughn & Schumm, 1998). Second, discourse analysis indicates that up to 98% of the class time

was on task dialogue (Klingner & Vaughn, 2000; Klingner, Vaughn & Schumm, 1998). Third, researchers found a close link between fluency and comprehension competency (Bryant et al., 2000; Vaughn et al., 2000). Fourth, the implementation of CSR was effective in teaching content but time-consuming for teachers (Klingner et al., 1999). Finally, research indicates that small groups of student-led instruction are highly useful for comprehending content area texts (Bryant et al., 1999).

Toulmin's Model of Argument Structure

The present study combined the use of the CSR strategy to read complex text with direct instruction in argument structure to improve students' persuasive writing skills. The present study investigated the assertion that an integration of reading and writing in the content area, along with expert strategy instruction, would prove beneficial to middle school students. In order to provide students with the framework to write persuasively, the present study used Toulmin's model of argumentation and schema theory as its theoretical basis. Toulmin's model of argument structure includes the following elements: claims, data, warrants, backing, qualifiers and rebuttals. This study used three elements of Toulmin's model: claims, data and backing (see figure 1).

The claim is defined as the central idea of the argument or the thesis statement. The evidence is a set of facts, statistical data, personal testimony or examples that support the claim. Toulmin called this evidence, data. The claim and data provide the basis for a simple argument structure. The backing provides support for the argument in the form of categorical facts (Chambliss & Garner, 1996; Gleason, 1999; Toulmin, Rieke & Janik, 1984; Voss & Van Dyke, 2001).

Research in Persuasive Writing

The research findings in the area of persuasive writing outline five important issues involved in enhancing students' ability to write persuasively. First, explicit instruction in argument strategies and knowledge about argument structure improve students' persuasive writing (Crammond, 1998; Gleason, 1999; McCann, 1989; Yeh, 1998). Second, the use of expository text as content for argument and a model for writing improves students' persuasive writing (Gleason, 1999). Third, students' ability to write persuasively increases with age and grade level (Crammond, 1998; McCann, 1989). Fourth, the social situation and context of the writing environment affect students' persuasive ability (Reznitskaya et al., 2001; Voss & Van Dyke, 2001). Finally, even though young children exhibit complex oral persuasive ability, they need to be provided with instruction in the process and techniques of writing persuasively (Voss and Van Dyke, 2001; Weiss & Sachs, 1991). These five issues form the basis for the persuasive writing component of this study.

Writing Interest Survey

The present study addressed the importance of teaching skills and strategies for reading and writing complex text in middle school classrooms. However, students' attitudes toward writing were also of central educational importance for this study. Students' attitudes, beliefs, values and motivation toward writing are of particular concern to classroom teachers and researchers. In order to address these issues, students' attitudes toward writing were evaluated by the Writer Self-Perception Scale (WSPS) (Bottomley, Henk & Melnick, 1998; Hogan, 1980).

Research Questions

The present study addressed the following issues: the declining abilities of middle school students to engage in complex reading and writing tasks, the potential of collaborative grouping to access complex text, the need to establish a commitment to integrating reading and writing, the need for explicit instruction in persuasive writing strategies and the importance of students' attitudes toward writing tasks. To accomplish this purpose I asked the following research questions:

- 1.) Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?
- 2.) Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?
- 3.) Do students' attitudes towards writing affect their persuasive writing scores?

Summary of Research Methods

The present study included sixth-grade students in three private schools located in the suburbs of a large city in the mid-Atlantic region. The study took place in the spring of 2004. A total of 59 students participated in the study. There were three groups in the present study: treatment group 1 (CSR/direct instruction in persuasion), group 2 (direct instruction in persuasion) and group 3 (control).

The students in all three schools have a shared religious culture that should be considered as an important similarity across the three groups but also as a difference when comparing the results of the study with the public school culture or different religious or

ethnic cultures. There are three important factors to consider when presenting the results of this study. First, the fact that parents are choosing to send their children to a Christian school. Second, the parents are paying fees and contributing additional time to the school program. Finally, overall, in the majority of cases, parents value literacy in the home through religious activities and family time.

I conducted the six-week instructional period for group 1 (CSR/direct instruction in persuasion) and group 2 (direct instruction in persuasion). Group 1 (CSR/direct instruction in persuasion) and group 2 (direct instruction in persuasion) had an instructional script (Appendix A) based on Gleason's (1999) twelve-session script in her persuasive writing research. The modified and expanded script was supplemented with the *Opposing Viewpoints for Juniors* series (Szumski, 1989; Bernards & Szumski, 1990; O'Sullivan, 1989) for pro and con evidence and introduction of components of the Toulmin model of argument structure. Group 1(CSR/direct instruction in persuasion) worked in cooperative groups using the CSR strategy and direct instruction in persuasion, group 2 (direct instruction in persuasion) received direct instruction in persuasive strategies and group 3 (control) received regular classroom teacher instruction. All three groups received the same two writing prompts for the pre- and post-tests. All three groups also received the same background reading materials for the post-test essay.

The materials for the study consisted of 1) two writing prompts (see Appendix C); 2) an outline for the twenty-four instructional sessions (see Appendix D); 3) Writer Self-Perception Scale (see Appendix E); 4) *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989); 5) scoring rubrics (see Appendix F, G, & H); 6) a parent consent form and student assent form (see Appendix I); and 7) case

study interview questions (see Appendix J). The research design is summarized in table 2, p. 86.

Discussion of Results

In this section I will discuss the results from the statistical analyses on the interventions as well as the case study analyses. This information will be presented as it relates to the three research questions.

Question 1: Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group or students in the control group?

Quantitative results: The effectiveness of CSR

To examine the effect of CSR on students' persuasive writing, the present study indicated that the students in the CSR/direct instruction in persuasion group (1) had significantly higher test performance than the other two groups (direct instruction in persuasion and control group) on all six measures (claim, data, backing, coherence and organization, five-paragraph structure and length).

This result indicated that the CSR intervention improves students' persuasive writing ability on all six measures. My findings from the six measures of persuasive writing indicate that the students in the CSR/direct instruction in persuasion group (1) had significantly stronger claims or thesis statements than the other students in the study. The students in the CSR/direct instruction in persuasion group (1) also had significantly more data and backing to support their claims or thesis statements than students in the other two groups (direct instruction and control). The students in the CSR/direct instruction in persuasion group (1) also benefited from the treatment in the organization

of their text. The CSR/direct instruction in persuasion students' scores in five-paragraph structure, coherence and organization were all significantly higher than the other two groups. The students' ability to write in a prescribed, structured format improved as a result of the group intervention as compared to the other two groups in the study. Finally, the students in the CSR/direct instruction in persuasion intervention generated significantly more words in their post-test essays as compared to direct instruction in persuasion and control groups.

To assess the magnitude of the significance of the CSR/direct instruction in persuasion groups scores I looked at the means from the pre- and post-test scores. For three of the six measures (claim, data and backing) the students' scores increased 3.2 points (average) on the post-test scores (score range 0-6). For two of the six measures (coherence and organization; and five-paragraph format) the students' scores increased 2 points (average) on the post-test scores (score range 1-4). Therefore, it seems reasonable to conclude that the change in students' scores was not only statistically significant but also practically significant.

The findings in the present study regarding the effectiveness of CSR are supported by other studies in the area (Crammond, 1998; Reznitskaya et al., 2001). Based on their findings, these researchers advocated learning within a social context and the value of peer instruction. Other studies highlight students' academic gains from CSR interventions, such as comprehension, fluency, vocabulary and standardized testing (Bryant et al., 2000; Klingner & Vaughn, 2000; Klingner et al., 1998). However, the effectiveness of CSR is not supported in a study by Williams (1998), who maintains that collaborative learning can cause problems for students in some areas.

The theorists also support the findings in the study regarding the effectiveness of CSR on students' ability to write persuasively. Dewey (1916), Piaget (in Wadsworth, 1989) and Vygotsky (1932) support the theory of social constructivism, which forms the basis of CSR. The theorists' ideas about the effectiveness of students' active involvement in acquiring information and constructing knowledge support the findings of the present study. The theory of Social Constructivism underlies other ideas of these theorists. The idea that with cooperation a child can do more than what he can do individually is also evidenced in the findings of the present study.

Qualitative results: The effectiveness of CSR

As a result of the analysis of the case study data from the student interviews, observations and field notes, several issues emerged for each of the questions in the present study. The first issue that emerged from the case study interviews regarding CSR small groups, was that students enjoy writing by themselves rather than in a group. There was a unanimous feeling among the students that writing by themselves was preferable to working in groups. One student commented that writing in groups was "harder, I can just put my ideas down but when you have to plan together it is much harder than working by yourself". One of the lower-achieving students perceptively commented, "[I prefer writing] by myself, if I work in a group there is more chance of other kids stealing my ideas then getting a better grade than me and then the teacher thinks I copied them" (Standish, 2004).

The second issue that emerged from the student interviews was their reluctance to choose the role of writer in a cooperative group. One student summed up the overall sentiment from the response to the question by stating, "[I would take the role of writer]

if it was the only job left”. All the other responses indicated the students would “sometimes be the writer”, except for one student who interpreted writing to mean the literal act of handwriting. She declined to write because “I don’t have good handwriting” (Standish, 2004).

These are interesting findings in light of the research in the area of cooperative learning. Researchers have found that students not only benefit socially and academically from cooperative learning, but they also prefer it to other formats (Elbaum, Schumm, & Vaughn, 1997; Katims & Harmon, 2000). Educational theorists also promote the idea of the social function of the group to engage students in cooperative learning and shared goals (Dewey, 1916; Vygotsky, 1934; Piaget, in Wadsworth 1989).

It is also interesting that during the present study, the observations of the students and field note data documented the findings that students found working in groups engaging and spent more time on task during the lesson. The students engaged in CSR/direct instruction in persuasion (group 1) also appeared to sustain interest in the persuasive writing process for the six-week intervention period, as opposed to the students engaged in direct instruction in persuasion only (group 2). This is consistent with research which found that students spent the majority of their time during a CSR intervention engaged in academic discussion and less than 1% of their time engaged in procedural discussion (Klingner & Vaughn, 2000; Standish, 2004).

The issues that emerged from the case study data based on the first research question (the effectiveness of the CSR treatment) conflict with the evidence from the present study and the literature review. This could be due to the phrasing or interpretation of the questions or middle school students’ lack of self-reflection. It could also be due to

students' observed prejudice toward writing as opposed to other disciplines, or another non-apparent reason.

Question 2: Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group or the students in the control group?

Quantitative results: The effectiveness of direct instruction in persuasion

After examining the effects of direct instruction on students' persuasive writing, the results indicated that it is difficult to conclude from the data that direct instruction only has a statistically significant effect on students' persuasive writing skills for all six measures (claim, data, backing, coherence and organization, five-paragraph and length). The direct instruction in persuasion group (2) failed to achieve statistically greater gains in persuasive writing than the control group (3) and showed significantly lower performance than the CSR/direct instruction in persuasion group (1).

To assess the magnitude of the significance of the direct instruction in persuasion group scores I looked at the means from the pre- and post-test scores. For three of the six measures (claim, data and backing) the students' scores increased 0.1 points (average) on the post-test scores (score range 0-6). For two of the six measures (coherence and organization; and five-paragraph format) the students' scores decreased -0.28 points (average) on the post-test scores (scores range 1-4). Therefore, it seems reasonable to conclude that the change in students' scores reflects the lack of statistical significance and practical significance found in the results of the present study.

The findings from the present study do not support previous studies such as those conducted by Crammond (1998), Gleason (1999), McCann (1989), Williams (1998) and

Yeh (1998), that found that direct instruction in persuasive writing strategies does improve students' writing skills. This finding is predicated on the performance of the students in treatment group 2 (direct instruction in persuasion) and could differ if the study was replicated with different groups of randomly assigned sixth-grade students.

Qualitative results: The effectiveness of direct instruction in persuasion

The case study data produced interesting evidence that differs from the quantitative analyses of the data. As a result of the analysis of the data from the student interviews, observations and field notes, several issues emerged for each of the questions in the present study. The first issue that was evident from the research and also from the students' responses to the interview questions was that students are more engaged and perform better during direct instruction in persuasive writing when they choose the topic. By the fourth week of the intervention it became obvious that the students were losing momentum in their acquisition of persuasive writing strategies. I decided to introduce the concept of backing by modeling a topic that would be relevant to their lives (*Kids should be able to drive at younger ages*) and then allowing the students to choose their own topic to write about. This strategy was successful and the students were engaged and motivated when writing their essays (Standish, 2004).

The observation from the present study that students were more engaged and performed better on persuasive writing tasks when they chose the topic was supported by the students' responses during the interviews. The students commented, "I get better grades when I write about what [writing topics] I prefer". When asked if she performed better when she chose her own topics, another student stated, "Yes, because you can decide what you write, like something you really know about". Overwhelmingly, the

students agreed that their best writing was produced when they “did it themselves” and that it was “easier when you know you like it” (Standish, 2004).

The second issue that emerged from the students’ interview responses was that their writing improved with direct instruction in planning and outlining their essay before they wrote. The students responded when asked about outlining their essays, “it helps get organized and so you don’t forget anything”. Another student supported this point when she stated, “it really works, you choose the topic and then outline”. Some of the students clarified these points specifically in reference to writing persuasively, “it depends if it is a story or a book, an essay needs a plan”. Another student noted that an outline was not necessary “every time when you have to write, more often when you write an essay like the Christmas story” (Standish, 2004).

Kellogg (1994) highlights the importance of the planning process. He states that planning involves the writer creating personal symbols such as mental or textual outlines of the general plan of the potential first draft. The planning phase is central to the next stage of the writing process, which engages the writer in translating ideas into text. These findings support the students’ responses to this issue.

A third issue that emerged from the interviews was that the majority of the students would be interested in taking a writing class. The students indicated they would like to be engaged in more direct instruction about how to write with comments such as, “it would be fun”, “it would be fun and make you a better writer when you grow up”, “yes, especially if I would be learning about writing stories”. Some of the students had the following caveats, “it would depend on the time, when and what we would be doing”, “depends on what it would be about”, and “not if it was more school” (Standish, 2004).

The students' interest in a class in direct writing instruction appears to be explained by the research findings about students' writing ability. Just as research has shown that students are better at reading narrative text than expository (Day & Elksnin, 1994; Graves et al., 2003; Katims & Harmon, 2000), so studies have provided evidence that students begin successfully writing narrative text early in their school careers. The NAEP data also reveal that students score higher on narrative, descriptive and expository tasks than persuasive tasks. Students' interest in taking classes involving direct instruction in writing will lead to improved persuasive writing. This point is reinforced by McCann (1989) when he states that students' ability to write persuasively incorporates skills and techniques from narrative, descriptive and expository tasks (McCann, 1989).

The fourth issue that emerged from the students' responses indicated that the students selected for the case study were more confident in their writing when their teacher gave them explicit instruction. Students' responses to their comfort level when writing indicate how important explicit instruction is to them. "[I feel]...uncomfortable, [writing is] hard when I'm not sure what to do", "uncomfortable, because sometimes you don't understand what to do", "uncomfortable when I don't know what to write", and "when the teacher gives ideas before it helps" (Standish, 2004).

The research from the literature review supports the students' responses regarding the idea that explicit instruction in writing improves students' writing and, one could argue, their comfort level in writing. More specifically for this research question, direct instruction improves students' knowledge about argument strategies and argument structure improves students' persuasive writing (Crammond, 1998; Gleason, 1999; McCann, 1989; Yeh, 1998).

The final issue regarding the importance of direct instruction in persuasive writing that emerged from the interviews was that students need instruction in the mechanics and process of writing. There was consensus among the students selected for the case study that being able to write a good paragraph before they can write an essay is important. The ability to write a good paragraph helps them to “brainstorm to get an idea”, “makes a difference to my writing”, “learn how to write”, and “write all those ideas down”. Another important facet of mechanics is the students’ ability to rewrite. The students recognized this as an important component of teacher instruction that would help them become good writers. They commented, “sometimes poor writers need to rewrite and check their work, good writers need to do this too, unless they are already famous then they don’t need to be as careful”, “yes, it [revising and rewriting] makes your work better”, “yes, it’s important to revise and rewrite because you need to check if it makes sense or if it’s spelled right”, and “probably it is important, most books go through rewriting and revising and they are done by good writers” (Standish, 2004).

Surprisingly, the students even agreed on the importance of direct instruction involving worksheets to improve their writing skills. “It [doing worksheets] helps put it [the writing skill or strategy] into practice”, “English sheets help me use punctuation and stuff”, and “[the worksheet] has directions which helps to make stuff easier” (Standish, 2004).

Some students in the case study voiced some important negative issues regarding worksheet exercises as an aid for teaching writing. “Sometimes the worksheets have good examples and are more hands-on but often they tell you what to do and then it [the

writing skill or strategy you learned] goes away”, “there is no point in it [the worksheet exercises]”, and “sometimes they are helpful but mostly what you want to write is your ideas to make you a better writer” (Standish, 2004).

The issues that emerged from the case study in some cases do not support the findings from the present study. However, in most cases the issues captured in the case study support the findings discussed earlier. This indicates that it may be important to replicate this study in further research to ascertain if there is any change in the direct instruction in persuasion scores.

Question 3: Do students' attitudes towards writing affect their persuasive writing scores?

Quantitative results: Students' attitudes toward writing

The results of the effects of students' attitudes on their persuasive writing scores indicated that there is no statistical significance, therefore ruling out attitude as a potential confounding variable. When the relationship between attitude and the six measures of persuasive writing (claim, data, backing, coherence and organization, five-paragraph and length) was examined, it appeared that students' attitude toward writing in all three groups (CSR/direct instruction in persuasion, direct instruction in persuasion and control) does not affect the students' persuasive writing scores.

To assess the magnitude of the significance of the control group's scores I looked at the means from the pre- and post-test scores. For three of the six measures (claim, data and backing) the students' scores increased 0.54 points (average) on the post-test scores (scores range 0-6). For two of the six measures (coherence and organization; and five-paragraph format) the students' scores increased 0.13 points (average) on the post-test scores (scores range 1-4). Therefore, it seems reasonable to conclude that the change in

students' scores reflects the lack of statistical significance and practical significance found in the results of the present study.

The finding that attitude does not affect the students' persuasive writing scores does not support Bandura's (1977, 1982 as cited in Bottomley, Henk, & Melnick, 1998) theory of perceived self-efficacy, which predicts that a child's self-perception will affect their writing growth. The theory indicates that students with positive self-perceptions about their writing ability will most likely write more often and more effectively. Researchers have also found that students' attitudes, beliefs, values and motivation toward writing are of particular concern to classroom teachers and researchers. They assert that the ability to tap into students' attitudes about writing aids educators in developing students as expert, lifelong writers (Bottomley, Henk, & Melnick, 1998; Hogan, 1980).

In addition, research specifically examining students' attitudes toward writing in collaborative groups does not support the findings in the present study. Elbaum, Schumm and Vaughn (1997) administered a survey in their research on students' attitudes toward writing and found that students preferred writing in groups over writing individually. Evidence of this was not found in my research study, as the CSR/direct instruction in persuasion group (1) did not show any relationship between attitude and performance.

There are three possible reasons for lack of statistical significance for research question three. First, the same survey was administered pre and post within a six-week period, which could have affected the students' responses. Second, persuasive writing topics assigned in the intervention were interesting but involved some complex reading and reasoning for the students, which could have affected their responses on the survey.

Finally, the intervention over six weeks was difficult academically. By the fourth week some students has lost motivation, which could also have affected their responses on the surveys.

Qualitative results: Students' attitudes toward writing

The data from the case study provide some interesting insights relating to the question of the effects of students' attitudes on their persuasive writing. The National Assessment of Educational Progress (NAEP) highlighted the importance of students' attitudes to writing in their objectives. For example, objective six for the 2002 writing report states that "students should value writing as a communicative activity. The writing assessment included 'background' questions, given to all participating students, which asked students whether they like to write. It also asked students about their writing practices at school and at home" (Hogan, 1998; National Assessment Governing Board, 1998). Students' attitudes, beliefs, values and motivation toward writing are of particular concern to classroom teachers and researchers (Bottomley, Henk, & Melnick, 1998; Hogan, 1998). When asked about their attitudes toward writing in the case study interviews, five issues emerged as important to this research question.

The initial issue that emerged from the case study interviews regarding students' attitudes toward writing is that of students' perception of audience. The research literature indicates that students' perception of audience affects their attitude toward writing (Crammond, 1998; Perelman & Olbrechts-Tyteca, 1968). The students overwhelmingly agreed that the teacher was the most important audience for their writing in school, "the teacher is the only one who reads it", "the teacher grades it and will read

it”, and “the teacher grades the essays”. One student did say that the students’ writing was “not only for the teacher but also for other students to understand” (Standish, 2004).

Some students in the case study extended their audience by sharing what they write with family and friends. For some of the students, however, this occurred on an infrequent basis, “sometimes when I think it is good”. For others it served as an editing function: “mom proofreads...”, “so they can tell me what is wrong, kind of like proofreading”. The students who share their writing with other members of the class are far fewer for varying reasons: “not really an opportunity”, “not unless it is funny”, “only to the ones that care”, and “depends on what it was, if it fits into class and if the teacher said it was OK” (Standish, 2004).

The students’ opportunity to write for other audiences is further limited by the lack of access to the school newspaper, yearbook or magazine. The majority of students responded that they “haven’t [been able write for the school newspaper, yearbook or magazine]” but “would like to” (Standish, 2004).

Other audiences for students’ writing are also seldom utilized. Most of the students do not leave notes for family and friends and they do not write to their elected officials to convince them of their point of view unless “it is for a class assignment”. The students who write a diary or journal do see themselves as the audience, but only 50% of the students keep one and of those all are females (Standish, 2004).

The students were split in their opinion on whether writing for others was more important than expressing themselves. Some students felt that it was “more important to express yourself”, “[more important to] write for myself then I can write for others” and

“for personal enjoyment”. Some students felt it was more important to write “for other people” or “if someone wants me to” (Standish, 2004).

The research indicates that audience is an important factor for students to consider when creating a convincing argument. Students should be made aware of the importance of the audience for their final product and how to analyze and manipulate their audience (Crammond, 1998). Perelman and Olbrechts-Tyteca (1968) discussed the importance of audience in persuasive writing and found that if an argument is to be successful, writers must keep their audience in mind when constructing text. The students’ attitude toward writing may be significant in the future if they are made aware of and have access to a wider variety of significant audiences.

The second issue that emerged regarding students’ attitudes toward writing is the importance of intrinsic interest in a topic or genre of writing. The students in the case study overwhelmingly stated that their enjoyment of writing was “dependent on the topic”. The students backed up this point with their comments: “[Writing] is fun depending on the subject like writing about math versus writing stories”, “sometimes it’s boring but if it’s for fun it would be an adventure, mystery or fantasy”, and “sometimes I like it, when it is something I’m interested in like sports, hobbies, outdoor activities”. It is interesting to note that one of the students commented, “I didn’t like it [writing] a couple of years ago but I start to like it more as my thoughts grow, when I really like a story I can continue to try my best and get ideas to make it really good” (Standish, 2004).

The students also commented that they are able to spend more time on writing of their choosing at home. The feeling among the students was that they don’t enjoy writing in school because “at home you can concentrate but when you write in school you have a

time period”. This was articulated by many of the students in various ways: “outside of school you have more time”, “it is not due in right away”, and “when it is our free choice you can take however long you want”. The students also reaffirmed the issue of intrinsic interest in the topic: “[I enjoy writing] more at home because the teacher doesn’t pick what [topics] I like” (Standish, 2004).

When asked about the students’ preferences for writing over other activities in their free time, it was interesting to note how often the students chose to write outside of school. About half the students choose to write stories, plays or poems in their free time: “I write stories about teenage girls and their problems and poems”, “at home I write stories, short scripts (not plays) and poems”, and “poems and stories”. When given the choice between reading and writing, all but one student said they would prefer to write or would choose both. This is interesting given the fact that national test data (NAEP, 2002, 2003) show that students have superior performance in reading when compared to writing (Standish, 2004).

Students’ intrinsic interest in writing is also borne out in their preference for writing over traditional middle school students’ pursuits, such as watching television and listening to music. The students made surprising comments when asked about writing versus watching television: “It depends what’s on TV”, “I like both, if nothing’s on TV I’ll write”, “it depends on the time of day, if it is the middle of the day I watch TV at night I write”, and “I like TV but I also like drawing and writing”. In starker contrast, when asked about listening to music all but one of the students preferred writing in their spare time (Standish, 2004).

The third issue that emerged as important regarding students' attitudes toward writing is that of self-perception. In fact this issue is also one of the five factors considered in the WSPS. The perception students have of the quality of their writing appears to be a significant factor in their attitude toward writing. The students in the case study rated their own writing on a scale of 1-10 (low to high). The students all saw themselves as average writers with scores ranging from 5 to 7 (Standish, 2004).

The students in the case study described themselves as good writers but qualified those statements: "If it's boring I don't try but fun topics like sports that are relevant and interesting I put in more effort", "some stories are better than others", and "sometimes you don't like it [writing] but when you show it to someone else they think it is good".

The students also perceived themselves as better writers when they chose the topics for writing rather than the teacher. They all indicated that they received better grades on writing assignments that "are topics I choose myself, I will pick something I want to write about that will relate to me", "ones I choose myself are easier because I like it", and "you can decide what you write about and what you like because it is something you really know about" (Standish, 2004).

Research supports the importance of children's self-perceptions about writing. Researchers state that the process of reading and writing is complex and social (Bottomley et al., 1998; Henk et al., 1996; Hogan, 1980; Krendl & Dodd, 1987). Based on this premise, the authors of the survey have included the classroom, the home and other social contexts for writing as useful information sources to gather information about children as writers. Children's self-perceptions about their writing aid their ability to be

self-critical about their writing and to devise a plan to develop as writers (Bottomley et al., 1998).

The importance or utility of writing is the fourth issue that emerged as important to students' attitudes about writing. The case study participants thought it was important for all students to be able to write. Some of the reasons they thought it was important were "because writing is important for school", "for getting a job", "your future depends on being able to write", "for assignments and at home for fun", and "because writing is cool, everyone should write at least a couple of stories" (Standish, 2004).

The students' positive attitudes toward writing were also influenced by the fact that they believed that being a good writer will help them get a better job: "You can get a better job when you have to write", "to be able to fight for what is right you need to know how to convince people", "yes if you want to be a writer and make kids' books, even in computer programming you need to know the words", "especially for jobs that are more creative". One perceptive student commented, "you even need to be able to write to fill out a job application" (Standish, 2004).

The students believed that being a good writer enhanced their ability to study, helped them to learn new subjects and improved their grades. The students in the case study felt that writing was particularly important in "social studies research, spelling, language arts and science". The students were unanimous in their belief that writing improves their ability to study, although one student admitted that, "no [he didn't use writing to help him study] but [he did] think it would help". Another student felt so strongly about the utility of writing as a study aid that he commented, "I would like to get a laptop or handheld" (Standish, 2004).

The final issue that influenced students' attitudes toward writing was their ability to express their feelings and ideas in text. The students saw writing as an important medium to be able to express their ideas and feelings through various genres. Some saw journals as important: "It helps me when I write in my journal, I can be in a bad mood and then I feel happier". Others used letters or e-mail: "When I am mad I can write to a friend or the people who have upset me" and it is easy to "write whatever you are feeling". Some of the male students commented that they write "more about things than feelings" (Standish, 2004).

The ability to express their feelings and ideas through writing was important to students in the case study. This is supported by Bandura's (1977, 1982 as cited in Bottomley, Henk, & Melnick, 1998) theory of perceived self-efficacy, which predicts that a child's self-perception will affect their writing growth. The theory indicates that students with positive self-perceptions about their writing ability will most likely write more often and more effectively. The ability to tap into students' attitudes about writing aids educators in developing students as expert, lifelong writers (Bottomley et al., 1998).

Conclusion

The discussion of the results from the quantitative analyses and the qualitative case study issues provides a robust, well-rounded picture of the effects of Collaborative Strategic Reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. The next section presents the limitations of the study.

Limitations of the Study

I acknowledge the following limitations of the present study: 1) the participant sample; 2) classroom intervention timing, and 3) researcher bias.

Participant Sample

The students in the present study all had similar demographics, lived in a similar geographic area and attended private schools. The students were in intact classrooms and I was not able to use random sampling to control for threats to internal and external validity. Therefore, the generalizability of the results of this study are limited due to these issues regarding the participant sample.

Classroom Intervention Timing

The six-week intervention was carried out in April and May 2004, which was the end of the school year. This was not an optimal time to be introducing complex reading, writing and reasoning skills to students. In future studies I would begin the study late in the fall semester rather than the end of the school year.

Researcher Bias

The six-week instructional period for the two treatment groups was conducted by the researcher, which leaves open the possibility of researcher bias. The fact that I delivered the treatment means that it is possible that I could have favored the treatment condition in my teaching. In future studies I could have random observations by an independent agent or the instructional sessions could be videotaped and evaluated.

Comparison of the Results with Previous Research

The data from the present study supported the positive effects of Collaborative Strategic Reading on persuasive writing success in research question one, but found that the effects of direct instruction and attitude toward writing did not appear to significantly improve students' persuasive writing in questions two and three. The present study has implications for research into combining CSR with persuasive writing strategies.

First, the results support past research that has found that collaboration improves the comprehension of text and strategic learning. In the present study, the students in the CSR/direct instruction in persuasion group (1) constructed stronger thesis statements and data to support their claims (claim, data and backing). In addition, their essays were more coherent and well organized, including the five-paragraph format. The CSR group also wrote longer essays after the CSR and strategy instruction in persuasive writing. These findings support past research in the literature (Bryant et al, 2000; Crammond, 1998; Klingner & Vaughn, 2000; Klingner et al, 1998; Reznitskaya et al, 2001; Vaughn et al, 2000).

This finding also supports social constructivist theories. CSR takes a social constructivist approach to learning with expository text. Students are actively engaged in constructing meaning from text and must work together on meaningful tasks to make sense of the text (Dewey, 1916; Katims & Harmon, 2000; Vygotsky, 1932; Piaget, in Wadsworth 1989).

However, the findings did not consistently support past research by Williams (1998) on CSR. He maintains that collaborative learning could cause problems for students in the following areas: the role of the teacher, the function of peer tutors, and the nature of feedback on student's writing. He also maintains that teachers cannot be mere facilitators in the writing process, but must also be instructors. The present study uses CSR and direct instruction in persuasive writing strategies, thus concurring for the most part with Williams' research.

The results of the present study support notions from schema theory in some elements of research question 1 and do not support some elements of research question 2.

The students in the CSR/ direct instruction in persuasion group (1) successfully developed a schema for the CSR, the new background information they were processing and the direct instruction in persuasion. However, the direct instruction in persuasion group (2) did not appear to benefit significantly from the direct instruction in persuasion. The term schema refers to an individual's knowledge structure or the way information has been stored in the memory. Individuals develop a schema through the experiences they have encountered, which are often termed prior knowledge (Anderson, 1978; Crammond, 1998; Knudson, 1994; Means & Voss, 1996; McCann, 1998; Voss & Van Dyke, 2001).

Second, the fact that the students in the CSR/direct instruction in persuasion group (1) performed significantly higher on the persuasive writing task appears to support the past research on time on task. Through discourse analysis, researchers have found that when students are involved in CSR they spend as little as 2% of time off task (Klingner & Vaughn, 2000; Klingner et al, 1998). This was evidenced in the present study both statistically and anecdotally. The CSR/direct instruction in persuasion comparison group performed statistically higher on persuasive writing tasks, which precludes extensive time off task, and students were observed to be on task for the majority of the 45-minute instructional periods. In fact, during the post-test session some students stayed in the classroom for up to half an hour to finish their essays after some of the group who had completed their post-test essay had gone out to the playground for ice cream.

Third, the findings do not support past research on direct instruction in persuasive writing strategies. In the present study there were no significant differences found for the direct instruction of persuasive writing strategies. Yet research overwhelmingly lends

support to the notion of using explicit instruction to teach persuasive writing (Crammond, 1998; Gleason, 1999; Klingner & Vaughn, 1996; Knudson, 1994; Yeh, 1998).

Fourth, the finding that attitude does not affect students' writing performance does not support Bandura's (1977, 1982 as cited in Bottomley, Henk, & Melnick, 1998) theory of perceived self-efficacy. The theory suggests that students with positive self-perceptions about their writing ability will most likely write more often and more effectively. Also, researchers have found that awareness of students' attitudes about writing helps educators to develop students as expert, lifelong writers (Bottomley, Henk, & Melnick, 1998; Elbaum et al, 1997; Hogan, 1980). The present study did not find any statistical significance between attitude and persuasive writing. Therefore, attitude was not found to be a predictor of writing ability.

Other Possible Explanations for Results

There may be other possible explanations for the results in the present study, and they may have influenced overall persuasive writing quality. First, students in the CSR/direct instruction in persuasion group (1) may have outperformed the other two comparison groups due to the motivating nature of working in collaborative groups. Research into the area of CSR has predominantly focused on comprehension, fluency, discourse analysis and academic gains. The students appeared to be highly motivated when working in their CSR groups for the present study, and research has found that students not only benefit socially and academically from cooperative learning but they also prefer it to other formats. For example, Elbaum and colleagues (1997) surveyed students from grades three through five in over 500 elementary schools to ask what grouping patterns they preferred. The survey included whole classes, mixed-ability

groups, same-ability groups, mixed-ability pairs, same-ability pairs, and independent. Of those six options, the data from the surveys indicated that the students preferred mixed-ability groups and pairs over the other four alternatives. In follow-up interviews with 55 elementary school students, the researchers similarly found that students preferred mixed-ability groups.

A second possible factor to consider in the performance of the CSR/direct instruction group (1) is the role of assigned tasks in the strategy. As students engage in academic discussion about concepts, main ideas, distracting vocabulary and summaries of the assigned readings, they are engaged in a form of peer tutoring and modeling that appears to be beneficial to the group members. This gives the academically gifted students the opportunity to stretch other group members' understanding of the issues and to clarify and engage students in the topic. It gives students who are reluctant to speak in front of the whole class a comfort zone in which they have a scripted role. These are additional considerations as to the superior performance of the CSR group in the present study.

The third factor that was not considered extensively in the data collection for the present study was the audience. The audience was addressed in the pre- and post-test essay prompt, but was not used as a variable in the analysis. Theorists and researchers, however, concur that students should be made aware of the importance of the audience for their final product and how to analyze and manipulate their audience. The ability to use persuasion to critique, analyze and motivate an audience is a highly crafted skill that can be developed in students from a young age (Crammond, 1998; Gleason, 1999; Nystrand, 1986). Also, Perelman and Olbrechts-Tyteca (1968) researched the importance

of audience in persuasive writing and found that if an argument is to be successful, writers must keep their audience in mind when constructing text.

A fourth possible factor that was not considered in the present study was the issue of assigned topics versus free-choice topics. Research has shown that students tend to perform better when they write on topics for which they have a strong knowledge base. Prior knowledge on the topic along with direct instruction in persuasive writing strategies may have a beneficial influence on students' writing (Crammond, 1998; Knudson, 1994; Means & Voss, 1996; McCann, 1989; Voss & Van Dyke, 2001). The present study incorporated the direct instruction component but not the prior knowledge component except in one case. During the research for the present study, the students were assigned a free-choice persuasive essay. The majority of students wrote well constructed, convincing essays when they were given the opportunity to write on a topic for which they had prior knowledge. The case study interviews provided overwhelming evidence that the students preferred to write on topics of their choosing, which could possibly have influenced the results of the present study (Standish, 2004).

A fifth issue that has not been considered in the present study was that of the transfer of oral persuasive strategies into written forms. Research has shown that students develop oral persuasive strategies from a very young age (Voss & Van Dyke 2001; Weiss & Sachs, 1991). Gleason (1999) acknowledged this fact in her instructional script for persuasive writing, and asked the students in her study to practice debating an issue in a variety of formats before writing about the issues. This was done in one of the instructional sessions in the present study, but was not pursued in following sessions due to time constraints.

The sixth issue in the present study that was not considered as a factor in the data was the administering of the writing attitude survey (WSPS). The students took the same attitude survey (WSPS) for the pre- and post-test within a six-week period. Such a close administration period of the same instrument could have affected their responses on the survey. Also, the survey is rated on a Likert scale from 1-5, which included an undecided option. This made it easy for some of the participants to use the undecided option as a default and could have changed the nature of the results.

The final consideration regarding other possible reasons for the results of students' attitudes toward writing is students' preconceived ideas about the nature of writing in school. Based on the responses from the case study interviews, I found that the students enjoyed writing at home on topics and formats of their choosing but did not enjoy writing in school. The students cited reasons such as teacher-selected topics, time constraints, mechanics and other school-related pressures. As the survey was administered in a school setting, it is possible that the students' preconceived attitudes affected their responses on the survey.

These alternative considerations for the present study suggest that future research is essential to answer these and other issues in the area of CSR and persuasive writing in middle school classrooms. The next section addresses these issues.

Implications for Future Research

The present study was the first to examine the effects of Collaborative Strategic Reading on students' persuasive writing skills. It is important for future research to consider other variables that may affect the persuasive writing of middle school students. This study was the first of many more complex studies that could be conducted on the

topic of the effects of CSR and the direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. There are several possibilities for future research in this area:

1. In future studies, it may be valuable to randomly select a larger sample of students from a more representative sector of the population. It would also be valuable to randomly assign the participants to the various treatment conditions.
2. In future studies, it would be interesting to perform in-depth discourse analysis of students' interactions. In their research, Klingner and colleagues (1998) audiotaped students' discussions in their CSR intervention group in order to analyze the discourse during cooperative learning groups. This analysis would add to the body of research on students' interactions, time on task and the level of academic versus procedural discussion.
3. In future studies, it may be valuable to conduct interviews with raters after they have scored the students' essays. It may also be advantageous to have the raters do think-alouds to analyze their thought processes. This information could be beneficial in modifying the rubrics and creating additional rating and training aids.
4. In future studies, it would be valuable to conduct the classroom intervention in the fall semester. In the present study the interventions were completed in the spring, which did not appear to be an optimal time to conduct this research.
5. In future studies, it would be valuable to examine how students perform when given the choice of topics rather than prescribed topics under the same conditions.

The interview data from the case study indicated that this could possibly have an impact on the findings.

6. In future studies, it may be important to replicate the present study with different participants but the same conditions to assess whether direct instruction does play a more important role than suggested in the present study.
7. In future studies, it would be advantageous to examine the variable of peer tutors and what effect they have on the findings in the study. Williams (1998) found that collaborative learning can cause problems for students in the area of the function of peer tutors. This would be an interesting aspect of the research to study.
8. In future studies, it would be important to implement more elements of Toulmin's model of argument structure. For the present study the elements of claim, data and backing were used.

Conclusion

The present study contributes to the growing body of research on the effects of Collaborative Strategic Reading and persuasive writing instruction. It suggests that using CSR to process complex text as evidence for students' persuasive writing is highly beneficial. It also suggests that when students are given a well-developed schema for writing persuasively and they process text in collaborative groups, their ability to write in a coherent and organized manner is enhanced.

Research has shown that middle school students have the ability to reason in a persuasive manner from a young age. All they require is the social situation and knowledge about argument structure in order to be able to produce persuasive text (Voss & Van Dyke, 2001; Weiss & Sachs, 1991).

This study is somewhat inconclusive in its support of evidence about the effectiveness of direct instruction and students' attitudes about writing on their ability to construct a written argument. However, the research and the case study interviews strongly suggest that this is an important factor and, I believe, an important consideration in the area of persuasive writing (Bottomley et al., 1998; Crammond, 1998; Gleason, 1999; Hogan, 1980; Knudson, 1994; McCann, 1989; Williams, 1998; Yeh, 1998).

Reading and writing are interwoven in the process of developing literate students. As teachers address the issue of the declining ability of middle school students to engage in complex reading and writing tasks, the present study highlights the need to establish a commitment to integrating reading and writing, and to consider the importance of students' attitudes toward writing tasks. The results of this study will add to knowledge on how to improve the persuasive writing skills of middle school students through collaborative processing of expository text and developing argument structure.

Appendix A

Persuasive Writing Script

Maryland English Language Arts Content Standards

The students will produce informational, practical, persuasive, and narrative writing that demonstrates an awareness of audience, purpose, and form using stages of the writing process as needed (i.e. pre-writing, drafting, revising, editing, and publishing) (MSDE 3).

- a. The students will create an organizing structure that balances all aspects of a piece and makes effective transitions between sentences and descriptions to unify key ideas and make the message or theme clear to the reader (MSDE 3.8.1.1, MLO.W.1.1, MLO.W.2.1, MLO.W.3.1).
- b. The students will reinforce coherence within and across paragraphs (MSDE 3.8.1.2, MLO.W.1.2, MLO.W.2.2).
- c. The students will support all statements and claims with relevant anecdotes, descriptions, facts, statistics, and/or specific information (MSDE 3.8.1.4, MLO.W.1.5, MLO.W.2.7).
- d. The students will improve the logic of the ideas, word choice, and transitions among paragraphs, passages, and ideas by revising writing based on given or self-generated criteria and others' responses (MSDE 3.8.3.1, MLO.W.1.4, MLO.W.2.4, MLO.W.3.3).

(Maryland Learning Outcomes Writing, MLO.W.)

Topic: pre-test

Present problem: Teacher found a cat but husband does not want to keep it. How can she convince him to allow her to have one?

Administer WSPS

Week 1 - Prisons

Topic: claims

Read pro essays

Teacher models labeling claims

Students brainstorm 6 to 10 reasons to support pro side of issue

Identify claim and outline information on planning guide

Write an introductory paragraph including claim

Week 2 - Prisons

Topic: data

Reread pro essays

Teacher models circling data to support claim

Students brainstorm to add data to planning guide

Complete introductory paragraph, outline the three best data points and complete concluding paragraph

Week 3 - Patriotism

Topic: claims & data

Read con essays

Teacher models circling claims & data

Students complete their planning guide

Teacher reviews five-paragraph format (hamburger model)

Students identify claim and outline information on planning guide

Students identify the data and select the three best points

Write an introductory paragraph including claim and data, outline the three best data points and complete concluding paragraph

Week 4 - Patriotism

Topic: backing

Read con essays

Teacher models labeling backing

Students find backing to support their data and write them on the planning guide

Complete paragraphs two through four to include backing

Revise and rewrite patriotism essays

Week 5 – Gun Control

Topic: claim, data & backing

Read con essays

Teacher models circling claims & data

Students complete their planning guide

Teacher reviews five-paragraph format (hamburger model)

Teacher models labeling backing

Students find backing to support their data and write them on the planning guide

Students identify claim and outline information on planning guide

Students identify the data and select the three best points

Week 6 – Gun Control

Post-test essay prompt

WSPS administration

Appendix B

Sample Script (Gleason, 1999)

| Lessons | Skills introduced, practiced or reviewed |
|---------|---|
| 1 | Model essay on one side/T demonstrated how to circle/label text elements. T guided reading essay on other side/T guided circling/labeling text elements (purpose, audience, title, opinion, reasons, elaboration, responding to opposing view) conclusion. |
| 2 | T guided defending exercises. T showed planning sheet/ T demonstrated how to complete the planning process for L 1 topic but without looking at essays. T guided students in brainstorming 6 to 10 reasons for my side while T wrote on board/T guided choosing three best reasons/T & S wrote on planning sheet. S were not introduced to elaboration or planning other side for several lessons. T presented new topic/guided planning 2 more times, once for each side/T & S wrote on planning sheet. |
| 3 | T guided defending exercises. T guided circling/labeling text elements on different essay from L 1 or 2/students independently circled/labeled text elements on other side/T presented new topic/T guided planning 2 more times, once for each side/T & S wrote on planning sheet. |
| 4 | T guided defending exercises. T guided S in numbering & examining relationship of three reasons in opening paragraph & numbering & expansion of reasons in subsequent paragraphs. With T guidance, S completed two planning sheets, one on each side/without essays, S brainstormed reasons & chose best reasons with peer. |
| 5 | T guided defending exercises/ S named parts of essay without circling/labeling. S explained relationship between reasons in opening paragraph & subsequent paragraphs. S read two complete essays to get gist of argument on two sides/with T guidance on one & independently on the other, S completed two planning sheets, one on each side/S brainstormed reasons & chose best reasons with a peer. |
| 6 | T guided defending exercises. T demonstrated planning/writing elaboration of reasons on planning sheets, once for each side used in previous lesson/on different previous topic, T guided planning & completion of elaboration on two planning sheets, one completion of elaboration on two planning sheets, one on each side/using another previous topic, T guided S as they faced each other, chose sides, & stated orally the reason/elaboration for two sides/S planned/completed two elaborations on planning sheets with T guidance. |

- 7 T guided defending exercises. Using another previous topic T guided S as they faced each other, chose sides, & stated orally the reason/elaboration for two sides/planned, completed one set of elaborations on planning sheets with peer & one set by themselves.
- 8 T guided defending exercises. T showed completed planning sheet with opposing reasons & elaboration filled in/T demonstrated drafting process by thinking out loud & writing so S could see/Using a new planning sheet, S & T wrote essay together.
- 9 Using new planning sheet, S & T wrote essays together, T demonstrated checklist for self-evaluation/feedback/ T guided S on new topic as S faced each other, chose sides, completed a planning sheet, wrote an essay by writing one paragraph, getting T feedback, then writing next paragraph, getting T feedback/S used checklist to evaluate peers' essay & revised own essay based on peer feedback/on other side, S brainstormed & completed planning sheet together/wrote essay & used checklist independently.
- 10 On new topic, T guided occasionally as S worked with peers to brainstorm both sides/complete planning sheets. S wrote essays/used checklist for feedback; revised & wrote good copy.
- 11 On new topic, T guided only occasionally as S worked with peers to brainstorm both sides of an argument/complete planning sheets. S wrote essays independently; used checklists for self-evaluation, then T & peers used checklist for feedback/ S revised & wrote good copy for publishing.
- 12 T guided defending exercises. T guided on new as S brainstormed reasons & elaboration with peers/ S planned, wrote, & used checklists independently & wrote good copies for publication.

Note. T=teacher, S=students, L=lesson

Appendix C
Writing Prompts

Pre-test

Persuasive writing prompt:

I found a dog by my house without a collar and I would like to keep him. How will I convince my mother?

Post-test

Each student writes a pro essay for the following prompt:

Write an essay to convince your teacher that gun control laws will reduce the killing and maiming of innocent victims.

Appendix D

Outline for 24 Instructional Sessions

A. Pre-instruction

WSPS administration

B. Instructional Sessions

- | | |
|--------|--|
| Week 1 | - Pre-test |
| | - Prisons claim |
| Week 2 | - Prisons data |
| | - Outline essay |
| Week 3 | - Patriotism claim & data |
| | - Hamburger model/five-paragraph essay |
| Week 4 | - Patriotism backing |
| | - Outline essay |
| | - Complete essay |
| Week 5 | - Gun control claim, data & backing |
| | - Outline essay |
| | - Five-paragraph format |
| Week 6 | - Gun control |
| | - Post-test |
| | - WSPS administration |

Appendix E

Writer Self-Perception Scale (WSPS)

The Writer Self-Perception Scale

Listed below are statements about writing. Please read each statement carefully. The circle the letters that show how much you agree or disagree with the statement. Use the following scale:

SA = Strongly Agree
 A = Agree
 U = Undecided
 D = Disagree
 SD = Strongly Disagree

Example: I think Batman is the greatest super hero.

SA A U D SD

If you are really positive that Batman is the greatest, circle SA (Strongly Agree).

If you think that Batman is good but maybe not great, circle A (Agree).

If you can't decide whether or not Batman is the greatest, circle U (Undecided).

If you think that Batman is not all that great, circle D (Disagree).

If you are really positive that Batman is not the greatest, circle SD (Strongly Disagree).

| | | | | | | |
|-------|---|----|---|---|---|----|
| (OC) | 1. I write better than other kids in my class. | SA | A | U | D | SD |
| (PS) | 2. I like how writing makes me feel inside. | SA | A | U | D | SD |
| (GPR) | 3. Writing is easier for me than it used to be. | SA | A | U | D | SD |
| (OC) | 4. When I write, my organization is better than the other kids in my class. | SA | A | U | D | SD |
| (SF) | 5. People in my family think I am a good writer. | SA | A | U | D | SD |
| (GPR) | 6. I am getting better at writing. | SA | A | U | D | SD |
| (PS) | 7. When I write, I feel more calm. | SA | A | U | D | SD |
| (OC) | 8. My writing is more interesting than my classmates writing. | SA | A | U | D | SD |
| (SF) | 9. My teacher thinks my writing is fine. | SA | A | U | D | SD |
| (SF) | 10. Other kids think I am a good writer. | SA | A | U | D | SD |
| (OC) | 11. My sentences and paragraphs fit together as well as my classmates sentences and paragraphs. | SA | A | U | D | SD |
| (GPR) | 12. I need less help to write well than I used to. | SA | A | U | D | SD |
| (SF) | 13. People in my family think I write pretty well. | SA | A | U | D | SD |
| (GPR) | 14. I write better now than I could before. | SA | A | U | D | SD |
| (GEN) | 15. I think I am a good writer. | SA | A | U | D | SD |
| (OC) | 16. I put my sentences in a better order than the other kids. | SA | A | U | D | SD |
| (GPR) | 17. My writing has improved. | SA | A | U | D | SD |
| (GPR) | 18. My writing is better than before. | SA | A | U | D | SD |
| (GPR) | 19. It's easier to write well now than it used to be. | SA | A | U | D | SD |
| (GPR) | 20. The organization of my writing has really improved. | SA | A | U | D | SD |
| (OC) | 21. The sentences I use in my writing stick to the topic more than the ones the other kids use. | SA | A | U | D | SD |
| (SPR) | 22. The words I use in my writing are better than the ones I used before. | SA | A | U | D | SD |
| (OC) | 23. I write more often than other kids. | SA | A | U | D | SD |
| (PS) | 24. I am relaxed when I write. | SA | A | U | D | SD |
| (SPR) | 25. My descriptions are more interesting than before. | SA | A | U | D | SD |
| (OC) | 26. The words I use in my writing are better than the ones other kids use. | SA | A | U | D | SD |
| (PS) | 27. I feel comfortable when I write. | SA | A | U | D | SD |
| (SF) | 28. My teacher thinks I am a good writer. | SA | A | U | D | SD |

| | | | | | | |
|-------|---|----|---|---|---|----|
| (SPR) | 29. My sentences stick to the topic better now. | SA | A | U | D | SD |
| (OC) | 30. My writing seems to be more clear than my classmates writing. | SA | A | U | D | SD |
| (SPR) | 31. When I write, the sentences and paragraphs fit together better than they used to. | SA | A | U | D | SD |
| (PS) | 32. Writing makes me feel good. | SA | A | U | D | SD |
| (SF) | 33. I can tell that my teacher thinks my writing is fine. | SA | A | U | D | SD |
| (SPR) | 34. The order of my sentences makes better sense now. | SA | A | U | D | SD |
| (SF) | 35. I enjoy writing. | SA | A | U | D | SD |
| (SPR) | 36. My writing is more clear than it used to be. | SA | A | U | D | SD |
| (SF) | 37. My classmates would say I write well. | SA | A | U | D | SD |
| (SPR) | 38. I choose the words I use in my writing more carefully now. | SA | A | U | D | SD |

Appendix F

Adapted Toulmin Scoring Criteria

Claims

| | | |
|--|---|--|
| | 0 | No claim related to the proposition or topic. |
| | 2 | The writer makes generalizations that are related to the proposition or topic, but the assertions lack specificity or offer unclear referents. The writer leaves much for the reader to infer in order to determine the impact of the claim. |
| | 4 | The writer states generalizations that are related to the proposition or topic, but the assertions are not complete. Enough information is available to figure out the writer's intent, but much is left to the reader to determine. |
| | 6 | The writer states generalizations which are related to the proposition and which are clear and complete. |

Data

| | | |
|--|---|---|
| | 0 | No data are offered or the data have no relevance to the claim. |
| | 2 | The data that are offered are weak, inaccurate, or incomplete. Examples may include the following: (a) an attempt at using a general principle without establishing the truth of the principle; (b) the use of examples from personal experience, which are not generalizable; (c) the citation of data when no source is identified; (d) the use of obviously biased or outdated material. |
| | 4 | The data that are offered are relevant but not complete. The writer leaves much for the reader to infer from the data. The writer may have offered the data without the complete citation, which would allow the reader to determine the reliability of the data as evidence. The writer may offer data, which are not complete enough to allow the reader to determine their significance. |
| | 6 | The supporting data are complete, accurate, and relevant to the proposition. |

Warrants/Backing

| | | |
|--|---|--|
| | 0 | No warrant is offered. |
| | 2 | An attempt is made to elaborate about some element in the data. The attempt suggests that the writer recognizes a need to connect the data to the claim but the writer fails to make the connection. |
| | 4 | The writer explains the data in some way but the explanation is not linked specifically to the claim. |
| | 6 | The writer explains the data in such a way that it is clear how they support the claim. |

Appendix G

Coherence and Organization Rating Scale

| | |
|---|--|
| 1 | <p>Nearly Incomprehensible</p> <p>Many of the following problems prevent the reader from making sense of the text:</p> <ol style="list-style-type: none"> a. Main points of argument cannot be identified. b. Text is not organized into any kind of recognizable structure. c. Arguments are extremely weak or nonexistent. d. Writer creates no sense of closure. e. Writer uses very few cohesive ties linking sentences and/or paragraphs together. f. Discourse flow is very rough or irregular because writer makes numerous grammatical and/or mechanical errors that continually interrupt the reading process. |
| 2 | <p>Not Coherent</p> <p>Some of the following problems prevent the reader from integrating the text into a coherent whole:</p> <ol style="list-style-type: none"> a. Writer does not identify main points of an argument. b. Writer does not organize the paper according to an identifiable plan through most of the text. c. Writer employs a number of weak, specious, or inconsistent arguments. d. Writer uses a few cohesive ties to link sentences and/or paragraphs together. e. Writer creates little or no sense of closure. f. Discourse flow is irregular or rough because mechanical and/or grammatical errors frequently interrupt the reading process. |
| 3 | <p>Partially Coherent</p> <ol style="list-style-type: none"> a. Writer may identify or allude to but not clearly state main points of argument in introduction. b. Writer organizes sub-arguments according to a plan, but points may be only loosely or implicitly related, or the plan may not be sustained throughout. c. Writer constructs arguments which generally make sense, but which may overlook certain important points or not be fully consistent with one another. d. Writer uses some cohesive ties to link sentences and/or paragraphs together. e. Writer does not usually conclude with a statement that creates a sense of closure. f. Discourse generally flows smoothly, although occasionally grammatical and/or mechanical errors may interrupt the reading process. |
| 4 | <p>Fully Coherent</p> <ol style="list-style-type: none"> a. Writer clearly states main points of argument in introduction. b. Writer organizes sub-arguments according to a discernable plan that is sustained throughout the essay. c. Writer constructs arguments that are logical and consistent. d. Writer skillfully uses cohesive ties such as transition sentences, conjunctions and topically related words and phrases to link sentences and/or paragraphs together. e. Writer often concludes with a statement that gives the reader a definite sense of closure. f. Discourse flows smoothly – few or no grammatical and/or mechanical errors interrupt the reading process. |

Appendix H

Five-paragraph Format Rubric

| | |
|---|---|
| 1 | <p>No Use of the Five-paragraph Structure These writers have not used the basic conventions of the “five-paragraph theme” format. They tend to present their thoughts in one-paragraph units.</p> |
| 2 | <p>Some Use of the Five-paragraph Structure These writers know that essays contain more than one paragraph. In their introductions, these writers create sentences that look like thesis statements. They then support their ideas with blocks of text that look like paragraphs, but the topic sentences to these units may be weak or nonexistent.</p> |
| 3 | <p>Moderate Use of the Five-paragraph Structure These writers seem to understand the conventions of the “five-paragraph theme” format. In the introductions to their essays, they present thesis statements, often followed by some superfluous materials or by an abbreviated plan. They then try to support their thesis statements with several paragraphs over which they demonstrate only moderate control. Often, there is no sense of closure to these essays.</p> |
| 4 | <p>Strong Use of the Five-paragraph Structure These writers demonstrate a good understanding of the format of the “five-paragraph theme”. They present thesis statements and organizational plans in their first paragraphs. Then, the writers try to follow their plans with several paragraphs. These paragraphs have topic sentences and some development. At the end of these essays, the writers establish closure of some sort.</p> |

Appendix I

Parent Consent and Student Assent Forms

Page 1 of 2

Initials _____

Letter to Parents or Guardians

Dear Parent or Guardian:

Your child's sixth-grade class has been selected to participate in a study I will be completing during the 2003-2004 school year. The purpose of this study is to investigate ways to improve students' persuasive writing through the use of selected learning strategies. Your child will be asked to read opposing viewpoints on selected issues and write two five-paragraph essays in class. He/she will learn to utilize components of argument structure in their essays over a six-week period (18 days). In addition, he/she will be asked to complete a writer's attitude survey.

All students with permission to participate will take part in the study as part of their regular language arts instruction. Your principal and the XX office have approved this study for XX.

All of your child's responses and scores will be kept completely confidential and will be used for research purposes only. In order to ensure confidentiality, I will follow all rules established by the University of Maryland's Institutional Review Board (IRB), American Psychological Association (APA), and the XX that protect the privacy of participants and maintain the confidentiality of identifiable information. After five years, the student responses and data on diskettes will be destroyed.

The writing strategies will be taught by, Ms. Leisa Standish. These experiences fully comply with the XX, XX and XX curricular and standards.

By agreeing to allow your child to participate in this study, you may be helping your child become a better writer and will be helping to advance our knowledge on how to more effectively teach sixth-graders to write persuasively.

Please note that you may request that your child be removed from the study at any time without penalty. Keep in mind there are no known risks to your child's self-esteem or motivation by his or her participation in this study. Feel free to call me or e-mail me at any time for an after-school conference to address any questions.

Students who elect not to participate and/or do not receive parent/guardian permission will receive the instruction, but I will not use their data.

Thank you for considering this request.

Sincerely,

Leisa G. Standish
Assistant Professor

Attachment

Leisa G. Standish, Student Investigator
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Columbia Union College
7600 Flower Ave
Takoma Park, Maryland, 20912
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University of Maryland
College Park, Maryland 20742-1175
Phone: 301-405-3128 or 301-405-3324 (voice mail)
E-mail: wslater@umd.edu
Fax: 301-314-9055

Parent/Guardian Consent Form

Dear Ms. Standish:

I, _____, give permission for my child, _____, to participate in a study focused on persuasive writing strategies to be conducted at XX. I understand that my child will be encouraged to ask questions about the study, if he or she has any.

I understand that my child's identity will be kept confidential at all times and will not be reported in the results of this study. I am also aware that I may request, without penalty and at any time, that my child be removed from participation in the study. I am also aware that there are no known risks to self-esteem or motivation involved in my child participating in this study.

I also understand that I am free to contact and/or ask questions of the Student Investigator (Leisa Standish) at any time.

Finally, I understand that if my child does not choose to participate and/or I do not give my permission, my child will receive the instruction, but his or her data will not be used in the study.

Please place this form (signed or unsigned) in the attached, addressed envelope and ask your child to return it to their classroom teacher, XX.

Parent or Guardian Signature

Date

Leisa G. Standish, Student Investigator
Education Department
Columbia Union College
7600 Flower Ave
Takoma Park, Maryland, 20912
Phone: 301-891-4185
E-mail: lstandis@cuc.edu

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Letter to Parents or Guardians

Dear Parent or Guardian:

Your child's sixth-grade class has been selected to participate in a study I will be completing during the 2003-2004 school year. The purpose of this study is to investigate ways to improve students' persuasive writing and reading comprehension (previewing and predicting, fix up, main idea, questioning, and summarizing) through the use of selected learning strategies. Your child will be asked to read opposing viewpoints on selected issues and write two five-paragraph essays in class. He/she will learn to utilize components of argument structure in their essays over a six-week period (18 days). In addition, he/she will be asked to complete a writer's attitude survey.

All students with permission to participate will take part in the study as part of their regular language arts instruction. Your principal and the XX office have approved this study for XX.

All of your child's responses and scores will be kept completely confidential and will be used for research purposes only. In order to ensure confidentiality, I will follow all rules established by the University of Maryland's Institutional Review Board (IRB), the American Psychological Association (APA), and the XX on that protect the privacy of participants and maintain the confidentiality of identifiable information. After five years, the student responses and data on diskettes will be destroyed.

The writing strategies will be taught by, Ms. Leisa Standish. These experiences fully comply with the XX, XX and XX curricular and standards.

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Please note that you may request that your child be removed from the study at any time without penalty. Keep in mind there are no known risks to your child's self-esteem or motivation by his or her participation in this study. Feel free to call me or e-mail me at any time for an after-school conference to address any questions.

Page 2 of 2

Initials _____

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Thank you for considering this request.

Sincerely,

Leisa G. Standish
Assistant Professor

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Leisa G. Standish, Student Investigator
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I understand that my child's identity will be kept confidential at all times and will not be reported in the results of this study. I am also aware that I may request, without penalty and at any time, that my child be removed from participation in the study. I am also aware that there are no known risks to my child's self esteem and/or motivation involved in my child participating in this study.

I also understand that I am free to contact and/or ask questions of the Student Investigator (Leisa Standish) at any time.

Finally, I understand that if my child does not choose to participate and/or I do not give my permission, my child will receive the instruction, but his or her data will not be used in the study.

Place this form (signed or unsigned) in the attached, addressed envelope and ask your child to return it to their classroom teacher, XX.

Parent or Guardian Signature

Date

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 E-mail: wslater@umd.edu
 Fax: 301-314-9055

Student Assent Script/Form

Good morning. My name is Mrs. Standish, and I am a graduate student at the University of Maryland and a teacher at Columbia Union College. I am working with your teacher on a study that will help you to become better writers.

I will be visiting your classroom three days a week for six-weeks to teach you to how to become better persuasive writers. I am going to ask you to write two essays for me about interesting topics such as gun control and patriotism. I will also ask you to fill out a survey about your attitude toward writing.

It is important for you to know that you may withdraw your permission for me to use your essays in the study at any time without penalty. If you wish to give permission for me to use your essays in this study, you must obtain your parent/guardian's consent. If you decide not to participate and/or do not receive parent/guardian permission, you will receive the instruction and write the essays but I will not use your assignments.

Please print your name below. If you are willing to participate in the study, check yes. If you check yes, please deliver the attached parent/guardian consent form, ask him/her to read it carefully. Whether they give their consent or not, return it to your teacher.

Name _____

Date _____

Yes _____

No _____

Additional Questions _____

Leisa G. Standish, Student Investigator
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 Columbia Union College
 7600 Flower Ave
 Takoma Park, Maryland, 20912
 Phone: 301-891-4185
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Initials _____

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Thank you for considering this request.

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Assistant Professor

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I, _____, give permission for my child, _____, to participate in a study focused on persuasive writing strategies to be conducted at XX. I understand that my child will be encouraged to ask questions about the study, if he or she has any.

I understand that my child's identity will be kept confidential at all times and will not be reported in the results of this study. I am also aware that I may request, without penalty and at any time, that my child be removed from participation in the study. I am also aware that there are no known risks involved in my child participating in this study.

I also understand that I am free to contact and/or ask questions of the Student Investigator (Leisa Standish) at any time.

Finally, I understand that if my child does not choose to participate and/or I do not give my permission, my child will receive the instruction, but his or her data will not be used in the study.

Place this form (signed or unsigned) in the attached, addressed envelope and ask your child to return it to their classroom teacher, XX.

Parent or Guardian Signature

Date

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Student Assent Script/Form

Good morning. My name is Mrs. Standish, and I am a graduate student at the University of Maryland and a teacher at Columbia Union College. I am working with your teacher on a study that will help you to become better writers.

I will be visiting your classroom three days a week for six-weeks to observe you in your language arts classes. I am going to ask you to write two essays for me about interesting topics such as gun control and patriotism. I will also ask you to fill out a survey about your attitude toward writing.

It is important for you to know that you may withdraw your permission for me to use your essays in the study at any time without penalty. If you wish to give permission for me to use your essays in this study, you must obtain your parent/guardian's consent. If you decide not to participate and/or do not receive parent/guardian permission, you will receive the instruction and write the essays but I will not use your assignments.

Please print your name below. If you are willing to participate in the study, check yes. If you check yes, please deliver the attached parent/guardian consent form, ask him/her to read it carefully. Whether they give their consent or not, return it to your teacher.

Name _____

Date _____

Yes _____

No _____

Additional Questions _____

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Appendix J

Case Study Interview Questions

What would you say if someone asked you to take a class on writing?

Does learning about writing make you feel comfortable or uncomfortable? Why?

Do you think you need to be good at grammar to be a good writer? Why?

Do you think you need to be good at spelling to be a good writer? Why?

Doing worksheet exercises helps me improve my writing.

Good writers spend more time revising than poor writers.

I get better grades on topics I choose for myself than those the teachers assign.

I must learn to write a good paragraph before I can write an essay.

Students need to plan their writing for essays.

Do you ever have problems:

1. putting things in order?
2. knowing how to begin?
3. finding the right words?
4. spelling, following directions, finding errors, grammar, neatness, trying to say it better?
5. thinking of a topic to write about?
6. thinking what to say about a topic?

The teacher is the most important audience for what I write in school.

I voluntarily reread and revise what I've written.

When the teacher gives me an example it improves my writing.

When the teacher explains the writing assignment on the board it improves my writing.

When I use an outline it improves my writing.

I prefer topics I choose myself to ones the teacher gives.

I enjoy writing more in a group than by myself.

I accept positions in groups that involve writing.

How do you feel about writing?

How would you rate your writing?

Would you describe yourself as a person who writes well?

Do you ever find it difficult to write? When?

Do you think every student should have some understanding of writing?

Do you think that being a good writer will help you get a better job?

If you were/are a good writer what would your parents think?

If you were/are a good writer what would your teacher think?

If you were/are a good writer what would your friends think?

If you were/are a good writer what would you think?

Girls enjoy writing more than boys do.

Writing is an important way to express my feelings.

I write better than I read.

I write better than I speak.

A student who writes well gets better grades in many subjects than someone who doesn't.

I get better grades on topics I choose myself than those the teachers assign.
I share what I write for school with my family and friends.
I share what I write with other members of the class.
Teachers give poor grades to papers that have misspellings.
Writing for others is more important than expressing myself.
I can put off doing assigned writing until the last minute and still get a good grade.
I use writing to help me study and learn new subjects.
I spend more time on a piece of writing I do outside school as one as an assignment.
I write letters to my family and friends.
On my own I write stories, plays and poems.
When I have free time I prefer writing to being with friends.
When I have free time I prefer writing to reading.
I do school writing assignments as quickly as I can.
I write for the school newspaper, yearbook or magazine.
I keep notes for school courses.
When I have free time I prefer writing to sports, games or hobbies.
When I have free time I prefer writing to watching TV.
I leave notes for my family and friends.
When I have free time I prefer writing to listening to music.
I keep a journal or a diary.
I write to public figures like my congressman or mayor.

Appendix K Pilot Study

Pilot Study

Participants

A pilot study was conducted in the spring of 2003 with three sixth-grade classrooms in three private Christian schools located in the suburbs of a large city in the mid-Atlantic region. The schools were the same sites used for the present study, but the classes of sixth-grade students were not. A total of 65 students participated in the pilot study. The schools were all K-8 and many of the participants had been students at the school for six years. Of this sample, 32 were Caucasian, 14 were African American, nine were Hispanic and 10 were Asian American.

The three groups were selected because the schools are located within the same region of the country, the schools use similar curricula, the demographics are similar, the schools all have a low student transfer rate, and the students all have at least four years of standardized test data on their literacy skills.

The three sixth-grade classes were assigned three treatments: group 1 received instruction in CSR along with direct instruction in persuasion, group 2 received direct instruction in persuasion only, and group 3 was the control condition. The students receiving the CSR/direct instruction in persuasion intervention attend a K-8 school with a population of 210 students. The school is a private Christian school with a diverse student body. The school is part of a system of 911 Christian schools in North America (United States and Canada) and 4,407 worldwide. The North American system bases its curriculum on the national standards (see Appendix L) and mandates the Iowa Test of

Basic Skills (ITBS, 2001) for students in grades 2-12. The school is accredited by the Middle States Commission on Elementary Schools (MSCES) and has been in operation since 1958. The students have a block schedule and rotate between three middle school teachers. The sixth-grade class represents a diverse range of race and ethnicity, including nine Caucasian, nine African American, six Hispanic and three Asian American students. The English teacher has a master's degree and has been teaching for 22 years. The school tuition is subsidized by the system. For constituent church members the cost per year is \$2,600 and for non-members is \$5,500 for students of parents who are not members of those churches. In addition, tuition assistance is available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch.

The students in the direct instruction in persuasion group (2), who received the explicit instruction in persuasive writing only, attend a K-12 school with a population of 312 students. The school is part of the same school system as the two other treatment groups and has a diverse student body. The sixth-grade class includes 15 Caucasian, two African American, two Hispanic and six Asian American students. The school is accredited by the MSCES and has been in operation since 1943. The students rotate between the fifth and sixth-grade classroom for different subjects. The sixth-grade teacher was completing her master's degree during the pilot study and has been teaching for five years. The school tuition is subsidized by the church system. The cost per year is \$3,380 for students whose parents attend local churches that financially support the school, and \$6,000 for children of non-members. In addition, tuition assistance is

available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch.

The students in the control group (3) attend a K-10 school with a population of 130 students. The school is part of the same school system as the two intervention schools and also has a diverse student body. The sixth-grade class includes eight Caucasian, three African American, one Hispanic and one Asian American student. The school is accredited by the MSCES and has been in operation since 1956. The students are in a self-contained, combined fifth and sixth-grade classroom. The English teacher has a master's degree and has been teaching for 35 years. The school tuition is subsidized by the church system. The cost per year is \$3,400 for children of members of local churches that financially support the school, and \$5,400 for the children of non-members. In addition, tuition assistance is available to families who lack sufficient financial resources to afford the tuition. Students who are eligible for tuition assistance may also receive a free or reduced-price lunch

Design and Analysis

The researcher used a quasi-experimental design to examine the following three treatment conditions: group 1 CSR/direct instruction in persuasion, group 2 direct instruction in persuasion and group 3 control condition. The research questions and design are summarized in the following table.

Table 2

Research Design

| Research questions | Measures | Analysis |
|--|--|---|
| Do students in the CSR/direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the direct instruction in persuasion treatment group and students in the control group? | Rubrics (raters' scores on persuasive ability, coherence and organization, five-paragraph format and length) | Regression ANOVA (post test data) ANCOVA (post-intervention measures using pre-measures as covariates) case study |
| Do students in the direct instruction in persuasion treatment group score higher on the persuasive writing measures than students in the CSR/direct instruction in persuasion group and the students in the control group? | Rubrics (raters' scores on persuasive ability, coherence and organization, five-paragraph format and length) | Regression ANOVA (post test data) ANCOVA (post-intervention measures using pre-measures as covariates) case study |
| Do students' attitudes towards writing affect their persuasive writing scores? | Interviews Observations ITBS test scores WSPS | Regression ANOVA (pre-test data and post-test data) ANCOVA (post-intervention measures using pre-attitude as covariates) case study |

Descriptive analyses were employed in this study, as the purpose of the study was to establish the effectiveness of CSR and explicit instruction in persuasive writing strategies on students' persuasive writing. The method used to analyze data was a content analysis of the students' essays through the use of selected persuasive writing measures. The pre- and post-test essays were scored for persuasive structure, coherence and organization, five-paragraph format and length. Three raters, the researcher, a trained English high school teacher and a middle school special education teacher scored each

essay. The raters were trained to use the rubrics and read the typed essays blind. The percentage of exact agreement by raters was computed for all the analyses.

The purpose of the pilot study was to establish the effectiveness of the outlines for the instructional sessions (see Appendix A) and the interrater reliability for the scoring of the present study. The results of the interrater reliability test are listed in the scoring procedures section (Table 2). A more detailed explanation of the design and analysis is given in the present study section of this chapter.

Instruction

I conducted the one-week instructional period for treatment group 1 (CSR/direct instruction in persuasion) and group 2 (direct instruction in persuasion) in an attempt to provide consistency of instruction and validity of the sample outlines (see Appendix A). The instruction occurred four times for approximately 45 minutes per session. The CSR/direct instruction in persuasion group (1) had been previously instructed in the CSR method and was able to use this method during the intervention with ease.

Materials

The materials for the pilot study consisted of 1) two writing prompts (see Appendix C); 2) an outline for the four instructional sessions (see Appendix A); 3) *Opposing Viewpoints for Juniors'* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989); 4.) Writer Self-Perception Scale (see Appendix E); and 5.) Scoring rubrics (see Appendix F, G, & H).

The pre-test writing prompt was from the students' experience and the final writing prompt (see Appendix C) was taken from the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989). This series was

selected because of the topic relevance to middle school students and the potential to generate persuasive writing. They were the same as the pre- and post-test prompts designed for the present study.

The outline for the instructional sessions was developed from the script used in Gleason's (1999) study (see Appendix B). The modified and expanded outline was supplemented with the *Opposing Viewpoints for Juniors* series (Bernards & Szumski, 1990; O'Sullivan, 1989; Szumski, 1989). This outline was also supplemented with other research-based techniques (Crammond, 1998; Knudson, 1994; Yeh, 1998). The outline for the instructional sessions (see Appendix A) was also modified after a panel of five experts reviewed the outline. The outline was given to each member of the panel, who reviewed it and wrote comments onto a hard copy of the outline and returned it to me for review. The experts included three English composition professors, one high school English teacher and one middle school special education teacher. This panel also assessed the prompts.

Procedures

The procedures for completing the pilot study are outlined in the following section. First, the students in the CSR/direct instruction in persuasion group (1) had been instructed in the CSR strategies in their reading class over a two-week period, and were given a short review on the strategies in the intervention.

Second, the students were informed about the purpose of the study. They were then presented with the pre-test writing prompt and were asked to write a response (see Appendix A). All the students in the three treatment conditions received the same

instruction for this lesson. At the end of this session, the students from all three treatment groups were asked to complete the WSPS for comparison purposes.

Third, the students participated in four lessons over a one-week instructional period (see Appendix A). The post-test essay was completed on the final day and students also completed the WSPS survey as a post-test comparison measure.

Measures

To assess the four dependent measures of students' success in persuasive writing strategies, I used following scoring procedures: 1) a rubric for the Adapted Toulmin Scoring Criteria (see Appendix F); 2) the Coherence and Organization rating scale (see Appendix G); 3) five-paragraph format (see Appendix H); and 4) a computerized frequency count of the number of words for each essay.

The pre- and post-test essays were typed to remove the variable of handwriting, and the writer's name and sex were omitted to limit bias in scoring. The essays were assigned a number from one to sixty-five. The essays were typed using Microsoft Word and the tools feature was used to tabulate the number of words in each essay. This feature enabled the length of each essay to be objectively and reliably tabulated.

To assess the dependent measures of students' persuasive ability in a five-paragraph format, three trained raters scored each of the essays in the pre- and post-testing with the use of a rubric (see Appendix F, G, and H). Three raters analyzed the essays from the pilot study: one rater was the researcher, one a trained English teacher and the other a trained special educator and reading specialist. All three had prior experience in using rubrics such as those in the study. Prior to the scoring sessions, the raters participated in a training session. The raters scored the essays independently and

discussed the rubrics and results to resolve any issues in the rubrics and scoring procedures.

The one-hour training session with each of the raters included the analysis of a random selection of five of the pre- and post-test student essays from the pilot study. The raters and I analyzed each rubric's point system and agreed on a value for each essay. The raters then graded the pilot study data to establish interrater reliability, defined as the percent of essays with exact agreement (same score) between the raters. The three raters achieved an acceptable agreement level between 80% and 90%, with the exception of the ratings for claim, and coherence and organization (see Table 17). Interrater reliability was established from a random selection of pre- and post-test essay scores by each of the three raters. Scores from each of the five measures (claim, data, backing, coherence and organization and five-paragraph essay) were used to run the Cronbach's Alpha test of interrater reliability to determine the percentage values of rater agreement. The results are found in the table below.

Table 17

Interrater Reliability for Scoring of Pilot Study Persuasive Essays

| <i>Rubric</i> | <i>Interrater Reliability</i> |
|----------------------------|-------------------------------|
| Claim | 50% |
| Data | 80% |
| Backing/Warrant | 81% |
| Coherence and Organization | 0% |
| Five-paragraph Essay | 90% |

Note. Results based on one comparison group's essay n=25.

A reliability coefficient of .80 or higher is considered "acceptable" in most social science applications.

The pilot study was used primarily to evaluate the rubrics and to establish interrater reliability for the present study. Interrater reliability was the only statistical analysis completed for the pilot study.

Implications

As a result of the pilot study, some issues were discovered that were refined for the present study. First, the number of persuasive writing issues that were planned for the present study was changed from six to three. Originally I had planned to introduce a new issue from the *Opposing Viewpoints for Juniors* series each week, but after the pilot study I reduced the issues to three: prisons, patriotism and gun control. The complexity of learning new writing strategies, reading expository text and writing six five-paragraph essays was judged to be an overwhelming task for the students in the study over a six-week period.

Second, during the pilot study the students were taught to include three elements of Toulmin's model (Toulmin et al., 1984) into their essays: claim, data and backing. During the present study it was initially planned to incorporate more elements of the model (claim, data, warrant, backing and qualifier). However, during the pilot study the students struggled to fully conceptualize the elements of argument structure (claim, data and backing) that were introduced. The students' struggles were evident in the essays they wrote, the clarifications questions they asked and the frustration that was observed as the students attempted some of the tasks required during the intervention. Due to these observations from the pilot study, it was decided that inclusion of the three elements of claim, data and backing would be sufficient for the present study.

I determined that the training given to the raters was not comprehensive enough. Three out of five of the rubrics evidenced high interrater reliability levels of 80% to 90% however, two did not (see Table 2). The grading for the essays from the present study will include a further two hours of training. The raters also graded one complete essay from each treatment group to establish consistency.

The outline for the pilot study was successfully implemented and will not be modified significantly for the operational study (see Appendix A). The present study is described in chapter III and includes changes that were made based on results from the pilot study.

Appendix L

National Standards

| Subject Area | National Standards |
|----------------|--|
| Language Arts | <i>Standards for the English Language Arts</i> International Reading Association (IRA) & National Council of Teachers of English (NCTE) |
| Mathematics | <i>NCTM Principles and Standards</i> National Council of Teachers of Mathematics |
| Social Studies | <i>National Standards for History</i> National Center for History in the Schools |
| Science | <i>Standards for Science Teacher Preparation</i> National Science Teachers Association (NSTA) |
| Art | <i>National Standards for Art Education</i> National Art Education Association (NAEA) |
| PE | <i>National Standards</i> National Association for Sports and Physical Education (NASPE) |

Appendix M

Test 2 Comparison of Students' Attitude Scores with Normative Data

The WSPS instrument includes normative data to allow for comparison of individual students and/or the entire group with the general population. A summary of the pre-test and post test survey scores for each group is compiled in Table 10 and 14. The results show that the majority of the students' responses to the attitude survey fall in the low to average range. As we know from previous data tables 4 and 5, group 1 (CSR/direct instruction in persuasion) scored significantly higher than groups 2 (direct instruction in persuasion) and 3 (control) on all the persuasive writing measures. Thus, we would expect to see large differences in the group 1 (CSR/direct instruction in persuasion) students' responses. As this is not the case, it is difficult to conclude from this data that students' attitudes toward writing affect their ability to write persuasive essays.

Table 18
Comparison of Students' Attitude Scores with Normative Data

| | Pre-test G1 (CSR/DI) | Post-test G1 (CSR/DI) | Pre-test G2 (DI) | Post-test G2 (DI) | Pre-test G3 (control) | Post-test G3 (control) |
|-------------------------------------|-------------------------------------|--------------------------------------|-----------------------------|------------------------------|--------------------------------------|-----------------------------------|
| General Progress | | | | | | |
| High | 21 | 26 | 10 | 21 | 8 | 8 |
| Average | 42 | 31 | 26 | 21 | 25 | 25 |
| Low | 36 | 42 | 63 | 58 | 66 | 66 |
| Specific Progress | | | | | | |
| High | 21 | 5 | 5 | 15 | 8 | 0 |
| Average | 36 | 47 | 31 | 31 | 16 | 25 |
| Low | 42 | 47 | 63 | 52 | 75 | 75 |
| Observational Comparison | | | | | | |
| High | 10 | 0 | 0 | 10 | 16 | 0 |
| Average | 36 | 36 | 31 | 31 | 6 | 25 |
| Low | 52 | 63 | 68 | 58 | 66 | 75 |
| Social Feedback | | | | | | |
| High | 5 | 0 | 5 | 15 | 0 | 8 |
| Average | 58 | 52 | 26 | 42 | 16 | 25 |
| Low | 36 | 47 | 68 | 42 | 83 | 66 |
| Physiological States | | | | | | |
| High | 31 | 31 | 21 | 26 | 0 | 0 |
| Average | 36 | 36 | 47 | 47 | 33 | 33 |
| Low | 31 | 31 | 26 | 26 | 66 | 66 |

Note. * % of students scoring in each category.

Results of Comparison

This comparison table does not involve analytical statistics, but does allow for a test between students' scores and normative data. The information provided in this table shows that attitudes of students in each group toward their writing performance (GP, SP) fall predominantly in the low to average range. The comparison of their own with peers' writing (OC) is predominantly low to average. The feedback they get from peers (SF) is low to average. Their internal comfort as they write (PS) is low to average, except for group 1 (CSR/direct instruction in persuasion), who scored approximately one third in each (high, average and low). This information supports the statistical findings from tables 11 and 16 that students' attitudes toward writing do not appear to significantly affect their ability to write persuasive essays.

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