1997

Teaching process writing using computers for intermediate students

Darci Jo Slocum

Follow this and additional works at: http://scholarworks.lib.csusb.edu/etd-project

Part of the Instructional Media Design Commons

Recommended Citation

http://scholarworks.lib.csusb.edu/etd-project/1373

This Project is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.
TEACHING PROCESS WRITING USING COMPUTERS
FOR INTERMEDIATE STUDENTS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education

by
Darci Jo Slocum
September 1997
TEACHING PROCESS WRITING USING COMPUTERS
FOR INTERMEDIATE STUDENTS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

by
Darci Jo Slocum
September 1997

Approved by:
Dr. Mary Jo Skillings, First Reader
Dr. Rowena Santiago, Second Reader

Sept. 5, 1997
Date
ABSTRACT

Statement of the Problem

The purpose of this project was to demonstrate the importance of writing to learning and how computers can help elementary teachers effectively teach writing. Basic writing skills are not being met in the majority of today's schools. The ability to write well is vital in our society. So too is the use of technology. The writer of this project felt that the integration of writing and technology was a goal to strive for to gain a literate America.

Procedure

Background areas that were researched include how children develop writing skills and the importance of writing to learning. Theories and methods were discussed of how writing should be taught in the elementary school with heavy emphasis placed on the writing process. Lastly, strategies in teaching the writing process using computers were explained.

A series of ten lessons were created that developed writing skills while using computers. All lessons emphasized one or more steps of the writing process and were written in an easy to read lesson format. An alphabetical index of lessons was provided as well as a suggested sequence if teaching all lessons. The lessons were meant to be easily adapted and extended. They should be modified as teachers see fit.

Conclusions and Implications

This writer found that using a computer to teach the writing process has endless possibilities. It is hoped that this project can serve as a springboard for future writing lessons to be developed so that our students can have a better chance to succeed in tomorrow's world.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>GENERAL INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>1</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>1</td>
</tr>
<tr>
<td>REVIEW OF THE LITERATURE</td>
<td>3</td>
</tr>
<tr>
<td>Background</td>
<td>3</td>
</tr>
<tr>
<td>How Students Develop Writing Skills</td>
<td>4</td>
</tr>
<tr>
<td>The Importance of Writing to Learning</td>
<td>5</td>
</tr>
<tr>
<td>How Writing Should be Taught in Today's Schools</td>
<td>7</td>
</tr>
<tr>
<td>The Benefits of Technology in Today's Curriculum</td>
<td>11</td>
</tr>
<tr>
<td>Integrating Technology and Writing</td>
<td>14</td>
</tr>
<tr>
<td>The Five-Step Writing Process Using Computers</td>
<td>17</td>
</tr>
<tr>
<td>Prewriting</td>
<td>17</td>
</tr>
<tr>
<td>Drafting</td>
<td>19</td>
</tr>
<tr>
<td>Revising and Proofreading</td>
<td>20</td>
</tr>
<tr>
<td>Publishing</td>
<td>21</td>
</tr>
<tr>
<td>STATEMENT OF GOALS AND OBJECTIVES.</td>
<td>22</td>
</tr>
<tr>
<td>STATEMENT OF LIMITATIONS</td>
<td>23</td>
</tr>
<tr>
<td>APPENDIX A: PROCESS WRITING USING COMPUTERS</td>
<td>24</td>
</tr>
<tr>
<td>Suggested Teaching Order</td>
<td>25</td>
</tr>
<tr>
<td>Index</td>
<td>26</td>
</tr>
<tr>
<td>Lessons</td>
<td>27</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>46</td>
</tr>
</tbody>
</table>
GENERAL INTRODUCTION

Statement of the Problem

The ability to write well will enable students to gain upward mobility in society since a person's language dramatically affects the impression he or she makes on others. Writing is one of the basic skills not being mastered in today's schools. Although recent trends in whole language and the process approach to writing are being emphasized, the fact remains that students are not leaving school with adequate writing skills. Students also need to become "users of technology". More and more jobs of the future will require students to use technology. Without the technological skills and the understanding of the information that is available, many students will not be successful in today's world. By integrating the two disciplines of writing and technology, strides can be made toward both of these goals.

Purpose of the Study

The purpose of this study is to demonstrate the importance of writing to learning and how computers can better help elementary teachers effectively teach writing. How children develop writing skills, how writing should be taught in elementary schools and the benefits of technology in today's curriculum will also be examined. Lastly, strategies for teaching the writing process using computers will be explained.

Significance of the Study

A review of the literature revealed that students develop initial writing skills long before formal writing ever takes place. The importance of reading to develop writing skills and early exposure to literature were proven. Researchers have also shown that writing plays an important role in developing higher order thinking skills. Ways in which writing can be effectively taught to promote higher order thinking skills include: writing
across the curriculum, emphasizing the process approach to writing and having teachers become familiar with strategies that build on the language experiences of their students.

Using technology will help prepare students to evaluate information, set priorities and make decisions. By integrating computer use into the curriculum, learning can become connective. The computer is a tool that can address different learning styles, ethnic backgrounds, and "at risk" students. Using computers and other forms of technology for writing have been shown to improve the quality and attitudes of student's writing.

The aim of this project was to develop writing lessons in which students would learn the process approach to writing while using computers. All of the lessons target upper elementary students. These lessons help teachers teach writing and computer use to their students and are easily adapted to the teacher's own personal use. Rather than selecting specific pieces of software, lessons were created that could be used with a wide variety of word processing or desktop publishing software. Some software titles are suggested, but many are not required to implement these lessons into an existing curriculum. The lessons are described in a step by step lesson plan format and can be easily altered for individual use. Each lesson emphasizes one or more steps in the writing process. The possibility of adding new and challenging lessons in the future makes this an on-going project.
REVIEW OF THE LITERATURE

Background

What is the current state of student's writing abilities? According to The Writing Report Card (Applebee, 1986) only 25% of eleventh grade student write well enough to receive a rating of "adequate" in the type of writing required for educational advancement or business and technical work. A Boston Globe article written in 1987 stated that over one half of all adults in this country are unqualified for today's technical jobs because of a lack of reading and writing skills (Cohen). These statistics demonstrate the importance of teaching students good writing skills.

What will be the cost of illiterate and semi-literate American workers? American businesses now spend 25 billion a year teaching employees basic skills (Linden, 1990). Ford and Motorola both spent 50 million each teaching their employees basic reading and writing skills (Linden, 1990). In 1988, General Motors advertised that it was the largest private education program in the world. To further complicate the problem, the Bureau of Census reports that beginning in the 1990's the nation will experience labor shortages. The pool of 18-24 year olds will shrink from 30 million in 1980 to only 24 million in 1995 according to projection. With 44% of American students not continuing education after high school and job requirements rising, employers will face critical shortages of qualified workers (Cohen, 1987). These facts further demonstrate the importance writing should have in our schools. As Benjamin Franklin stated in Poor Richard's Almanac, "A little neglect may breed mischief . . . for want of a nail, the shoe was lost; for want of a shoe the horse was lost, and for want of a horse, the rider was lost, (1732-1757). This warning today could read "For want of literate American workers, our country was lost." (Linden, 1990).
Tomorrow's successful employees will also have to be problem solvers. They will have to make decisions and negotiate with open-endless, flexibility and resourcefulness (Caine, 1991). It will not be enough to have students store informational facts. They must understand and internalize the content as Caine and Caine recommend (1991). Writing using technology is the perfect medium to meet these requirements since it promotes higher order thinking skills which lead to better problem solving.

**How Students Develop Writing Skills**

Before examining why writing is important, how students learn from writing and how technology can help teachers be better teachers of writing, it is first important for teachers to understand how students learn to write. Although this may seem obvious, there are many different theories as to how children develop writing skills.

Vygotsky, in *The Prehistory of Written Language* (1934), makes a case that non-verbal gestures are developmentally a requisite to the development of written language. Gestures are writing in air, and written signs frequently are simply gestures that have been fixed. Children shuffle between actual gestures and scribbles on paper that supplement this gestural representation. Vygotsky regards the child's first marks on paper developmentally as recorded gestures rather than drawings. These marks go through a series of evolutionary changes until the child realizes one can draw not only things but speech as well. This recognition makes possible the transformation of writing from first-order symbolic acts to second-order symbolic acts (Vygotsky, 1934).

A second realm that links gestures and written language can be seen in children's games. While playing, children often use objects to represent gestures. For example, a child may use a piece of wood for a baby or a stick for a wand. Vygotsky (1934) comes to the conclusion that this symbolic representation in play is essentially a particular form of speech at an earlier stage, one which leads directly to written language.
Pat D'Arcy (1989) describes students as "emergent writers" when learning how to write. "Emergent" refers to the developing grasp of the code of written language. It also refers to the perception of how meaning can be transferred from head to page or to the computer's screen as it takes shape through the movement of pen or tapping of fingers. Long before students can write, they are capable of shaping meaning through talk and to some extent through inner speech. D'Arcy (1989) feels that a child's first marks, no matter how indecipherable, may have meaning to them. They are not scribbling but are actually thinking quite fluently in the verbal modes they already possess. As children understand the code, they begin to transfer what they murmur to themselves to written language so that others can understand their personal script without their help.

Heller (1991) also uses the term "emergent" when describing the stages that a child goes through to develop literacy skills. The traditional idea of "reading readiness" should be replaced with the idea of "emergent literacy" she suggests. In the past, a child entering school has passed through an organized sequence of "readiness" skills before benefiting from formal reading and writing instruction. It has been proven that oral language, reading and writing all begin to develop concurrently and are interrelated long before students enter school (Heller, 1991). Data also shows that 90% of children entering first grade believe they can write (Graves, 1983). A strong case can then be argued for the importance of literature being introduced and readily available at an early age.

The Importance of Writing to Learning

Writing is just one of the four language processes which also include listening, talking, and reading. Janet Emig (1983) in her paper titled "Writing as a Mode of Learning" explains the differences between talking and writing and how writing helps people to learn. To her, writing can be described in three ways: as learned behavior, as an artificial process and as a technological device. Because writing is often a representation
of the world made visible embodying both process and product, writing is more readily a form and source of learning than talking. To Graves (1983), writing is a tool for understanding the process of gathering and reporting information. Students must see, suspend judgment, see again and work at something long enough in order to get under surface meaning. Then they learn what it really means to know.

This thought leads us to the question "What is learning?" The transactive view drawn form both philosophy and psychology (Dewey, 1938; Piaget, 1971) says that learning is the reorganization or confirmation of a cognitive schema in light of an experience.

Emig (1983) describes certain features and strategies that characterize successful learning including the importance of reinforcement and feedback. Writing provides a unique form of feedback as well as reinforcement because information from the process is immediately and visibly available as that portion of the product already written. Successful learning is also connective and selective. Bruner (1971) in his essay "The Psychobiology of Psychology" lists as one of the six axioms regarding language: "We are connective." Writing is slower than the process of talking and this slower pace allows for and encourages the shuffling among past, present and future (Luria & Yudovich, 1971). Therefore, it connects our thought processes.

Writing is also integrative and involves the fullest possible functioning of the brain. It uses both hemispheres although it is inaccurately presented as chiefly a left-hemisphered activity (Rensberger, 1975). The right-hemisphere has been found to contribute in many ways including being the seat of emotions. It also is the source of intuition, sudden gestalts, and flashes of images or abstractions occurring as visual or spatial wholes (Emig, 1983). Luria and Yudovich (1971) imply that learning is self-
rhythm because one writes best as one learns best, at one's own pace. Writing can sponsor learning because it can match its pace.

Researchers have shown that there are increasing claims that writing plays a crucial part in the development of abstract and higher level thinking skills (Bruner, 1971; Emig, 1977; Rowland, 1986; Vygotsky, 1962). Writing can help students apply these skills to understand subject matter. It is seen as a means of representing ideas that students can consider and judge and is therefore a way to analyze thinking and understanding (Rosaen, 1990). These are just a few examples of how writing can help in the learning process.

**How Writing Should Be Taught in Today's Schools**

Caine and Caine (1990) compare today's schools to factories that operate as though the most crucial aspect of education is the informational content that students are being taught. Schools concentrate on memorization and the products are the facts themselves. According to Caine and Caine, this model is inappropriate because the relevant skills and attributes students need for this century and the next tend not to be addressed. A second reason that this model doesn't succeed is because the organization and methods of teaching the content and skills are inadequate because they fail to take advantage of the brain's capacity to learn. The California Department of Education document titled "It's Elementary" (1992) discusses the same problem. The central theme of the document, which makes a total of thirty-two recommendations on how to improve America's elementary schools, is that of a "thinking curriculum." A thinking curriculum does not call for direct instruction and learning of facts but sees that these skills are best acquired in the context of meaningful learning experiences that harness the child's inquisitive nature. Children are intensely interested in exploring questions of values, feelings and meaning, and the relationship of self to others. A curriculum that addresses these issues will engage a child intellectually more than a skills-based one because it takes
advantage of the natural curiosity of the child. This author feels that writing with computers can greatly enhance the chances of a "thinking curriculum" becoming an actuality.

Much has been written about points to consider when developing an effective writing program. Several themes keep reoccurring throughout these writings. Integrating writing across the curriculum (Caine, 1990) and specifically with other language skills such as listening and speaking (Elementary Grade Task Force and the California Department of Education, 1992) have become popular. When students write in other subjects, it helps them to synthesize the content (Rosaen, 1990). It becomes the teacher's job then to create more and better opportunities to write about subject matter, not necessarily increase the amount of time spent writing (Rosaen, 1990).

Another recurring theme is emphasizing the process involved in writing rather than the product (D'Arcy, 1989; Graves, 1983, & Rosaen, 1990). Teachers shouldn't emphasize the correct written form but should help the students to develop an awareness and control over the multiple demands of a writing task so they learn to use writing as a tool rather than merely to produce a written product (Rosaen, 1990). Writing should be viewed as a powerful means of making sense. It is a process which will help students re-collect, to re-create, to reconstruct and represent (D'Arcy, 1989). Emphasizing that writing takes time is important to teach our students. It may take many revisions to create a story from beginning to end or to work on a poem until the author is completely satisfied with the way it sounds. This author thinks that in the rush of trying to fit every subject into the school day, educators force their students to complete assignments. Rather, we should teach our students to generate ideas and explore their thinking so they learn that the minute their works are written down, they are not written in stone (Rosaen, 1990 & D'Arcy, 1989).
In order to teach good writing skills, teachers must become familiar with the strategies that build on the language experiences of their students. By stressing the connection between what is written and the child's real world experiences, writing can be made more meaningful (Elementary Grades Task Force and The California Department of Education, 1992). One of these strategies that is described is realizing the importance that reading and writing play on each other. Children learn to read by reading and to write by writing. They also learn much about reading from writing and can learn to "read like writers". If they have positive experiences in environments where print is valued and reading and writing are modeled, they will become readers and writers who have the desire to read and write.

In order to model appropriate and excellent writing, teachers need to become experts in what they purport to present to others (Graves, 1988). Emig (1977) feels that teachers have no viable source of criteria for teaching writing. Most do not write themselves or read the best authors for examples of excellent writing abilities. In the United States, very few teacher-training institutes have intensive composing courses as a part of the curriculum for teachers of English (Emig, 1977). How then can teachers model good writing behavior? First of all, teachers can effectively demonstrate writing processes by actually composing in front of children on the overhead, blackboard or even a computer screen (Graves, 1983). Students can then see how experienced writers go about putting words down to accomplish some purpose. By talking about the mental processes involved as they go, teachers provide a powerful model of the writing process in action. Teachers should be willing to share their writing with students not as superior examples of work but as evidence that teachers go through the same processes of composition as children. If students see teachers write, they see the middle of the process, the hidden ground from the choice of the topic to the final completion of the work (Graves, 1983).
Writing while the students are writing is also a good way to model writing techniques. Like reading and speaking, writing is a social construction that develops from observation. When students observe their teacher enjoying the process of writing, writing will become more meaningful and exciting to them.

Another strategy in teaching writing that can help students become better writers is peer editing. Not all editing needs to be done by the teacher. Students can sit with a partner as they work and offer suggestions to each other. Some teachers set up a daily editing time usually at the end of the writing period when students are expected to share their work to look for revisions, look up misspelled words in the dictionary, and check punctuation. Editing can also be done in small groups. With training and experience, students can learn to share their work with peer groups and accept constructive criticism without feeling threatened. A large amount of teacher correcting time can be saved by putting the initial effort into teaching students how to critique their own and others works. Emig (1977) feels that the most significant other in the writing of students in the twelfth grade are peers despite the overwhelming domination teachers hold through their governance of all formal evaluation. Emig feels teacher-centered presentation of composition, like most other segments of a curriculum, is pedagogically, developmentally, and politically an anachronism (Emig, 1977). Teacher editing is out-of-place in today's educational system and needs to be enhanced by utilizing our most precious commodity - our students.
The Benefits of Technology in Today's Curriculum

In 1989, over two million computers were in America's schools (Thornburg, 1991). Unfortunately, most were not being used to their greatest potential. Many machines are still being used for supplemental activities, many of which can be conducted just as well using traditional methods. Drill and practice software is widely available in many schools but essentially is a pigeon-training approach. Thornburg (1991) feels that using a computer for such simple tasks is like using a car to get to a next door neighbor's house. Part of the problem is the attitude that many educators have toward the role of technology in today's schools. The great majority of teachers have little interest in classroom computing. This disinterest has many effective teachers thinking that the quality of their instruction can not be improved by exposure to new technologies (Thornburg, 1991). In the following section, the benefits of technology to an instructional "thinking" curriculum will be explored.

According to McGee (1987), a new hierarchy of skills needs to be emphasized to equip students for life in the "Informational Age." The skills students need are: the ability to evaluate information, the ability to set priorities, and the ability to make decisions. Most classroom teachers now have the ability to teach these skills with the use of computers. Affordable and powerful computers and computer-based technology can lift the burden of teachers having to create and maintain inquiry-orientated interactive environments for their students (McGee, 1987). Simulations and multimedia tools provide rich and accessible environments for students to explore.

Using technology can help address the six goals of the National Agenda: America 2000 (Bruner, Buchsbaum & Hill, 1992). One of the goals is to have the high school graduation rate increase to at least 90%. Using computers can help the "at risk" students who may emotionally drop-out by fourth grade when combined with an individualized
program. Technology delivers instruction at a level where students can achieve. The use of computers is a great motivator for "at-risk" children and it encourages students to be problem solvers instead of asking the teacher. Teachers still make it happen, but technology allows it to happen (Bruner, Buchsbaum & Hill, 1992). Another goal of America 2000 is for every adult to be literate and possess the knowledge and skills necessary to complete in a global economy. More and more jobs will require the use of computers, and without these skills and understanding of information, many people will not succeed in the job market.

Another benefit of using technology to foster better learning lies in the area of integration. Knowledge has been divided into distinct "subjects" (Thomburg, 1991). These pieces can be put together by using computers throughout all disciplines. The computer can be an ally in the creation of an integrative approach to learning.

Computers can be used to address all learning styles (Thomburg, 1991). Many of today's classrooms are set up to teach to children as though they were linguistic, logical-mathematical learners. Language arts is the pivotal part in the curriculum so students that are linguistic learners are being accommodated. Similarly, a logical-mathematical thinker is supported by the curriculum in most classrooms through the teaching of math concepts. Children whose dominant learning style falls outside these domains often become frustrated and are lost in the educational system. Thomburg (1991), devotes a whole chapter to using technology to teach all learning styles. He labels the seven intelligences defined by Howard Gardner as: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal and intrapersonal. Different types of software along with specific titles are mentioned for each of the seven intelligences. For example, a spatial learner might enjoy using Logo's "turtle graphics" whereas students with a highly developed intrapersonal intelligence would be highly motivated to create programs or play complex
games. By examining the types of software available and understanding the different learning styles of our students, teachers can better teach to the individual child.

Technology-rich classrooms support a constructivist view of education (Collins, 1991). As opposed to the didactic view that purports students should memorize facts and practice skills until they have mastered them, the constructivist view supported by John Dewey, Leo Vygotsky and Maria Montessori suggests that students construct their own understanding and capabilities in carrying out challenging tasks. Teachers are seen as facilitators who assist students, and the emphasis on the activities of the students rather than those of the teacher. Despite the predominance of the constructivist view in leading schools of education, it has made little headway in penetrating public education (Collins, 1991). Researchers have identified from the literature and observations, at least eight major trends that support a constructivist view in classrooms that have adopted computers (Collins, 1991). First of all, there is usually a shift from whole-class instruction to small-group instruction. Only ten percent of the time the class is teacher-led compared with seventy percent in classes without computers. A shift from lecture and recitation to coaching has been observed. The teacher becomes an observer and guide who ensures that the interactions between the students and computers are beneficial to student learning.

Teachers tend to work with the better students in the class. When computers are used, there is a shift from teachers working with better students to working with the weaker students. Teachers are drawn to the students that need more help since the better students tend to work independently. Other changes in technology-rich classrooms include: a shift towards more engaged students, a shift from assessments based on test performances to assessments based on products, progress and effort, a shift from a competitive to a cooperative social structure in the classroom, and a shift from all students
learning the same thing to different students learning different things. Lastly, students do not just learn to think verbally but integrate verbal and visual thinking.

Computers have begun to bring about a new kind of visual thinking and a number of educators are exploring how to use visual media to enhance learning (Collins, 1991). These trends have been observed in classrooms where computers have been made readily available to all students but many of the advantages can cross over to classrooms where only a few computers are being used.

The computer has become an expressive tool for discovery and true learning (Thornburg, 1991). The only real limitation is the imagination. If a teacher has a sufficient vision, any computer can be used to support educational discovery. Without the mind of an inspired educator, computers could become just desk ornaments (Thornburg, 1991).

Integrating Technology and Writing

There is a large body of formal and informal research on the effectiveness of technology. Usually the research takes the form of an expert comparing student writing using traditional writing techniques and word processing in a computer lab setting. The dominant issues concern the effects of word processing on the quality, quantity, and processes including revising and editing of the students writing. Many studies have also been done on students attitude toward writing while using the computers. A few of the pertinent studies will be examined in the following paragraphs.

One study in the area of word-processing was done by Rosaen (1990). A group of 66 sixth grade students were studied and the overall effect of word processing on the quality and revision patterns of students' writing was examined. Significant differences were found for both mechanical and organizational revisions in favor of the word-
processing group. The word processing students tended to correct more first draft errors along with making fewer new errors than their counterparts.

Another interesting study was done using second and third grade students (Rezabek & Ragan, 1988). The purpose of the study was to discover ways in which word processing influences newly developed writing practices. Because of lack of small motor coordination, young children are often hampered by the difficulties of transferring writing onto paper. Some of the observations that were made in this study were: word processing was easier, students wrote for longer periods of time, the pieces were longer and didn't have serious gaps in meaning, and students accepted the idea of change more readily. In addition, two attitude differences were shown. Many of the students thought word processing was more fun because it didn't hurt their hands, and a poll showed that students preferred using the computer because it gave them more time to think.

After a two year study using students from five elementary schools, Neuman and Cobb-Morocco (1987) came to four conclusions concerning effective writing instruction and the use of computers. First of all, initial keyboarding and word processing skills should be taught separately from writing instruction. Students must become familiar with the keyboard and know the basic commands of the word processing program so their attention isn't drawn away from the writing task. Secondly, students should be taught strategies for generating and organizing their own ideas. By helping with the procedures to get started and encouraging students to take risks, teachers are more effective than if they just tell the students what to write. Thirdly, the students' attention should be focused on composing ideas, not on editing text. When students use their invented spelling, they can maintain a high level of involvement in writing. Lastly students should be helped to manage their writing anxiety and lack of confidence. By providing a positive writing environment, teachers can verify the role of authors to their students.
Lockard, Abrams and Many (1990) doubt some of the findings concerning the significant improvement of students' writing. However, they have shown that word processing does improve children's attitudes about writing. Consequently, students are more apt to perform better if doing something they enjoy.

A problem that many writers face at some point is writer's block. Feldman (1984) observed the virtual elimination of writer's block in her studies even among students previously bothered by their inability to get started. She attributed this to the fact that the students never faced a blank sheet of paper. The screen always had at least some text on it in the menu bars or directions of the program, and that seemed to provide the stimulus that many writers needed.

Mehan, Miller-Souviney, and Riel (1984) hold a contrasting opinion. They believe that the word processor per se is not responsible for the improvement of writing since the blank computer screen can be as intimidating as a blank paper. Word processing systems cannot solve the problem of teaching students to read and write. They do however present a medium that makes a new organization for reading and writing possible. It is the organization and not the computer alone that has the positive effects on the reading and writing process. Mehan, Miller-Souviney and Riel (1984) feel that the computer is most effective when it is integrated into the language arts curriculum and not treated as an isolated act. This social organization is helping students become better writers. The computer should be viewed as a tool to meet educational goals, not as a teaching machine that dispenses knowledge.

The above research findings are not exhaustive. As computers play a bigger role in the education of our students, more and more studies will be done exploring the benefits of technology. Enough has already been shown to prove the successful link between
writing and the computer. Now it is the job of educators to become inspired and begin to use this wonderful technology to its highest potential.

**The Five-Step Writing Process Using Technology**

Much research has been done on teaching the process approach to writing. Usually the writing process is defined as a four or five stage process that writers go through when composing. The steps are interrelated and range from prewriting to publishing. Young writers need to realize that writing requires the writer to shift back and forth through the various stages and that it is a method used by professional writers (Szydelko, 1991). In the following sections, the five-step writing process will be defined along with ideas on how to use technology to better teach each step in the writing process.

**Prewriting**

Prewriting can be defined as any exercise, experience or activity intended to encourage a writer's thoughts before the actual act of writing. It is done for a variety of reasons. Prewriting helps build confidence, reduces anxiety, creates motivation to write and moves the student from the thinking stage to the writing stage.

Computers and other forms of technology can aid teachers in preparing their students for writing. Several software programs are currently available to help writers generate and organize ideas. Outliners allow the user to create headings and arrange them in a hierarchical lists. Items can be rearranged, added removed or expanded by creating subheadings. Visual programs can also be purchased that will create an outline by drawing and connecting symbols or by developing branching tree charts.

If outlining programs are not available at your school site, there are many prewriting ideas that can be taught using any word processor. For example, students can brainstorm a list of words that the teacher or another student can type to be saved on a
file. The list can then be printed or displayed on a monitor for all students to see (Simonson & Thompson, 1990).

Clustering is another form of prewriting. It is a way of listing ideas by grouping them into categories. The computer is well suited for this activity because of its inserting capacity. For example, a student might be asked to generate ideas about winter. A few topics that would encourage clustering would be: Holidays, Weather, Things in Nature and School Activities. The students can list ideas under each topic freely moving from one group to another. There is always room to add more thoughts using a computer.

Another effective way to use the computer at the prewriting stage is to write story starter questions and save them in a story starter file. Using the insert cursor, students can write their answers right after the questions without erasing the text. Valuable questions to ask would be ones that address the major components of the story such as "Who is the hero or heroine?", "Where does the story take place?" and "What happens to the main character?". When finished, students would again save their work under their own names leaving the original questions ready to be answered by the next student. Wetzel (1992) refers to this procedure as scaffolding. Just as a scaffold is a support structure that is needed as a building goes up, so is a prewriting plan. Once the building is complete, the outside structure is no longer needed.

A technique that works well if students have fundamental keyboarding skills is freewriting. Freewriting is writing as you think. Ideas should flow easily and freely without worrying about form, structure, grammar or punctuation (Simonson & Thompson, 1990). By getting these ideas to the surface, writers can create a conducive mood for formulating and communicating their thoughts.

Technologies other than computers can provide prewriting ideas. Watching video tapes that are about a given writing topic may help students visualize what they want to
write. Similarly, viewing a laser disc to get ideas may be helpful. This technology is especially inviting because some discs allow the user to stop and view the desired frame thus giving students time to examine it closely in detail. Another prewriting technique that fosters idea development is listening to a story or poem. Several stories are available on CD-ROM that could excite students with new ideas.

Prewriting is beneficial and pays off in developing students writing. The clearer the picture students have of their topic and how to proceed, the clearer the written product (Wetzel, 1992). It is definitely time well spent.

**Drafting**

The second stage in the writing process is writing a first draft. Following the prewriting activities, the first draft represents a writer's initial attempt to organize his/her thoughts and ideas. The writer should feel free to write without the constraints of worrying about grammatical or spelling errors.

Using a word processor supports the recursive nature of the composing process (Heller, 1991). Word processing allows the flexibility to shape works through deletions, additions, substitutions, and rearrangements of sentences or whole paragraphs. Composing a first draft on the computer rather than writing it on paper is a good way to utilize a word processor. The ease with which writers can choose to print a first draft for their readers and later revise it is one of the major advantages of composing at the computer (Heller, 1991). Another way computers can be used in the first draft stage of the writing process is for collaborative writing. Working cooperatively, students can create their own stories or poems. Research has shown that making the writing process more interactive is beneficial to young writers. When children work together, they encourage each others imagination, point out problems, and suggest improvement (Heller, 1991).
Revising and Proofreading

The revision process involves the rethinking of a piece of writing. Students consider the unity, development, order, clarity, emphasis and word choice in making additions, deletions, substitutions, and rearrangements (Sydelko, 1988). Part of the learning to revise is learning to decide which pieces deserve or are ready for revision. Students also need to understand that it is not just the revisions that help the writing quality but the willingness to make many revisions (Rezabek & Ragan, 1988).

Proofing and editing is the refining stage of the writing process during which the writer prepares a final draft. Some of the questions that are asked when proofreading are:

1. Is the title capitalized correctly?
2. Are the paragraphs indented?
3. Is the topic sentence a complete sentence?
4. Do all the sentences begin with a capital letter?
5. Do all of the sentences end with proper punctuation?
6. Are all of the words spelled correctly?
7. Are all of the sentences clear and complete?
8. Are the ideas in a logical order?

Computer programs can greatly help writers during the revising and proofreading stages of the writing process. Many word processing programs include spell checkers. They are easy to use and provide the students with the quick convenience of checking for misspelled words and typing errors. The majority of teachers are enthusiastic about the possibilities of these programs because most words that are identified are ones that the students would have misspelled anyway. Students are given a specific set of words on which to focus and may still need to look them up in the dictionary first to be sure of the correct word. Using a spell checker usually means students will do more spelling work
when writing a paper than they would without it (Simonson & Thompson, 1990). Several grammar checking programs are also available. These programs examine sentences for grammatical correctness and can greatly improve a writer's paper (Bitter, 1989). A helpful program during the revising stage is a thesaurus. Students are excited about using vivid and interesting words to improve their papers when it is so convenient. Using these programs and a word processor, students are able to edit more easily which often leads to better and more thoughtful writing.

Peer editing using the computer can be a great benefit. One strategy is to have students read each others writing directly from the computer screen and make comments using capital letters (Simonson & Thompson, 1990). Students could also edit each others papers from a printed out copy and discuss possible revisions with the writer. If the writers want to remain anonymous, a number system could be used where the writer and editor use numbers that the teacher assigns rather than names (Polin, 1991). The editing becomes less threatening using this strategy especially for students who are unsure of their writing abilities. As a model for the whole class, teachers could print examples to be edited by everyone. Student would get a good understanding about what to look for and what makes one paper better than the others by having direct contact with their peers' writing.

**Publishing**

There are many examples of outstanding programs to use to create published works. Formatting software, graphics packages and sophisticated printers allow publishers that professional look. In this process, students can explore the effect of variations in such important design features as font type, size, column width, page breaks, page layout, graphic style and the balance between text and graphics (Thornburg, 1991).
Writers of all ages are proud of their finished work when it is attractively displayed. The published works are a record of a writer's past accomplishments (Graves, 1983).

STATEMENT OF GOALS AND OBJECTIVES

The main purpose for doing this project was to create computer activities that help teach the writing process. Teachers will benefit from the project by integrating these plans into existing writing programs or by using the project as a whole.

This project is not a guide on how to teach word processing. Students are assumed to possess basic keyboarding skills before being asked to complete many of the lessons. Skills that should be taught before teaching these lessons include: disk initializing, opening a new file, use of a shift key, delete key and arrow keys, scrolling, cursor movement for insertion and deletion of text, naming a file, saving a file, using the wrap around feature, and opening a previously saved file. Other skills such as font selection and printing options can be taught along with the writing process lessons.

This project consists of ten lessons integrating the use of computers with the writing process. Although several of the lessons encompass all of the writing process steps, most lessons highlight one or two particular steps. Teachers have the opportunity to work with only the areas of the writing process that need enrichment in their classrooms. The lesson plans have clearly defined objectives and give detailed procedural steps on how to effectively teach each lesson. They are mainly targeted toward upper elementary students but can easily be adapted for use with higher or lower grades.

The actual lessons consist of six sections. First of all, the title is given along with the writing process skill or skills emphasized. Next, the objectives of the lesson are defined. Then the materials needed for the lesson are listed. The bulk of the lesson is found in the activity/modeling section where a procedural list of steps are written for each lesson. Lastly, ways in which to evaluate student writing are suggested.
STATEMENT OF LIMITATIONS

Although several of the planned lessons have been adapted from lessons already taught in classrooms, a few have not been tested. Therefore, some of the suggested procedures might have to be adapted to be most effective. Since students within the same grade level also vary tremendously in their abilities, provisions might have to be made by making slight modification to the lessons.
APPENDIX A

PROCESS

WRITING

USING

COMPUTERS
SUGGESTED TEACHING ORDER IF USING COMPLETE PROGRAM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explaining the Writing Process</td>
<td>27-28</td>
</tr>
<tr>
<td>What Can I Write About?</td>
<td>29-30</td>
</tr>
<tr>
<td>Prewriting Imagery</td>
<td>31-32</td>
</tr>
<tr>
<td>Restaurant Review</td>
<td>33-34</td>
</tr>
<tr>
<td>Thumbprint Characters</td>
<td>35-36</td>
</tr>
<tr>
<td>And the Lesson Is . . .</td>
<td>37</td>
</tr>
<tr>
<td>Five- Liners</td>
<td>38-39</td>
</tr>
<tr>
<td>Art Possessions</td>
<td>40-41</td>
</tr>
<tr>
<td>Cooperative Picture Story</td>
<td>42-43</td>
</tr>
<tr>
<td>Cursor Revising Writing Conference</td>
<td>44-45</td>
</tr>
</tbody>
</table>
## INDEX

<table>
<thead>
<tr>
<th><strong>Alphabetical Listing of Lessons</strong></th>
<th><strong>Process Step(s) Emphasized</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>And the Lesson Is . . .</td>
<td>Drafting</td>
</tr>
<tr>
<td>Art Possessions</td>
<td>Drafting</td>
</tr>
<tr>
<td>Cooperative Picture Story</td>
<td>Proofreading and Revising</td>
</tr>
<tr>
<td>Cursor Revising Writing Conference</td>
<td>Revising</td>
</tr>
<tr>
<td>Explaining the Writing Process</td>
<td>All Steps</td>
</tr>
<tr>
<td>Five-Liners</td>
<td>Drafting</td>
</tr>
<tr>
<td>My Summer Vacation</td>
<td>Prewriting and Drafting</td>
</tr>
<tr>
<td>Prewriting Imagery</td>
<td>Prewriting</td>
</tr>
<tr>
<td>Restaurant Review</td>
<td>Prewriting and Drafting</td>
</tr>
<tr>
<td>Thumbprint Characters</td>
<td>Prewriting and Drafting</td>
</tr>
<tr>
<td>What Can I Write About</td>
<td>Prewriting</td>
</tr>
</tbody>
</table>

26
Lessons

TITLE: Explaining the Writing Process

WRITING PROCESS STEP(S) EMPHASIZED: All steps

OBJECTIVES:

1. Students will understand a writer’s first attempt at writing does not have to be perfect by closely observing the teacher modeling the writing process.

2. Students will demonstrate their understanding by writing one sentence about the writing process.

MATERIAL NEEDED:
1. Computer hooked up to an LCD panel or overhead projector

ACTIVITIES/MODELING:

1. Ask students to think about the last time they had to write something. What things did they have to think about as they wrote?

2. Type a list on the monitor or overhead using student responses. Examples on what students should come up with include: spelling, capitals, sentences, how to start, punctuation. Save this list for future use and print out.

3. Discuss with students that authors focus on only one thing at a time. They begin by gathering ideas, and writing them down. Later they go back and focus on the things that need to be made correct.

4. Explain to students that you just received a gift from a friend for your birthday (flowers for example) and need to write a thank you note. Model these writing process steps:

Prewriting: Explain that prewriting is what you do before actually writing in sentences. Make notes about the flowers directly on the computer. Examples could be: they smelled great, they were in a beautiful vase, and they were pink rosebuds

Drafting: Compose a brief thank you note using a word processor incorporating the above ideas. Use several of the students’ suggestions but be sure not to make it perfect. Model your thought processes as you compose.
**Revising:** Explain that in the revising stage, authors reread their work asking questions like does this make sense? How can I make this sentence sound better? Model the revision process possibly by combining two sentences or adding descriptive detail. The revision process can be easily shown to students on the computer.

**Proofreading:** Ask students to help look through the thank you note and find errors in punctuation, spelling, grammar, etc. Explain that this step is called proofreading or editing.

**Publishing:** Tell students that now you are ready to publish and will print out the thank you note.

5. Review the 5 steps in the writing process. Ask students to explain what is done during each step. Discuss how these steps are interrelated and that an author can jump around from one step to another.

6. As a closing activity, have students each write one sentence explaining what they have learned about the writing process.

**EVALUATION:**

1. Read each student's sentence checking for understanding.
TITLE: What Can I Write About?

WRITING PROCESS STEP(S) EMPHASIZED: Prewriting

OBJECTIVES:
1. Students will demonstrate knowledge of topic selection by writing 3-5 topic ideas.
2. Students will write for fifteen minutes about their chosen topic.

MATERIALS NEEDED:
1. Computer with LCD projection unit or large screen monitor
2. Printer

ACTIVITIES/MODELING:
1. Tell students you are going to be writing in the personal narrative form. Discuss the following rules for topic selection.

   A. Topics must be true
   B. You must know a lot about the topic
   C. You must have some feeling about the story
   D. It should be something you are willing to share with others

2. Model the construction of your list. The teacher should type his or her personal story ideas directly on the computer and discuss the topics aloud. Students can then understand the teacher's thinking. After five to seven possible writing topics are on your list, go back and examine them to see if they meet the rules. Delete those that do not meet the guidelines.

   Ideas From My Personal List
   I remember when:
   My cat was hit by a car
   I rode in the homecoming parade
   I got lost at a big grocery store
   I ran into a tree and had to get stitches
   My baby sister was born

3. Using the computer, each student should type three to five topic ideas. After printing the list out, students find a partner and make sure the topics meet the requirements stated
above. Students should take turns asking the rules while their partner checks against each topic idea. The students submit their suggestions to the teacher for evaluation.

4. Students then choose one topic and go to the computer. They type as many ideas as come to mind about that topic. The monitor-off approach could be used at this prewriting stage. Students should be instructed to key their ideas in while having the monitor shut off for five minutes. By doing this, students concentrate more on ideas rather than spelling and grammar. After five minutes, monitors are turned on and students review their lists and select the ideas that they will use to write for approximately ten minutes. Print out the personal narrative when completed.

EVALUATION:

1. Check papers for a list of three to five topics during initial prewriting stage.

2. Observe students while using the monitor-off approach to generate ideas about their chosen topic.

3. Have students read paragraphs out loud. This might spur more writing ideas for future narrative papers.
TITLE: Prewriting Imagery

WRITING PROCESS STEP(S) EMPHASIZED: Prewriting

OBJECTIVES:

1. Students will discover their thoughts on a topic.

2. Students will share their thoughts by composing a paragraph after orally rehearsing their ideas.

MATERIALS NEEDED:

1. Computer lab with 1 computer per student or pencil and pen.

ACTIVITIES/MODELING:

1. Tell students, today you will be able to re-live a story in your imagination.

2. Pair students up for sharing following the imagery activity.

3. Using the list composed in the lesson "What Can I Write About?", have students choose a topic. Lead them through the mental imaging of the story as follows pausing ten seconds after each line.

   Teacher says:
   
   A. Select one topic from your list.
   B. Think about what you saw in the story.
   C. Notice the smells.
   D. Who was there? What did each person say?
   E. What did you hear?
   F. What was the most exciting part of the story?
   G. Play the story through in you head like you are watching a video. (Pause 20-30 seconds).

4. Have students orally rehearse their story by telling it to their partner for two minutes.

5. Students and teacher then should write their own stories composing on the computer. Advise students to not interrupt you while composing.
EVALUATION:

1. Discuss the value of the lesson today with students. Did it help to do the imagery activity and tell the story to a friend before you wrote?

2. Look for participation by observing students telling stories.
TITLE: Restaurant Review

WRITING PROCESS STEP(S) EMPHASIZED: Prewriting and Drafting

OBJECTIVES:

1. Students will understand and demonstrate writing a restaurant review

MATERIALS NEEDED:

1. Computer hooked up to an LCD panel or monitor, or an overhead projector
2. Printer

ACTIVITIES/MODELING:

1. Locate several restaurant reviews and share them with the class.

2. In groups, have students make a list of questions that were answered in their review.

3. Have groups orally share their lists and type them on the computer using an LCD panel or write on the overhead for all to see. Questions that may be developed include:

   A. Were you treated in a friendly matter?
   B. How good was the food?
   C. Would you recommend this restaurant to others?
   D. What type of food was served? Describe it.
   E. What is the atmosphere like?
   F. How long did you wait to be served?
   E. What type of clothing do you wear to this restaurant?

4. Print out the list of questions that the class composes and make copies for each student.

5. If possible, have the whole class visit a nearby restaurant to review it. If not, have students choose a popular burger or pizza restaurant that they have visited and answer the questions.

6. After completing the question, students should arrange them in a logical order and compose a short review using a word processor. Discuss how to change the question and answer format into a paragraph to help students in the writing process.
EVALUATION:

1. Read the reviews looking for each question and answer in paragraph form as well as accurate answers.
TITLE: Thumbprint Characters

WRITING PROCESS STEP(S) EMPHASIZED: Prewriting and Drafting

OBJECTIVES:

1. Students will design a real or imaginary animal from a thumbprint.

2. Students will be able to list ten attributes that describe the created animal.

3. Using several of the descriptions listed, students will be able to write a paragraph describing the animal including a topic sentence and supporting details.

MATERIALS NEEDED:

1. Ink pads
2. Pencil
3. Paper (lined and unlined)
4. Computer with any word processing program
5. Printer

ACTIVITIES/MODELING:

1. Provide ink pads and paper for students. Have them place their thumbprint on the unlined paper.

2. Ask students to create an animal incorporating their thumbprint in some way. The animal can be real or imaginary.

3. When finished, have students list ten characteristics of their animal using a word processor. This list will be used to compose a paragraph.

4. Review or teach students what a topic sentence and supporting details are.

5. Using some of the ten characteristics, have students compose a paragraph about their animal on the computer.

6. Papers could be brought through the five step writing process or left at the drafting stage.

7. Have each student share their thumbprint character and story orally.
EVALUATION:

1. Look for a clear topic sentence and supporting details.

2. Grade for detailed description of the students chosen animal.

3. If chosen, complete the five-step writing process and grade accordingly.
TITLE: And The Lesson Is... or Writing Fables

WRITING PROCESS STEP(S) EMPHASIZED: Prewriting and Drafting.

OBJECTIVES:
1. Students will complete templates to organize thoughts before writing a fable.
2. Cooperatively, students will write a fable using the template as their guide.

MATERIALS NEEDED:
1. Template (see below) displayed on computer screen or overhead
2. Selected fables to read to the class

ACTIVITIES/MODELING
1. Type and save the following template on the computer.
   - A. Create animals that will speak (2 or more).
   - B. Make one animal physically superior.
   - C. Make one animal physically weaker, but with strength of character.
   - D. Describe the challenge that these animals will face.
   - E. Select the attribute that the weaker animal will use to escape or win.
   - F. State the lesson that the fable teaches.

2. Discuss fables and read at least one to the class. Videos may be used as examples.

3. Display the above template on a large monitor or LCD panel hooked up to a computer. A paper copy can be distributed to each student and an overhead projector can be used if a monitor is not available.

4. As a class, complete the template.

5. Break the students into small groups and have them cooperatively write a short fable using the template. This can be done on computer or paper.

6. Each group shares their fable when completed.

7. If the teacher wishes to extend the lesson, each student could write their own fable using the template as a guide.

EVALUATION
1. Evaluate the working of the group during the drafting process.
TITLE: Five-Liners

WRITING STEP(S) EMPHASIZED: Drafting

OBJECTIVES:

1. Students will experience creative thinking by writing lines about a given topic.

2. Students will demonstrate confining of expression by limiting paragraphs to just five lines.

3. Students will practice word processing techniques by typing the five lines using a computer and then printing out the finished product.

MATERIALS NEEDED:

1. Computer with a word processing program
2. Printer

ACTIVITIES/MODELING:

* This activity would work well as an independent writing assignment with one student at the computer at a time. Instruction could be given on writing five-liners. Then when computer time is available, individuals could be assigned the one word title.

1. Supply the class with a one word title. Examples are: Bananas, Patience, Kangaroos, Pencils, Winter, Water, Imagination.

2. Ask students what impressions, pictures, experiences, or feelings come to mind when hearing that word.

3. On the computer, have students try to key five lines - no more - no less.

4. Students save their Five-Liners and print out. This activity will cause some students to really have to dig for five lines and others to confine their expression to only five lines. Repeat this assignment weekly and watch how it becomes easier to write Five-Liners.
EVALUATION:

1. Count the number of lines being sure each student has written only five.

2. Evaluate each sentence for connection to the one word title. Be accepting of sentences that seem a bit far-fetched. You might ask the student what they mean to clarify how it relates to the topic. They might come up with something you hadn't thought of!
TITLE: Art Possessions

WRITING PROCESS STEP(S) EMPHASIZED: Drafting

OBJECTIVES:

1. Students will be exposed to a piece of art and look for fine details.

2. Students will demonstrate their own values by deciding what their favorite possessions include.

3. Students will show their understanding of paragraph form by composing a paragraph with a topic sentence and at least five sentences describing what possessions are important to the students.

4. To synthesize the activity, students will draw a picture of themselves with important objects surrounding them.

MATERIALS NEEDED:

1. Computer with any word processing program
2. Printer
3. Laserdisc player and monitor
4. National Gallery of Art laserdisc or a print of David Hockney's painting titled "Mr. and Mrs. Clark and Percy".
5. Kid Fix drawing program or paper and crayons

ACTIVITIES/MODELING:

1. Using the laserdisc, National Gallery of Art, view the artwork by David Hockney titled "Mr. and Mrs. Clark and Percy". This painting shows the husband sitting casually in a favorite chair holding a cat named Percy. His wife looks directly at the viewer. They are both surrounded by things they consider valuable.

2. Discuss favorite possessions with students.

3. Have students create a list of things they consider valuable.

4. Using a word processing program, have students write a paragraph about their favorite possessions. They must include an adequate topic sentence followed by at least four sentences.
5. After printing out the paragraph, students should draw a picture of themselves with their favorite possessions using a drawing program such as Kid Pix or conventional paper and crayons.

6. Share paragraphs and pictures with the class and display in the room.

EVALUATION:
1. Evaluate the paragraphs looking for an adequate topic sentence followed by at least five sentences.

2. Look for the described objects displayed in the illustration that were described in the paragraph.
TITLE: Cooperative Picture Story

WRITING PROCESS STEP(S) EMPHASIZED: Drafting and Revising

MATERIALS NEEDED:
1. Computer with any word processing program
2. Printer

OBJECTIVES:
1. After viewing a picture, students will cooperatively create a story that flows together well.
2. Students will work together in a group helping each other in the revision process.

ACTIVITIES/MODELING:
1. Cut out several (1 for every 4 students) pictures from magazines. Try to choose pictures that include people.

2. Choose a group leader (Student #1) who has excellent writing and proofreading skills. Divide students into groups of four based on these skills giving each a number.

3. Give student #1 a magazine picture. Tell them to begin a story after getting an idea from the picture. They should key 3-5 sentences directly on the computer.

4. After Student #1 is finished, continue with all members of the group until everyone has written 3-5 lines.

5. Print out the story and distribute a copy to each member.

6. All members of the group read and discuss the story and proofread for grammatical errors.

7. Have student #1 correct the errors and print out the revised version.

8. Display the students' stories along with pictures on a bulletin board.

* This activity can be done using several computers with all groups working simultaneously or using only one computer with one group working at a time.
EVALUATION:

1. Teacher reads each story looking for logical connections between sentences and paragraphs. Evaluate grammatically and give all group members the same grade.

2. Observe the working of the groups during the revision process. A score could also be given based on how well each group worked together.
TITLE: Cursor Revising Writing Conferences

WRITING PROCESS STEP(S) EMPHASIZED: Revising

OBJECTIVES:

1. Students will demonstrate their revising skills by inserting words in their story to aid them in the revision process after teacher questioning.

MATERIALS:

1. Computer with a word processed story written for each student. A computer lab situation would be ideal.

ACTIVITIES/MODELING:

1. This activity is a short writing conference done between the teacher and a student. After initial modeling, students could do these conferences with each other.

2. Have the students read his/her piece aloud directly from the computer screen. This works well for one page stories.

3. The teacher should give positive remarks about the piece and then ask questions to help the author think out loud about the writing.

Examples:  
Tell me in your own words what happened.  
Tell me more about that.  
What did you mean when you said . . . ?  
Is there another way to say this?

4. After the question has been asked, the author thinks of a word or two to help them remember what to change and types it in capital letters at the point of insertion where it should belong.

5. Ask students what revisions they will make and where they will start.

6. Allow students time to revise on the screen while moving on to another student.
EVALUATION:
1. Check writings for improved revisions.
REFERENCES


