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A SYSTEMIC PLAN TO IMPROVE THE
WRITING SKILLS OF STUDENTS IN
A SECONDARY COMPUTER
WRITING LABORATORY

by
Cherie L. Hill

A Masters Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree in the Graduate Division
of Rowan University
April 23, 1998

Approved by

Professor

Date Approved April 17, 1998

Abstract

Cherie L. Hill

A Systemic Plan to Improve the
Writing Skills of Students Through
the Implementation of a
Secondary Computer Writing Laboratory
1998
University Mentor: Dr. Ronald Capasso
Educational Administration

This report describes the process used, for an urban high school with a student population of approximately 1,250 students, to investigate the existing writing programs offered to students. The preliminary research indicated a 10% decline in the number of students who pass the writing component of the New Jersey High School Proficiency Test.

Proposed preliminary investigation strategies include (a) interviews with writing teachers, regular English teachers, and teachers in other academic disciplines; (b) a review of documents such as district writing test results, courses of study, individual student writing reports, and grade point averages and English course grades; (c) observations of writing instruction; (d) surveys of students to assess their attitudes toward writing instruction along with the amount and required types of writing assignments; and (e) a continued review of the research and literature on writing instruction and related fields of study.

In response to the information acquired during the preliminary investigation an intervention strategy may be proposed to improve, modify, or expand the writing programs offered at Millville Senior High School.

Mini-Abstract

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This report describes the process used, for an urban high school with a student population of approximately 1,250 students, to investigate the existing writing programs offered to students. The research indicated a 10% decline in students who pass the writing component of the New Jersey High School Proficiency Test.

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Table of Contents

Acknowledgments.....	ii
Chapter 1: Introduction Focus of Study.....	1
Statement of Problem.....	1
Project Definitions.....	2
Limitations of Study.....	3
Setting of Study.....	4
Importance of Study.....	10
Organization of Study.....	11
Chapter 2: Review of Literature.....	13
Chapter 3: Design of the Study.....	21
General Description of Research Design.....	21
Description of Development and Design Research Instruments..	22
Description of Sample and Sampling Technique.....	24
Description of Data Collection Approach.....	29
Description of Data Analysis Plan.....	29
Chapter 4: Presentation of Research Findings.....	33
Research Findings.....	33
Research Observations.....	41
Chapter 5: Conclusions, Implications and Further Study.....	43
Study for Project.....	43
Study for Leadership.....	44
Study for Organizational Change.....	45
Study in All Areas.....	46
Further Study.....	46

References.....	48
Appendix A: Writing Instructor Questionnaire.....	51
Appendix B: Student Survey.....	53
Appendix C: Writing Pre and Post Test.....	54
Appendix D: Student Record of Progress.....	55
Appendix E: Student Record of Writing Activities.....	56
Appendix F: Writing Teacher Collaboration Session Evaluation Form.....	57
Appendix G: Peer Coaching Experience Evaluation Form.....	58
Appendix H: Staff Development Program Evaluation Form.....	59
Appendix I: Articulation Session Evaluation Form.....	60
Appendix J: Evaluation of Educational Leader as a Resource Person.....	61
Appendix K: Writing Resource Center Materials Sign Out Sheet.....	62
Biographical Data.....	63

List of Tables

Table 1: Children Living in Millville Without Two Parent Homes.....	7
Table 2: General Income Levels.....	8
Table 3: Millville's Per Capita Income Levels by Race.....	8
Table 4: Percentage of Residents Living in Poverty.....	8
Table 5: Educational Levels of Millville Residents 25 Years and Older.....	9
Table 6: Educational Levels of Millville Residents, Compared to State.....	9
Table 7: Student Writing Survey.....	35
Table 8: Writing Pre-Test Results.....	36
Table 9: Student Writing Folders: Assignment Review.....	40

Chapter 1

Introduction: Focus of study

Statement of the Problem

All students in the High School Proficiency Test 11 Writing Laboratory will be able to use computer technology to create school related documents, and ultimately use a variety of computer software programs as a vehicle for increased HSPT writing scores. During this program, the two measurements of evaluation that will be recognized for the entire project are a pre and post writing sample, and the passing percentage of writing students from the April, 1998, HSPT test.

While this project is progressing, the intern will be able to apply for and receive grant money which will be distributed into computer tech equipment and writing software programs. She will be able to incorporate leadership skills in organization, budgeting, technology programming and evaluation. The form of evaluation established for this project will be a pre and post survey taken by the students of the High School Proficiency Test remediation/strategies classes.

As a result of this project, the entire organization will be able to entrust students to attend the after school writing laboratory in order to complete assignments, gain access to computer technology, and receive computer assistance in a variety of writing programs. The evaluation measurements of this project are: an attendance log book of computer lab use; monthly meetings with educators focusing on writing instruction, and four inservice programs with established writing professional.

A review of Millville Senior High School's HSPT 11 writing scores from 1993-1995 have created some district concern due to a 10 point drop in the percentage of students who passed(Thompson, 1996). In the 1993-1994 school year, 87.7% of the students passed the writing portion of the High School Proficiency Test 11, and in 1994-1995 the percent passing dropped to 77.7%. In these two years the testing

scores were beneath the minimum level of proficiency allowed by the state average. All testing results are under strict inquiry from the state, district and local school administration, in addition to community leaders, parents, and other educational officials. Therefore, it is imperative school districts be accountable for their test results and instructional/preparation programs. Since, written communication is a skill that is essential for all academic areas as well as a lifelong necessity, the purpose of this study is to implement a computer writing lab which will academically assist students with their writing ability and ultimately increase results on the High School Proficiency Test 11.

Project Definitions

The following definitions will be used as an integral part of the project study, and are pertinent to comprehension of the project process.

Basic Skills- The independent areas of reading, mathematics and writing- skills deemed necessary to function in society.

Benchmark Skills- These skills are to inform teachers, students, and parents of the topics taught, in the classroom, which assess achievement.

Clusters- The specific skill areas, which appear on standardized tests, with common educational concepts.

High School Proficiency Test(HSPT)- A State mandated test, in New Jersey, designed to measure higher order application of basic skills in reading, mathematics and writing.

Holistic Scoring- A method of evaluating the writing ability of students. It is based on a zero to six point scale with the higher score indicating more proficiency in writing ability.

Individual Student Improvement Plan(ISIP)- The personalized plan to improve student performance in designated areas based on feedback of criteria from some source. Benchmarks and standards are used to determine improvement plans.

Minimum Level of Proficiency- Benchmark identification by an authority that determines acceptable, passing performance in skill areas.

Standardized Tests- Testing in skills such as reading, mathematics, writing, etc. that are scored with reference to examples of poor, fair and good performance in those particular skills.

Supplemental- An addition to the required classroom learning experience; reinforcement into the students current educational routine.

Limitations of Study

Each year the number of students needing remediation in writing, at Millville Senior High School, is quite large. In 1986 Myers stated, "There is ample evidence that something is awry in the content of many secondary writing courses and that simply more courses for more minutes is not an adequate public policy"(p.148).

The HSPT strategies program received several thousand dollars during the summer of 1996 to purchase six computers and two printers for instructional purposes. Although these computers were well received when entering in the classrooms of HSPT teachers and students, there are many intervening variables that could keep this equipment from being used to its fullest capacity.

Assuming there will be a general universality of the writing lab's findings is a critical limitation of the study, the project findings cannot be deemed conclusive for the entire target population upon a similar study. Therefore, this limitation reveals that the program may only influence a limited audience when the research is concluded. What about the question of program support? Will administration and staff not only acknowledge the program, but support all public relations effort and student questioning when addressing laboratory uncertainties? It is a concern, of the intern's, that can only be addressed after all publication efforts are exhausted and time has elapsed.

The target population will also provide other limitations. Individually, students create the limitation variables of: attendance, computer literacy and discipline. Since

there is no requirement that forces the target population to attend the program on a regular basis, will they feel the need to limit their computer use, or will they be willing to attend every session? Also, since there are only six computers, two printers and five to seven laptops(purchased previously), will there be individuals denied accessibility? Finally, what about the target population's assignments? Will they have lessons which focus on computer based work, or will the target population be unable to complete assignments using available technology? All limitations will be analyzed and intervening variables acknowledged in order to accommodate the needs of the entire writing lab population.

Setting of Study

Millville, located in Cumberland County, New Jersey, was established in 1801 at a place know at the time as "New Bridge," but Millville can trace its beginning back to the late 1700's (Weber, 1966). Millville was incorporated as a city by an act of the state legislature in 1866 and operated under the Mayor-council form of government until 1913. The mayor was elected by the people (Millville City Commission, 1990). In 1913, the Walsh Act was passed and the city initiated its present commission form of government: five elected commissioners, one of whom serves as mayor (Millville City Commission).

Economically, Millville is increasingly challenged to handle the city's population growth, which has leaped from 19,096 in 1960 to 27,019 in 1990. The projected population growth for Millville is in excess of 30,000 by the year 2000 (City of Millville Planning Board, 1983). Millville's chief industries continue to be glass-making, textile manufacturing, aircraft engine overhaul, industrial machine development, and recreational ship manufacturing.

Millville, much like Cumberland Count, is rapidly changing from a predominately rural, agricultural area into an urbanized one. The urbanization trend

has the potential to create negative outcomes if the area's businesses and industries fail to provide jobs for the growing, diverse population of the community. Cumberland County ranks last in per capita income in New Jersey in spite of the number of industries and businesses in the area (Cumberland Data Center Files, 1990).

The first building to be referred to generally as "Millville Senior High School," was erected in 1895 on Second Street. The cornerstone for this building was laid on November 30, 1895. The building was then known as the "Sensor School." By 1920, the school's enrollment exceeded the capacity of the building on Second Street so the Board of Education secured two World War I prefabricated buildings and erected them in the area between Second and Third Streets.

After reviewing information provided by the administration, it was established that in 1925, a new building named "Memorial High School," was to be completed at Fifth and Broad Streets and was to open for classes in September of that year. In the early days, courses were designed for one of two fields; (1) preparation for college, and (2) preparation for office work. More than 50% of the students took college preparatory courses.

The opening of the new school in September 1925, made it possible to expand and enlarge the program of instruction. For the first time, the school had such things under its roof as an auditorium, gymnasium, cafeteria, library, mechanical drawing room, and combined metal-wood shop. The office of the city's superintendent of schools occupied the present principal's office and the principal's office occupied the space now devoted to the medical room. Until 1937, there were two separate terms of school. One ended in February, the other completed in June.

In September 1964, the building at Fifth and Broad Streets was occupied by Memorial Junior High School, and the Senior High School was established in its present structure at the corner of Wade Boulevard and Pine Street.

Currently, Millville a Type II school district after a petition drive in 1991 led to the eradication of the Type I, city appointed, school board. There is a nine member elected board that is joined with three representative from the sending district, which are Commercial, Maurice River, and Lawrence Township, and the City of Woodbine. The sending districts' representatives were seated on the local board as a result of a law enacted by the state legislature in 1995 to provide representation to the mostly White sending districts of Atlantic City High School. In Millville, this law had the opposite effect because three of the four sending districts have large minority populations(Johnson, 1996).

The socioeconomic status of the Millville Public School system places it in the District Factor Group "B." There are 10 factor groups listed "A" to "J" with "A" districts having the lowest factor score and "J" having the highest. There are seven variables used in determining a district's factor group: (a) the educational level of persons 25 or older, (b) the status of the occupations, (c) median family income, (d) families living below the poverty level, (e) the percentage of unemployed, (f) the degree of urbanization, and (g) the number of persons per household (New Jersey Department of Education, 1992). The Millville School District ranks in the bottom 10% in the community wealth of all districts in the state of New Jersey.

Today, Memorial High School houses all of Millville's eighth graders and all of the district's ninth graders, an enrollment figure of approximately 900 students. The Senior High School contains all tenth, eleventh and twelfth grade students from Millville, and the sending districts, enrolling approximately 1,400 students. The total high school enrollment (ninth grade through twelfth grade) approaches 1,800 students.

Millville's school district houses an array of ethnicity within its barriers. The average economic situation for the community and the student population is lower-

middle class. The ethnic background of our student enrollment is as follows: 75.2% are white, 15.5% are African-American, 9% are Hispanic, .2% are Asian/Pacific Islander, and .1% is American Indian. The gender population is almost divided down the middle, but the males outnumber the females by about 50 students.

Based on the school district's yearly study of racial makeup of each school, it is evident the minority population is growing in the center-city area and that the white population is growing in the western part of the city. In 1990, of those households with children under 18 present, 69.9% were headed by two parents, 7.0% by male without a spouse present, and 23.4% by female without a spouse present. Comparisons to state averages are somewhat disquieting. Children in Millville are significantly more likely to be living in homes without two parents:

Table 1

Children Living in Millville without two parent homes

	<u>Millville</u>	<u>New Jersey</u>
Married Couple	69.6	79.6
Male Only	7.0	3.6
Female Only	23.4	16.8

The data shows that nearly one-third of our city's children are living in single-parent homes, a fact which carries serious implications for the school district. For one thing, it is often harder to make contact with and involve single parents in their children's education. As the sole provider and the only parent available to perform all the daily household duties, a single parent may have trouble finding time to meet with teachers or attend educational meetings(Fenton, 1995).

Data on income shows that, in general, local residents have less disposable income to spend on the educational and cultural things that enrich children's early years and prepare them for a strong start in school. It is also clear that the burdens of

property fall disproportionately on minority families. In general, minority children are more likely to come to school needing significant supplementary support and services so they can succeed in school. The 1990 Census data on income shows that Millville’s residents are less affluent than the state average, but slightly more affluent than the county average(Fenton, 1995):

Table 2

General Income Levels

	<u>Millville</u>	<u>Cumberland Co.</u>	<u>New Jersey</u>
Per Capita Income	13,748	12,560	18,714
Median Family Income	36,654	34,571	47,589

Table 3

Millville’s Per Capita Income Levels by Race

	<u>White</u>	<u>African-American</u>	<u>Hispanic</u>
Per Capita Income	14,677	8,313	7,017

Table 4

Percentage of Residents Living in Poverty

	<u>Millville</u>	<u>Cumberland Co.</u>	<u>New Jersey</u>
Below Poverty Level	11.5	13.0	7.6

The disadvantages of poverty fall most heavily on Millville’s minority population. Hispanic children bear an especially heavy burden since nearly two thirds live in poverty and many enter school with an incomplete knowledge of English. The district’s concerted efforts to improve the English skills of Hispanic students and the bilingual teacher’s and supervisor’s efforts to involve the parents are important steps in

helping the children get a good education. It is apparent that the local schools must allocate more resources to addressing the educational disadvantage of poverty than must most other school districts in New Jersey.

Educational attainments in Millville lag behind those of state residents as a whole, especially in the area of college and graduate degrees. Persons with less education are at a disadvantage in today's job market, which increasingly requires higher educational skills. The local area is at a disadvantage in trying to attract companies which need a weak-educated work force. The schools hold an important key to improving the quality of life for individuals and for the county as a whole. All persons, both within and without the school system, should impress upon children the importance and advantages of a good education.

Table 5

Educational Levels of Millville Residents 25 Years and Older

Percent with No High School Diploma	30.2
Percent with High School Diploma or Better	69.8
Percent with Bachelor's Degree or Better	11.6
Percent with Graduate/Professional Degree	3.3

Table 6

Educational Levels of Millville Residents, Compared to State

	<u>Millville</u>	<u>NJ</u>
Percent with No High School Diploma	30.2	23.3
Percent with High School Diploma or Better	69.8	76.7
Percent with Bachelor's Degree or Better	11.6	24.9
Percent with Graduate/Professional Degree	3.3	8.8

The demographic data show that many of Millville's youth suffer social, economic and educational disadvantages which may impair their ability to learn in school and to succeed in society once they leave a learning environment. Addressing these problems will take the concerted efforts of the schools, social-service agencies, churches, governmental entities-in short, the entire community. It is also evident that Millville's residents alone lack the economic and educational resources necessary to provide the compensatory help which many of our students need. Recent increases in state aid have been a tremendous assistance in providing some of the services needed by our children. The district hopes the legislature will continue to meet its obligation under the *Abbott v. Burke* decision so that Millville's children may receive a start in life more equal to that experienced by their peers in more affluent sections of New Jersey, and find the necessary educational elements in order to prosper throughout life.

Importance of Study

The writing laboratory is essential for the development of secondary student's writing abilities. Therefore, the goal of this study will be to improve the standardized test scores of secondary students through the availability of technology in the form of a writing laboratory.

Students are enrolled in the Language Arts Basic Skills Program as a result of deficiencies identified from standardized test scores or other district approved instruments of assessment. Specific areas of deficiency are indicated on individual student profiles based on the standardized test performance. An Individual Student Improvement Plan (ISIP) is written for each student and used to guide the remediation and to supplement the concepts taught in the *regular* education classroom.

Recently, State-mandated High School Proficiency Testing in reading, mathematics, and writing has modified Millville's curriculum. If a student falls below

the minimum level of proficiency in one or more areas of the HSPT, they are required to take a strategies class for all sections failed. This adjustment often impinges upon a student's need or desire to schedule other courses. Falling below the minimum level of proficiency could and has jeopardized many students in terms of credits received (for graduation), courses needed (as assigned by the State), and achievement of a passing score on the HSPT.

The developmental language arts curriculum for each grade level will be used to identify the proficiency appropriate for that level. The Benchmark Skills identified by the New Jersey Department of Education have been included in the developmental curricula to the basic skills students, various techniques, strategies, and supplemental materials are used.

Instilling the core curriculum content standards, into the current system, is yet another facet that must be focused upon when questioning the importance of this study. The study will investigate the need for improvement, modification, and/or expansion of the writing capabilities of Millville's student population. Instituting and preserving instructional programs which improve students performance outcomes on state-mandated test; as well as, core curriculum content standards will not interfere with the current practices of the district; it will merely advance writing preparation and increase awareness.

Organizations of the Study

This study will include an investigation of students and their ability to increase their High School Proficiency Test 11 writing scores as a result of the instillation of a computer writing laboratory. The remainder of this study will include the following: Chapter 2 Review of Literature-researched data of writing instruction and related fields of study; Chapter 3 The Design of the Study-a general description of the research design, description of the development and design of the research

instruments, a sampling technique used in the study, a description of the data collection approach, and a description of the data analysis plan; Chapter 4 Presentation of the Research Findings-results of surveys, writing lab participation, and HSPT scores; and Chapter 5 Conclusions, Implications, and Further Study-conclusions, implications and further areas of study obtained from the findings of the project's results. The final culmination of this study will not be available until the High School Proficiency Test 11 writing scores are produced by the State in early June, 1998.

Chapter 2

Review of Literature

“In 1955 Rudolf Flesch informed the American public that Johnny couldn’t read. Today, Johnny is a better reader but he has a new problem: He can’t write very well” (Hague, 1986). Reports such as the National Commission on Excellence in Education’s *A Nation at Risk* and the Carnegie Foundation’s *High School: A Report on Secondary Education in America* (Boyer, 1983) say that high school students’ writing is less than adequate. Descriptors such as awkward, incoherent, and disorganized abound in articles about student writing. Today educators tend to think of writing as a complex intellectual-linguistic process involving the recursive application of a wide range of thinking skills and language abilities. Conceptualizing the process as a series of steps, educators can focus on the techniques and tools writers need, the knowledge they must develop, and the choices they must learn to make. From this understanding of what writers must be able to do, educators can begin to devise some teaching strategies, some instructional activities to teach usable information and skills. The theory of writing as process, is showing great promise in classroom practice.

As educators and the professionals responsible for teaching young people to write, it is evident that writing skill is critically important to school success for young people, and deemed by society as well to be of central importance. Technology in the classroom is the most current tool that educators possess when probing for the key to writing proficiency. How this technology will be used is less clear. The role of computers, in a classroom, is an important issue for educators for the turn of the 21st century, and must be addressed for the future success of all learning individuals.

The computer, of course, is the major technology tool for writers. What should be emphasized, however, is that it also teaches people about the composing process. Today words are no longer carved in stone, but rather written in light, sometimes

flashing, disappearing, reappearing, sliding, or ripping expressions. With these new experiences come new powers. Marcus (1990) realizes by using computers students are more able to concentrate on their ideas instead of their personal handwriting; they find that what they say comes more from their subconscious; and they are, in fact, more interested in seeing what they have to say. In a curious manner, the fact that students can voluntarily modify their composing gives them access to a wider and deeper range of abilities. At the very least Gilbert and Green (1986) feel that computer-assisted writing improves spelling, style, and grammar. Hailo (1990) also points out that computer writing assignments gives students the power to interact with their own texts in new ways, to see them from new perspectives, and to experience how changing a text changes its effects on the final product.

Computers have added new and wonderful dimensions to the phrase educational technology. Software that allows teachers and students to combine text and graphics, to illustrate and animate their work, to process images as well as words- this all encourages the development of writing. Whether in so subtle a choice as type- font or in so complex a decision as choosing how and when to incorporate full essays, the various dimensions of computer-assisted publication expand and enrich the expressive repertoires of both teachers and students. The culmination of this progress is that computers and technologies give students and teachers new powers and incentives. For teachers, there is the expanded lesson that touches multiple intelligences. For the student, there is an increased proficiency in both writing and computer skills. These tools are now regularly seen as a significant means for acquiring language arts skills, and for developing students' abilities to express what they know and how they feel.

In 1983 a survey by Ingersoll, Elliott and Smith, estimated that there were over 200,000 computers in the U.S. elementary and secondary schools; and it predicted a

60-percent annual growth rate for the following years. That would suggest that well over two million computers are now accessible to elementary and secondary students and teachers; and in the light of initiatives launched by Federal agencies and some states to develop computer-assisted instruction, that figure may be conservative. Increased funding allows for districts to purchase the essential hardware to enhance computer-assisted technology, and also progress with the turning of the century.

How will expanding upon current technology increase a pupil's learning capacity? Computer-based writing focuses upon a multitude of components which improve a range of educational tasks. Most of the reports in the ERIC database have found that computer-assisted writing instruction has some effect-if not a dramatic impact-on both the quantity and quality of writing (e.g. Stine, 1987). Most of these evaluations rely on informal teacher observation and product review; but the frequency of cautious endorsement of computer-assisted instruction across many of these reports suggests that differences reported are reliable. Some of the relatively rare experimental studies in the database have reported similar results. Donald Graves and Virginia Stuart (1987), for example, researched a class of creative writing students and found the following: the additional use of computer technology seemed to complement the recursive nature of the writing process. She goes on to record that students began to view writing as a process in an environment which included interactions between teachers and students. The findings of Grave's and Stuart's pilot program indicated that students using computers significantly improved the quality of their writing compared with students not using computers.

In a study conducted by Daiute (1986) it was found that students writing on computers spent more time on task, and less time revising text than those using pens or pencils. The computer writers also, got higher scores on their finished products after getting lower scores on their first written drafts, suggesting that computers may

have led to more effective writing. In her studies examining the writing process of students, Daiute found, for example, that on a posttest students not only corrected more errors when working with computers, but also that they made fewer mistakes than with conventional methods. Ruth Duling (1985) similarly noted, that when the ninth graders she studied revised their handwritten drafts with word processing, fewer errors remained in their final drafts. Earl Woodruff and his colleagues (1986) examined the writing of enriched and average eighth-grade students who composed all drafts at computers. For each group, the students' final drafts were judged significantly more technical proficient than the first draft. According to Woodruff (1986) it would seem that overall educators can expect students to submit papers that have been more carefully edited with the work performed on computers; and therefore, increase writing confidence and ability.

Stephen Marcus (1990) noted, with a shift in emphasis from composing product to the composing process, an array of computer tools have been developed that affect the quantity and quality of time spent in students' efforts at any given stage of writing. In some cases, single use applications help with one dimension or another of the process. In other cases, more complex software integrates an array of applications that address students' various needs. Other kinds of programs, like outliners help students plan and organize their writing. Used as a rewriting aid, such software is also useful for those writers who approach the task in a more "right-brain" way, who find such planning, physically writing, a hindrance in the early stages of the process, but can use structured outlines as a way of getting some perspective on what they've created. In either case-that is, at either end of the composing process-outliners provide students with another tool, another means of understanding and controlling their intentions and results. Thus, creating a high-tech mental approach to the writing process of students.

According to Miller-Souviney and Souviney (1987) computers can motivate students, support the writing process, and also help teachers reinforce good writing habits. Several styles of delivery can be targeted, in a positive manner, when word processing or computer labs are used to enhance writing capabilities. Reports by Hotard (1985) show computer-assisted instruction...produced significant gains in...students in Lafayette Parish, Louisiana-gains which were above the national average. Further research by Dickinson (1986) have reported that computer level gains have been validated by correlating them with the Science Research Associates(SRA) nationally standardized scores; further validation of the domain of acquired skills produced on the computer were performed by demonstrating that students could solve... problems in an independently derived curriculum. Assurance, Inc. of Tucson, Arizona, concludes that time spent on computer-assisted instruction is directly related to increased remedial progress.”

Throughout the nation, the personal computer has found its way into education at all levels, and it seems somewhat ironic that education has come to rely so heavily on these machines to help us achieve what is supposed to be a liberating human experience. The computer provides (1) visual, motor and even auditory support; (2) encourages students to write more by minimizing mechanical drudgery; (3) encourages writers to focus on content rather than form; (4) increases the likelihood of revision; (5) provides learners with letter-quality output, which encourages sharing of writing; (6) promotes social interaction by making writing visible to passers-by; and (7) encourages positive attitudes towards learning. With all the possibilities presented to students, it appears all that is necessary, to improve as writers and learners, is the access to technology.

In one sense, a writing lab is just a room full of computers, be they Apple, Macintosh, or IBM. It's a place where students hunt and peck their way through

essays, reports, articles, letters, etc. On the other hand, most teachers and students are welcoming computers into their instructional arsenal and have even begun using them to replace their outdated weaponry of textbooks, handouts and chalkboards. Computers offer strategic capabilities that can spell-check, analyze sentence structure and variance, determine word redundancy, and a number of other things that are helpful to young writers. The writing lab in its simplest form is a tutoring center where students can get individualized help with their writing. According to Balajthy (1987) author of *Design and Construction of Computer-Assisted Instructional Material*, computer-based instruction provides components of traditional tutorial and drill-and-practice computer assisted instruction without the traditional lecture-recall method of learning. Dickinson (1986) found that when collaborating on a writing project at a computer...children developed language skills while planning and evaluating their project. Heap (1986) reported on a program that teamed a writer with a peer as "writing helper"-a kind of in-process editor-and another classmate as a "technical helper" to advise and discuss solutions to word-processing problems. Piper, Smutek, and Heap each found the computer effective in assisting teamed writing instruction for students learning English as a second language.

Features of word processing which allow a writer to revise quickly, produced hard-copy drafts should, it seems, effectively serve writing instruction; but until students have enough access to computer work-stations to practice and become comfortable with word processing while they are learning to process written language, it is probably too early to judge how effective the computer will become in improving student writing (Tone, Winchester, 1988). It is the responsibility of learning institutions to give students that opportunity. The installation of computer writing labs, in schools, will create an educational environment of complete instruction for the present and future.

In 1995, Boulder Valley, Colorado, instilled a computer writing lab in order to increase the writing proficiencies of their students. The “pilot and prove” program provided results similar to that which Millville Senior High School is investigating with the creation of the after school writing lab. Boulder Valley and the district of Millville parallel each other in a variety of ways. First, they mirror each other with similar financial circumstances; as well as, similar means by which to attain funding. They also have similar computer privileges and software accessibility. In Boulder Valley there was a 50-70% increase in the quantity of student writing. It was also reported that there was evidence of noticeable difference in the quality of student product, and the only thing they are doing different is using computers. The students in Boulder Valley have responded very favorably to using the computers, finding them motivating and easy to use. The computer lab schedules are opened up to teachers for use in all academic areas. Finally, the school intends to continue the program beyond its piloted year, and into the future structure of the school. It is with great hope that Boulder Valley’s sample project is one which will directly reflect the success of Millville’s writing lab program. There are other practices which will be incorporated into Millville’s lab structure, but Boulder’s extended study is the base by which Millville’s project will be centered.

Of all the influences that shape education, the computer writing lab stands out as the one with the greatest potential for revolutionary impact. It is also an area of great public concern, since it is so unexplored. Without a rich base of experience on which to draw, it is very difficult to say just how computers can be most effectively used in increasing writing proficiency. Fortunately, research has been done by the technological pioneers of Millville Senior High School (computer consultants and administrators) in order to properly facilitate an after school writing lab, which is expected to reach a level of achievement and efficiency above existing proficiencies.

Maxwell (1991) describes writing labs as “independent study outlets” for students who wish to pursue advanced levels of...writing. It was also apparent that the computer writing lab’s primary function is to encourage the use of writing, not only in selected areas of study, but in all curriculums. Writing across the curriculum is not a new concept, and it is universally suggested that writing should be a part of the learning methodology in all disciplines because it requires an active thought processing that cannot be equaled.

Quite simply, writing, as endorsed by writing labs, can assist students learn. It can help them unveil the world around them. In general, it can help them become more human even if the writing they do relies crucially upon the support of this apparatus educators refer to as the personal computer. In conclusion Maxwell (1991) states, “if we fail to turn them [students] into thinking, compassionate, expressive human beings, perhaps our students will at least come away from the writing lab more familiar with today’s technology and a little better prepared to handle the complexity of those other less constructive weapons they might one day be called upon to use.” The teachers and other researchers who are now experimenting with computer-assisted instruction are building an important database that will be analyzed for guidance in developing effective methodologies. The computer is a technology that will almost certainly become more and more accessible in the lives of students, including the young writer involved in the studies reported to date. Many of these students will be writing regularly using computers. Whatever the limits of the experience they got using computers, it can become a valuable one.

Chapter 3

The Design of the Study

General Description of Research Design

The research investigation took place during the months of June 1997 through June 1998 at Millville Senior High School in Millville, New Jersey. The researcher met the objectives of her investigation by conducting a review of documents, personal interviews, surveys, classroom observations, establishing a computer writing laboratory and an ongoing review of the literature. The objective of the research identified the direct correlation between the use of computer technology and the increased testing results of High School Proficiency Test 11 writing students of Millville Senior High School and as stated in the review of literature.

A staff development program was provided to the writing instructors. The staff development program was conducted by an out-of-district consultant who specializes in writing programs and writing instruction. The program identified numerous teaching strategies which could be used for process writing instruction in addition to how to incorporate these teaching strategies into their writing programs. The consultant suggested the following steps be taken to improve writing results: student writing folders be collected periodically to reflect a variety of students' writing samples, one-on-one conferencing between student and teacher, and documentation of materials located in students' writing folders, and instructional computer processing for sequential student advancement. The inservice provided the researcher with information regarding the number of writing activities which would be completed during the year as well as specific feedback on the types of instructional methodologies which would be used by the writing instructors.

The writing teachers were also instructed on holistic scoring as an alternative form of assessment to evaluate student writing samples. The teachers learned how to

incorporate holistic scoring into their writing programs and were explained how to teach their students to holistically score their own writing assignments as well as the assignments of their peers. Techniques to motivate students were also included in the staff development program. The staff developer identified numerous techniques that teachers could use to motivate students who were in their writing programs. The staff development program provided the teachers with the opportunities to request instruction on any area of concern or interest they had. Additionally, the staff developer was made accessible to the teachers via the telephone, fax, or mail throughout the entire school year to confer, discuss, or ask questions pertaining to any and all inservice program activities or related areas of interest.

Description of Development and Design of Research Instruments

A review of documents included an analysis of state test scores, enrollment figures for the remedial writing program, and an analysis of a simple random sample of individual student reports from state tests. A teacher and student survey were conducted to determine attitudes toward writing instruction and the types and amount of writing assignments required; as well as, technological availability for writing students. Personal interviews were conducted by scheduling individual appointments with several writing instructors and building administrators to identify attitudes and opinions on effective writing instruction, and various writing programs. All of the research methodologies provided the researcher with a full description of the writing programs at Millville Senior High School.

The various writing programs offered to students at Millville Senior High School exhibited many of the characteristics of successful writing as stated in the review of literature. The investigation revealed the existence of a process-oriented approach to writing instruction emphasizing thinking and problem solving; also revealed were limited opportunities for peer editing/revising, sharing work with an audience and the

use of computers. Additionally, students were assigned journal writing, letter writing, free writing and brainstorming activities as part of the class requirements. Each teacher collected samples of students' work and compiled these in an individual student folder. Student folders are used to compare students' previous writing samples to more recent work as a means of documenting progress in writing skill development and for personal reflection, encouragement, and motivation. There were no progress logs, record of students' assignments in the students' writing folders, or any notation of ongoing computer reference or technological assistance .

The existence of many positive writing techniques and instructional methodologies, as a means to improve the students' writing skill, were a reflection of the recommendations found in the literature. However, the investigation did identify a lack of technology assisted instruction in the writing classes. The students in the writing classes had limited access to computers as a supplement to writing instruction. Classes did not have access to a computer writing lab and the classroom computer availability could not accommodate the entire class for a hands-on group activity due to the limited number of computers available in the classroom.

Based on the investigation findings, gathered through personal interview, surveys, and classroom observations, as well as information found during the review of literature, the researcher had concluded that Millville Senior High School had a well designed and effective writing program instructed by dedicated, resourceful and conscientious teachers. However, the researcher believed that there were improvements and expansions that had to be made which would bring the program more closely in line with the suggestions found in the literature and those stated by the English department chairperson, remedial writing teachers, regular education writing teachers and Core Curriculum Content Standards, which represented characteristics of successful writing programs. Although the passing percentages on the writing

section of the HSPT 11 were at an acceptable point, according to standards set forth by the assistant superintendent for curriculum and instruction, Millville's students still fell slightly below the state average passing percent and below the district factor group passing percentages on the writing section of the HSPT 11.

Description of Sample and Sampling Technique

The researcher planned to use the data gathered during the investigation (see Appendix A) to build the practicum which will be to improve and expand the technological writing program at Millville Senior High School. All interventions focused toward improving the writing skills of students prior to being administered the HSPT 11 in October and/or April of their eleventh grade year. The researcher intended to use a multifaceted approach to accomplish this objective.

The researcher implemented all planned intervention strategies during the identified time frame. The process objectives were scheduled and achieved in an effort to improve the High School Proficiency Test 11 writing scores, and to increase students writing skills by implementing additional instructional strategies and staff development programs. Additional student-centered intervention strategies were also implemented which focused on improving the writing skills of students.

A questionnaire was administered to the three delegated teachers, by the researcher, to determine their needs for additional training in writing and writing instruction. A staff development program was arranged to provide the teachers with requested training sessions as designated on their questionnaires. There were several other interventions organized to assist the teachers in improving and expanding their instructional programs. The researcher organized and established collaborative sessions for the staff by arranging times and meeting locations for the planned bimonthly sessions. These teachers also met once a month with regular English teachers of student they have in common. These meetings were schedule by

the researcher. The peer coaching sessions were scheduled by the researcher with each participant finalizing dates and class period between themselves.

A student survey was conducted by the researcher and teacher to assess students' attitudes and confidence toward writing. The same students were also administered a writing pre-test to evaluate their level of writing proficiency. Each designated teacher conducted the pre-test during student's regularly scheduled class period. The researcher developed a professional library which consisted of a variety of books, reference materials, workbooks, researcher articles, and journal articles. Each month the researcher submitted new materials to the library which focused on writing instruction, research on writing skill development, and several sample writing activities. The researcher also reviewed the use of these materials by checking the materials sign out sheet.

The researcher conducted ongoing classroom observations of the educational instructors and completed monthly analyses of their lesson plan books. Classroom observations were scheduled by the researcher and teacher according to a mutually agreeable time. A random sample of student's individual record of progress located in their respective writing folders was reviewed. All of the intervention strategies have been effectively implemented by the researcher and completed on schedule as planned and stated in the project.

The researcher implemented several intervention strategies to improve and expand the writing program offered to students assigned to all classes. There were other strategies designed to involve students in the writing process and to ultimately improve their writing skills. The after school computer writing lab was the primary focus of the project, with all other intervention strategies used to support the computer lab, but conclusions supporting or opposing the results will not be accessible until June 1998.

The project began to take shape with the administration of a questionnaire to the random sample of teachers in September, 1997. The results of the questionnaire were used to design a series of staff development programs for the purpose of improving and expanding the writing program implemented by teachers. Immediately following the culmination of results, the researcher met with the out-of-district staff developer to review the needs of the district, discuss the outcomes of the questionnaire, and to identify the content of the staff development sessions. Also, during the month of September an advisory council was created. The council was selected on experience, consenting to participate in monthly meetings throughout the 1997-1998 school year, and understanding of the HSPT 11 testing process. Each participant was given a set of evaluation forms and a list of meeting dates by the researcher. The researcher met with teachers to review the yearly projects and time lines. A complete schedule of all activities for the year, along with all forms and evaluations to be completed, were disseminated to the teachers.

In the month of September 1997 the researcher also created a professional library by compiling several types of reference materials relating to writing and writing instruction. A sign out book was created by the researcher for the purpose of monitoring the amount and type of use the library received. In September 1997 the researcher received permission from the author of an educational text to use one of their writing tasks as part of the writing pre and post test program.

All students assigned to an English class were administered a survey on their attitudes and confidence toward writing. The survey was given by the researcher and the teachers of each class on September 9, 1997. Students who were absent on that date completed the survey the next day they attended the class. On September 23, 1997 the first staff development session was held at Millville Senior High School in one of the remedial writing classrooms. The staff developer provided participants with

several handouts and instructed the group using a series of overhead transparencies and hands on learning activities.

The researcher observed each selected teacher during the week of September 29, 1997. Lesson plan books were also reviewed on the last Friday of the month. Student writing folders were developed by the teachers while the researcher provided the record of writing teachers participated in two scheduled collaboration sessions during September 1997. The same teachers also met once with the advisory council and once with regular English teachers.

In the month of October 1997, the researcher once again observed the three teachers instruct one of their classes. The first peer observations were completed in October. The teachers continued with the scheduled monthly collaboration sessions with one another, the advisory council, and with regular English teachers. The researcher submitted new journal articles to the professional library which consisted of books and research articles on writing instruction.

The second staff development session occurred on November 18, 1997. The program was held in one of the remedial writing classrooms at Millville Senior High School. The researcher conducted a review and analysis of a random sample of student's individual writing folders during the month of November. Student's individual record of writing activities and record of progress for quarter one were analyzed by the researcher. The three teachers continued with their monthly collaboration session with one another, with regular English teachers, and the advisory council. The researcher submitted new articles and literature on computer technology and writing instruction to the professional library. Also, the monthly review of lesson plan books was completed in November 1997.

In December 1997 the researcher again observed lessons conducted by the three selected teachers. Each teacher participated in a peer observation session

during this month. Other monthly activities consisted of scheduled collaboration sessions, lesson plan book content analysis, and new submissions to the professional library.

On January 20, 1998 the third staff development sessions was held at Millville Senior High School. Each participant in the program received handouts and worksheets designed to teach writing skills through a multiple intelligences approach. The three studied teachers participated in collaboration sessions with each other and with the regular English teachers. The advisory council met in January to discuss the February 1998 faculty meeting presentation regarding the progress of the project. The researcher provided new material to the professional library which consisted of research on peer coaching. The monthly analysis of each teacher's lesson plan book was completed by the researcher, as well as the second random review of student's individual writing folders and record of progress forms.

The internship project was completed as set forth by the researcher and described previously. The researcher provided staff development sessions, administered questionnaires and surveys, created a professional library, and conducted classroom observations of the three randomly selected teachers. The researcher also established collaborative sessions, peer observations, and an advisory council to assist the assigned teachers in expanding and improving their writing programs. Student's individual writing skill improvement was also the focus of the researcher. Individual student writing folders were created, a record of progress initiated, a survey completed, and a writing pre-test administered to identify and monitor the needs of students. The interim finding of each component of the practicum provided the researcher with information which will be used to assess and evaluate the practicum project.

Description of Data Collection Approach

Each student had an individual writing folder which included a record of student progress (see Appendix D). They were also held responsible for completing five essays per marking period and recording their holistically scored grade on their progress record sheet. At the conclusion of each marking period the students' essays were averaged to determine a quarter writing average. A review of this document, along with other assessments, revealed the degree of improvement attained in student writing skill development. Student daily attendance to the computer writing lab, writing folders, assignment logs, progress reports, pre and post test scores, and HSPT test results were also analyzed by the researcher.

The project involved many sessions of peer collaboration, peer coaching, and articulation sessions with English department members which were documented using evaluation forms (see Appendix I). These sessions provided opportunities for participants to discuss teaching situations or issues they would like to share with their peers. The goal was to improve instruction by providing teachers an opportunity to share their experiences with peers which would hopefully benefit all parties involved, but ultimately the students. A survey was administered to students to determine their attitudes and confidence toward writing (see Appendix B). Additionally, journal entries kept by the writing teachers were made available to the researcher for review and reflection of the year long project.

Description of Data Analysis Plan

The project proposal had two terminal objectives. First, 85% of the students falling below the minimum level of proficiency on the HSPT 11 writing section of the test, at Millville Senior High School, would demonstrate an increase in their writing skills by improving 2 points or more on a writing task to be holistically scored as a result of the computer writing lab intervention during the months of September 1997

through April 1998. Holistic scoring was based on a zero to six point scale, the higher score indicated a more proficient writing ability. The students participated in a pre and post intervention assessment activity (see Appendix C) which required students to write an essay that offered a solution to a problem. The students scores on the writing pre test were compared to their scores on the post test to determine writing skill improvement.

The second terminal objective was that all writing teachers at Millville Senior High School would improve and expand their instructional program by adding new teaching strategies and activities by having participated in the staff development programs as a result of the project intervention during the months of September 1997 through June 1998. The researcher identified the implementation of these teaching strategies during classroom observations, student awareness and presence during the computer writing lab sessions, and when conducting content review and analysis of writing teachers lesson plans. Additionally, lesson plans were compiled and observed during the investigation from September 1997 through June 1998 and compared to identify improved and expanded instructional strategies in the writing program at Millville Senior High School.

To accomplish the objectives set forth by the researcher, there were several process objectives which took place. To meet the objective to improve student's writing skills, the writing teachers established individual student writing folders for all students in their respective classes as indicated by the presence of these folders in each writing classroom. Each students' writing folder contained a record of writing activities (see Appendix E), recorded of student progress, writing samples, and data reflecting other writing activities. Writing students participated in five, holistically scored writing evaluations each quarter and recorded the scores on a progress sheet as indicated by their presence in each students writing folder as a result of the project and

logged all students that attended the computer writing lab (see Appendix L).

Additional process objectives focused on students' participation in all phases of the writing process. All writing students recorded each writing assignment and the outcome on an assignment log as indicated by its presence in students individual writing folders. Students also participated in holistic scoring exercises through involvement in grading their own writing assignments and the assignments of their peers as indicated by lesson plans in each writing teachers plan book. Lastly, writing students participated in peer evaluations and peer conferencing exercises by providing feedback and comments on writing assignments as indicated by documentation on individual student writing assignment log sheets as a result of the project intervention during the months of September 1997 through June 1998.

The process objectives required the writing teachers to participate in several monthly activities. Teachers participated in peer collaboration sessions with colleagues as indicated by documentation of evaluation forms (see Appendix F). The writing teachers observed one another and participated in peer coaching session as indicated by evaluation forms (see Appendix G). Current research materials and related literature on writing instruction as indicated by log book (see Appendix K) entries located in the researcher's office also served as reference for writing teachers as a result of the projects interventions during the researched months.

The project took place from June 1997 to June 1998 at Millville Senior High School, Millville New Jersey. The researcher used several intervention strategies to improve and expand the writing program offered to students and used other intervention strategies to improve the writing skills of students. The development of a computer writing lab provided students with additional instructional accessibility which enhanced writing styles and skills. Staff development training opportunities were provided four times during the 12 month time frame which provided alternative

teaching techniques. Students were more actively involved in all phases of the writing process as they participated in a variety of writing activities, periodic writing assessments, and ongoing review of progress and skill development. A resource center was established to provide the instructors with daily access to research and related literature on writing and writing instruction. A further review of literature and current research was conducted which provided the researcher and writing instructors with current and supplemental data on writing instruction and related fields of study. Classroom observations and review of lesson plan books was conducted by the researcher to identify instructional methodologies used for writing instruction and to determine the implementation of strategies targeted through staff development training. The writing teachers periodically observed lessons of their colleagues and participated in peer coaching sessions. Additionally, the writing teachers collaborated each month with one another and an advisory council designated to provide support to one another. Finally, the researcher had herself evaluated (see Appendix J) as an educational leader and resource person in order to culminate all results.

Chapter 4

Presentation of Research Findings

The internship project took place from June 1997 to June 1998 at Millville Senior High School in Millville, New Jersey. The researcher implemented all improvement strategies delineated by the initial design. A written log was documented stating computer lab use. The three teachers, chosen through a random sample, participated in three of four staff development sessions with the final program scheduled for March 1998. Individual student writing folders were created which contain a writing assignment log, record of student progress, student writing samples, and written comments received from teacher and peer conferencing sessions. At the conclusion of the second marking period all students completed the designated five holistically scored writing tasks for each marking period. The individual student writing folders displayed evidence of accurate record keeping of writing activities assigned and subsequently type and evaluation outcomes. The lesson plan books of each teacher were reviewed and analyzed by the researcher. Each plan book indicated that frequent peer evaluations and conferencing took place.

All scheduled monthly activities were completed during the researched project. All three teachers participated in two peer collaboration sessions per month and one collaboration with the regular English teachers of students they have in common. Additionally, they completed two peer coaching sessions, attended monthly advisory council meetings, submitted lesson plan books, and reviewed several research articles relating to writing and writing instruction. The conclusions of the project will be discussed in this chapter. Let it be noted, the complete findings of the computer writing lab cannot be revealed until the return of the High School Proficiency Test 11 results in June 1998-all other discoveries will be reported.

Research Findings

An analysis of the teachers questionnaire results revealed that all three

teachers had limited training in writing and writing instruction. The responses indicated that the teachers' only means of staying current in writing instruction was through a review of professional publications, Internet website access, and contact with colleagues and local college professors. The teachers requested staff development sessions which focused on motivating at-risk students, integrating technology in writing instruction, editing and revising techniques, and identifying real world activities for teaching writing skills. In addition to the type of information requested, the teachers stated specific expectations from their involvement in the staff development sessions. The teachers stated a desire to see students become better writers, increase scores on the writing section of the High School Proficiency Test, establish more frequent collaboration among teachers from all academic disciplines in the school, acquire information on current trends for increasing students writing skills, and learn instructional methodologies to teach writing using technology.

After the completion of three staff development sessions the researcher documented the outcomes of the training. The sessions were highly interactive between the staff developer and the teachers. Discussions focused on the challenges faced by writing instructors which included how to assess student's understanding of content, how to involve students in the process of remembering content, use of graphic organizers, how to structure lessons to accommodate multiple intelligences, methods for generating ideas for writing, and peer editing activities. The staff developer provided the participants with a variety of instructional methodologies to meet their challenges by covering a multitude of content designed to establish an effective writing program. After each inservice training session the teachers completed an evaluation form and submitted it to the researcher. The evaluations indicated that the three teachers implemented a number of new strategies in their writing program which included peer editing activities, skill development for content comprehension, and a

variety of student centered assignments which actively engaged students in the writing process through brainstorming activities, peer conferencing, working at the board, and reading aloud.

The student survey conducted in September 1997 indicated that most students are confident in their writing skills and the ability to revise, edit, and proofread written text. The survey also revealed that most of the students enjoy writing and evaluating the writing of their peers. It was clearly evident that students preferred receiving feedback on their writing assignments as reflected in Table 7.

Table 7
Student Writing Survey

Questions	Agree	Disagree	N/O
I enjoy writing	42%	36%	22%
I enjoy proofreading my assignments	35%	42%	23%
I enjoy revising my assignments	33%	38%	29%
I enjoy evaluating the skills of my peers	44%	27%	29%
I enjoy receiving feedback on my assignments	54%	17%	29%
I am confident in my ability to complete assignment as specified by my teacher	70%	10%	20%
I am confident in my ability to revise and edit my work when required to do so	64%	16%	20%
I am confident in my ability to proofread for mechanical errors in my assignments	58%	17%	25%
I am confident in my ability to proofread for grammatical errors in my assignments	54%	17%	29%
I am confident in my ability to provide peer editing for my classmates assignments	50%	16%	34%

Pre and post student survey results will be compared after the administration of the post survey. The researcher will conduct the analysis in May of 1998 to determine if any changes have occurred in students attitude and confidence toward writing as a result of the practicum project strategies.

A writing pre-test was also administered to all students within the three assigned classes. The test was given on September 16, 1997 by each teacher to their respective students during their regularly scheduled class. The writing pre-test was graded using a holistic scoring method which ranges from zero to six points with the higher score indicating more proficiency in writing ability. There were 199 students who completed the writing task. The average holistic score was 2.9 as reflected in Table 8.

Table 8
Writing Pre-Test Results

Grade	Total Students	Average Score
Sophomores	123	2.8
Juniors	56	3.4
Seniors	20	2.8
Total	199	2.9

Students who participated in the writing pre-test were given a 45 minute time frame to respond to a situation which required identifying a solution to a problem (see Appendix C). Junior students received the highest average score on the writing pre-test. These students were previously identified as being deficient in writing based on scores from a state-mandated proficiency test. The effort put forth by these students on the writing pre-test may be an indication of their desire to improve their writing skills so they can pass the writing section of the HSPT.

The researcher completed three observations of each teacher during the first half of the practicum project. The classroom observations were conducted to identify instructional methodologies used by each teacher to teach writing and to document the implementation of teaching strategies presented during the staff development training sessions. Staff development suggestions used by the three teachers included the teacher writing with the students during class, peer editing skills, using graphic organizers, acting out dialogue, and providing students with multiple opportunities to revise written work and oral presentations. Other suggestions and strategies provided by the staff developer which the researcher observed the teachers demonstrate included publication of student writing through an HSPT monthly newsletter, creations of advertisements and pamphlets designs, composing and mailing letters to public figures, creating value collages, and developing an HSPT workbook. An analyses of lesson plan books also indicated that several of the training activities had been implemented into a writing program.

The teachers completed 10 collaboration session with each other. These bimonthly meetings took place either before school, after school, or during the teachers conference period. Evaluation forms were submitted to the researcher at the end of each month. The researcher reviewed each evaluation form and noted the comments by each teacher regarding the benefits teachers received from peer collaboration sessions. The primary focus of the sessions, as stated by the teachers, was to increase their personal knowledge of writing skills, identify new instructional methodologies to provide students with more opportunities to develop and improve their writing skills, share challenges in teaching writing, discuss new techniques to teach old lessons, and increase their insight and skill in the use of technology to teach writing. The teachers also commented that they plan to work together using a correspondence format between their classes to teach letter writing and editing. All

three teachers also indicated they plan to use a variety of techniques to disseminate information to their classes such as through verbal instructions, written directions, and visual presentations using computer programs. The teachers stated a conscientious effort to address both visual and auditory senses when presenting lessons.

Monthly collaboration sessions were held between the selected teachers and regular English teachers. These monthly sessions received mixed reviews by the selected staff regarding the benefits received as a result of these meetings. One teacher stated difficulty in arranging mutually convenient meeting dates and times. She identified the lack of a similar planning period and other professional and personal obligations as deterrents to scheduling meetings. The other teachers delineated benefits of their sessions. There was a genuine desire to plan and coordinate writing instruction in an attempt to deliver similar topics and concepts to students at the same time. The teachers stated that students would benefit from more practice and reinforcement on the various writing skills if they were taught simultaneously in each class. The teachers exchanged their respective lesson plan schedule for each month to facilitate this goal. These collaboration sessions also provided opportunities to discuss the use of technology in writing instruction and to share computer skills and knowledge between the teachers.

The researcher conducted an ongoing review of the literature and research on writing and writing instruction during the first half of the practicum. The books and articles obtained by the researcher were submitted to the professional library which is housed in her classroom office. The researcher developed a log to record the specific reference materials used by the teachers (see Appendix K). To date, eight books and 10 journal articles have been borrowed from the library. The researcher added new materials to the library on a monthly basis and discussed the availability of these materials with each teacher.

The researcher established an advisory council which consisted of three in-house writing instructors who met each month with the three teachers. The advisory council function was to provide support and ideas to the staff in the area of writing instruction. The meetings were held immediately following the monthly English department meetings. All participants in the advisory council completed and submitted evaluation forms at the conclusion of each session. The topics discussed at these meetings included teaching concerns regarding writing skill development, aligning lesson plans with the curriculum, exchanging strategies for peer editing, using computers as writing and revising tools, and integrating writing across the curriculum. The advisory council members also discussed strategies to deliver instructional methodologies to the various academic disciplines for developing the writing and speaking for their students.

The designated teachers also participated in two peer observation sessions during the first half of the practicum. The first session took place in October 1997 and the second session was conducted in December 1997. The teachers involved reported that the sessions benefited them by providing an opportunity to share new ideas through actual observation of teaching techniques being put into practice, seeing technology implemented in an actual lesson, exposure to different styles of building rapport with at risk students, and the ability to compare lesson plan delivery where activities are student-centered and the teacher is the facilitator. The second peer observation sessions focused primarily on computer-assisted writing instruction. The teacher participated in a lesson where a television and computer uplink display was used to deliver instruction. All students were provided a visual demonstration using technology which complimented the verbal instructions delivered by the teacher. The teachers stated the benefits of having more than one method of transmitting information and directions to the students. The teachers responded on

their evaluation forms that students demonstrated enthusiasm for this new means of providing a visual presentation and that using a variety of teaching techniques is helpful in addressing the various learning styles of students in each class.

Students assigned to a these researched class were also expected to participate in several intervention strategies developed by the researcher. Individual student writing folders were created. Each student in the program has a writing folder which contains a record of assignments (see Appendix E) and a record of student writing progress (see Appendix D). The researcher conducted a random review of student's individual writing folders to determine the accuracy and completeness of record keeping, amount of writing completed, type of feedback provided, type of assignments required, and overall progress of the students. After two random reviews of student writing folders the researcher concluded that record keeping was documented accurately and completely. The amount of writing activities and type of assignments have varied by instructor as reflected in Table 9.

Table 9

Student Writing Folders: Assignment Review

Teacher	Number of Assignments	Feedback Comments	Styles Grades	Conferencing Teacher	Styles Peer
1	11	6	6	4	3
2	8	7	3	1	5
3	8	7	7	5	4
Average	9	6.6	5.3	3.3	4

Each student assigned to the program completed the required number of holistically scored writing tasks for each quarter. A review of students progress record for one teacher revealed that of of the 31 students enrolled 9 showed an increase in

their average score from quarter one to quarter two. Eleven students had no increase in their average score while 11 students declined from quarter one to quarter two. The second teacher submitted documentation that indicated 47 of 71 students enrolled in her program increased their average writing score from quarter one to quarter two. Eight students showed no improvement and 16 students exhibited a decrease in their average writing score from quarter one to quarter two. The third teacher recorded 42 students improved their average writing scores, 7 stayed the same and 12 decreased their average scores from quarter one to quarter two according to their holistically scored writing tasks.

Research Observations

The writing project objectives to improve the High School Proficiency Test 11 results, and to increase students writing skills by implementing additional instructional strategies and staff development programs were met throughout the duration of the program. At the conclusion of six months of the practicum the researcher has observed and recorded improvements in the writing program and students writing skills as evidenced by several evaluation outcomes. The teachers have returned all evaluation forms to the researcher indicating their use of new instructional methodologies acquired through their involvement in the staff development sessions. Student involvement has increased as evidenced through lesson plans, record keeping results, and completion of numerous writing assignments.

The researcher has identified that each teacher has participated in peer observations, staff development sessions, peer collaborations, and advisory council meetings. Additionally, these teachers have articulated with regular English teachers and used the newly developed professional library. These teachers have also demonstrated several new writing instruction methodologies in their lessons as reflected in their lesson plan books and observed by the researcher. The individual

progress of students' writing skill development was difficult to assess at the mid-point of the practicum because post-survey responses and post-test results were not complete. There is some documented improvement noticed through the comparison of holistically scored assignments from quarter one to quarter two as indicated on individual student record of progress forms.

The researcher plans to conclude the practicum project through the continued implementation of designated strategies and process objectives. Based on the interim findings gathered through surveys, classroom observations of teachers, participation in staff development sessions, analysis of students' writing folders, and a review of all evaluation forms, the researcher has concluded that the writing program and instructors have improved and expanded their instructional concepts. The teachers incorporated several new teaching techniques into their lessons and used suggestions acquired from collaboration session. The researcher also noticed expansion to the writing program based on an analysis of lesson plan books.

Throughout the practicum, the researcher realized that students, staff and administration could increase their educational knowledge on a multitude of levels if given the appropriate tools and guidance. Although the length of the study's time is limited, the ideas can continue to progress, into the future, and throughout the educational environment. All that is required for writing success is dedicated students, staff and administration, if there are willing participants in improving the standards of children why not use every facet to succeed? Is that not what all educators strive to accomplish? The results of the practicum proved the willingness of *some* and the determination of *others*, but question is...how do we link this educational chain to **all**?

Chapter 5

Conclusions, Implications and Further Studies

Project Conclusions and Implications

A review of the results of the project was conducted in March 1998. The purpose was to identify areas, of the after school computer lab program that were successful, could be improved and additional techniques expansion. The project conclusions will assist in aligning Millville's writing programs with the characteristics of successful writing programs, as identified the literature, as well as the Core Curriculum Content Standards as stated by writing experts. A professional library for writing teachers was established to guide them beyond the initial project time frame. The materials are housed in the English office where staff members have access to these resources. An ongoing review of materials and subsequent additions to the library will be made by the researcher throughout upcoming school years.

The researcher found the major conclusions, from the technology project, to center upon the need for an extended writing curriculum, and the implementation of advanced technological services. Although both of these services are available, the number of students who have access to them remains limited. The conclusions of the project, as a whole, provide data which emphasizes the need for growth in writing curriculum and technology awareness within the district of Millville. As a future administrative leader, the researcher realizes that it is her educational responsibility to communicate with others concerning the instructional needs of Millville's students. The researcher has requested, and has been granted permission from the vice principal, to instruct members of the staff on the advantages of using technology to write. Initially the English department will receive training, and then the a turn-key style of leadership will be facilitated to extract the program's concepts to other educational departments. Extending the researcher's leadership responsibilities, beyond one year, benefits students and educators in an attempt to continue success.

Intern's Leadership Conclusions and Implications

The researcher has exhibited numerous dimensions of her leadership characteristics throughout the practicum. The researcher was most successful in the leadership dimension of organization. Intervention strategies, evaluation forms, and time lines were clearly delineated by the researcher, in addition to her providing guidance and assistance to the writing staff when requested or needed.

The individual and group leadership dimensions of the researcher have shown strength and skill as she effectively facilitated the needs of the group and each individual during the pursuit of completing intervention strategies and planned activities. A demonstration of strong initiative has also been a dimension demonstrated by the researcher as she guided the teachers through each step of the practicum. The researcher exhibited flexibility and persistence in acquiring and reviewing all feedback from evaluation forms, attendance in the writing lab, writing folders, student record of writing assignments, lesson plan books, and students' progress reports. As staff members and individual students' needs changed the researcher demonstrated the ability to adapt to these changes and then use creativity in the development of modified plans.

The researcher used effective written and oral communication skills to inform the writing teachers, staff developer, practicum observers, and all other participants in the project of the ongoing developments and outcomes of project interventions. The researcher met formally and informally, on a daily basis, with the writing teachers in an attempt to meet their individual needs and address any areas of concern regarding their instructional program. This daily contact has revealed the researchers leadership dimensions of consideration. Writing teachers' needs and feelings were considered when the researcher made plans or decisions which involved them.

The researcher was highly interactive with the writing staff, advisory council,

staff developer, and students during the practicum. The continuation of planned interventions will further expand and strengthen these leadership dimensions of the researcher and contribute to the development of other leadership attributes. The researcher intends to focus on ongoing improvement and refinement of all leadership dimensions in the areas of organization, problem solving, communication, task orientation, and interpersonal qualities.

Conclusions and Implications For Organizational Change

Collaboration and personal interaction is the key to educational enhancement. The researcher involved the staff in every aspect of the computer lab project. The creation of different councils, allowing individuals to attend inservice workshops, reviewing plan books, monitoring students and so on and so on. All educators had the opportunity to send students to the computer lab, some did-some did not. The researcher was not offended by those individuals who did not participate in the project, rather it allowed her to mentally acknowledge those departments which perceived writing and technology as someone else's responsibility. It is everyone's responsibility. On a more positive note, the researcher interacted with the organization in a dimension based on organization and leadership. There were individuals who assisted beyond the expected level of interaction, and those who made their ideas known in quieter ways-notes, private conversations, sending students to the lab. Overall the researcher found the organization to be positively susceptible to the creation and operation of the after school computer writing lab. It is the intention, of the researcher to continue the writing lab for the 1998-1999 school year.

The process objectives required the writing teachers to participate in several monthly activities. Teachers participated in peer collaboration sessions with colleagues as indicated by documentation of evaluation forms (see Appendix F). The writing teachers observed one another and participated in peer coaching session as

indicated by evaluation forms (see Appendix G). Current research materials and related literature on writing instruction as indicated by log book (see Appendix K) entries located in the researcher's office also served as reference for writing teachers as a result of the projects interventions during the researched months.

Conclusions and Implications For Study In All Areas

A list of monthly activities to be conducted during the practicum include a review of writing teachers' lesson plan books to identify the implementation of teaching strategies presented in the staff development sessions. There will be two monthly sessions of peer collaboration among the writing teachers to discuss areas of interest and concern regarding writing instruction. An evaluation form will be completed and submitted to the researcher following each session. There will also be a monthly collaboration session between the teachers and the regular English teachers to coordinate instruction for students they have in common. Also, there will be monthly advisory council meetings where teachers can discuss any area of concern or topics of interests with more experienced writing teachers. These monthly sessions will be evaluated by each participant on the designated evaluation form provided by the researcher.

Additional monthly practicum activities will include a review of the log book indicating use of the professional writing library (see Appendix K) materials. During the practicum process, the researcher will be conducting an ongoing review of the literature relating to writing, writing research, and writing instruction. New materials will be added to the library as they are acquired.

Conclusions and Implications For Future Study

The researcher further recommended that the writing programs, offered to the students at Millville Senior High School, implement the following changes to meet the educational needs of the students enrolled in these programs. Interviews with writing

teachers and the English department chairperson supported the researchers' recommendation that the writing instructors participate in staff development programs (see Appendix H) which provide training in writing instruction on both paper and computer. The writing program would also benefit from increased communication between the various subject disciplines and the coordination of instruction for those students they have in common as suggested by writing teachers and the English department chairperson.

To accomplish these objectives the researcher create an administrative team which will be in contact with each writing teacher a minimum of one time per month. This time will be used to monitor the teacher's progress and to address any questions, concerns, or challenges faced by the instructors. The researcher will also serve as a liaison between the staff and the the administrative team conducting the consultations. Further studies which benefit writing students will be conducted as the researcher continues to acquire materials for the writing resource center and keep teachers informed of the arrival of new research and literature. The on-going interventions will require the researcher to be visible, highly interactive with the staff, and to observe students and staff in a multitude of settings for many years to come.

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Appendix A
Writing Instructor Questionnaire

Pre-Inservice

Writing Instructor Questionnaire

1. How many years have you been teaching?
2. What is your area of certification?
3. Have you had any specific training in the area of writing and writing instruction? If so, what?
4. What is your level of knowledge regarding writing instruction? Writing instruction for at-risk students?
5. If you were provided an operant to receive training in writing instruction what area(s) of writing and the writing process would be most beneficial to you? Please specify.
6. What type of staff development program and program format do you feel would best meet your instructional needs?
7. How much time do students write each week?
8. How is writing connected to reading in your class?
9. How are your student's writing tasks evaluated?
10. What type of feedback is provided to students on their writing assignments?
11. What resources are available to you that assist you in keeping informed on current research and theories related to the writing process and writing instruction?
12. What degree of involvement do your students have in the writing program? Do they evaluate their own work? Do they evaluate the work of their peers?
13. Do your students receive instruction on how to holistically score writing assignments? If, so, do your assignments use holistic scoring methods to evaluate their own writing and the writing of their peers?
14. Do you practice one-on-one conferencing with your students regarding their writing skills? If so, how frequently does one-on-one conferencing occur in your classroom?

15. How beneficial would additional time for collaboration with other remedial writing instructors be for you? Additional time for articulation with the regular English teachers with whom you share common students? Additional time for peer observations and peer coaching sessions?

16. What do you hope to gain from being involved in staff development training programs designed to improve and expand the remedial writing program offered at Millville Senior High School? Please specify.

Appendix B
Student Survey

Student Survey

Attitudes and Confidence Toward Writing

Directions: Below are statements regarding your attitudes toward writing and regarding your writing skills. For each item indicate the extent of your agreement to strongly disagree, by circling the appropriate response. No opinion indicates this you have no opinion. Please respond to all items.

Strongly Agree 1	No Opinion 2	Disagree 3	Strongly Disagree 4
1. I enjoy writing.	2	3	4
2. I enjoy proofreading my writing assignments.	2	3	4
3. I enjoy revising my writing assignments.	2	3	4
4. I enjoy evaluating the writing skills of my peers.	2	3	4
5. I enjoy receiving feedback on my writing assignments.	2	3	4
6. I am confident in my ability to complete writing assignments as specified.	2	3	4
7. I am confident in my ability to revise and edit my work when required.	2	3	4
8. I am confident in my ability to proofread for mechanical errors in my writing.	2	3	4
9. I am confident in my ability to proofread for grammatical errors in my writing.	2	3	4
10. I am confident in my ability to provide peer editing for my classmates writing.	2	3	4

Appendix C
Writing Pre and Post Test

Writing Pre and Post Test

NAME _____
CLASS PERIOD _____
TEACHER _____

DATE _____
SCORE _____

Here is a writing task that asks you to write an essay that offers a solution to a problem.

Writing Task

Writing Situation

There have been many disruptions at school games this year. Followers of opposing teams have shouted ethnic slurs at members of your high school basketball and football teams. Fistfights have broken out in stadiums and gyms. Local police have had to be called in twice to restore order and safety. The principal has suggested that all sports events to be closed to nonparticipants--in other words, to solve this problem team competitions would be closed to spectators.

The student government leaders and the principal have asked every concerned student for help in solving this problem.

Directions for Writing

Write a letter to your principal offering one or more solutions to the problem of heckling and fighting during team competitions. Begin by describing the problem as you see it, then offering one or more constructive solutions. Make sure that your solutions are logical, practical and do-able.

Appendix D
Student Record of Writing Activities

Appendix E
Student Record of Activities

Appendix F

Writing Teacher Collaboration Session Evaluation Form

Writing Teacher Collaboration Session Evaluation Form

Teacher: _____

Date: _____

1. Describe the main focus of this collaboration session.
2. List any personal and/or professional benefits derived from this session.
3. List any outcomes of this session which you intend to incorporate in future lessons.
4. Please list any additional feedback you would like to share regarding the collaboration.

Appendix G

Peer Coaching Experience Evaluation Form

Peer Coaching Experience Evaluation Form

Teacher: _____

Date: _____

1. Describe the main focus of the peer coaching session.

2. List any personal and/or professional benefits derived from this session.

3. Did you observe any new, interesting, or unique teaching techniques? If so, please explain.

4. What similarities, if any, did you observe in this lesson which reflect your own teaching style?

5. What aspects of this lesson did you discuss with the teacher? Why?

Appendix H
Staff Development Program Evaluation Form

Appendix I
Articulation Session Evaluation Form

Appendix J
Evaluation of Educational Leader

Evaluation of Educational Leader as a Resource Person for Writing
Program Improvement Plan

Teacher: _____

Date: _____

Please describe your experience with the facilitator of the writing program improvement plan. Identify her leadership style, strengths, weaknesses, communication skills, and other qualities which accurately assess her abilities as a change agent for educational improvement.

Appendix K

Writing Resource Center Material Sign Out/In Sheet

Biographical Data

Name: Cherie L. Hill

Birth date & Place: October 3, 1969
Salem, New Jersey

High School: Woodstown High School
Woodstown, New Jersey

Undergraduate Degree: Bachelor of Arts Degree
English
St. Joseph's University,
Philadelphia, Pennsylvania

**Post Graduate
Certification:** Post Baccalaureate Certification
Secondary Education
Rowan College
Glassboro, New Jersey

Graduate Degree: Master of Arts Degree
Educational Administration
Rowan University
Glassboro, New Jersey

Occupation: Educator
Millville Board of Education
Teacher of English