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Improving the Writing Skills of At-Risk Students Through the Use of Writing Across the Curriculum and Writing Process Instruction

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IMPROVING THE WRITING SKILLS OF AT-RISK STUDENTS THROUGH THE USE OF WRITING ACROSS THE CURRICULUM AND WRITING PROCESS INSTRUCTION

by

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Theresa A. Dean-Rumsey
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ABSTRACT

A plan for improving the writing skills of at-risk students was developed and implemented. Subjects were fifteen seventh-grade Title I students who demonstrated weak writing skills. Evidence for the existence of the problem included MEAP test scores and teacher observations. A review of research on writing pointed to the following solutions to the problem: increasing students' experiences with writing by implementing writing across the curriculum, improving students' knowledge and use of the writing process, and direct instruction in writing strategies and techniques. Results of the posttest did not indicate a significant improvement in writing had occurred as a result of the treatment. However, teacher observations suggested that students' writing had improved in several areas, including students' knowledge of and use of the writing process.
CHAPTER ONE: THESIS PROPOSAL

Problem Statement

The writing skills of many students at Hesperia Middle School need improvement. The Michigan Educational Assessment Program (MEAP) Writing Proficiency Test scores for the 1997-98 school year showed that 38.8% of the fifth-grade students and 51.1% of the eighth-grade students were considered “not yet proficient” writers. Many of the non-proficient writers are students who are considered at-risk of academic failure due to their low academic performance, test scores, poverty level, or family situations. Instructional strategies are needed which will improve at-risk students’ writing abilities.

Importance and Rationale of Study

Writing skills are an essential component of literacy; students need to be proficient writers in order to participate in our literate society. The National Council of Teachers of English and the International Reading Association (1996) have stated that the literacy requirements of our society are increasing and are expected to continue to rise. It is estimated that by the year 2020, students will need powerful literacy abilities to participate fully in society and in the workplace.

Effective writing skills are needed in order for students to be academically successful. Michigan’s MEAP test includes a writing component for grades 5, 8, and 11; students who have poor writing skills will not achieve proficiency on those tests.
In many school districts, including Hesperia Community Schools, writing in a functional context to produce organized texts is an essential curriculum outcome.

Research has shown that writing promotes learning and enhances critical-thinking skills. Emig (1977) pointed out that higher cognitive functions, such as analysis and synthesis, seem to develop most fully only with the support of verbal language, particularly of written language.

Improving writing skills is a significant problem not only in the Hesperia Community Schools District, but also regionally and nationally. The state results of the 1998 Michigan Educational Assessment Program Writing Proficiency Test revealed that students' writing ability needs improvement: 35.7% of fifth-grade students and 31.0% of eighth-grade students received a "not yet proficient" score.

Graves (1987) reported that, according to the National Assessment of Educational Progress, major problems exist in students' ability to write coherent text and to use information to persuade. The NAEP (1992) writing standards state that students should be able to generate, draft, evaluate, revise, and edit ideas and forms of expressions in their writing. Students should also be able to display effective choices in the organization of their writing, including detail to illustrate and elaborate their ideas and using appropriate conventions of written English.

Research indicates that students' writing abilities need to be stronger. Writing is a critical literacy skill for students' academic and future success. Methods for improving the writing of non-proficient students must be developed, implemented, and studied.
Background of Study

Standardized test scores provide evidence that many students do not have satisfactory writing skills. While recent curriculum changes have increased Hesperia Middle School students’ test scores in mathematics and reading, writing is an area that still needs improvement. For the past three years, students’ scores on the Michigan Educational Assessment Program [MEAP] Writing Proficiency Test have shown that a large percentage of Hesperia students have not achieved proficiency. The MEAP Writing Test assesses students’ proficiency based upon their written response to a prompt on a broad topic. The test is given over a period of three days; students brainstorm ideas, draft, engage in peer conferencing, revise, edit, and write a final draft. The essays are evaluated for ideas and content, organization, style, (sentence structure, vocabulary, and voice) and the conventions of writing (grammar, usage, mechanics, and spelling). Scores range from 1.0 to 4.0; scores of 2.5 and above are considered “proficient.” In 1998, only 48.9% of the Hesperia eighth-grade students and 61.3% of the fifth-grade students scored at the proficient level.

Teacher observations of students’ written work across the curriculum has revealed that improvement is needed in the areas of organization, focus, elaboration and detail, and surface mechanical errors such as incomplete sentences. Another concern is that students lack strategies for revising their work. Many students tend to believe that their writing is finished when the first draft is done; they simply recopy instead of revise.
Many of the non-proficient writers in the Hesperia Community Schools District are at-risk of academic failure. Students are defined as “at-risk” when they meet one or more of the following characteristics: unsatisfactory standardized test scores, failing grades in core academic subjects, poverty, and dysfunctional family situations. Hesperia Middle School’s at-risk population is composed primarily of students who have low academic skills or low family income. 45% of the seventh-grade students qualify for Title I services, extra assistance in math and reading, due to low academic achievement; and 48% of the middle school students qualify for free or reduced lunch. Effective teaching strategies are needed for improving the skills of these at-risk students.

Studies have indicated that a possible reason for students’ low writing skills could be that many students have little opportunity to write. Much of the writing students are asked to do in school is in short-answer form, such as fill-in-the blank or short answer worksheets and tests. Anson and Beach (1995) found that two-thirds of the students surveyed in grades eight through twelve reported writing papers of only one paragraph on a weekly basis. Their research showed that at-risk students, because they often are placed into low ability level groups, tend to receive instruction that focuses on skills and knowledge of grammar, usage, and mechanics. In contrast, students in high-ability classes are encouraged to express their own thoughts and ideas; as a result, their literacy becomes more highly functional and engaging.
Cox, Holden, and Pickett (1997) found that a writing workshop approach enhanced at-risk students' attitudes toward writing. Writing workshop is a natural learning approach. Students choose their own writing topics and genres, and most of the class time is devoted to writing. Ten minutes or less per day is devoted to minilessons, or brief instruction in writing strategies. While writing workshop can be an effective method for improving students' attitudes toward writing, Graham and Harris (1997) reported that "children who experience difficulty writing are unlikely to discover all they need to know just through frequent writing and reading." (p. 6) Researchers point out that writing workshop methods should not be abandoned, but they may not be enough; many students do not acquire needed skills unless explicit instruction is also provided.

A possible solution for improving the writing skills of at-risk students is implementing a writing across the curriculum program. The central philosophy of writing across the curriculum, which was developed by British educators in the 1970's, is that teachers of all disciplines should include writing as part of their course content in order to improve subject-area learning and to improve writing skills. Writing across the curriculum programs began in the United States in the 1980's in response to reports in the media that high school and college students' writing competence was declining.

Even though educators have always agreed that writing is an essential skill, the responsibility for teaching writing had been placed outside the content areas into a small component of the secondary English curriculum. Reformers in the writing
across the curriculum movement argue that writing is central to learning in every discipline, and that writing has the power to produce active, student-centered learning. Writing allows students to synthesize and integrate information into their existing knowledge. Writing in the content-area classes would increase students’ opportunities to write, which could increase their fluency and skill in writing.

Harris and Schaible (1997) stated that writing across the curriculum can improve students’ writing and subject knowledge, but only when it is consistently applied. Although writing across the curriculum would increase students’ time spent writing, studies have not supported the theory that increasing writing time alone will improve students’ writing.

Emphasizing a process approach to writing may be beneficial to low-skilled writers. This writing process is based upon studies of the behaviors of professional writers; the focus is on the process of writing and rewriting, not the final product. Class time is allowed for students to work on their writing and collaborate with peers. The stages of the writing process are prewriting, or gathering ideas; drafting; revising, during which time students have a chance to collaborate with peers; editing for style, usage, punctuation, and spelling; and publishing, or writing the final draft.

The process approach may help students develop and organize their writing. Studies indicate that students who have difficulty writing generally do little planning before or during writing; they typically choose their first idea and write without considering their audience or the organization of text (Graham and Harris, 1997). Peer conferencing during the revision stage has been found to be very effective in
improving students’ writing. Hillocks (1996) found that when small groups of students provide feedback and suggestions on one another’s drafts, the result can be improved writing for all participants.

Direct and systematic instruction can be beneficial to many students who experience difficulty in writing. Graham & Harris (1997) found that explicit teaching of revising strategies improved the organization and quality of students’ papers. Pope and Beal (1994) reported that a process approach, combined with guiding and scaffolding students’ writing experiences, is likely to produce positive results in writing achievement.

Writing across the curriculum may be an effective strategy for improving the writing skills of at-risk students at Hesperia Middle School. Writing across the curriculum would increase students’ opportunities for writing, which is beneficial to developing fluency. Because the staff of Hesperia Middle School participated in three days of writing across the curriculum training last year, staff members are familiar with the concepts and teaching strategies. However, only a few staff members have added writing instruction to their content-area classes. A study to determine the effectiveness of writing across the curriculum would be of interest to Hesperia teachers.

Because research suggests that increasing students’ writing time alone may not produce improvements in writing, writing across the curriculum may work best when combined with direct instruction and a process approach. The implementation of writing across the curriculum at Hesperia Middle School will be accompanied by
direct instruction in writing strategies and techniques, and the use of the writing process in content area classes as well as language arts classes, in order to enhance the writing abilities of at-risk students.

Statement of Purpose

The purpose of this study is to conduct an experiment to determine effective strategies for increasing the writing skills of at-risk students at Hesperia Middle School. More specifically, this study will examine the effects of writing across the curriculum and writing process instruction on the writing skills of seventh-grade at-risk students.

Goals and Objectives

A primary goal of this study is to increase opportunities for students to write by using writing across the curriculum. Students will not develop the skills and knowledge needed for effective writing if they do not have the opportunity to write frequently. According to Zemelman and Daniels (1988), lack of writing practice is "probably the single greatest reason for American students' dismal performance in writing" (p. 21). The research suggested that students should spend forty-five minutes to an hour each day in writing, planning, or revising text. To increase students' time spent writing, Zemelman and Daniels suggested using writing as a tool or method of teaching other subject matter content in the curriculum. In order to see significant gains in the Hesperia students' writing skills, an objective will be that
students write for thirty to forty-five minutes per day in English class, and for thirty to forty-five minutes per week in their science, mathematics, and social studies classes.

Another goal of this study is to increase students' knowledge and use of the stages of the writing process. Students have been taught the steps of the process in English class, but it has not been emphasized or used consistently in most content classes. Also, students often skip the steps of prewriting and revising when they are not required to complete them. To accomplish this goal, students will be expected to use the stages of the writing process in completing content-area writing assignments.

The writing process will continue to be emphasized in English class. In the past, students have written one draft, engaged in peer conferencing, revised, edited, and then have written a final draft. In order to demonstrate revision strategies and allow students time for revision, the process will be expanded to three drafts. The teacher will respond to the second draft and return it to the student. The student will write the final draft for a grade. Credit will be given after each step of the process to underscore the importance of the process. The objective for this goal is that students will be able to demonstrate knowledge and use of the writing process consistently when preparing writing assignments in content area classes and in English class.

Another goal is to help students improve their writing by providing direct instruction in writing techniques. The instruction will focus on strategies for improving the organization and focus of students' written text, and techniques for the stages of the writing process, such as prewriting graphic organizers, peer conferencing procedures, and revising strategies. Content area teachers will identify
weak areas in the students' writing, then teach one writing strategy at a time through modeling, guided practice, and independent practice. The objective for this goal is that students will be able to write well-organized, focused, and detailed responses to content-area prompts.

Throughout this study, teachers will meet to discuss progress, identify students' strengths and weaknesses, and prepare topics and teaching methods. According to Walvoord, Hunt, Dowling, and McMahon (1997), writing across the curriculum programs are most successful when teachers voluntarily include writing in their classes. The treatment variables for each content area class, science, social studies, mathematics, and reading, will be determined by the classroom teacher's philosophies, priorities, and styles of teaching. In science and reading classes, students will receive specific instruction in writing strategies, modeling, guided practice, and time in class will be provided for students to work through the stages of the writing process. In social studies and mathematics, students will primarily use writing as a tool for learning through journal entries or focused responses to a prompt.

Limitations

This experiment is limited to studying the effects of instruction in writing strategies and the implementation of writing across the curriculum on the writing skills of at-risk seventh-grade students. The writing skills studied will be limited to focus, organization of content, use of supporting details, and writing complete sentences.
This study will not attempt to examine the effects of writing across the curriculum on content-area learning. Harris and Schaible (1997) pointed out that a substantial body of research has provided evidence that writing across the curriculum enhances students' subject area learning. This experiment is concerned with the effects of writing across the curriculum on improving students' writing skills.

A major limitation of this study is time. This experiment will take place over a two-month period due to the time constraints of the project. Writing skills develop gradually, and it may be difficult to measure students' improvement in writing after such a short period of time. According to Zemelman and Daniels (1988), adolescents develop at a slower rate cognitively and linguistically than do elementary-age children. In a research study they conducted, Zemelman and Daniels found that the average high school writer "grew not at all as a writer throughout the four years of high school" (p. 9).

Another limitation of this study is that there is no control group. This study must be conducted with a single group because the treatment will take place across the curriculum; it would be impossible to keep the control and study groups separate due to class scheduling constraints. However, variables in the type or quality of instruction per content area will be held constant because each subject is taught by only one teacher.

Testing may be another limitation. It is possible that students could show improvement on the posttest because of their experience with the similar pretest. Experimenter bias may be another limitation; because the researcher is working
directly with the students, her expectations may be subconsciously transmitted to them.

Now that the background has been established for the study of improving the writing skills at seventh-grade at-risk students, research in several pertinent areas will be examined to support the history and rationale for this study. The specific areas of research will include at-risk students, writing across the curriculum, the writing process, and effective instructional strategies for writing.
CHAPTER TWO: LITERATURE REVIEW

In order to build a foundation for the study of improving the writing skills of at-risk students, several relevant areas of research will be examined. The research will focus on the following topics: the importance of improving writing skills, the instructional needs of at-risk students, writing across the curriculum programs, using the writing process, effective instructional strategies for teaching writing, and evaluation.

The Importance of Improving Writing Skills

Writing skills are an essential component of literacy; in order to participate in the literate society of the future, students need to be proficient writers. According to Standards for the English Language Arts, the 1996 report by the National Council of Teachers of English (NCTE) and the International Reading Association (IRA), the literacy requirements of our society are increasing and are expected to continue to rise. Researchers estimate that by the year 2020, students will need powerful literacy abilities in order to participate fully in society and in the workplace. The NCTE/IRA report stated, “Changes in technology and society have altered and will continue to alter the ways in which we use language to communicate and to think. Students must be prepared to meet these demands” (p. 4). This source will be used to develop the importance and rationale of the problem to be studied.
A recent article in Contemporary Education reported that a shift has occurred in the competencies students will need in order to be successful in the work force. In The Future Isn’t What it Used to Be: Student Competencies for the 21st Century, Day and Koorland (1997) reported that employers in jobs which require written products cite writing as the primary skill requiring improvement among new employees, especially the skill of using language appropriate to subject matter and audience. Day and Koorland stated that effective written communication will always be an important job skill. Day and Koorland’s findings will be used to develop the importance and rationale of the study; they illustrate why it is important to help students acquire writing skills.

In the article Writing as a Mode of Learning, Janet Emig (1977) described writing as “a unique mode of learning” (p. 122) involving the active participation of both the left and right hemispheres of the brain. Researchers have agreed that writing enhances thinking skills; the higher cognitive functions of analysis and synthesis seem to develop most fully with the support of written language (p.122). Emig stated that if the most effective learning occurs when learning is reinforced, then writing “through its inherent re-inforcing cycle involving hand, eye, and brain marks a uniquely powerful multi-representational mode for learning” (p. 125). This source illustrates the importance of developing writing skills, which will be used in the rationale of the study. This information also supports the choice of writing across the curriculum as a possible solution to the problem being studied.
At-Risk Students

Many of the non-proficient writers in the Hesperia Community Schools are defined as “at-risk of academic failure.” According to Student Services Director Jon Thompson (personal communication September 25, 1998), students are defined as “at-risk” when they meet one or more of the following characteristics: unsatisfactory standardized test scores; failing grades in core academic subjects; victim of child abuse or neglect; pregnant teenager or teenage parent; eligible for free or reduced price lunch due to family poverty; family history of school failure, incarceration, or substance abuse; below grade level performance in English language and communication skills; or atypical behavior or attendance patterns. Forty-eight percent of Hesperia Middle School’s students are considered at-risk of academic failure. This information will provide evidence for the background of the study, and the definition of “at-risk” will be used in selecting the participants for the study.

Lehr and Harris (1988) recommended strategies for meeting the needs of at-risk students in their book At-Risk, Low-Achieving Students in the Classroom. They suggested that teacher collaboration is necessary to plan effective programs for at-risk students: “High student achievement is more likely in schools with high faculty morale and a sense of shared responsibility” (p. 28). Lehr and Harris suggested that the learning environment should be structured so that low-achieving students can succeed. Cooperative learning, in which students of all ability levels work together in small groups, has been an effective instructional method for at-risk students. An effective strategy for engaging students in learning is a process called “kindling” (p.
38). In this process, students write about a specific idea and discuss it in small groups before whole-class discussion. This procedure builds in time for thinking and interacting with peers, and may give at-risk students confidence to participate in the whole class discussion. This resource provided support for the use of the writing process and peer collaboration as a learning strategy for at-risk writers; those learning strategies will be used in the experimental phase of the study. The "kindling" strategy will be used as a strategy for writing across the curriculum in social studies classes.

According to Bryson and Scardamalia (Teaching Writing to Students At-risk for Academic Failure, 1991), writing instruction for low-achieving students tends to focus on techniques for remediating basic skills such as spelling, grammar, mechanics, and handwriting. The assumption has been that acquisition of these low-level skills are a prerequisite for composing skills; and as a result, at-risk students never get to the higher level processes of synthesis or critical analysis. Think-aloud protocols revealed that at-risk writers paid little attention to main ideas or form; they started writing as soon as they could and told what they knew about a topic. Expert writers were concerned with both content problems and rhetorical problems. The authors recommended designing cognitively-based writing instruction, such as: (1) Providing students with opportunities for imitating, practicing, and modifying a wide variety of discourse forms; (2) modeling thinking strategies aloud and discussing problem-solving strategies; (3) emphasizing cognitive goals that involve learning and transforming knowledge through the use of the writing process; (4) providing social
context through collaborative learning; (5) structuring learning experiences that allow low-skilled writers to practice new skills; and (6) encouraging students to set personal goals for writing. Bryson and Scardamalia concluded that “novices, rather than trying to learn about writing, need to learn to think like writers” (p. 60). These strategies will be used in the science and English classes during the experimental phase of the writing across the curriculum study.

Hodges (1993) explored the theory that secondary students who are not proficient writers have difficulty because they lack intensive practice and experience in reading and writing, and because they lack vocabulary. Her experiment included teaching study skills, implementing a rigorous vocabulary program focusing on etymology, structure and self-discipline, providing instruction in speed reading, teaching through thematic units, instructing students in the written conventions of grammar, and integrating writing, speaking, and listening. At the end of the year, results of the standardized test showed students had made significant growth in their writing skills. Hodges's study provided evidence that students benefit from direct instruction in the areas of vocabulary and the conventions of written language. This supports the use of guided instruction in these areas during the experimental phase of the study.

In their study of instructional strategies for at-risk students, Pope and Beal (Building Pathways for At-Risk Students and Their Teachers, 1994) found that successful programs provided “supportive, caring environments where students participated in meaningful activities to achieve realistic, self-selected goals” (5). The
teachers in these programs set high expectations for the students, and provided guidance to scaffold students’ writing experiences. Pope and Beal’s research on middle school at-risk students and English language arts revealed that students needed a learning environment that included social relationships, individualization, modeling, and success. These findings led the researchers to implement a writing workshop approach, adapted from Atwell (1987). The writing workshop approach, which includes self-selected topics, modeling, peer and teacher conferencing, and evaluation based on the students’ individual abilities, was found to be a beneficial instructional method for at-risk students. Pope and Beal’s findings will be used as a knowledge base in designing English class instruction for the experimental treatment, specifically in the areas of modeling, scaffolding students’ experiences, and providing opportunities for peer response.

Writing Across the Curriculum

Anson (1993) reported that writing across the curriculum programs seem to have grown from a consensus among educators that writing is central to learning and should be part of all academic contexts. Researchers have found that limited composition instruction alone has not improved students’ written literacy; and writing across the disciplines can contribute to students’ growth in writing abilities and intellectual development. Although writing across the curriculum programs have grown in universities and secondary schools, Anson pointed out that “unlike many educational trends, writing across the curriculum has not been accompanied by much
empirical research that might lend support to the movement and provide it with coherence” (p. xiv). This resource will be conducive to supporting writing across the curriculum as a possible solution to the problem under study. It also lends support to the importance of the study, since writing across the curriculum is still an area of inquiry.

Writing across the curriculum proponents believe that teachers of all disciplines should include writing as part of their course content in order to improve subject-area learning and improve writing skills. In their article Writing Across the Curriculum Can Work, Harris and Schaible (1997) stated that “anecdotal evidence suggests that both students and faculty believe that students improve their writing and subject-area knowledge in writing across the curriculum-based courses” (p. 31). The researchers pointed out that although writing across the curriculum increases students’ time spent writing, studies have not supported the theory that increasing writing time alone will improve students’ writing. According to Harris and Schaible, “The overwhelming weight of current evidence suggests that WAC [writing across the curriculum] can improve both student comprehension of subject-specific knowledge and their writing, but only when it is consistently and rigorously applied” (p. 37). This source will be conducive to designing the experimental treatment; teachers in content-area classes will provide instruction, not simply increase students’ writing time.

In her introduction to Writing Across the Curriculum: A Guide to Developing Programs, Susan McLeod (1992) explained the basic assumptions of writing across
the curriculum programs. One of the main assumptions is that “writing and thinking are closely allied, that learning to write well involves learning particular discourse conventions, and that, therefore, writing belongs in the entire curriculum, not just in a course offered by the English department” (p. 6). Other assumptions of writing across the curriculum are that students learn by collaborating with other students, that writing improves when it is critiqued by peers and then revised, and that writing provides an active instructional mode which is conducive to students’ learning. This source provides support for writing across the curriculum as a possible solution to the problem under study. It also describes writing process strategies which will be used in the experimental phase of the study.

The term “writing to learn” is often used interchangeably with “writing across the curriculum.” Anne Ruggles Gere (1985), editor of Roots in the Sawdust: Writing to Learn Across the Disciplines, made this distinction between the goals of “writing to learn” and “writing across the curriculum”: “Writing across the curriculum aims to improve the quality of writing, while writing to learn focuses on better thinking and learning” (p.5). Gere pointed out that students who use writing as a way of learning often produce better written products, but that is not the primary purpose of writing to learn programs. In an article in this same book, Stephen Arkle described writing to learn as a way to engage students in learning. When students are allowed to use their own ideas and experiences in responding to class ideas, ownership of ideas is gained. He stated, “This ownership of ideas provides the foundation for quality in writing and thinking because of the students’ investment in
ideas” (p.149). This resource will be conducive to the development of the rationale for using writing across the curriculum as a possible solution to improve students’ writing.

In *Writing to Learn*, William Zinsser (1988) stated, “Writing is thinking on paper. Anyone who thinks clearly should be able to write clearly—about any subject at all” (p. 11). He emphasized that the teaching of writing should be part of every academic discipline, not just the English department. According to Zinsser, “Writing across the curriculum wasn’t just a method of getting students to learn who were afraid of writing. It was also a method of getting students to learn who were afraid of learning” (p.ix). Zinsser advocated using writing models to help students learn the craft of writing: “Writing is learned by imitation….Nobody will write well unless he gets into his ear…a sense of how the language works and what it can be made to do” (p. 15). *Writing to Learn* provided writing models from a wide variety of disciplines, which could be used as models for guiding students’ content-area writing during the experiment. Zinsser’s methods for teaching students to organize their thoughts when preparing expository writing will also be used as an instructional strategy for the experiment.

In the Long Run: A Study of Faculty in Three Writing-Across-the-Curriculum Programs, by Walvoord, Hunt, Dowling, and McMahon (1997) described the findings of their study of the impact of writing across the curriculum programs upon the philosophies and pedagogy of the teachers involved. The researchers found that faculty used the following criteria in deciding whether or not writing across the
curriculum strategies had been successful: (1) Did the strategy create a community in the classroom; (2) did it lead to enhanced student learning; (3) was the strategy suitable to the teachers’ time constraints; and (4) did the strategy fit teachers’ philosophies and teaching styles (p. 93). The authors also provided ideas for teaching strategies, such as giving informal writing assignments, explicitly instructing and guiding students during writing assignments, providing time for peer collaboration, and responding to students’ drafts. The resource provided ideas for sustaining teachers’ interest in writing across the curriculum. The four criteria helped in understanding how content teachers decide to use writing in their classrooms; this information will be valuable in providing suggestions and support to teachers during the experiment.

Fulwiler (1984) reported, in How Well Does Writing Across the Curriculum Work?, that writing across the curriculum has been a successful program at Michigan Technological University. That program was developed with the central concern of improving students’ writing ability. Fulwiler reported that probably the most difficult strategy for content area teachers to implement was the peer response phase of the writing process. In this phase, students read each other’s drafts and critique them. The students then revise their drafts before turning them in to the teacher. Fulwiler reported that teachers became discouraged after trying peer response because it did not appear to work. He pointed out that peer response must be done more than two or three times during the term so that students have the time to develop trust in each other and to develop the critical ability needed for revision. The information on the
importance of using peer collaboration will be used in designing the experimental variables for instruction. Content area teachers will be encouraged to use peer response at least three times during the experimental phase.

Cox, Holden, and Pickett (1997) studied the effects of writing process instruction and writing across the curriculum upon the writing skills of seventh and eighth grade self-contained, educable mentally handicapped students. Their study, Improving Student Writing Skills Through the Use of “Writing to Learn,” examined the effects of writing to learn in the content areas and the writer’s workshop approach in language arts upon the writing skills of students. The results of their study showed that while no significant gain in students’ test scores was achieved, students’ attitude and motivation toward writing increased. The instructional strategies outlined in this study will contribute to the knowledge base for designing instructional variables for the experiment. The writing process strategies will be used in the experimental phase of the study.

Writing to learn can be an effective method for teaching content area subjects. In her article “Mathematics Journals: Fourth Grade,” Barbara Schubert (1987) reported that writing was an effective method for teaching fractions. After each daily fractions lesson, Schubert asked students to explain the key concepts in writing. Schubert measured the students’ progress when they moved to fifth grade the next year. Students who had used journals to study fractions the previous year scored from 0% to 96% on the fifth-grade fractions pretest; the group who did not use journals to learn fractions the previous year showed a range of scores from 3% to
58%. The average pretest score for the students who had used journals was 32%; the students who had not used journals scored an average of 24%. Scores on the fifth-grade fractions posttest revealed that previous journal users had an average score of 94%, while the average score for the non-journal users was 81%. Writing to learn strategies seemed to contribute to students’ learning. This study provided evidence that writing across the curriculum is beneficial to increasing learning in content classes. This information will support using writing as a tool for learning during and beyond the experimental phase of the study.

Another source for writing to learn mathematics was Math-Writing and Thinking (Fiderer, 1986). Fiderer guided her students through the process of writing letters to explain new math concepts to friends. After the lesson on the new material, Fiderer and her students brainstormed key words to help explain the new concepts. Students drafted their letters, collaborated with partners, edited, then wrote a final draft. According to Fiderer, writing about a new math concept enabled her students to reap “rewards in the form of a more lasting understanding of a new concept and improved writing skills” (p. 151). This source provided an effective and easily implemented writing lesson for the math teachers to use during the experiment.

Barbara Dougherty (1996) described her success with using journal writing in mathematics instruction in her article The Write Way: A Look at Journal Writing in First Year Algebra. According to Dougherty, writing in mathematics helped students make connections with ideas, which led to better retention of concepts and the ability to apply the ideas in appropriate situations. Writing allowed students to reflect on
ideas before sharing them in class discussions, and provided a means for alternative assessment by the teacher and student self-assessment. Dougherty used journal prompts which focused on important mathematical concepts and problem-solving strategies as part of students' daily homework. This article provided ideas for instructional methods for writing to learn mathematics. It contained specific suggestions for using writing in mathematics classes, and these strategies will be implemented during the experiment.

A series of articles from the journal Voices From the Middle provided instructional strategies for incorporating writing across the curriculum into content-area classes. Griffin (1997) described a workshop approach to social studies and writing assignments that helped students comprehend, apply, analyze, synthesize, and evaluate information. Robertson (1997) and Sakai and Leggo (1997) reported on activities for integrating language arts and science through poetry writing. These articles provided ideas for writing activities to be used in science and social studies during the experiment.

Collins (1992) described a model for writing across the curriculum programs in Developing Writing and Thinking Skills Across the Curriculum: A Practical Program For Schools. According to Collins, this program was designed to “help teachers in all content areas achieve their goals by requiring students to think on paper” (p. 2). Collins defined five types of writing assignments and the outcomes expected for each. An important component of the program is “focus correcting.” Focus correcting directs student and teacher attention to specific writing or thinking
skills in an assignment. In focus correcting, the teacher selects up to three critical
problem areas and corrects only those errors when reading students’ writing. Collins
stated that focus correcting helps students “consider the quality of the paper with
respect to a few clearly specified criteria, rather than an infinite number of subjective
criteria” (p.13). This resource provided the model that will be used by content-area
teachers for structuring their writing across the curriculum assignments during the
experimental period.

The Writing Process

The writing process, as defined by the NCTE and IRA (1996), includes “the
many aspects of the complex act of producing a written communication, specifically,
planning, drafting, revising, editing, and publishing” (p.77). In A Community of
Writers: Teaching Writing in the Junior and Senior High School (1988), Zemelman
and Daniels advocated using the writing process as a way to improve students’
writing skills. They reported that improvement in students’ writing performance is
related to the following elements: regular and substantial practice at writing;
instruction in writing process strategies; exposure to models of writing in process,
including skilled adult writers and classmates; peer and/or teacher collaboration in
every stage of the writing process; and one-to-one teacher-student writing
conferences. Zemelman and Daniels pointed out that research studies have shown
that the constant marking of every error on a student's paper is not helpful to the
student; low morale and frustration may occur. The authors suggested using focus
corrections, stating that “the best way to respond to weaknesses in a piece of student writing is to direct the author’s attention to one or two related sets of problems at a time” (p. 212). This book provided specific strategies for implementing writing across the curriculum and process writing. This information will contribute to the design of the experimental variables of instructional and assessment strategies for content area teachers and process strategies for language arts classes, specifically in the areas of peer collaboration, student-teacher writing conferences, and the use of focus correcting.

In an article in *English Journal*, “Process Writing and the Secondary School Reality: A Compromise,” Carney (1996) described how she adapted a process-writing instructional approach to fit the curriculum and time constraints of her teaching situation. The writing process approach emphasizes student choice in topics and deadlines, but that is sometimes impossible in schools with a regimented curriculum. Carney modified the process approach by setting deadlines for the each stage of the writing process, and by giving students their choice of topics within a specified genre. Carney stated, “I realize that setting deadlines flies in the face of process theory because it does not allow for individual writers to work at their own pace. It is, however, an answer for teachers who wish to more efficiently monitor the progress of their students, and it requires the writer who might otherwise be reluctant to do so to revise” (p. 30). Carney found that requiring students to write multiple drafts and collaborate with peers or teacher at each stage of the process was most helpful in improving her students’ attitudes toward writing and writing abilities. This
information will be used in developing the teaching methodology for language arts classes for the experiment. Students will be required to do multiple drafts and respond after each stage.

Instructional Strategies For Improving Students’ Writing

Hillocks (1984) reviewed experimental treatment studies in composition from 1963-1982 and reported his findings in the article “What Works in Teaching Composition: A Meta-analysis of Experimental Treatment Studies” in the American Journal of Education. He found four main modes of composition instruction: (1) the presentational mode, characterized by teacher-led discussion, specific assignments imitating a pattern or following rules, and feedback from the teacher; (2) the natural process mode, characterized by general assignments, emphasis on student-chosen topics and free writing, response from peers, and opportunities to revise writing; (3) the individualized mode, in which students receive individualized instruction through tutorials; and (4) the environmental mode, characterized by specific objectives, short lecture time, engaging students in concrete, structured tasks, and activities involving high levels of peer collaboration. According to Hillocks, the findings “indicate that the dimensions of effective instruction are quite different from what is commonly practiced in schools on the one hand (the presentational mode) and what has been recommended by some adherents of the National Writing Project on the other (the natural process mode)” (p. 159). Hillocks found the most effective mode of instruction was the environmental mode. The environmental mode emphasizes
structured problem-solving activities that will help students identify and resolve similar problems in their writing. "On pretest-to-posttest measures, the environmental mode is over four times more effective than the traditional presentational mode and three times more effective than the natural process mode" (160). This resource provided the rationale for using an environmental mode, rather than a natural process mode such as the writing workshop approach, as a treatment method for improving the writing of at-risk students.

Fitzgerald and Markham (1987) studied the effects of instruction in revision strategies on children's writing improvement. Their study, *Teaching Children About Revision in Writing*, involved thirty sixth-grade students. Fifteen students received instruction in revision strategies, while the other fifteen students read quality literature instead of receiving instruction in revision. Revision was defined as making any changes at any point in the writing process; instruction in revision strategies focused on additions, deletions, substitutions, and rearrangements. Students in the experimental group received thirteen 45-minute lessons in revision during a period of one month. The results of the writing posttest showed no significant differences in final draft quality between the control and experimental groups. The researchers concluded that while instruction affected students' knowledge of the revision process and enhanced their revision efforts, it seemed unlikely that short-term instruction would have a significant impact on overall quality of writing. This resource provided a strategy for teaching students about revision: defining and discussing each aspect of revision, modeling by thinking aloud and demonstrating problem-solving, engaging
in group practice, paired practice, individual practice. This strategy will be used in English class during the experiment.

In the article *It Can Be Taught, But It Does Not Develop Naturally: Myths and Realities in Writing Instruction*, Graham and Harris (1997) reported that providing direct and systematic instruction in writing strategies may be beneficial to students who experience difficulty with writing. A writer’s development depends upon four factors: knowledge, skill, will, and self-regulation. Graham and Harris stated that children who find writing challenging generally do little planning or reflection before or during writing. The authors suggested increasing students’ writing time to 45 minutes to an hour each day, and providing direct instruction in self-regulatory strategies such as planning and revising texts. This study provided evidence that prewriting should be emphasized as a strategy to improve writing, and it will be conducive to planning writing time for English class during the experiment.

In *Roots in the Sawdust: Writing to Learn Across the Disciplines*, Syrene Forsman (1985) described a strategy for improving students’ writing fluency. Forsman used timed writings, in which students were given several prompts on a topic and wrote continuously for a specified amount of time. At the end of the time period, students counted the number of words they had written and recorded the number at the top of the entry. Forsman’s primary goal for the students was that they increase the number of words written in each timed writing, and counting the words provided concrete evidence of the students’ progress. Forsman stated, “My experience has been that when students have had little experience writing in the
school setting or when their writing has been inhibited by fill-in-the-blank exercises, they need to develop self-respect for their own generating power” (p. 164). This strategy will be used in English class during the experimental period as a way to measure students’ growth in fluency.

Anson and Beach (1995) described the rationale and purposes for using journal writing as a tool for improving students’ writing fluency and critical thinking skills in their book Journals in the Classroom: Writing to Learn. According to Anson and Beach, the purposes for journal writing include “improving thinking, enhancing formal writing, and enriching the social context of the classroom” (p. 21). Journal writing is also important to helping students achieve fluency, and it can build confidence and comfort in writing. Anson and Beach stated that “the raw quantity of students’ writing seems strongly related to how much and how well they learn” (p. 23). Various types of journals, strategies for incorporating journal writing into class assignments across the curriculum, and methods for evaluating journals were explained. The ideas for using journals will be adapted for content-area and English class activities during the experimental phase of this study.

Assessment

To determine the effect of writing across the curriculum and writing instruction on the writing improvement of at-risk seventh-grade students, a pretest and posttest based on the Michigan Educational Assessment Program (MEAP) Writing Proficiency Test will be given. The MEAP Writing Test assesses students’
writing proficiency based upon their written response to a prompt on a broad topic. The test is given over a period of three days, during which time students brainstorm ideas, draft, engage in peer conferencing, revise, edit, and write a final draft. According to the 1997 MEAP Handbook, the essays are evaluated according to a holistic grading scale ranging from 1.0 to 4.0; scores of 2.5 or above are considered “proficient.” The essays are evaluated for ideas and content, organization, style (sentence structure, vocabulary, and voice), and the conventions of writing (grammar, usage, mechanics, and spelling). The MEAP Writing Test format and scoring guidelines will be used for the pretest and posttest for the experiment.

Summary

The sources examined were all valuable in contributing to the knowledge base for this study. The following sources will be used as a basis for this study: Collins (1992) on writing across the curriculum instructional methods; Zemelman and Daniels (1988) for writing to learn instructional techniques and writing process philosophy and teaching strategies; and Graham and Harris (1997) for writing process research and instructional methods. In the next chapter, the thesis strategies and methodologies will be described.
CHAPTE R THREE: THESIS COMPONENTS / ACTIVITIES

Project Components/Activities

As stated in Chapter One, the purpose of this study was to examine the effectiveness of writing across the curriculum and writing process instruction on the writing abilities of at-risk seventh grade students. Many students in the Hesperia Community Schools district are considered at-risk of academic failure; 48% of the middle school students qualify for free or reduced lunch due to family poverty, and 30% receive Title I services in language arts and mathematics due to their low academic performance. These students have poor writing abilities; the 1998 MEAP scores indicated that 51.1% of the eighth-grade students were considered “not yet proficient” writers. Improving the writing skills of the at-risk middle school students is an urgent concern.

After examining the research on methods to improve writing skills, two approaches were chosen as a possible solution to this problem: writing across the curriculum and writing process instruction. Research has indicated that writing across the curriculum and using a process approach to writing instruction can contribute to students’ growth in writing abilities (Zemelman & Daniels, 1988). As stated in Chapter Two, the following sources will be used as a knowledge base for this study: Collins (1992) on writing across the curriculum; Zemelman and Daniels (1988) on
writing process philosophy and teaching methods; and Graham and Harris (1997) on instructional techniques for writing.

The goals for this study were to increase students writing time, particularly in content-area classes; expand students' knowledge and use of the writing process; and provide students with direct instruction in writing strategies across the curriculum.

The research design for this study was a quasi-experimental, single group pretest-posttest design. The use of a control group was not possible, because the treatment involved all subject areas; it would have been impossible to separate the treatment group students from the control group students. The sample included fifteen at-risk seventh grade students randomly chosen from the group of at-risk students currently receiving Title I services in language arts. Students were given a pretest modeled on the MEAP eighth grade Writing Proficiency Test to determine their current level of writing ability.

The experimental period was September 28 through November 6, 1998. The experimental treatment included writing across the curriculum, instruction and practice in using the writing process, and instruction in specific writing strategies across the curriculum. Writing across the curriculum was emphasized in the seventh-grade science, social studies, mathematics, and language arts classes. Students' writing time increased to thirty to forty-five minutes per week in the content area classes of science, social studies, mathematics, and reading; and to thirty to forty-five minutes per day in English class. Content area teachers guided students through the stages of the writing process and instructed students in writing techniques.
At the end of the treatment period, the students were given a posttest modeled on the MEAP eighth grade Writing Proficiency Test to determine whether any significant gains had been made in writing skills. Teachers completed observation checklists to record students' performance on particular writing assignments. These checklists were examined to determine whether or not students' writing skills had improved on their class assignments.

The success of the treatment was measured in two ways: examining the results of the posttest, and reviewing the teacher observations. T-tests were conducted using the pretest and posttest mean scores in the following test categories: overall score, ideas and content, structure and form, mechanics, and use of the writing process. The statistical analysis showed there was no significant difference between the pretest and posttest scores. However, data from teacher observations of students' writing indicated that students had made some improvements in writing and use of the writing process.

Context in which the curriculum may be applied

The setting for this study was Hesperia Middle School, located in a small rural community about sixty miles northwest of Grand Rapids. The middle school, comprised of grades five through eight, has 406 students. The students come from predominantly white middle class or poor family backgrounds; 48% of the middle school students qualify for free or reduced lunch due to family poverty. Many students move in and out of the district due to family situations. There were five
teachers involved in this study, from the content areas of science, mathematics, social studies, reading, and English. The teachers all had received in-service training in using the John Collins method for writing across the curriculum, and had all used it in their classrooms in varying degrees of frequency and intensity prior to this study.

**Application to Other Disciplines**

Writing is important in all curricular areas. Research has shown that writing promotes subject-area learning and critical-thinking skills. There is substantial evidence that content learning is improved when writing across the curriculum is used in a rigorous, consistent manner (Harris & Schaible, 1997). Writing is an effective way to reinforce learning. According to Emig (1977), writing, “through its inherent reinforcing cycle involving hand, eye, and brain makes a uniquely powerful multidimensional mode for learning” (p. 124-125). Writing provides a way to increase students’ involvement in lessons, to check for understanding of concepts, and to stimulate and promote thinking (Collins, 1992).
CHAPTER FOUR: THESIS STRATEGIES AND METHODOLOGIES

For several years, I have been concerned about the poor writing skills of many of the middle school students. Low MEAP Writing Test scores and teacher observations have shown that the writing skills of the Hesperia Middle School students need improvement. Even though the English classes had added more writing to the curriculum several years ago, it has not been enough to help non-proficient writers achieve proficiency. Administrators and teachers across all subject areas have expressed concern about the students’ progress in writing, and improving the students’ performance on the MEAP Writing Proficiency Test is a main school improvement goal for this year.

Last year the staff received in service training in the Collins method of Writing Across the Curriculum, and several content area teachers began trying to incorporate writing into their classrooms. The idea grew that perhaps writing across the curriculum could help the at-risk students become proficient writers. Also, if teachers could see evidence that writing across the curriculum not only improves writing skills, but enhances subject-area learning, they may be more enthusiastic about implementing writing into their content area classes.

I began to investigate writing across the curriculum. According to Zemelman and Daniels (1988), “In schools where writing is used across the curriculum,
students’ writing performance grows strongly” (p. 29). Researchers have found that composition instruction alone is not improving students’ written literacy, and writing across the curriculum can contribute not only to students’ writing abilities, but to their intellectual development as well (Anson 1993).

Other researchers pointed out that increasing students’ writing time alone would not be enough to improve writing skills (Graham & Harris, 1997). Using a process approach to writing, and guiding students through the stages of the process was shown to be beneficial to improving students’ writing skills (Zemelman & Daniels, 1988). Providing instruction in writing techniques and strategies, such as brainstorming and revising, had also been effective in improving students’ writing skills (Graham & Harris, 1997).

The research I did led to the development of the hypothesis for this study: writing across the curriculum, combined with writing process instruction, will improve the writing skills of at-risk seventh-grade students.

The Students

Fifteen seventh-grade students, eight males and seven females, were selected for this study. These students are all considered to be at-risk of academic failure due to their unsatisfactory MEAP test scores. The fifteen students were randomly selected from the group of twenty-five students currently receiving Title I assistance in language arts. I focused on these students because our district has a large
population of at-risk students; I wanted to find instructional techniques that would help these students become more successful writers.

The students selected for this study had difficulty with their written expression. Their writing lacked completeness in ideas and supporting details. Many of the students had difficulty organizing their ideas into a logical sequence. Proper paragraph form, including a topic sentence and supporting details, was a weakness for over half of the students. Almost all of the students’ writing showed errors in punctuation; fragments and run-on sentences were the most common mechanical errors. Another weakness the students displayed was lack of knowledge of revision. The students tended to revise for surface errors, such as spelling and punctuation, rather than for content.

Samples of writing from the students’ English class portfolios were examined to determine the students’ individual strengths and weaknesses in writing. Student A wrote logically sequenced paragraphs, but his ideas lacked elaboration and detail. He used parts of the writing process, but showed little prewriting. Student B’s writing revealed good organization and content, with error in mechanics, particularly run-on sentences. Student C’s writing lacked a focused main idea; this student had difficulty organizing ideas into a logical sequence, and he wrote many run-on sentences. Student D showed problems with organization and elaboration of ideas; mechanical errors consisted mainly of run-on sentences. Student E had difficulty focusing his writing when responding to a prompt. His paragraphs often lacked topic sentences and supporting details. Student F’s writing was organized and focused, but
elaboration of ideas needed improvement. She did not use correct paragraph form, and wrote many run-on sentences. Student G wrote with correct organization, but had difficulty using proper paragraph form and correct punctuation. Student H had many problems organizing and sequencing her ideas. Student I's ideas lacked elaboration and detail. Proper paragraph form was used inconsistently, and run-on sentences were the main mechanical problem. Student J showed problems in logical sequencing of ideas, and errors in sentence punctuation. She did not revise her writing; she did not pay attention to comments made by peer response partners or the teacher. Student K's writing was organized, but lacked elaboration of ideas. Mechanical errors in punctuation were also a problem for this student. Student L had problems organizing and sequencing her ideas. Organization of ideas was also a problem for Student M; in addition, he had difficulty using correct paragraph form with topic sentences and supporting details. Student N's writing showed problems in focusing on the main idea; she also needed help organizing her ideas into a logical order. Her writing showed incorrect paragraph form and sentence fragments and run-ons. Student O wrote well-organized ideas and supporting details, but she occasionally had difficulty responding to assigned prompts.

Goals and Objectives

According to Graham and Harris (1997), students cannot develop the skills for effective writing if they do not write frequently and for extended periods of time. A general guideline is that students should spend forty-five to sixty minutes per day
planning, revising, or writing text. A primary goal of this study was that students should spend thirty to forty-five minutes per week writing in their science, mathematics, social studies, and reading classes; and thirty to forty-five minutes per day in their English class. It was necessary for the students to experience an increase in content area writing, so the sixth grade curriculum was examined to determine how many writing assignments students had done the previous year. Through surveying the sixth grade teachers, I learned that an average of two writing assignments were assigned during a seven week period in each content area class. If the goals of this study were met, the seventh-grade students would write at least seven times in each content area class during the seven-week treatment period.

Another goal was that students increase their use and knowledge of the writing process. Zemelman and Daniels (1988) stated that students’ writing improves when teachers structure time and activities for each stage of the writing process. In order to reach that goal, the objective was that teachers guide students through the stages of the writing process by providing class time to work on gathering and organizing ideas, drafting, peer collaboration, and editing. Graham and Harris (1997) found that students who have difficulty writing generally do very little planning before or during writing. They typically choose their first idea and write without considering their audience or the organization of text. Skilled writers tend to do a lot of prewriting and generate more ideas than they need, eliminating weak ideas as they write. Teachers also should provide class time for peer collaboration. Research suggests that peer collaboration can lead to better writing (Zemelman & Daniels,
1988) and that it is most successful when students have the opportunity to work through the process four to five times per semester in each class (Fulwiler 1984).

Graham and Harris (1997) reported that students may benefit from explicit teaching of writing skills and strategies. Another objective of this study was that teachers provide direct instruction in writing techniques such as brainstorming, organization of text, paragraph construction, peer conferencing techniques, and revising strategies by providing models, examples, and guided practice.

Based on researchers' recommendations, teachers focused students' attention on two or three specific skills in an assignment (Collins, 1992; and Zemelman & Daniels, 1988). The skills used as consistent focus correction areas were as follows: correct paragraph form, with topic sentences and supporting details; writing complete sentences; and demonstrating use of all stages of the writing process.

**Pretest**

Since the entire seventh grade would be receiving the experimental treatment in their content area classes, all students were given the pretest. The pretest used was a practice version of the MEAP Writing Proficiency Test. It was given over a three-day period, fifty minutes per day, with each day focused on a stage of the writing process. On day one, students were given ten minutes to read, view materials, and think about a provided topic. Ten minutes of discussion in small peer groups followed. Students were given a series of questions that helped them explore ideas about the topic. The students then shared their responses in a large group discussion.
for five minutes. After that, students were given twenty minutes to begin their first
draft to the writing prompt. On day two of the pretest, students had twenty-eight
minutes to finish their first draft, then seventeen minutes to respond and revise with
their small groups from day one. On day three, the teacher read aloud a list of items
to consider in revising and polishing their final drafts. Students were then given
forty-five minutes to write their final drafts.

The materials and prompt for the pretest were found in the MEAP Coach
Grade 8 Writing (Crowell & Kolba, 1997, p. 86). The prompt instructed the students
to write a letter to the editor of a newspaper explaining what the students could do to
help maintain and improve their school, and explaining why it is important to take
responsibility for their school.

I read the students' responses to the pretests to determine the writing problems
students were having, and to confirm that the instructional goals for the study were in
line with the students' needs. The problem areas noted were as follows: insufficient
evidence of prewriting, lack of topic sentences and supporting details, and various
mechanical errors such as incomplete sentences, incorrect spelling, and incorrect
punctuation. I did not score the pretests; a language arts teacher not involved in the
study would score them at the end of the treatment period. For consistency in grading,
I wanted one person to score both the pretests and the posttests. In order for the
evaluator to be unbiased, she would not know which test was the pretest or posttest.
Teaching Strategies

Because the teachers participating in the study had received training in using the Collins (1992) model of writing across the curriculum, ideas and strategies from this model were used in developing assignments for the content area classrooms. Collins categorizes writing assignments into five distinct types, each with its own purpose and outcomes. Type One is one-draft writing to get ideas on paper as brainstorming or a prelude to class discussion and is evaluated for completing the assignment. Type Two writing is a one-draft response to a teacher’s prompt that is evaluated for correct content. Type Three writing adds the component of focus correcting, which directs student and teacher attention on specific writing or thinking skills in an assignment. The teacher selects up to three critical problem areas and corrects only those errors when reading students’ writing. For Type Three assignments, writers create a draft, self-check by reading it out loud to themselves and reviewing it to determine if their draft meets the assignment given, is easy to understand, and avoids problems in the focus correction areas. Type Four writing, according to Collins, is the “most effective and efficient of all the types at improving writing skills” (p. 19). In Type Four writing, a Type Three assignment is read out loud and critiqued by a peer, and then a second draft is written. Type Three and Type Four assignments are evaluated based upon the focus correction areas. Type Five writing assignments are intended for publication outside the classroom. Multiple drafts are required to achieve a text that is as perfect as possible.
Another component of the experimental treatment was guiding students through the phases of the writing process. When content area teachers gave writing assignments, they modeled strategies for brainstorming, revising, peer conferencing, and proofreading. The writing process model the teachers used was based on our English class model (see Appendix A). The stages include prewriting, first draft, self-revising, peer conferencing, revising, second draft, teacher response, revising, editing, and final draft. The phase of the writing process emphasized the most throughout the experimental period was prewriting, because it has been shown to help students improve writing content and it can be used with all types of writing. The Type Four and Type Five writing assignments require the use of the whole writing process, so content area teachers were encouraged to develop these types of assignments.

Teachers also provided instruction in strategies to improve writing, through modeling and guided practice. The main areas focused upon were prewriting techniques, paragraph structure, topic sentences and supporting details, and complete sentences. These concepts were used as focus correction areas in the content area classes during the experimental period.

Communication among the participating staff was maintained through daily informal contacts and weekly team meetings. Teachers met to discuss students’ progress, writing strategies, and teaching topics; and I shared revising, peer conferencing, and evaluation methods with the content area teachers. While the goal of adding thirty to forty-five minutes of writing time per class per week was met, the
amount of direct instruction in writing varied due to the teaching styles and time constraints of the individual classroom teachers.

Science Writing Assignments

Students completed seven writing assignments in their science class during the seven-week experimental period. A variety of writing assignments were given, and the assignments were structured so that students gradually moved from writing Type One assignments to writing Type Four assignments.

The first two weeks of the study, students wrote two Type One papers. The first Type One assignment asked students to explain the differences between plants and animals, and the second asked students to identify things their family would need to survive on a desert island.

Types Two and Three writing assignments were introduced during the third and fourth week. For their Type Two assignments, students explained abiotic and biotic factors, and secondary succession. For the Type Three assignment, a paper on rats, students were assigned three focus correction areas: correct content with topic sentences and supporting details, complete sentences, and demonstrate use of the writing process (see Appendix B for a detailed list of assignments).

The students worked through all stages of the writing process for their two Type Four assignments: a paper describing how humans have affected biomes, and describing the food chain and food web for a particular animal. The focus correction areas were the same as those of the previous Type Three assignment. The students
were shown writing models, guided through brainstorming, and were given time in class for peer editing and revising.

The science teacher provided direct instruction in writing techniques, with an emphasis on prewriting strategies and correct paragraph structure. Brainstorming strategies were taught, writing models were studied, and guided practice was provided to help students find and organize ideas. Students were given guidance in writing paragraphs with topic sentences and supporting details. Time in class was provided for students to revise, peer conference, and edit.

Mathematics Writing Assignments

Students completed seven writing assignments in mathematics throughout the study. The writing assignments asked students to create their own story problems or to explain a process used in problem-solving. Direct instruction was given in brainstorming and organizing their writing. Writing examples were modeled for the class using problems similar to the assignment. Students were asked to share their drafts with peers, who checked them for clarity, detail, and correctness. Students then revised their drafts, based upon their responses from peers.

The students seemed to have difficulty at first with the assignments that required them to explain the process they used to solve a problem. They had trouble organizing the step-by-step details required for their explanation; as they practiced this skill over the course of the treatment period, they did become more proficient.
These assignments were an effective way for the teacher to gauge the students’ understanding of the concepts, and they helped students develop their skill in elaborating and organizing their ideas (see Appendix C for a list of the assignments).

Social Studies Writing Assignments

In their social studies class, students completed seven writing assignments during the experimental period. Five of the writing assignments were Type One assignments designed to stimulate students’ thinking on a certain topic prior to class discussion, or to summarize what students had learned after a particular lesson. Two Type Four papers were assigned; one at the beginning of the experimental period and one at the end. For the first paper, students interviewed six family members on changes they had seen between the time they were adolescents and now. Students reported the findings of their six interviews in a comparison-contrast essay format. The second major paper was assigned as part of a larger project: students designed and built castles after studying medieval times, and then wrote a paper explaining their creation (see Appendix D for a list of the assignments).

Reading Class Writing Assignments

Students completed six writing assignments during the experimental period: four Type One responses, one Type Two response, and one Type Four paper. The Type One writings were either pre-reading activities to stimulate students’ thinking
about particular themes relevant to the literature selections, or post-reading responses to a prompt.

The students were guided through the stages of the writing process for the Type Four assignment, a persuasive paper which connected the theme of a story to the students’ lives. The students received direct instruction in brainstorming and organizing ideas, writing topic sentences with supporting details, and peer conferencing techniques (see Appendix E for a list of the assignments).

**English Class**

The focus for English class during the experimental period was providing more class time for writing and increasing students’ knowledge and use of the writing process. The emphasis in English class prior to this study had been writing and writing process, with at least three class periods per week allocated for writing process activities. The goal for this study was that students engage in some aspect of the writing process for thirty to forty-five minutes per day, so instructional time which had previously been used for other aspects of the language arts curriculum, such as vocabulary, speaking, and listening, was reallocated to make room for additional writing activities.

In order to increase students’ knowledge of and use of the writing process, direct instruction was given in prewriting strategies, revising, and peer conferencing. In order to emphasize the importance of revising, changes were made in the number of drafts required for writing assignments (Zemelman & Daniels, 1988; Carney,
Previously, two drafts had been required, with the teacher responding after the
first draft; now a third draft was added, with teacher response after the second draft.
Students were given reasonable due dates and credit for each stage of the writing
process: prewriting, first draft, peer response, revising, second draft, editing, and final
draft.

Collaboration was emphasized in the prewriting, revising, and editing stages of
the writing process. Students shared their prewriting ideas with one another,
talking over their topics to focus and organize their ideas. In order to encourage
students to generate more ideas and to build fluency, students were prompted to write
more. According to Graham and Harris (1997), unskilled writers tend to stop the
composing process too soon. When students brought their first drafts to class, the
teacher encouraged them to add more ideas and details. Students then worked in peer
response groups after writing their first drafts. Peer response comment sheets with
questions to help them focus on the important aspects of the writing assignment were
given to students. While the author read the paper aloud, the group members listened
and wrote responses on the comment sheets. The author collected and reviewed the
comment sheets, decided what areas needed revision, and then wrote a second draft.
The teacher provided written feedback to students after their second drafts, and then
the students wrote third drafts which were turned in for evaluation.

Students worked through the stages of the writing process in order to complete
two Type 5 writing assignments in English class during the experimental period. The
students also completed eleven Type One writing assignments.
**Evaluation**

The posttest, a practice version of the MEAP Writing Proficiency Test taken from the MEAP Coach Grade 8 Writing (Crowell & Kolba, 1997, p. 77), was given the week of November 2 over a three-day period. The format of the posttest was the same as described for the pretest. The prompt asked students to write an editorial for a newspaper explaining why it is important to learn about other cultures.

The pretests and posttest were evaluated according to a criterion-referenced score sheet. The categories were ideas and content; structure and form; mechanics; and evidence of the writing process (see Appendix F). The tests were given scores ranging from 1.0 to 4.0, similar to the MEAP Writing Proficiency Test scale, where a score of 2.5 or above is considered “proficient.” The tests were scored by a language arts teacher not involved in the study. For consistency, the pretests and posttest were checked together; the evaluator didn’t know which test was the pretest and which was the posttest.

Teacher observations of students’ writing skills were also examined. The science teacher, who had incorporated the most writing and provided the most instruction in his classes of all the participating teachers in the study, compared students’ writing skills on two Type Four writing assignments. A checklist was used to evaluate students’ writing in the areas of content, structure and form, mechanics, and use of the writing process (see Appendix G for a sample of the checklist).
CHAPTER FIVE: THESIS DATA ANALYSIS AND CONCLUSIONS

Discussion of Results

A practice version of the MEAP Writing Proficiency Test was administered as a pretest and posttest to examine the hypothesis that writing across the curriculum and writing process instruction would improve the writing skills of at-risk students. The data was then evaluated to determine whether or not a significant improvement occurred in the students’ abilities.

As mentioned in Chapter Four, the pretest and posttest were evaluated according to a criterion-referenced score sheet. The scoring categories were as follows: ideas and content; structure and form, mechanics, evidence of use of the writing process, and overall score. The tests were given scores ranging from 1.0 to 4.0, similar to the MEAP Writing Proficiency Test scale, where a score of 2.5 or above is considered “proficient.”

Thirteen of the students scored in the proficient range on the pretest, and thirteen students had a proficient score on the posttest. The overall mean score on the pretest was 2.92; on the posttest the mean score was 2.91. A t-test revealed no significant difference between the mean scores on the pretest and posttest; therefore, the hypothesis that writing across the curriculum and writing process instruction would improve the writing skills of at-risk seventh grade writers was not supported.
The mean scores for ideas and content were as follows: pretest, 2.63; posttest, 2.60. Seven students scored in the "non-proficient" range on the pretest, and seven students scored in the "non-proficient" range on the posttest. The difference between the pretest and posttest scores for ideas and content was not significant at the .01 level.

For structure and form, the mean scores were 2.8 on the pretest, and 2.67 on the posttest. Five students scored in the "non-proficient" range on the pretest, and seven students scored in the "non-proficient" range on the posttest. Four of the five students who scored in the "non-proficient" range on the pretest also scored "non-proficient" on the posttest. Statistical analysis revealed no significant difference between the students' pretest and posttest scores for structure and form.

The mean score for mechanics on the pretest was 2.76; on the posttest it was 2.79. Although the scores show a slight increase on the posttest, six students scored in the "non-proficient" range. The difference between the students' scores for mechanics on the pretest and posttest was not significant at the .01 level.

In the use of the writing process, the mean score of the pretest was 3.48; on the posttest the mean was 3.59. While the students' scores improved in this area on the posttest, the difference was not statistically significant. (see Appendix H for a comparison of the results).

Although the students' scores on the posttest showed that there was no improvement in the students' writing skills as a result of the treatment, teacher observations revealed some improvements in students' writing abilities and use of the
writing process. In science, the content-area class where the most writing was done during the treatment period, the teacher noted improvements in students' writing skills. The teacher evaluated students' performance on two Type Four writing assignments: one at the beginning of the study, and one at the end. The students' writing was evaluated in the areas of content, structure and form, mechanics, and use of the writing process. The teacher found that students made improvements in their use of the writing process, especially in the prewriting and revising stages. This seemed to contribute to improved performance, as the students' second writing assignment showed improved sequencing of ideas and relationships between concepts.

Students' individual scores on the pretest and posttest and teacher observations showed that some students made small gains in writing performance. Student A scored 3.15 overall on the pretest, and 2.9 on the posttest (see Appendix I). While Student A's posttest scores were lower than his pretest scores, teacher observation revealed that he improved his use of the writing process. His prewriting was more complete and detailed for assignments later in the study.

Student B scored 2.55 overall on the pretest, and 2.75 on the posttest. His posttest scores showed improvements in every category except structure and form (see Appendix J). Teacher observations of his writing progress were not available, because the student did not complete his science writing assignments.

Student C's pretest score was 2.9, and his posttest score was 2.1. His scores were lower in each category on the posttest (see Appendix K). Motivation seemed to
be a problem for this student; teacher observations were not available because this student did not complete his science writing assignments.

Student D showed improvement on the posttest; his pretest score was 2.75, and the posttest score was 2.8 (see Appendix L). Posttest gains were made in the categories of content and mechanics. According to teacher observations, he showed improvements in writing topic sentences and supporting details, and in using correct punctuation.

Student E scored 3.2 overall on the pretest, and 3.1 on the posttest (see Appendix M). Teacher observations revealed that he had difficulty writing topic sentences and supporting details, but he used the revision stage of the writing process to effectively improve his work.

Student F scored 2.9 on the pretest, and 3.2 on the posttest (See Appendix N). Improvements were made in the areas of content and mechanics. According to teacher observations, her ability to write with correct paragraph form improved throughout the study period.

Student G’s test scores showed a decline in writing skills; his overall pretest score was 3.3, and his posttest score was 2.85 (see Appendix O). However, teacher observation revealed that he made improvements in his ability to organize ideas sequentially. He showed an increased use of revising and editing, which improved the overall quality of his content-area writing assignments.

Student H’s scores on the posttest showed improvements in each category over her pretest score. Her overall pretest score was 3.2, and her posttest score was
3.4 (see Appendix P). Teacher observations were not available because she failed to complete her two science writing assignments.

Student I scored 2.85 on the pretest, and 2.55 on the posttest. The only category showing an increased score on the posttest was the process category (see Appendix Q). This student did not complete his English or content-area writing assignments, so teacher observation data was not available.

Student J’s scores on the posttest showed an improvement in writing skills. She scored 3.2 on the pretest, and 3.4 on the posttest (see Appendix R), showing gains in mechanics and use of the writing process. According to teacher observations, her paragraph structure and punctuation improved over the study period.

Student K scored 2.05 on the pretest, and 2.4 on the posttest. While the posttest score showed an improvement over the pretest, it was not in the proficient range of 2.5 or above. An examination of her scores in each category reveal that her gain was made in her use of the writing process (see Appendix S). Teacher observations showed that this student’s writing did improve in logical sequencing of ideas, elaboration, and use of the writing process, particularly prewriting and editing.

Student L showed improvements in writing skills; her pretest score was 2.85, and the posttest was 3.0 (see Appendix T). Gains were made in the categories of structure, mechanics, and use of the writing process. She also made improvements in logical sequencing of ideas and revising, according to teacher observations.
Student M scored 2.25 on the pretest, and 2.6 on the posttest, showing a gain in all categories except in the process category, which remained a 4.0 (see Appendix U). Teacher observations found that he made some improvements in his use of the writing process, particularly editing.

Student N’s posttest score showed a slight improvement in writing abilities: she scored 2.95 on the pretest, and 3.0 on the posttest (see Appendix V). Gains were seen in the categories of content and structure. Her writing improved in all areas throughout the study, especially in her use of the writing process, according to teacher observations.

Student O scored 3.65 on the pretest, and 3.60 on the posttest, showing a decline in the structure and form category (see Appendix W). Teacher observations revealed improvement in her use of the writing process, particularly in prewriting and revising.

Conclusions

Evaluation of the pretest and posttest data found no significant differences in the students’ scores. The findings did not support the hypothesis that writing across the curriculum, combined with writing process instruction, would improve the writing skills of at-risk students.

However, teacher observations showed that some small gains were made in students’ use of the writing process, especially prewriting, and that helped to improve the ideas and content of their class writing assignments. Teachers also observed
improvements in students’ use of proper paragraph form, particularly in writing topic sentences.

I believe that improvement in test scores would have been seen if the research period had been longer. Seven weeks was a short period of time to see improvement in seventh-grade students’ writing skills. Researchers have pointed out that the writing skills of upper-grades students develop at a slow pace; according to Zemelman and Daniels (1988), one study showed the average high school writer did not improve at all between ninth grade and twelfth grade. Cox, Holden, and Pickett (1997) observed improvements in the writing skills of the middle school students in their study, even though the posttest scores showed no significant gain at the end of the semester-long treatment period.

Toward the end of the research period, students were beginning to use the writing process more consistently and effectively in their class writing assignments, and they were becoming more proficient at offering helpful, constructive criticism during peer collaboration. With a longer research period, students would have more opportunities to practice and develop their writing skills and process strategies.

The level of difficulty of the testing instrument may have contributed to the failure to see significant improvement in students’ writing skills. The posttest prompt, which asked students to explain why learning about other cultures is important, seemed to be much more difficult for the students than the pretest prompt, which asked students to write about why it is important to take responsibility at school. Seventh-grade students are very familiar with the concept of responsibility, but our
students are not familiar with the idea of cultural diversity. Students could draw upon their own experiences when writing about the topic of responsibility, but they lacked the background knowledge to write about the cultural theme. Because they did not have very many ideas or much experience with the issue, the students were not able to write well-developed essays.

A problem that may have contributed to the lack of evident progress in students’ writing skills was that several students included in the study did not complete their class writing assignments. If they did not do the assignments, they did not practice their writing skills. Unfortunately, this lack of motivation is a common problem of at-risk students; further study is needed to determine effective ways to motivate students.

This study accomplished the goal of increasing students’ time spent writing by increasing the number of writing assignments in each class. However, the amount of direct instruction in writing strategies and guidance through the phases of the writing process varied across the curriculum. In the classes where little direct instruction in writing strategies or process took place, the time constraints of the curriculum or the teacher’s philosophies or preferences may have prohibited the teacher from adding writing instruction to the class content.

In the content-area classes where writing instruction was intensive, such as science, the teachers reported seeing improvements in the students’ use of the writing process and in their writing skills. All teachers who participated in the study see writing as a valuable tool for learning and reinforcing the curriculum.
The writing across the curriculum study seems to have been beneficial in several ways. Teachers have observed small improvements in students' writing skills, particularly in their paragraph structure and use of topic sentences. Students have also shown more attention to the stages of the writing process, especially prewriting and revision. This study has prompted teachers to collaborate more on curriculum and to share concerns about students' progress. Such collaboration, research has shown, is an effective strategy for dealing with at-risk students (Lehr & Harris, 1988).
CHAPTER SIX: RECOMMENDATIONS/ PLANS FOR DISSEMINATION

Although this project has been completed, I plan to continue this study throughout this school year to determine if, with increased time, any improvement in students' writing skills will occur. My colleagues and I will continue the writing across the curriculum program and I will administer another posttest in the spring.

I have already shared the results of this study with my teaching colleagues, who are interested in continuing the experiment throughout the school year. I plan to share this research with the middle school staff, the principal, and our district superintendent; a copy of this study will be placed in the school library media center. Our staff is currently working on a school improvement goal of improving students' MEAP test scores in all subject areas, and the strategies and methods used in this study might provide a plan for helping students achieve proficiency on the writing test.

I believe that further study is needed to determine the effects of writing across the curriculum and writing process instruction on students' writing skills. I recommend a longer treatment period, because writing skills develop slowly. Also, I think that the goal for the number of writing assignments should be increased in the content area classes. Students could write small assignments daily; these would not all have to be read and graded by the teacher. In order for students to practice their skills and use the writing process, the number of Type Four and Type Five
assignments should be increased in each class. It was difficult to control the number and type of writing assignments given in each class, because each teacher had his or her own teaching priorities and time constraints.

Students’ difficulty with the posttest question on cultural diversity highlighted the need for incorporating writing across the curriculum; students needed experience in writing about social studies issues in order to do well on that prompt. Also, the students’ lack of knowledge and experience with the topic of cultural diversity pointed to a gap in our school curriculum that needs to be addressed: multicultural education. I plan to share this result with the staff and administration, so that we can address multicultural awareness in our curriculum.

Designing and implementing this research study has heightened my awareness of my students’ strengths, weaknesses, and educational needs. Collaborating with my teaching colleagues has improved my knowledge of the curriculum and the students; and it has helped me to address the needs of at-risk students. I plan to continue researching and implementing teaching methods that will help all students become successful learners.
REFERENCES


Graham, S. & Harris, K.R. (1997). It can be taught, but it does not develop naturally: myths and realities in writing instruction. *School of Psychology Review, [On-line], 26*. Available: First Search


APPENDICES

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Appendix A
Writing Process
7th Grade English

**Prewriting**
- brainstorming
- story mapping
- webbing
- outlining
- listing
- fact gathering & recording
- free writing

**First Draft**
- write on one side of paper
- skip a line
- have holes on left of paper
- write with a purpose
- write for an audience

**Self Revising**
- read your own paper aloud
- insert skipped words
- correct errors

**Peer Conferencing**
- Read your own paper aloud to peers
- Listener clarifies and makes suggestions using specific questions to focus on the assignment

**Revising**
- add details
- use descriptive words
- write in sequence
- vary sentence structure
- include strong introduction
- state clear conclusion
- convey understandable message
- reorganize
- delete unnecessary statements and words

**Second Draft**
- skip a line
- have holes on left of paper

**Editing / Proofreading**
- usage / understanding
- punctuation
- capitalization
- spelling

**Final Paper / Sharing / Publishing**
- quality product
- neat
- don't skip a line
- holes on left
- name on paper on top right
- correct heading
- blue/black ink or word processing on final product
Appendix B
Science Writing Assignments

1. Type 1, 6-8 lines. Topic: Explain the differences between plants and animals.

2. Type 1, 10 or more lines. Topic: Island Survival.
   Identify things your family would need to survive on a deserted island.

3. Type 2 writing assignment; ten or more lines. Topic: Biotic and Abiotic factors.

4. Type 4 writing assignment: Topic: How humans have affected biomes. Two paragraphs, minimum. Show work in all stages of the writing process: brainstorming, first draft, peer conferencing, editing, and final draft. Use topic sentences with supporting details in each paragraph.

5. Type 3 Writing Assignment; 10 or more lines. Follow directions for “Using vocabulary” on page 65 of the textbook. Title: Rats.

6. Type 4 Writing Assignment.
   Topic: Choose an animal and develop the food chain for that animal. Tie the animal and its food chain into a larger food web. Include important facts and the following vocabulary words: community, energy pyramid, food chain, food web, niche, predation, symbiosis.
   Show work in all stages of the writing process.

7. Type 2 Writing Assignment, 20 or more lines.
   Explain secondary succession of an abandoned corn field to a climax community.
   Writing process: whole class brainstorming of key terms for sequencing.
1. Writing story problems: Using complete sentences and the numbers $5.30, $0.70, and $3.50, write a story problem in which the reader must first add two numbers and then subtract the third number from the sum. The answer is to be $2.50.

2. Writing story problems. Write a story problem using the words “boy, pie, 4 slices” in which the correct answer is $4. The problem should contain three factual sentences and one question.

3. Explaining a process:
Describe the four-step plan for problem solving. Explain each step in your own words.

4. Story problem writing and process explanations.
Make up a story problem using the names of two people and the numbers 17 and 5 where addition is the solution. The numbers will need labels. Use complete sentences.
After writing the problem, write out the steps and process for solving the problem.
Solve the problem. Share with a peer for revising and editing.

5. Explaining a process:
Write a type 1 paragraph explaining how to solve this problem: b(c-b) + c [ b = 3, c = 4] Use complete sentences and paragraph format. Explain all the steps completely; imagine that you are writing this to a sixth-grade student who doesn’t know how to do this. Follow the example. When finished, share your paragraph with a peer. Check each other’s explanation to make sure it’s step-by-step and easy to understand. Make any necessary changes to your paragraph.

6. Explaining multiplication with decimals: Students wrote paragraphs to explain the process used to solve three multiplication problems. Students were told to imagine they were writing this to help a sixth-grader understand how to do the problems.

7. Explaining a process:
Students solved the following problems: 2 x 4 + 7; and 2 x (4 + 7). They wrote paragraphs explaining why the answers were different, using their knowledge of the order of operations.
Appendix D
Social Studies Writing Assignments

1. Type 1 Writing Assignment: 7-9 lines.
   Students were asked to describe the first Americans.

2. Type 4 Writing Assignment.
   Students interviewed six family members, then wrote a comparison/contrast paper
   comparing their lives today to the experiences of their family members.

3. Type 1 Writing Assignment.
   Students wrote a summaries if what they learned in the movie about the Aztecs.

4. Type 1 Writing Assignment, 10-15 lines.
   Students were asked to describe the effects of several hundred people being laid
   off from work.

5. Type I Writing Assignment:
   Students were asked to write a two-page summary of what they learned as a result
   of watching the medieval times movie.

6. Type 3 Writing Assignment.
   Students constructed a castle for their medieval times culminating project, then
   wrote a two-page paper describing their project.

7. Type I Writing Assignment.
   Students wrote a summary of what they learned watching the movie on the
   Edmund Fitzgerald.
Appendix E
Reading Class Writing Assignments

1. Type I writing assignment for “A Crush” by Cynthia Rylant.
   Prompt: What makes Jack a good friend to Ernie?

2. Type I Prereading activity for “Last Cover.”
   Prompt: People have strong attachments to their pets. Why do you think people develop such close ties with animals?

3. Postreading Type 4 Writing Assignment: “Last Cover” by Paul Annixter.
   Approximately 100 minutes of writing time.
   Answer the following question: Do you think it is right to make pets out of wild animals such as foxes, snakes, or bears? Write your answer in a persuasive format. Imagine you are writing to a neighbor. If you think it is right to make pets out of wild animals, pretend the animal belongs to you and your neighbor does not like having a wild animal next door. You need to give reasons to convince him or her that your pet will cause no harm. If you do not think it is right for a person to keep a wild animal for a pet, pretend the animal belongs to your neighbor. You need to try to convince him/her to find a zoo or shelter to take the pet because it makes you nervous.

   Complete the answer in a paragraph with a topic sentence and at least four supporting sentences. (8-10 lines.) Show work for all steps of the writing process: brainstorming, first draft, peer conferencing, revising, editing, and final copy.

4. Prereading activity for “Thank You, Ma’am” by Langston Hughes.
   Type I writing assignment. Respond to the following prompt: According to an African proverb, it takes two parents to produce a child, but it takes an entire village to raise the child. Think about your community. Describe how the adults in your community or neighborhood keep an eye on young people.

5. Postreading Type 2 writing assignment for “The Iditarod Trail.”
   Why were the men and dogs able to transport the vaccine so quickly?

   Make a list of the animals in the story, and list the qualities that each animal shows. Rank the qualities on a scale from one to ten, with ten being the most admirable. Now choose your favorite animal and explain how it is like you.
Appendix F

Pretest/Posttest Grading Score Sheet

**IDEAS & CONTENT (4.0 points)**
- Topic appropriate to the prompt
- Introduction identifies the topic
- Ideas stated clearly with supporting details
- Includes an effective conclusion

**STRUCTURE & FORM (4.0 points)**
- Logical sequence of ideas: beginning, middle, end
- Proper paragraph form used
- Paragraphs contain a topic sentence and supporting details
- Transitional words and phrases used to connect ideas
- Includes a variety of sentence structures

**MECHANICS (4.0 points)**
- Sentences are complete thoughts
- Correct Punctuation
- Correct Capitalization
- Correct Spelling

**PROCESS (4.0 points)**
- Prewriting
- Rough draft
- Revising and editing
- Final draft

TOTAL POINTS POSSIBLE: 16.0

OVERALL SCORE: Total Points divided by 4

Points Earned:

Total Points Earned:

Overall Score:
Appendix G

Writing Progress Checklist

Science Class

Name of Student ________________________________

Key: + indicates skill demonstrated; -- indicates skill not demonstrated

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<th>Food Chain Type 4</th>
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<td>Main idea is clear</td>
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<td>Ideas are complete</td>
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<tr>
<td>Details included to support main idea</td>
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<td></td>
</tr>
<tr>
<td>ORGANIZATION/STRUCTURE</td>
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<td></td>
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<tr>
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<tr>
<td>Paragraphs contain topic sentences and supporting details</td>
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<tr>
<td>MECHANICS</td>
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<tr>
<td>Proper paragraph form</td>
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<tr>
<td>Complete sentences</td>
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<tr>
<td>Proper punctuation</td>
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<tr>
<td>PROCESS</td>
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<td></td>
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COMMENTS:

75
Appendix H
Pretest and Posttest Results

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Appendix I
Test Results

Student A

![Bar chart showing test results for Student A across different categories: Ideas & Content, Structure, Mechanics, Process, and Overall. Pre Test is represented by black bars, and Post Test is represented by gray bars.](chart.png)
Student B

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<td>Structure</td>
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<tr>
<td>Overall</td>
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Appendix J
Test Results
Appendix K
Test Results

Student C

Score

Ideas & Content  Structure  Mechanics  Process  Overall

Pre Test  Post Test
Appendix L
Test Results

Student D

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<tr>
<td>Mechanics</td>
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<tr>
<td>Process</td>
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Student E

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<tbody>
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<td>Post Test</td>
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<td>Pre Test</td>
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Score

0 1 2 3 4

Appendix M
Test Results
Appendix N
Test Results

Student F

Score

Ideas & Content  Structure  Mechanics  Process  Overall

- Pre Test
- Post Test

82
Appendix P
Test Results

Student H

<table>
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<th>Structure</th>
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Appendix Q
Test Results

Student I

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Appendix S

Test Results

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Test Results

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Appendix U
Test Results

Student M

Score

Ideas & Content Structure Mechanics Process Overall

Pre Test Post Test
Appendix V
Test Results

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Student O

Score

Idea & Content  Structure  Mechanics  Process  Overall

Pre Test  Post Test
ABSTRACT: Two or three sentences that describe the contents of your paper.

This study examined the effects of writing process instruction and writing across the curriculum on the writing skills of fifteen at-risk seventh grade students. The research design was a quasi-experimental single group pretest/posttest. Results of the posttest did not show a significant improvement in students' writing skills; however, teacher observations indicated that small gains in writing improvement had occurred.