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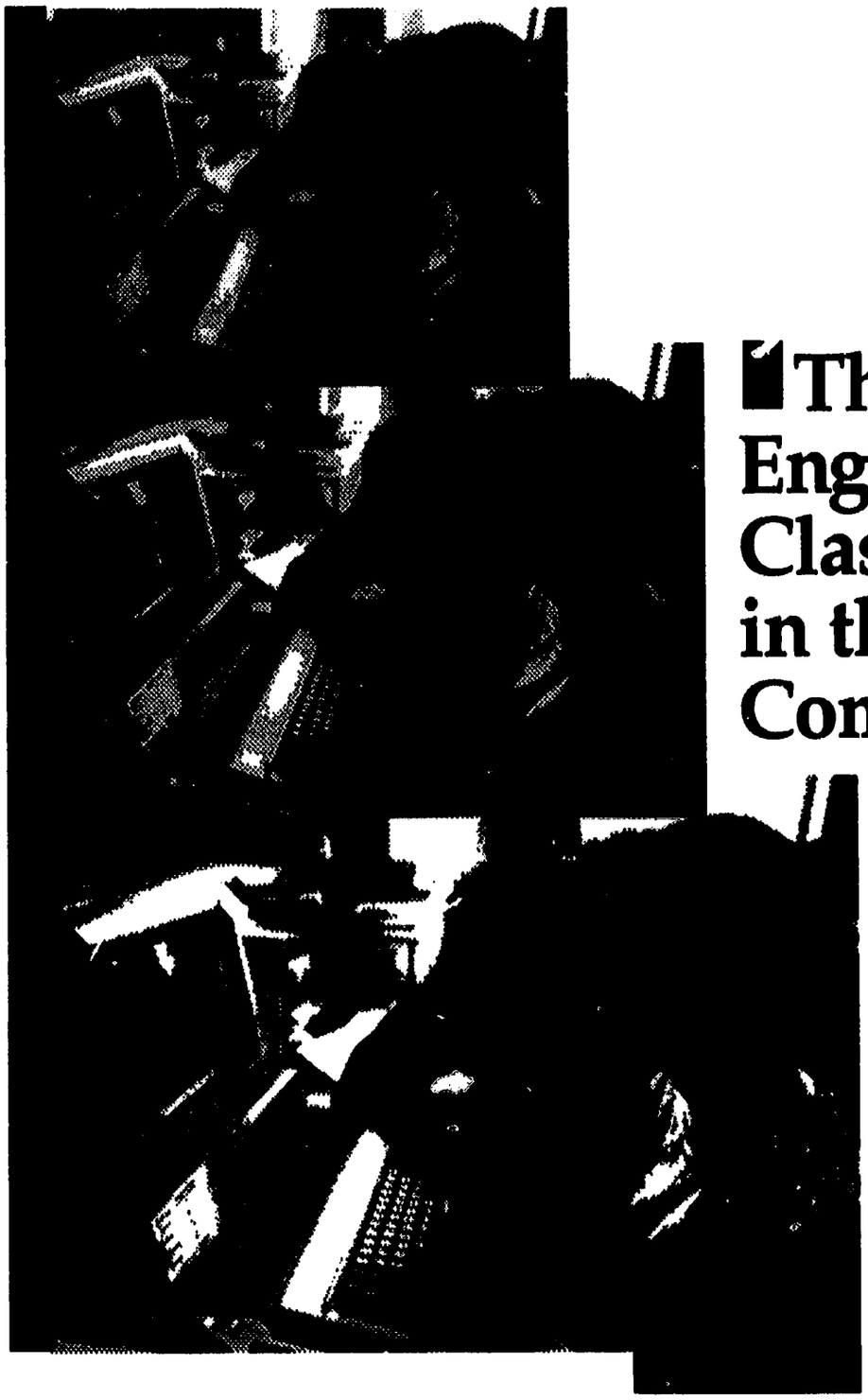
ABSTRACT

Written by middle school, high school, and college writing teachers, the 30 lesson plans collected in this book represent a mix of computer-based units for teaching writing. They cover many types of writing from journalism to literary essays, fiction, and poetry, and many aspects of the writing process, from brainstorming for ideas to prewriting warm-ups, electronic library research, revision, and desktop publishing. Most of the lessons in the book are adaptations of lessons used for years without computers; a small number of lesson plans in the book represent wholly new activities. The lessons in the book follow a set format designed to help readers quickly find out which activities are most appropriate for them, and are divided into categories for students with little, moderate, or substantial computer experience. (A directory of software and a list of contributors are attached.) (RS)



The English Classroom in the Computer Age

Thirty Lesson Plans

Edited by William Wresch

THE ENGLISH CLASSROOM IN THE COMPUTER AGE

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THIRTY LESSON PLANS

Edited by

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Dedicated to Constance Pinski and Gary Longrie—my high school English teachers.

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INTRODUCTION

The Origin of This Collection

The original idea for this book formed as I visited a number of high schools throughout the Midwest and saw significant numbers of English teachers struggling to incorporate computers into their writing assignments. These teachers generally had a sense that this was something they should be doing for their students—that part of the job of preparing their charges for adulthood involved showing them how to use adult writing tools. Teachers were also generally encouraged by the excitement the project generated in their classes. The nearly universal reaction of students to this use of computers in the classroom was that this was a chance to try something new, to break with the routine, to do something their peers and parents would admire.

Despite student encouragement, however, it was clearly no simple act to bring computers into the writing classroom. Often, teachers found their peers either indifferent or hostile to this use of technology. Administrators had long since decided that computers belonged exclusively in business and mathematics curricula and so only begrudgingly allowed limited access to computers to test the possibilities of computer applications in the teaching of English. Students themselves often brought little to the class besides enthusiasm, showing little knowledge of keyboards and even less about word processors. They required much more help in doing even simple tasks than their teachers had predicted, proving that not every person under eighteen is a computer whiz.

All of these factors created (and often continue to create) significant burdens for teachers interested in introducing computers into the writing curriculum. Without peers to provide guidance and lacking administrators willing to offer support, computer-using English teachers struggled mightily in isolation. Oftentimes they simply gave up. After fighting through a unit that was supposed to involve word processing, for example, a teacher might discover that other classes had reserved the computers, that there were not enough printers, that no one could find the word-processing programs, and that students did not even understand the simplest procedures for saving and reloading their papers (despite the fact that they had all supposedly passed a seventh-grade computer-literacy class). Many of these teachers quit using computers and went back to ruled paper and ball-point pens.

Teachers who succeeded in integrating computers into the writing classroom sometimes benefitted from working with administrators with vision. But often these teachers' success came from finding a support group—other teachers in the district or in adjoining districts who also used computers and could provide sound ideas, advice, or encouragement. I continually found pockets of activity based around a nucleus of two or three individuals who had given a workshop after school, talked at a state conference, or just happened to say something about their experiences using computers in the faculty lounge. With the help of these support people, other teachers in the area were able to get off on the right foot, to communicate more easily with administrators, and to enjoy a better sense of direction and more reasonable expectations.

Generally, the help provided was simple and practical and came in the form of "Well, here's what I did in my class last week . . ." We might label such advice "mentoring" or "networking," but it was a kind of sharing that was particularly effective because it was direct, it was authentic, and it came from a peer. And it worked.

As I made my rounds of school districts, I found myself less and less reporting about research studies and more and more passing on descriptions of what I had seen working at other schools. Clearly, these practical reports were exactly what teachers wanted.

About this time I began soliciting written descriptions of lessons that worked. I teach a graduate class for current English teachers, and I encouraged these teachers to turn in successful lesson plans in

lieu of the more traditional research papers. We circulated those lessons widely to a receptive audience of fellow English teachers. I also began talking with people in other states to learn what was working there and to collect their best ideas. Ultimately, there were enough lessons from enough places to warrant publication.

As an introduction to these lessons, I should say a few things about the teachers involved and the lessons selected.

Almost every lesson included in this volume was written by a middle or high school teacher, although there are several written by college professors based on their work with high school teachers or high school students.

These authors are all experienced English teachers. They have all included a brief autobiography to establish their background, and you will quickly note that they are all experts in teaching writing. The lesson plans they have enclosed are based on a firm understanding of what is important in the curriculum and what works in the classroom. As computer users, however, they vary dramatically. Some have used computers comfortably for years and are moving into advanced projects using sophisticated hardware and software. Others are novices, still working to get the most out of simple computers and word-processing programs. This range of computer experience should be useful to readers. The experts show how far computer use can be taken in the classroom, while the novices remind us of the barriers faced by both students and teachers new to the technology. Their struggles, candidly reported, are valuable lessons to those who find themselves in similar situations and to those who work with teachers unfamiliar with computers and the technology they represent.

Whether novice or expert, all of these teachers have been very generous. They will receive no compensation for their lesson plans, and were asked to do additional writing and editing when, as teachers, they already had plenty of work. The larger burden for them, however, is the loss of privacy that these plans entail. These teachers take a significant group—their professional peers—into their classrooms and bare all. They describe their students, their equipment, their techniques, and their objectives to a faceless audience. This is a significant act of bravery, especially noteworthy when they describe their missteps, as most of them do. If NCTE had a candor award, every contributor to this volume would receive it.

Lesson Format

To ease the effort of readers, each of the lessons follows a set format.

The first section describes the students: their grade level, their ability level, their computer experience. If there are any significant features of the group described (e.g., all poor, all boys, many learning English as a second language) these differences will be described here. By detailing the background of the students, we hoped to help readers decide if the lessons were replicable with their own students or if the plans should be modified. Clearly, an activity that pressed the abilities of gifted students would have to be adjusted to fit students with different ability levels or at different grade levels.

The second section describes the teacher writing the lesson. I asked for two major pieces of information here—the teacher's background in English and his or her background in computers. The point of the former is to help readers understand why the author is interested in the particular lesson. The point of the latter is to let readers judge for themselves if they are ready to try the techniques the author describes.

The third section is on objectives, and it tries to state briefly the point of the lesson.

The fourth section is on materials, and it is important because the availability of computer resources varies so much from district to district and school to school. I asked all teachers to describe exactly how many computers they had at their disposal and how sophisticated those computers were. Readers with fewer or older machines should know that they will have to adjust the lesson before they can use it with their students. Lucky readers may find that they actually have better equipment or better access to computers than the authors did. As you will see, authors often worked with significant disadvantages.

The fifth section, the activities section, should be the longest part of each lesson. I asked authors to detail daily activities, clarifying as much as possible each step they took and the resulting student reactions. Although authors vary in their degree of specificity, each one explains how many days are

required for the lesson and what the major activities are each day.

The sixth and final section gives authors' own evaluations of the lessons. They often compare their success to previous noncomputer writing activities, describe changes they intend to make in the future, and list student reactions. A few authors have gone to great lengths to ascertain benefits derived by students from these activities; others are more informal in their summaries.

Lesson Content

The lesson plans included in this volume represent an interesting mix of computer applications. Most are adaptations of lessons used for years without computers, such as desktop-publishing activities where the teacher collected and "published" student work, using ditto paper and his or her free time on the weekends. Now the teacher has students type their own work using a word-processing program, and he or she publishes the students' work by collating and printing computer files using the simplest desktop-publishing techniques. The objectives of the activity remain the same—to involve students in a significant writing experience, with publication serving as a motivator. In the dittoed version of the lesson, students get acceptable output, but the teacher puts in unacceptable hours. In the computer version of the lesson, the students do their own typing, the teacher encourages more revision, and everyone gets a more professional-looking product.

A small number of the lesson plans represent wholly new activities rather than adaptations of old ones. The library lessons are a good example here. Previously, students used printed bibliographic materials and collected note cards. This procedure worked for generations. Now, however, the library has changed. For a variety of reasons, many of them economic, libraries rely increasingly on electronic texts. Almost all college libraries use electronic catalogs. Indexes are published on CD-ROM. Remote databases are available through computer modems. Legal and medical libraries are almost totally electronic. In this world, the old lessons about card catalogs and note cards simply do not apply. Although high school libraries have yet to undergo dramatic changes, teachers who want to prepare their college-bound students have often shifted totally to electronic search-and-storage techniques. The lessons detailed in this volume describe how such techniques can be taught.

That this volume should have a mix of lessons that are computer adaptations of past activities and lessons that are wholly new should be no surprise. This kind of integration pattern has been observed many times. Innovation of any kind often occurs in stages. First, it is used to do familiar things in new ways. The "horseless carriage" is the classic example here; people simply replaced horses with motors. Only later was the innovation applied in new ways. For example, people saw that they owned not just a horseless carriage but an automobile that was capable of doing many new things in addition to substituting for a horse.

In the case of writing we are seeing this classic pattern. People begin by using the computer as a convenient typewriter—one that allows them to present text in attractive ways. Only later do they use the computer's enormous storage capabilities to change how they communicate and retrieve text. Only gradually do people appreciate their ability to use the computer's computational skills interactively to search for spelling or stylistic mistakes in their work. Only gradually do they appreciate that a computer makes no practical distinction between graphics and text, so that it can manipulate and print graphics as easily as words. Only gradually do people begin to link computers together in networks and apply this technology to communication.

In education we have additional reasons to be cautious in moving from adaptations of the old to innovations of the new. Our world is prescribed by detailed curricula that delineate exactly what counts as knowledge and what counts as a skill. These curricula are reinforced by textbooks and standardized tests. No district can stray far from accepted procedures without paying an immediate price. Students who have spent a significant portion of a semester enjoying desktop publishing will be recalled quickly to accepted procedures if standardized test scores fall for the district. Students who have come to expect the services of spell-checking programs will pay a heavy toll if their college entrance exams suffer because they have come to depend on these types of programs. It makes little difference if these students are, in fact, learning something more than other students or if they are learning in a fashion more in keeping with the adult world. Our standardized measures of learning do not include the new or make allowances for technology. As a

consequence, true innovation in teaching will be expensive for some time to come.

For teachers who are interested in experimenting with the innovative features of computer technology, several of the lesson plans in this volume detail advanced projects that might be interesting. Nevertheless, because of the nature of change and the nature of our institutions, most lessons described here are modest adaptations of old and successful practices. I hope that these lessons retain the best of the old while hinting at the power of the new. If nothing else, such lessons point out the convenience of the new while lending some luster to the old.

Lesson Groupings

As an aid to readers, the lessons contained in this volume are arranged in three groups: activities for students with little computer experience, moderate computer experience, and substantial computer experience. The idea was to indicate how much computer involvement a lesson takes and whether the involvement differs from the kinds of computer activities that have become routine in some schools. Do not be put off by those lessons that are grouped under the heading "substantial" computer experience; the teachers who wrote those chapters made a real effort to clarify computer use and to make the activities manageable. Also, please do not equate "low experience" with "low ability." Although these activities might be the easiest from a computer-use perspective, they include activities appropriate to students of all ability levels and interests.

Good luck in your reading. This book should be an interesting vehicle for helping teachers communicate. I believe after you "visit" these classrooms you will have many more ideas about teaching writing and using computers. I also hope you will feel prouder about being a writing teacher. The voices in this volume speak about students and teaching and writing in ways that represent the best in our profession. The concern and respect for students, the love of language, the willingness to explore new methods, the belief in the power of teaching—all are here to be shared, one teacher to another. Enjoy. Pass it on. And, if you find an activity here that works well with your students, you might drop the chapter's author(s) a line—a simple "thanks" can do wonders when the days get long.

I ACTIVITIES FOR STUDENTS WITH LITTLE COMPUTER EXPERIENCE

1 MODELING THE LITERARY PAPER

Mary Schenkenberg, Nerinx Hall High School,
St. Louis, Missouri

Overview

This teacher uses a computer and a projection system to model effective ways to write a paper about literature.

Description of Students

Advanced Placement senior girls.

Description of Teacher

Experienced writing teacher, secondary and college levels; at ease with a computer keyboard and a word-processing program.

Objectives

To model the thinking and writing process that students go through when writing a literary paper and to guide students through the process of an all-class composition.

Materials Used

One Apple IIe computer on a rolling cart and one twenty-five-inch classroom monitor, or, better, an LCD projection screen.

Time Required

One fifty-minute class period.

Activity

Each year I begin the Advanced Placement study of literature with a unit on short fiction. We study twelve to fourteen stories, and students are asked to write a four- to six-page paper on one of the stories. Although my years of attending workshops and reading articles on the process-based theory of writing had made me feel like an expert in teaching students to write personal essays, arguments, and research papers, I was finding these literary papers less than satisfactory. They seemed to lack focus and did not reflect a close reading of the text. I felt that if I could take the students through the process of writing such a paper, they would benefit, so I decided to try modeling the process on a computer while the class participated and observed.

About a week after I had assigned the paper, I told the students we would spend one day composing a sample paper. I rolled my Apple IIe computer and small monitor into the classroom, attaching it to a large black-and-white twenty-five-inch classroom monitor so that all of the students could see a monitor. I sat at the computer, ready to type in anything we composed. The previous two days we had read and discussed Faulkner's "A Rose for Emily," so "A Rose for Emily" became our subject. Students knew we were creating a model with this exercise and that their own paper would be on a different story.

We began by brainstorming. I asked the students to toss out ideas, things we could use to focus our paper. Of course, nothing happened! So I ventured, "Well, we could write a paper about the point of view of the story." Then I typed POINT OF VIEW on the blank screen. After a pause, a student said, "There's a lot of foreshadowing." So I immediately typed FORESHADOWING below POINT OF VIEW. After five minutes, the monitor showed the short but satisfactory list seen in Figure 1.

In the interest of time, I stopped with this list and asked the students to select one of the ideas. The class

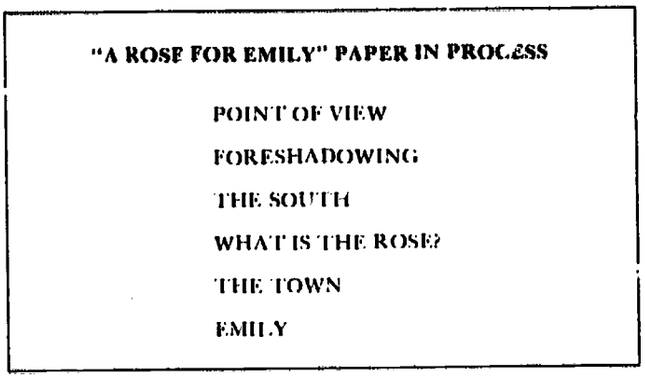

Figure 1.

selected EMILY. We had talked in class about Emily as a symbol of the Old South, so that was the first idea proposed. I immediately typed on the screen

EMILY = OLD SOUTH

Then I asked the students to look through the story and to find any images or words connected with Emily that fit that theme. I typed as they spoke, and at the end of ten minutes the monitor looked like the list in Figure 2.

I did not worry about form, only adding some sense of organization as it occurred to me while I typed. I felt it was important for the students to see the ideas and phrases displayed as randomly as they were conceived. The students picked up the "anything goes" attitude, and the rate of comments accelerated as students looked more closely at the text. To my delight, I could feel students making contact with the story and beginning to use it to work out their ideas.

Our next task was to expand the list of images into ideas that centered around the comparison between Emily and the Old South. This list, generated very quickly, also filled the monitor and can be seen in Figure 3. Notice that I did not worry about exact phrasing, spelling, or capitalization. Rather, as I explained to the students, we concentrated on keeping the ideas flowing and saved our technical concerns for a later editing session.

At this point, I felt we were ready to try to formulate a thesis statement, so I stopped brainstorming and asked the class to generate one. The first one we came up with was the following:

> IN "A ROSE FOR EMILY" FAULKNER RECORDS THE FALL OF THE OLD SOUTH THROUGH HIS STUDY OF MISS EMILY.

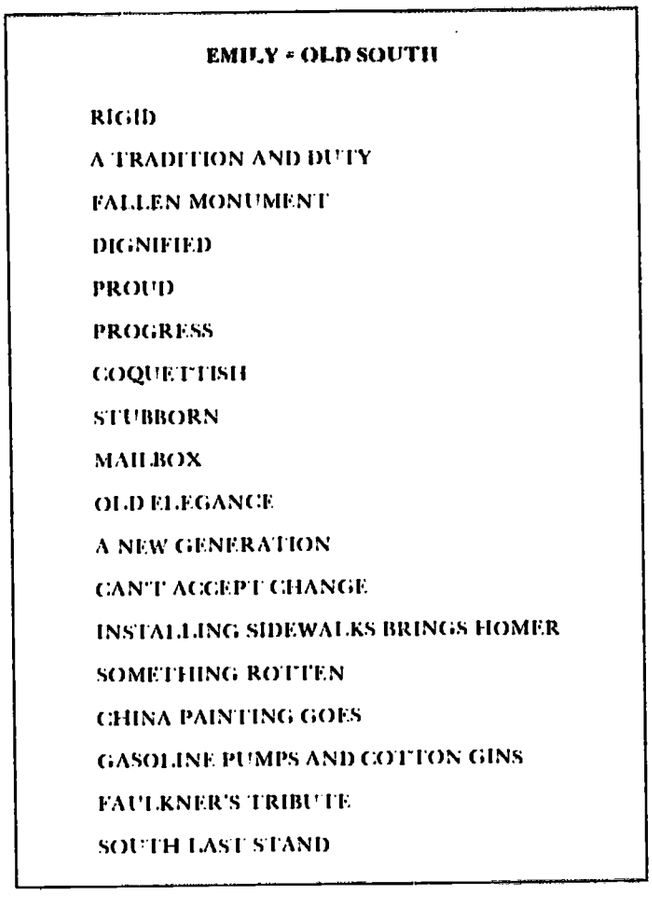

Figure 2.

As we tried to work with this idea, we hit a blank wall. Idea generation stopped. But this too proved to be a learning experience. When I realized that the focus was wrong, I typed this below the first thesis:

> IN "A ROSE FOR EMILY" BY WILLIAM FAULKNER, MISS EMILY REPRESENTS THE FALL OF THE OLD SOUTH

The students saw immediately how much easier the second statement was to work with. We began listing ways that Emily represents the Old South and, after ten minutes, the screen looked like Figure 4.

Time was running short, so the last thing we tried to do before the class was finished was identify some main headings for a paper with the above thesis statement. Our last entries are in Figure 5. We had not yet fully articulated the third idea in Figure 5, but we at least had the key words of an idea.

At this point, the possibilities are many. Because I did not have any more class time to devote to this activity, I took a printout of our classroom work home that night and wrote a sample essay myself

IDEAS.

1. DON'T BLINDLY FOLLOW TRADITION.
2. RESPECT THE OLD BUT MOVE ON.
3. FAULKNER DIDN'T DISLIKE THE SOUTH, BUT HE THOUGHT YOU SHOULD GO WITH PROGRESS.
4. PROGRESS TAKES TIME.
5. PROGRESS MEANS LETTING GO.
6. TOWNSPEOPLE WANT PROGRESS BUT STILL LOOK ON EMILY AS A TRADITION.
7. POINT OF VIEW ADDED TO SUSPENSE.

Figure 3.

1. SHE IS DYING (with dignity) (went down in defeat)
2. SHE GOES DOWN WITH DIGNITY
3. SHE WAS STUBBORN, RIGID
4. A LADY ON THE OUTSIDE BUT ROTTEN INSIDE (Pride)
5. KILLED YANKEE
6. WENT DOWN IN DEFEAT
7. PRIDE IT' SOMETHING ROTTEN
8. THE TOWNSPEOPLE RESPECTED HER.

Figure 4.

based on our brainstorming. I shared it with the students the next day, giving each one a copy to keep. The students seemed genuinely interested in this essay, a paper they had had a part in. As we examined my essay, I was able to stress the differences between brainstorming the initial ideas and writing the final essay.

Had I had more time, I would have either continued the all-class composition the next day, ending up with a finished composition in class, or I would have given each student a printout of our classroom session and asked each of them to write an essay from the information. It seems to me either activity would be a valuable experience.

Evaluation

I was delighted with this activity and will repeat it the first time I assign any literary paper. Students seemed much more ready to begin working through the story of their choice after our computer session. I feel that composing together is a learning experience that is extremely valuable and difficult to achieve. For teachers and students composing together, the computer is a perfect tool. Because I keep busy typing, students do most of the thinking and composing. I become their facilitator. And students can immediately be given copies of the classroom product for further work on their own.

My students did value this activity. As one student said when we finished, "So that's how writers think!" And the next time students complain that they can't think of anything to write about, I will hand them our class printout of a paper being born.

Additional Comments

For a typical classroom of twenty-five students, it is best to have two large monitors, one on each side of the classroom. One large monitor will do if five students are seated so that they can view the computer's monitor, while the rest view the large monitor. You might also choose to use a projection device or, as an alternative, one of the flat data display units that are used with overhead projectors.

The teacher needs to be confident of his or her keyboard skills. With this exercise you have to enter what you hear. You must be able to enter data quickly without worrying about form or accuracy.

I have tried this activity as well with first-year composition classes. Because the papers being composed are so much more basic, it is possible to actually get a rough draft (for example, a two-character comparison) finished in one class period. The students then have the opportunity to see and participate in the writing of a complete paper.

MAIN HEADINGS

1. MISS EMILY DEFINITELY IS DYING BYT GOES DOWN WITH DIGNITY (FIERCE COVERUP OF INABILITY TO COPE)
2. TOWNSPEOPLE RESPECTED HER, BUT WERE FRIGHTENED OF HER, WERE OBSESSED WITH HER.
3. RIGIDITY AND STUBBORNNESS??

Figure 5.

2 RESPONDING TO *RUMBLE FISH*

Stuart Rivard, Gillett Public Schools,
Gillett, Wisconsin

Overview

This teacher gives a detailed description of how he took computer novices through a series of activities leading up to the writing of character sketches based on the novel *Rumble Fish*. Much of the initial lesson time was spent in teaching his students computer basics.

Description of Students

The students in our district are from lower- to lower-middle-class families whose incomes are derived mainly from factory work, truck driving, and agriculture. Until recently, our district had only a few computers, and access to these computers by students or teachers was limited. Even though the district has been able, mainly through grant monies, to obtain more computers, many of our students still lack basic computer knowledge and skills. The students I selected for instruction were eighth graders who rank in the upper 25 percent of their class. Their prior computer experience was, for the most part, limited to playing computer games and to using commercially produced programs in math and grammar. None of these students had ever worked with a word-processing program on the computer.

Description of Teacher

I have had thirteen years teaching experience, twelve as a literature teacher in middle school (seventh and eighth grades). I am also the gifted-and-talented coordinator and a reading specialist.

Objective

My objective in this project was to teach eighth-grade students to use a word-processing program and incorporate its use into a literature unit based on the S. E. Hinton novel *Rumble Fish*. Normally, when students read a novel for my literature class they are expected to read an average of twenty to twenty-five pages a day. Additionally, they respond (using pen and paper) to a number of interpretation and extension questions based on the reading. Now, students were going to do their writing on the computer by using a word-processing program. I hoped to see an increase in the amount of writing they would produce and also an improvement in the quality of that writing.

Materials Used

Due to scheduling problems and the lack of available computers, most of the work I did with the students was done during my prep periods, when the students had study halls, and after school. The computers used were Apple IIe and Apple-compatible Laser computers, which were connected to printers. The word-processing program I used with the students was Bank Street Writer, version 1.

Time Required

I allowed about three weeks time for the entire unit of instruction. The first week was devoted to introducing the students to the computer and training them in its use. The remaining time was spent in reading the novel, *Rumble Fish*, and using the

computer to complete assigned tasks relating to the novel.

Activities

The first day, I introduced the students to the computer and gave a brief explanation of how it works. Using the chalkboard and the computer, I went over some of the relevant terminology. I tried both to teach my students about this tool and to relieve some of the anxiety they seemed to have concerning computer use. Next we logged onto the machines and booted up the program, Bank Street Writer. I demonstrated some of the basic elements of the program, including cursor movement, text wrap, and how to delete errors. Then it was the students' turn to begin using the program.

My purpose was simply to have the students type in some text. I had them write a short note to their parents explaining that they were beginning to learn how to use a word-processing program. This activity not only got the students to write on the computer but also served as a way to keep parents informed about what is happening in school. When the students had finished their notes, I taught them how to prepare the computer to print their notes. At this point, I encountered my first problem. Even though Bank Street Writer has an excellent print feature, it was scary for the kids when the program started to ask questions (e.g., about margins and spacing) that they were not ready to answer. I got them through it though, and we were able to print out their notes, which the students took with them. At this point, I gave the students a copy of the novel we would be reading and instructed them to preview *Rumble Fish* and to formulate questions they wanted the novel to answer.

When the students came in the next day, I had formatted a blank disk for each of them. My objective for the day was to teach the students how to save text on their disks and then how to retrieve and print that text. I also planned to introduce the students to methods of inserting and deleting text. To accomplish this, I had the students enter into the computer the questions they had been assigned to formulate the day before. When this had been completed, I showed the students how to save the text. This process proved to be an easy step to teach, and the students were able to save their questions on their disks with few problems.

To show the students how to insert and delete text, I had prepared a disk on which I entered a relatively short paragraph from the novel. In entering this paragraph, I had left out words and phrases and had added words and phrases that did not belong in the paragraph. The students, who had the correct paragraph in front of them, were to make note of where the additions and deletions occurred in the paragraph. First I showed the students how to use the erase feature of Bank Street Writer, and the students then used this feature to delete the text that did not belong in the paragraph. Upon completing this exercise, we moved on to learning how to insert the text that had been left out of the paragraph. The major problem the students encountered here was the correct placement of the cursor, but it was easily overcome. When the paragraph was corrected, the students printed it. This allowed them to review the skill they had been taught the day before (printing) and to reinforce it.

With these lessons completed, I taught the students how to retrieve text from a disk. Earlier in the lesson, the students had entered and saved prereading questions on their disks. The students now put their disks into the computers, and I showed them how to retrieve the files they had created to store their prereading questions. I then had them print a copy of their questions—allowing them to practice again printing a file. This entire lesson did not take as long to teach as I had anticipated, and it went very well.

The third day's lesson was designed to allow the students time to review and practice the skills they had learned. To accomplish this, I used a combination of three activities ("Paragraphing Practice," "Sentence Practice," and "Sentence Combining"), presented in the textbook *Practical Guide to Computer Uses in the English/Language Arts Classroom* by William Wresch.* I entered text on a disk without paragraphing or sentence punctuation. The students were then asked to paragraph and punctuate the text so that the end product was a clear and flowing piece of writing that the students then saved and printed out.

At this point in the lesson, I introduced the search-and-replace function and the movement of blocks of text. I knew that there were words in the text that could be replaced with synonyms, and I had the students find those words using the FIND command. They were then asked to replace those words

*Englewood Cliffs, N.J.: Prentice-Hall, 1987.

with synonyms. Using the MOVE and UNMOVE commands, I had the students move text around to see if, in fact, it could be rearranged and still make sense. The students seemed to enjoy this activity, and they seemed to be impressed with this thing called word processing and their new computer skills.

The instructional emphasis on days four and five shifted from teaching the students how to use the computer to having the students do some writing of their own. To accomplish this I used the "Imaginative Writing Sandwich Story" activity from Wresch's book. I filed the first and last sentences of a story on a disk and asked the students to complete the story by providing the text that came between the two sentences supplied. In completing the activity the students were using all of the skills they had learned—retrieving files, editing on screen, saving text, printing files. I had seen the "Imaginative Writing Sandwich Story" activity done before with pen and paper, but this was my first experience with it. As the students worked on their stories, I served more as an advisor and facilitator than as a teacher. The students did have questions about performing various actions on the computer but, for the most part, I was impressed with their skills. The results of the activity were remarkable. The students' stories were creative and well written, and the final copies were attractive. My students enjoyed writing these stories, and writing them on the computer made the activity even more enjoyable. In the future, I will allow more time for this activity so the students can do more revision work on their stories.

During the next two weeks, the students read *Rumble Fish* and completed the other assigned activities associated with this novel. They were asked to read about twenty to twenty-five pages per day in the novel. They were also expected to respond to a number of interpretation and extension questions based on the reading. The students who were not involved with the computer project received a study guide sheet containing the questions they were to answer. Those students then used pen and paper to respond to these questions. The students working on the computer project had the same questions on a disk, and they used the computer to respond to them. When they had finished, the computer students printed out their answers and handed them in. They also answered the prereading questions they had saved on their disks earlier.

I realize that this method of teaching a novel like *Rumble Fish* is by no means new, creative, or inventive, but some striking differences were evident between the pen-and-paper students and the computer students. First of all, the computer students wrote more than the pen-and-paper students when responding to the questions, and what they wrote was better written. Second, the computer students' work was much easier and faster for me to read.

As a follow-up to the reading of the novel, the students were to take the two main characters, Rusty-James and Steve, and project them fifteen years into the future. We discussed a few possibilities in class, and then the students went to work. The computer students were to do everything from prewriting to the final copy on the computer. I worked with them as they progressed through the writing stages and helped them with their revision work. I did the same things for the pen-and-paper students. It was with this assignment, however, that the beauty and usefulness of the computer became clear. To say it was easier to work with the computer students than with the pen-and-paper students would be the understatement of understatements. I helped the computer students make revisions while I suggested revisions to the pen-and-paper students. And that, I think, is the basic difference this lesson revealed: making revisions *with* students rather than suggesting revisions *to* students. The final products of all of the students were impressive and well done, but the computer students' writing was noticeably better in sentence structure and spelling. The improved appearance of the students' papers was an additional benefit.

Evaluation and Conclusions

Overall, I would rate the results of my project and the work completed by the computer students as a success. I hope the students learned new skills that they will be able to use for their future benefit. The students enjoyed working on the computer and found that it is not a difficult skill to learn. By no means did the students become experts at using computers, but they were able to complete simple assigned tasks with a degree of proficiency. I am sure their age had a good deal to do with the speed with which they picked up the skills. Using this project in the classroom showed me that the computer *does* have a place in the language arts curriculum, and that it is a fantastic device on which to have students write.

3 INVISIBLE WRITING WITH A COMPUTER: NEW SOURCES AND RESOURCES

Stephen Marcus, South Coast Writing Project,
University of California-Santa Barbara

Overview

Invisible writing is a popular prewriting technique that takes advantage of the computer to temporarily "hide" text while students brainstorm. In this chapter, the inventor of this technique describes a number of applications.

Description of Students

This technique has been used with students in elementary grades through university classes, all levels and abilities, all degrees of computer experience. It has also been used by teachers from a variety of content areas.

Description of Teacher

Stephen Marcus has been involved for over twenty-one years in teaching English and English education. He has spent about half that time developing computer-based curriculum materials for English and language arts teachers at all levels of instruction. He is currently Associate Director of a National Writing Project affiliate at the University of California-Santa Barbara, working with K-university teachers.

Objectives

With Regard to Students and the Technology

- Emphasize special features of the technology.
- Develop in students a sense of control over the technology.
- Provide a general-purpose technique that can be used with any computer.

With Regard to Students and the Composing Process

- Build fluency by freeing students from the common desire to interrupt their prewriting to "tinker" with their words.
- Help students focus on the content of their writing instead of its surface features.
- Provide a general-purpose technique that can help in the revision stage of the composing process.

Invisible writing with a computer can be discussed in terms of the "process approach" to writing instruction. It is a good example of how technology can change the quality (and often the quantity) of time spent at any given stage of the composing process. The technique assumes that there is value in concentrating on different dimensions of composing at different times and that not only focus but also fluency can be improved by eliminating distracting factors.

Materials Used

The advantage of this particular approach is that it can be done with any computer and any word-processing program. There is less wear and tear on the monitor if students do not actually turn the monitor's power switch on and off, but there are cases where the brightness knob is too awkward to reach. Additionally, sometimes the contrast knob has to be turned down as well in order for the screen to go "blank."

Time Required

A good introduction to this technique can be accomplished in twenty minutes. Some of the as-

signments given below can obviously take longer. It is important, however, to reinforce the habit of trying invisible writing, for example, when a student becomes blocked while typing at the computer.

Activities

In its simplest form, invisible writing with a computer is done by turning the brightness knob on the computer screen down, so that the writer cannot see the text as it evolves. Students do invisible writing for a short period of time, anywhere from one to five minutes, and then brighten their screens in order to see what they have written. Invisible writing with a computer is most often combined with "freewriting," a technique that helps build fluency by giving students permission to put on temporary hold their concerns about spelling, grammar, punctuation, complete sentences, etc.

There are several variations on invisible writing with a computer. The first one serves as an introduction to the method. Give the students the instructions shown in Figure 1.

Encourage class discussion at the end of this sequence. Make sure that people who did not particularly like invisible writing get the opportunity to explain why. See if people changed their minds over the course of the activities. Point out that invisible writing is not for everyone, that it does not have to be done all the time or for long periods of time, and that this activity takes some getting used to. People sometimes change their minds about invisible writing after they have practiced it. You can also suggest other topics that can be used, such as, Why do people like to work/play? Why do people like to sleep/wake up? Why do people like to read history/write history?

After this introduction you can try the next two easy assignments in order to get students accustomed to the technique.

Invisible Writing with a Partner

If the monitors can be moved while still connected to their respective computers, put Student A's monitor on top of Student B's computer, and vice versa. As Student A begins typing, the text will appear in front of Student B. If Student A loses the train of thought, he or she can type "???"—whereupon Student B types something like "You were writing about . . ." and paraphrases what is on the screen. If Student A runs out of ideas, he or she can type "XXX." Seeing this, Student B can suggest a new angle or topic by typing, "What about . . .?" When the students print their respective files, Student A can use this record of their collaboration for further study and discussion and for use in Student A's next draft.

This general technique has also been used to introduce students to telecommunication, simulating the kinds of electronic conversations that can develop between writers separated by long distances.

A Revision Strategy

This activity combines invisible writing with "nutshelling." After the students have spent some time typing something visibly, ask them to type a dotted line on the screen. Then have the students darken the screen and "test" themselves by typing an answer to this question: "In a nutshell, what is it you've said so far?" After a minute's invisible writing, the students can brighten the screen and continue composing. Here are some additional questions that can be used for invisible writing (tackle only one question each time): What do I want my reader to care about at this point? What am I worried about in my writing right now? What do I want my teacher to think about me at this point?

Answering questions like these several times in the course of a typing session can help students refocus their thoughts and gain some perspective on what they have been saying. Initially, you may have to interrupt their writing at inopportune moments as you are introducing this technique. With practice, students can pose and answer questions on their own at appropriate places in their writing.

Some More-Advanced Assignments

The next three assignments require more real thinking, and they have the same degree of difficulty in order to allow the students a fair basis of comparison for their experiences writing visibly or invisibly. Give students the instructions shown in Figures 2–4. The activity shown in Figure 3, "The Personal You vs. the Academic You," assumes that your students have previously been asked to write both "personal" and "academic" papers in the course. The activity shown in Figure 4 assumes that you have given your students an assignment to write about for class.

Note: In experimenting with these activities, some students mentioned that they prefer only to darken their screens halfway. They report that doing so gives them the reassurance that comes from being

An Introduction to the Method

Start typing (visibly) with the words, "I'm typing on this computer and . . ." Keep typing for one minute. Then tap the RETURN or ENTER key a few times to move the cursor down. Next, darken the screen and start typing with the words, "I can't see what I'm typing and . . ." After a minute, stop typing, turn the monitor up, and examine your text. Move down a few blank lines and do a minute of visible writing, starting with a topic like, "Why do people read poetry?" Then do a minute's invisible writing on a comparable topic like, "Why do people write poetry?" Finally, do a minute's worth of visible or invisible writing (your choice), comparing your experiences writing in the two modes.

Figure 1.

A Prewriting Strategy

Pick a theme to concentrate on, e.g., the modern world, aging, or the individual versus society. Visibly type a list of ten words that you associate with that topic. (Press RETURN or ENTER twice after each word.) Now move the cursor to just below the first word and spend one minute elaborating on that word with visible typing, then move the cursor to below the second word and spend one minute invisibly expanding on this word, then one minute visibly expanding on the third word, and so on. When you're done with this activity, spend a couple of minutes writing (visibly or invisibly) on any ways your experiences writing in the two modes differed.

Figure 2.

The Personal You vs. the Academic You

Visibly type a list of five words that describe you as a student, that is, as an "academic" person. Press RETURN or ENTER twice after each word. Then type five more words that describe the "personal" you, words that apply to you when you're with your friends, family, or just when you're on your own somewhere. Now spend one minute typing visibly while expanding on the first word, one minute typing invisibly while expanding on the second, one minute typing visibly while expanding on the third, and so on. When you're done with this, spend a couple of minutes writing (visibly or invisibly) on any ways your experiences writing in the two modes differed. (For example, is it easier to be "personal" when you're invisible?)

Figure 3.

able to monitor their typing in a general way while discouraging them from examining their texts too closely and getting distracted by typos.

Evaluations and Conclusions

Invisible writing with a computer was first described in print in 1983 by Marcus and Blau in *Educational Technology*, although I had demonstrated it in workshops and conference presentations for a year or so before that. Its wide appeal and general value is suggested by the frequency with which it has been practiced by others and referenced in texts dealing with computer-assisted writing. A handbook on classroom-based research on computers and writing, which focuses on invisible writing, has been prepared for the California Writing Project/California Technology Project Alliance (*Teacher Re: Searcher*, by Stephen Marcus). See also Marcus's article in Wresch's *The Computer in Composition Instruction.*

In addition to my own work, the technique has also been incorporated into several computer-assisted composition aids, including The Bank Street Prewriter, HBJ Writer, Success with Writing, and WordBench.

A noncomputer form of invisible writing was initially used by James Britton et al., to suggest that writers could not compose without being able to review or scan their evolving text. Sheridan Blau (whose work inspired the computer-based version), utilized empty ball-point pens and carbon paper to provide strong counter evidence that "[the] absence of visual feedback from the text they [teachers and students] were producing actually sharpened their concentration on each of the writing tasks, enhanced their fluency, and yielded texts that were more, rather than less, cohesive."

In the case of invisible writing with computers, not every student has pleasant experiences, particularly those who have had formal and strict typing instruction. They sometimes feel anxious when their eyes, for lack of a text to follow, stray to the keyboard. For others, not being able to review their work-in-progress becomes so distracting that it interrupts fluency. As one student put it, "I can't see what I'm writing, and it is really difficult to keep up with what I am saying. If I can't see what I am writing, I feel . . . lost, and it throws me off the track."

Many students report, however, that invisible writing frees them to concentrate more on the content, rather than the form, of their emerging thoughts. They are freed from the compulsion to spend their time doing "local editing," fixing trivial typing errors, or making relatively minor changes in the text at the expense of the broader ideas they are trying to articulate. Students also sometimes report that, with invisible writing, what they eventually say comes more from their subconscious.

It is important to note that students will often change their minds about the technique as they become more accustomed to it. One student began by finding it "hard because you don't know if you're making any mistakes . . . Furthermore, it's hard to know what you've already said." This same student, with just a bit more practice, declared, "I like the invisible writing because I'm not always correcting my errors . . . which slows me down. It's fun to do because . . . my mind isn't breaking [all my thoughts] down. If I freewrite visibly, I have to look away from the machine in order to truly say what I want to."

Invisible writing helps many students see how premature editing interferes with the composing process, and it brings into sharp relief their own tendencies in this regard. In the words of one student, "Invisible writing helped me understand that writing really begins with prewriting."

Some students also appreciate the "privacy" that this method provides, because text on a monitor is too public for some people, sometimes.

Invisible writing with a computer is just one example of how teachers can help students take more advantage of the special features of the technology. The success of even a simple approach like this one should provide encouragement for those who see computers and word-processing programs as a major resource for the teaching of writing.

Resources

Blau, Sheridan. 1983. Invisible Writing: Investigating Cognitive Processes in Composition. *College Composition and Communication* 34: 297–312.

Britton, James, Tony Burgess, Nancy Martin, Alex McLeod, and Harold Rosen. 1975. *The Development of Writing Abilities (11–18).* London: Macmillan.

Marcus, Stephen and Sheridan Blau. 1983. Not Seeing Is Relieving: Invisible Writing with Computers. *Educational Technology* 23(4): 12–15.

Marcus, Stephen. 1989. *Teacher Re: Searcher.* Santa Barbara, Calif.: The South Coast Writing Project.

Marcus, Stephen. 1984. Realtime Gadgets with Feedback: Special Effects in Computer-Assisted Writing. In *The Computer in Composition Instruction: A Writer's Tool*, edited by William Wresch. Urbana, Ill.: National Council of Teachers of English.

Two Minutes of Invisible Writing

Get your computer ready for invisible writing (i.e., darken the screen). Now pretend the computer can "hear" your thoughts as you type them invisibly. Spend two minutes talking (i.e., typing) to your computer, explaining what you really feel about the assignment you're supposed to write about. Now turn your monitor back up and read what you've written. Next spend two minutes typing visibly and comment on what you said invisibly. Now go back to typing invisibly. Spend two minutes commenting on what you said visibly. Again, pretend that your computer can hear you. At the end of two minutes, go back to writing visibly and spend two minutes commenting on your previous invisible writing. Finally, spend two minutes writing, visibly or invisibly, about what it was like to do this kind of switching back and forth.

Figure 1.

4 THE MINI-DICTIONARY*

Thomas Neumann, New London High School,
New London, Wisconsin

Overview

This lesson motivates reluctant writers by having them produce a mini-dictionary of terms for a subject of interest to them. Both a word-processing program and a graphics program are used to help students publish their dictionaries.

Description of Students

New London Senior High School offers three separate writing courses. The most basic, and the one I teach, is Writing Unlimited (the other two are Creative Writing and College Prep Writing). Writing Unlimited is primarily for students who lack writing experience and confidence in their writing ability. Many of the students are not motivated to write and view it as something they have to do only in school. As one of my students explained, "The only time I ever see my parents write is when I'm sick and need a note to return to school."

Description of Teacher

I have taught both junior and senior high school language arts for sixteen years. During most of those years, I taught students who lack confidence and experience in writing. For the past two years, I have served as the reading specialist for the district; my work is now primarily with teachers.

Objective

In working with these inexperienced student writers, all English teachers at our high school follow the idea of writing as a process and stress writing for a real audience. We try to exclude most assignments that call for the teacher to be the only reader of a student's work. We have discovered that when students see a meaningful purpose for their work, they are much more likely to revise and rewrite their papers to make them as error-free as possible.

In revising and rewriting their papers, many students who have taken a typing class choose to type their final draft. Unfortunately, many of the students are not much better typists than they are writers. Their papers frequently contain smudges, type-overs, erasures, and white-outs to cover up their typing mistakes. Students regularly complain that they have to retype an entire page because they have omitted a word or two. All too often the typed papers are less attractive than the hand-written ones.

To help students overcome the frustrations of revising and retyping, I decided to introduce my students to word processing. I also chose to revise a standard assignment so that it would be more suitable for work on a computer.

Materials Used

Apple computers, the MECC Writer word-processing program, and The Print Shop.

Time Required

Eight class meetings.

Activities

On day one I checked out one computer from our school library and brought it into our classroom. Several of our school computers are on carts to permit teachers to bring computers into their class-

*The idea for this assignment originally came from the NCTE publication *NOTES Plus*, September 1981. The mini-dictionary idea was submitted by Shirley S. Jones, Sebastian River Middle-Junior High School, Sebastian, Florida.

rooms whenever they are needed. I felt that one large group demonstration of the MECC Writer word-processing program would be helpful before the students began working with it on their own.

On the chalkboard I listed the following terms: *MECC*, *word processing*, *data diskette*, *compose*, *save*, *load*, and *print*. I explained that once they knew how each of these terms related to computers and word processing, they would understand how computers could really improve their writing skills. I then called for a volunteer from the class to operate the computer while the rest of the group gathered around to watch closely.

For twenty to thirty minutes we proceeded through a step-by-step demonstration of the basic functions of loading MECC Writer into the computer. Activities we covered included: composing, deleting, editing, and revising text; saving the text on a separate data diskette; and printing text. I also explained how to reload text from the data diskette back into the computer. I then explained that our library aide had made enough copies of the MECC Writer program and the data diskette so that each student could have his or her own copy. The class then moved to our computer lab so that the students could practice what they had just observed.

By this time only about fifteen minutes of class time remained. This was enough time for students to review the basic steps involved in using the program. By the time the class ended, students were eager to know if they could work on the computers the next day. Motivating them to want to use this word-processing program was not a problem.

On day two, I distributed the MECC Writer program and the data diskettes that I had collected at the end of the previous class period. I explained that after today any student who wished to keep a computer disk for the rest of the semester could check it out from me. I also passed out several worksheets entitled PRIMER I and PRIMER II. These practice pages, provided by MECC, allow students to learn the MECC Writer program by completing a series of simple activities. Students worked independently in the computer lab while I circulated among them answering individual questions. After they had completed the PRIMER pages, I gave the students a simple assignment which would show that they could use the program. By the end of the hour they had to compose and print a list of ten topics they knew a great deal about or would like to know more about. This list would be the start of our prewriting activities and would be returned to them the next day.

At the start of day three we returned to the classroom. I took a few minutes to answer any questions that students had about word processing. I then gave a brief demonstration of The Print Shop, a computer graphics program. As I did for the MECC Writer demonstration, I brought a computer into class and had a student operate the program while I explained its features. Several students were already familiar with The Print Shop and all were fascinated by it. I showed them how, by using the "Sign" portion of the program, they could easily and quickly make attractive cover pages for their writing assignments. I also explained that The Print Shop and extra graphics disks could be checked out from the library. Most students were eager to try the program because it "looked like fun."

I then returned to the list of ten topics that the students had written on day two. After rereading their lists, each student chose one topic and wrote it on the chalkboard. Karate, deer hunting, dairy farming, raising rabbits, running, and skateboarding were just a few of the topics they selected. I then informed the class that they would use the topics they had chosen for their next writing project, the mini-dictionary.

In a two-page assignment sheet that I composed using MECC Writer, I described the project's requirements. Students could see that the assignment involved a substantial amount of researching and writing, but that it also allowed them to write about something that really interested them. After I answered questions about the assignment, the class proceeded to our school library to locate books and other materials on their topics. The students' task for the rest of this class period was to find and list on paper as many terms relating to their topics as they could. (Between thirty and forty terms was the target number I suggested.)

On day four we went back to the library for more research. When students finished their lists of terms, they were to proceed to the computer lab and enter these terms alphabetically on their disks using MECC Writer. Students would then share their lists of terms with me during a short conference. We added some additional terms and deleted others to make these mini-dictionaries more helpful to readers unfamiliar with the topics. We also discussed which five terms would be illustrated with pictures, maps, sketches, or other graphics. Students were free

to create their own original artwork or find pictures from old newspapers or magazines.

Following the short conference, students returned to the computers to complete a dictionary entry for each term. Specifically, students were to type each term in capital letters, write a complete definition in their own words, and use the term in an original sentence.

Through day five, students continued to work on this part of the assignment in our computer lab. During the class period, I met with students individually or in small groups to discuss any writing or computer problems they were having. By this time, students were becoming comfortable with using MECC Writer and were impressed with how easy it was to revise and to correct their work. Because they were for the most part writing phrases or sentences rather than extended paragraphs, students who lacked typing or keyboarding skills did not really become frustrated with entering their text. The "hunt and peck" method of typing seemed to work just fine. Students were also impressed with how attractive their printed papers looked.

At the start of day six, I took a few minutes to explain how I would grade their finished product. I shared a copy of the evaluation form I composed and posted a copy of it on the bulletin board. Specifically, I would grade students' papers on seven different points: cover page, overall appearance, correctness of form, mechanics, introduction, definitions, and use of pictures or graphics. Each of these seven items would be worth points, with a certain number of total points required for an *A*, a *B*, etc.

On day six, students also finished completing the main part of their project and began work on the first draft of their introduction. In approximately one page, students had to explain what the subject of their mini-dictionary was and tell why it was of interest to them. They could also share any personal experiences they had concerning the topic they had chosen. Students were to have a fairly complete draft of the introduction ready to share in a peer conference the next day.

The first fifteen minutes of day seven were devoted to peer conferences. In groups of three, students shared their introductions and helped one another make improvements in their writing. I was also available for help. During the remainder of day seven, students revised their introductions, completed the dictionary portion of the project, and created their cover pages. By this time, many students had already started working with The Print Shop and were enjoying making several different covers. Some students even used markers and crayons to make more colorful covers. This was a very busy day, as the due date for the completed project was the beginning of day eight. Many students even requested passes to work in our writing lab during their study hall periods. I was surprised at how few problems there were keeping students on-task during the seven days we worked on this assignment.

At the beginning of day eight, I collected the assignments and passed them out for the students to read. Students spent most of this class period sharing their papers with one another; they were encouraged to write down comments they had about any mini-dictionaries that impressed them.

At the end of the class period, I asked the class to write their reactions to what they had done and learned during the past seven days. The overwhelming response to the assignment was favorable. The students felt that learning how to operate a computer and the various programs we used was the most important thing they had learned in class thus far. They explained that they considered their knowledge of computers to be a valuable asset for future writing. Many stated that they were more likely to enjoy writing now that they could use a computer. I felt gratified that the days spent in demonstrating MECC Writer had been judged worthwhile.

Evaluation and Conclusions

Since I completed this project, approximately half of the class has regularly asked to write their papers on the computer. I am especially pleased that some of the students I have found most difficult to motivate to write are now willingly asking for passes to our writing lab so that they can use the computers. I am fully convinced that at least one student was saved from dropping out of school because he became fascinated by computers. If it is nothing else, the computer is indeed a tremendous motivator.

I have enthusiastically shared my experience with my fellow English department members, and they are eager to try word processing in their classes. We may even revise our writing curriculum to incorporate an early introduction to computers and word processing in all of our writing courses. We have become convinced that these are worthwhile skills for all students to learn.

5 COMPUTER WRITING WARMUPS*

Elray L. Pedersen, English Department,
Brigham Young University

Overview

Effective writing involves many different skills and processes. Warming up for writing—getting started writing right—is the first step to effective writing. The fourteen exercises in this chapter promote good student writing by creating writer readiness, reducing writer's block, beginning writing processes simply, developing word-processing and writing-fluency skills simultaneously, accessing and integrating successful writing practices and theory, and, finally, making writing fun. The first seven activities are seasonal (Halloween), but could easily be changed to fit any other time of year.

Description of Students

The warmups in this chapter work successfully in junior and senior high school computer writing centers, and in college writing classes as well.

Description of Teacher

Elray L. Pedersen is Professor of English at Brigham Young University, Provo, Utah, and is Coordinator of English Education. He is also the Utah state third party evaluator of secondary school writing centers and programs.

Materials Used

Although the author used the WordPerfect word-processing program with these lessons, they can be easily adapted to other programs.

Time Required

Single lessons can be assigned for a single class period, but most teachers let students complete two or three lessons in a fifty-minute class. The lessons, like a cafeteria, cater to student interests, needs, and preferences and all are addressed directly to students.

Evaluation and Conclusion

The strengths of the fourteen writing warmups in this chapter are many. First, the writing activities are fun. For example, students enjoy making a Rockto-ber's Top Ten list of hit tunes, and ghoulish grub—containing bacon and legs or raisin brains—is always nourishing, especially at Halloween.

Second, the lessons reduce to a minimum the necessity of possessing previous word-processing skills. Through the activities included here, beginning students learn simple word-processing skills while already-skilled computer writers simply begin and complete their assignments. Further, instead of spending valuable class time talking about computers and writing, students learn to write by writing; they learn about the computer by using one.

Third, by concentrating on simple, individual word-processing and writing-fluency tasks, students gain greater writing and word-processing skills and sophistication. The lessons and the effects of the lessons become synergistic, integrating word-processing and writing skills with writing processes and writing theory.

Fourth, the philosophy of mastering and climbing a mountain one step, one base camp, at a time unde ies the warmup activities presented herein.

*Originally an NCTE Ideas Exchange handout on Halloween Writing, Clare Baylor's (Ralston Middle School, Ralston, Nebraska) popular Halloween writing assignments, presented here, are adaptations for the computer. Other lessons in this chapter are adaptations of effective classroom assignments, including some ideas from Rick Walton, a secondary English teacher in Orem, Utah.

Students gain confidence when they successfully concentrate on and can do what they are asked to do. These activities simplify writing tasks and skills so students can and do succeed.

Fifth, the philosophy of teaching by precept and example underlies these warmups. Effective models, examples, related ideas, and paradigms all help students learn and perform.

Finally, this collection of assignments is one that has worked long and effectively in noncomputerized writing rooms. Now the assignments are working effectively in computer writing rooms as well.

Word-Processing Warmup 1: Halloween Magazines

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To learn how to use the computer to add new text to old text.
3. To learn how to use the computer to save text.
4. To learn how to LOG OFF (stop) the computer.

Activity

Halloween is a ghoulish time of year. You are to propose a new magazine or rename an old magazine or newspaper to appeal to fans of Dungeons-and-Dragons-type games or publications.

Step One

Enter your name, date, class, and teacher as in the following example:

Name: Dorian Do Mikels
Date: Sept. 3
Class: English 11
Teacher: Ms. Beazer

Step Two

Enter the following sample Halloween magazine or newspaper titles, double-spacing between each title.

National Ghoulographic
Brewsweek
Better Tombs and Graveyards
T.B. WEAKLY

Step Three

Now add five more fun, interesting, and original titles to this list, save the file, print it, and hand in the paper.

Word-Processing Warmup 2: Halloween Meals

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To use the computer to add new text to old text.
3. To use the computer to save text.
4. To learn to use the TAB and ARROW keys.
5. To learn how to LOG OFF (stop) the computer.

Activity

Write a Halloween menu for one horribly delicious Halloween meal.

Step One

Enter your name, date, class, and teacher as in the following example:

Name: Lyman R. Hamblin

Date: Oct. 10

Class: 11th grade English

Teacher: Mr. Hedengren

Step Two

Space four lines down from the class information and enter the Halloween breakfast menu shown below, single-spacing between each food item. Use the TAB key to make three columns.

Step Three

When you have added a third column of foods to this list (your menu items), save the file, print it, and hand the paper in.

Halloween Breakfast Menu

Enter your menu here, in this space

Lucky Arms	Frosted Snakes
Maggot Meal	Raisin Brain
Honey Tombs	Feeties
Moat Meal	French Ghost
Bacon and Legs	Hot Flesh
Grave Juice	Skin Milk
Screamy Peanut Butter	Ghoul Aid
Lice Crispies	Fat 'n Fiber

Word-Processing Warmup 3: Halloween Haunt Ads

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To use the computer to add new text to old text.
3. To use the computer to save text.
4. To learn to use the INDENT or TAB key.
5. To learn how to LOG OFF (stop) the computer.

Activity

Compose at least three Halloween Haunt Ads. Each ad must be written in twenty-five words or less.

Step One

Enter your name, date, class, and teacher.

Step Two

Space four spaces down and then enter the following Halloween Haunt Ads, double-spacing between each ad and pushing the INDENT or TAB key before entering each ad so that your materials are indented—not even with the left margin of the paper:

> WANTED: A reliable bat sitter. Will be caring for four bats. My cave or yours. Call 378-4199.
>
> FOR SALE: 1987 broomstick, V-6, stick shift, only 35,000 miles. Call 367-8492.
>
> NEEDED: One vacant pumpkin patch for our next show. Call Charlie Brown—Charles Schultz.

Step Three

Now, below the three ads listed above, add three Haunt Ads of your own. Save the file, print it, and hand in the paper.

Word-Processing Warmup 4: Halloween Obituaries

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To learn how to use the computer to add new text to old text.
3. To learn how to use the computer to save text.
4. To learn how to LOG OFF (stop) the computer.

Activity

Write at least five obituaries for rock stars, other famous people, or victimized English teachers.

Step One

Type your name, date, class, and teacher.

Step Two

Move down four spaces, and then enter the following Halloween obituaries. Double-space between each entry.

> Gary Coleman died in a lake while using different strokes.
>
> Olivia Newton-John died from being too physical.
>
> The Go Go's suffocated when their lips were sealed.
>
> Laura Ingalls Wilder died on the prairie.
>
> Jane Fonda died in Golden Pond.
>
> Mike Reno (of Loverboy) died when his headband got tangled around his neck. His last words were, "Turn Me Loose!"

Step Three

Now add five more obituaries to this list. Save the file, print it, and hand in the paper.

Word-Processing Warmup 5: Rocktober's Top Ten Hits

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To learn how to use the computer to add new text to old text.
3. To learn how to use the computer to save text.
4. To learn how to use the CENTER key to center a heading or a title.
5. To learn how to LOG OFF (stop) the computer.

Your goal is to compose a list of the Top Ten Song Titles for Halloween. Write either new titles or takeoffs of old titles.

Step One

Enter your name, date, class, and teacher.

Step Two

Space down four lines after this information and center and enter the following title:

This Rocktober's Top 10 includes:

Then type the following list of Top Ten Halloween Tunes, single-spacing your entries.

"Fleshdance" by The Dermatologists

"Mrs. Tenderheart" by Karen Cannibal Carpenter

"Every Death You Make" by The Creeps

"Fangs for the Memories" by Fang Sinatra

"People Just Die to See Me" by I'm A Mortician

"The Last One to Let You Down" by Digger O'Dale, Undertaker

Step Three

Now add five more titles to this list, save the file, print it, and hand in the paper.

Word-Processing Warmup 6: Halloween Recipes

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To learn how to use the computer to add new text to old text.
3. To learn how to use the computer to save text.
4. To learn how to use the TAB and ARROW keys.
5. To learn how to LOG OFF (stop) the computer.

Activity

Use your ghoulish, morbid sense of humor to write a recipe for Halloween goodies, following a typical recipe format, listing ingredients in two different columns, and giving directions below the columns.

Step One

Enter your name, date, class, and teacher.

Step Two

Now enter the following Halloween recipe, beginning four lines down from the above information, single-spacing your entries, and dividing the ingredients into two columns.

Troll House Cookies

1 c. granite chips	1½ c. ground bones
2 vulture eggs	1¼ c. sour milk

Mix all ingredients together. Drop by handfuls on an ungreased cookie sheet. Bake at 865 degrees Fahrenheit. Good luck!

Step Three

Now write your own original Halloween recipe below. When you are finished, save the file, print it, and hand in the paper.

Word-Processing Warmup 7: Dear Drac Letters

Objectives

1. To use the computer to develop word-processing skills and writing fluency.
2. To learn how to use the computer to add new text to old text.
3. To learn how to use the computer to save text.
4. To learn how to LOG OFF (stop) the computer.

Activity

Famous advice columnist Dear Drac always has advice and answers to share. Write one question and answer similar to those below.

Step One

Enter your name, date, class, and teacher.

Step Two

Enter the following Dear Drac letters, single-spacing each letter. Enter an extra line after each complete letter (question and response).

Dear Drac,

My husband wants to take our stock off the market. Which bank should we put it in?

Blood Shot

Dear Blood Shot,

Try a blood bank!

Dear Drac,

I'm Irish and we don't celebrate Halloween in Ireland. What should I do on the 31st?

Confused

Dear Confused,

You do too celebrate Halloween, Confused. Where do you think Jack O'Lantern came from?

Step Three

Now write at least one letter, ALL IN CAPITAL LETTERS, and at least one answer, ALL IN CAPITAL LETTERS, save the file, print it, and hand in the paper.

Computer Writing Warmup 1: Too Much Together!

Objective

You will use the computer to demonstrate that proper spacing, capitalization, and punctuation help to make sense and meaning of written material.

Activity

You will enter the required spacing, capitalization, and punctuation in written materials from which all such markings have been removed.

Step One

Enter your name, date, class, and teacher.

Step Two

Space four spaces down from this information and begin entering the following paragraph at the margin.

peoplefailtogetalongbecausetheyfeareachotherthey feareachotherbecausetheydontknoweachotherthey dontknoweachotherbecausetheyhavenotproperlyco mmunicatedwitheachother. Martin Luther King, Jr.

When you have entered the paragraph exactly as written, supply capital letters, punctuation, and spaces where needed. Be sure to indent the first line of the paragraph!

Step Three

Proofread your paper, print out a copy, and hand it in.

Computer Writing Warmup 2: Scrambled Paragraphs

Objective

To demonstrate that sentences in paragraphs fall into logical orders and arrangements.

Activity

You will unscramble scrambled sentences in paragraphs by rewriting the paragraphs or by moving whole sentences using the computer's BLOCK and MOVE commands.

Step One

Enter your name, date, class, and teacher.

Step Two

Enter the four sentences below (in the order they are given) on your computer screen. Then, rearrange the paragraph sentences the way the paragraph sentences best make sense together.

The horizon narrowed and widened, and dipped and rose, and at all times its edge was ragged with waves that seemed thrust up in points like rocks.

Their eyes glanced level, and were fastened upon the waves that swept toward them.

None of them knew the color of the sky.

These waves were of the hue of slate, save for the tops, which were of foaming white, and all of the men knew the colors of the sea.

Step Three

When you have rearranged the sentences in this way, print out your paragraph, proofread it, and hand it in.

Computer Writing Warmup 3: Using Strong Verbs

Objective

To demonstrate the students' ability to use concrete verbs and sensory impressions by replacing weak verbs with strong verbs in sentences.

Activity

You will use the ARROW, DELETE, and INSERT keys to replace weak verbs with strong ones.

Step One

Enter your name, date, class, and teacher.

Step Two

Type sentences 3, 4, and 5 below as written. Then delete the weak verb (the word in italics) and replace it with at least five strong sensory words.

Examples:

1. a. My friend *was* drunk.
   b. My friend staggered, hobbled, crawled, weaved, dribbled home drunk.
2. a. The wind *blew* last night.
   b. The wind howled, blasted, plastered, warmed, knifed me last evening as I hurried home.
3. a. We all *went* home.
   b. We all . . .
4. a. The candy was *eaten*.
   b. The . . .
5. a. Max (supply your own weak verb) a movie.
   b. Max . . .

Step Three

Print out your paper, proofread it, and hand it in.

Computer Writing Warmup 4: The Case of the Missing Vowels

Objective

To demonstrate your ability to read, understand, and spell correctly.

Activity

You will use the ARROW, DELETE, and INSERT keys to supply all of the missing vowels in a written passage.

Step One

Enter your name, date, class, and teacher.

Step Two

Someone stole all the vowels in the following passage. Can you determine what the vowels should be and put them back so the following statements about our senses make sense? Put one vowel in a word that has only one space, and delete the hyphen. Put two vowels where there are two spaces, and delete the hyphens.

Example: - l-v- y-- = I love you.

Y--r -y-s -r- s-ns-t-v- t- l-ght. Th-y c-ll-ct v-s--l -nf-rm-t--n -n th- f-rm -f m-v-m-nt, c-l- r, -nd sh-p-.

Y--r --rs -r- s-ns-t-v- t- s--nd. Th-y c-ll-ct --d-- -nf-rm-t--n s-ch -s m-s-c, n--s-s, -nd s--nd.

Y--r sk-n -s s-ns-t-v- t- t--ch. -t c-ll-cts -nf-rm-t--n -b--t h--t, c-ld, pr-ss-r-, -nd p--n.

Step Three

Enter this paragraph, replacing the vowels as instructed above. Print out your paragraph and hand it in.

Computer Writing Warmup 5: You Don't Say! You Do Say? Why Didn't You Say So?

Objective

To demonstrate your ability to read, understand, and paraphrase technical and formal English.

Activity

You will summarize and paraphrase old sayings written in technical English.

Step One

Enter your name, date, class, and teacher.

Step Two

Fables, proverbs, and old sayings can usually be expressed in simple words. Cut through the verbiage below and write the familiar statements in familiar English. Write your answers underneath the given statements.

Example:

1. a. What is your osculation rate?
   b. Do you kiss often?
2. a. One red spherical fruit each twenty-four hours prevents visiting the physician.
   b.
3. a. One should refrain from any mental calculations regarding his/her gallinaceous feathered vertebrates preceding their embryonic status. (HINT: it's about chickens.)
   b.
4. a. The anatomical juxtaposition of two orbicular muscles in the state of contraction. (HINT: it has four letters. Look at the example above about romance.)
   b.

Step Three

Print out your response, proofread the paper, and hand it in.

Word-Processing Skills Development 1: Deleting Extraneous Information from and Adding Important Materials to Sentences

Objective

To use the computer to delete extraneous information from and to add important materials to sentences.

Activity

You will experiment with the placement of adjectives, using adjectives from the subordinate sentence in a pair of sentences to form one clear and concise main sentence.

Step One

Enter your name, date, class, and teacher as follows:

NAME_____ CLASS_____
DATE_____ TEACHER_____

Step Two

Rewrite the following sentences into a single sentence by deleting all words except adjectives in all sentences except the main sentence. Place the remaining adjectives in the main sentence.

Example: The Corvette was red. It was speeding.
Answer: The red Corvette was speeding.

1. *Main sentence:* The man died yesterday at his home.

   The man was tired.
   The man was old.
   The man was worn out.
   The man was unloved.
   The man was uncared for.
   The home was quiet.
   The home was in the country.
   The home was far away.

2. *Main sentence:* Knowing how to write well is _____.

   It is a skill.
   The skill is essential.
   The skill is highly important.
   The skill is for survival in life.

3. *Main sentence:* Students need help.

   These students come from foreign countries.
   These students attend Brigham Young University.
   These students are studying English.
   The school is located in Provo, Utah.

Step Three

When you have finished, print out your answers, proofread them, and hand in the paper.

Word-Processing Skills Development 2: Round Robin, Peer Groups

Objectives

1. To develop computer skill.
2. To help students feel comfortable about writing.
3. To help students share writing with one another.
4. To help students become better speakers and listeners.
5. To give students opportunities to positively criticize and comment on the writing of their peers.

Activity

A series of computer activities are suggested here in order to accomplish the above objectives.

Step One

Write something about dating—the dates you want, but don't have; blind dates; what makes a good or bad date—or, as an alternative, write on any subject of your own choosing.

Step Two

Writing Development Activities:

1. All students will "rush write," write as much and as quickly as they can about their chosen topic, the first five to ten minutes of class. *(No editing at this point, please.)*
2. Class members divide into four or five groups of four.
3. All group members take turns, in round robin fashion, reading aloud to each other what they have written during the rush writing assignment.
4. Then one student in the group enters in ALL CAPS what he or she liked about each of the papers read in the group. These comments should be preceded by an asterisk (*).
5. Then another group member repeats this process, preceding his or her comments with an exclamation point (!).
6. Then another group member enters in ALL CAPS what he or she thinks might be unclear in each of the papers read in the group. These comments should be preceded by a question mark (?).
7. Then another group member summarizes in ALL CAPS what each writer apparently said in each of the papers read in the group. These comments should be preceded by the letter S.
8. At this point, students exchange disks and make copies of each other's papers, including the comments made by all the members of the group.
9. Students complete the assignment by reading either on the screen or from a printed copy what the members of their group have written about their papers, making the necessary adjustments. (Note: This assumes that each group will have four members. This assignment can be adjusted to fit groups with fewer members by deleting assignments or doubling up.)

Step Three

After completing number 9, students should print out revised copies of their papers, proofread them, and hand the papers in.

6 USING COMPUTER PROMPTS AS A BASIS FOR WRITING LITERARY PAPERS

Nancy Deal, SUNY/College at Fredonia

John Beaver, SUNY/College at Buffalo

Overview

These authors describe a simple computer-prompting activity in which students answer a series of questions presented on a computer and use their answers to help formulate a literary paper.

Description of Students

Twenty-five first-year students in an introductory literature class at a small liberal arts college. The approach has also been used with high school students (juniors or seniors). All students have received prior training in word-processing skills.

Description of Teachers

Nancy Deal has ten years' experience as a secondary- and college-level English instructor and has taught composition in a Macintosh computer writing lab. John Beaver is an experienced teacher and elementary education professor.

Objective

To focus students' understanding of an important literary work by their responses to a series of guided questions and to expand their responses into a well-sequenced essay interpreting the literary work considered.

Materials Used

Twenty-five Macintosh computers, three ImageWriter II printers, and twenty-five copies of the MacWrite word-processing program.

Time Required

Three fifty-minute class periods.

Activities

Each student was given a data disk containing a file consisting of a series of questions on *The Great Gatsby*. (Because this novel is often studied in both high school and college English courses, it seemed applicable for teachers at both levels.) The students then loaded MacWrite and accessed the file containing the questions. Presented with this set of questions, students worked independently on computers to enter their responses. The questions were designed to move between levels of abstraction and specificity, not only asking the students to formulate thoughtful opinions about major themes in the novel but also asking them to provide concrete examples to support their ideas. By alternating between abstract and specific questions, students built paragraphs that contained both of these important elements of effective composition. By carefully sequencing the topics for the questions, students were able to develop extensive material for essays.

Students used the following set of response questions for their work on *The Great Gatsby*:

1. In what ways does *Gatsby* reflect the American Dream?
   a. Define the American Dream.
   b. Locate examples from the text that support your definition.
   c. How are these examples portrayed in the text?

2. How does *Gatsby* portray an image of America?
   a. List three images you have that characterize the East, then list three images that characterize the West.
   b. How are the East and West portrayed in *Gatsby*?
   c. Describe the contrast between East and West in the novel.
   d. Which characters in the novel are Easterners? Westerners?
   e. How does each character's region influence your opinion of him or her?
   f. What class distinctions do you see in the novel? How are these related to characters' home regions?
   g. How are minority groups (blacks, Jews, women) portrayed?
3. How does the narrator influence your reading of the novel?
   a. From whom do you receive your impressions of the story and the characters?
   b. Describe Nick Carraway.
   c. How does Nick present himself as the narrator? Locate any contradictions in his presentation of himself.
   d. How does Nick portray each main character—Tom, Daisy, Jordan, and Myrtle?
   e. Do you believe Nick's assessments of himself and the other characters? If yes, why? If no, why not?
4. In what ways is this novel an example of literary *irony*?
   a. Define irony.
   b. Point out examples of irony from the text.
   c. How do these ironic elements change or reinforce your definition of the American Dream as applied to this novel?

After completing their responses to this series of questions, students saved them on the data disk using their own names as file names. They also printed out a copy of their responses and submitted them to the instructor for comments and suggestions. The teacher indicated the responses that presented the strongest foundations for an interpretative paper and returned them to the students for expansion into an essay.

Students then returned to the computer for revision. They accessed their files and then used block commands to delete the questions and the unwanted portions of their original responses. Next they expanded and modified the remaining text, using the instructor's comments to guide them. The instructor also provided suggestions for creating smooth transitions between the different responses. Additionally, students' preliminary responses were used as the basis for subsequent class discussions of the work.

Evaluation and Conclusions

The process described here allowed students to work through their responses to a novel independently through writing. The activity encouraged them to be independent learners in several ways. First, shy students who often hesitated to participate in open class discussions nevertheless participated in a form of dialogue to develop their own ideas. Second, students were allowed to respond freely but in a directed manner; completing the questions not only permitted them to express their opinions about the text's major themes but also forced them to offer supporting examples. Third, students were able to see connected themes and to build essays on a progression of ideas.

Most important, the word-processing environment allowed them to experience the crucial connection between reading and writing and to develop their analytical abilities as they wrote. This process enhanced their attitudes toward writing: After completing the response questions, students had produced what were essentially complete essays. At the same time, they were able, in consultation with the instructor, to choose a particular area to develop according to their interests. Although they used directed questions to develop their essays, students felt that they had more freedom to respond than when they were presented with a list of prescribed topics. This activity caused students to be more positive about writing than they had been using the previous, noncomputer approach, and their essays showed more sequential development of ideas than those produced using the prior approach.

7 CREATIVE WRITING IN A LITERATURE CLASS

Mary Hoppe, Bonduel High School,
Bonduel, Wisconsin

Overview

As a way of combining reading and writing, students were given the first and last lines of a possible addition to *The Adventures of Huckleberry Finn*. They used the computer to "fill in" that passage, trying to match the style and syntax of the original.

Description of Students

I work with a heterogeneous group of students who live in a quiet little farming community in northeastern Wisconsin. This computer-related assignment is used during sophomore year while the students are reading *The Adventures of Huckleberry Finn*. The students may have experienced some of the same adventures that both Huck and Tom experience. Some students, unfortunately, may even ve experienced the verbal and physical abuse that Huck endures at the hands of Pap, his delinquent father. But most of my students are unaware of or sheltered from a good deal of the social and racial discrimination that both Huck and Jim face and deal with in the novel.

Description of Teacher

I am an experienced teacher with an M.S.T. in English, but a novice at using the computer in the classroom. Until I took a course dealing with computers in the English or language arts classroom, I had never considered using them for creative-writing assignments.

Personally, I have used the AppleWorks word-processing program for about four years for all of my vocabulary and literature tests, as well as for publishing student writing. I attended a couple of workshops that familiarized me with this word-processing program, but I have learned the most by my own trial-and-error use of the computer itself. This hands-on approach also seems to work best in the teaching of computer activities.

Objectives

During the reading of *The Adventures of Huckleberry Finn*, I assign various journal entries and writing activities that help the students become more involved in the lives of Jim and Huck Finn. For this particular assignment, students write an anecdote about what happens to Jim one afternoon when he simply has to get away from Huck, the King, and the Duke (two other characters in the novel) to spend some time by himself. I provide the beginning and final sentences, and the students must write appropriate stories to fit these sentences.

In order to prepare the students to read and write dialogue in various dialects, at the beginning of the unit we talk about the fact that people of all racial and ethnic backgrounds speak differently in various parts of the country. Some students find it difficult to believe that there are variations of the Midwestern dialect in northeastern Wisconsin, so we brainstorm for examples of words, phrases, or pronunciations that may be peculiar to our part of the country. I point out that Twain, in his introduction to the novel, said he "used a number of dialects" in the book that represent the various characters Huck Finn encounters in his adventures. Twain did this so that we would not think that all of the characters "were trying to talk alike and not succeeding." With this in mind, I tell the students that their stories must also be written in the voices of the characters, using authentic dialect. This makes them more aware of

the varieties of language usage in the book. Using dialogue and dialect also forces students to read carefully in order to duplicate the speech of the characters. One other advantage of this lesson is that the students must review the punctuation conventions for the use of direct and indirect quotations.

Before the students read this novel, they read Twain's *The Adventures of Tom Sawyer* for a first-quarter book report. Thus, they should have a good idea of the characters common to both books, the social conditions of the time, and Twain's style of writing.

I approach this assignment by using the whole-language response to the teaching of literature. If the students can become interested in the characters by the combination of both reading and writing, they are more likely to retain more of what they have read, and it may be more meaningful to them.

In the past, I have given the students study guides to complete during the novel unit so that they would read more carefully, but I was disappointed by the copying that occurred and their lack of interest in the assignment. I wanted to find something that would make the students more interested in and involved with the characters. Creative writing and the story frames helped me achieve these goals.

Materials Used

The school has enough copies of AppleWorks for each of the twenty-five Apple computers in the computer lab. The students share seven printers.

Time Required

This writing activity is used while we are reading the novel but only after Twain introduces the reader to the King and the Duke. It takes four class periods to complete the assignment.

Activity

Day One

Using the overhead projector and pictures of the various computer screens that they will see when they are using AppleWorks, I prepare my students to use the computers before we go to the lab. Most of them have had some computer experience in junior high, and many have taken keyboarding during the first semester of the current school year. We talk for about fifteen minutes about the computer and some of its advantages: I point out the ease with which users can add, delete, move, and save information for future work. I also tell the students about some of my writing experiences and the drudgery that the computer saves me. Students are interested in practical reasons to try new things. I also provide a list of the common AppleWorks commands and their uses. Students can refer to this list when we are in the lab.

I explain the writing assignment and then give them time to work. For the rest of the class period, the students brainstorm in small groups for possible things that Jim may have done or seen during a two-hour time period on a summer afternoon. I also give them the first and last sentences between which they must fit their stories.

Here is the sentence pair I give my students:

> One day, while the raft was hidden, Jim decided that he had to get away from the King and the Duke for a little while.
>
> "Boy, Huck, I'll never do dat agin."

At the beginning of each semester, I divide the class into groups of three or four, and the students in each group work collaboratively on various activities throughout the semester. In peer editing, students read each other's work, commenting both positively and constructively on the content, structure, and mechanics of that work. I aim for a nonthreatening atmosphere in the classroom so students will be able both to learn and to help others. This encourages students to write more and to contribute more to the group work.

Day Two

The class meets in the computer lab, and the students boot up their own programs, which takes about three to five minutes. I give them the entire hour to compose, add to, delete from, rearrange, and print out a copy of their anecdote. During this time, they are free to talk to other students or to me about problems or questions about AppleWorks, ideas for resolving the situations in which Jim finds himself, or the mechanics of writing. I also ask them to consider whether the characters sound real. Is Jim's language in the anecdote the same as it is in the novel? If Jim encounters other characters, do those characters sound real? I also have the students triple-space their text so that they can make interlinear notes at home that evening.

Day Three

We continue our discussion of the book, but we do not spend any time with the anecdotes. This gives the students some distance from the stories, and they will get a "fresh" look at them the next day.

Day Four

We go to the lab to complete the assignment. The students may take a little time to work together in their groups to discuss any problems they may have with the stories. By this time of the year, the students generally work well together and are able to use time constructively. They are in a hurry to get to the computers, which take the work and boredom out of revising, rearranging, and editing text. Correcting spelling or mechanical errors is also much simplified. Students are often motivated to write more and to develop their ideas more fully when they use the computer than when they use pen and paper. By the end of the hour, the students print a double-spaced final copy of their stories. Depending on the class itself, I do a variety of things with the finished papers. Sometimes, I have the students volunteer to read their papers aloud. At other times, I make copies for all of the class members. I have also posted the papers on the bulletin boards in the room. Regardless of which method I choose, the students really enjoy reading and sharing their papers.

Evaluation

I am happy with the results of this assignment. The students are pleased with their "polished" papers, and I think that they look forward to their next opportunity to use the computers for a writing assignment. For students who are not motivated to write, this activity might be a way to get them to write more and to enjoy their own creativity. The beginning and ending sentences used in this activity provide a composing structure that is a help to some reluctant writers. In addition, a computer-related activity can provide a break from the regular literature classroom which everyone can enjoy, even the teacher. The computers make it easy for students to revise text, edit one another's papers, and share copies of their final drafts. Thus, students are encouraged to write more, and perhaps better, responses to assignments such as the one outlined here.

8 USING COMPUTERS TO WRITE FICTION

John Heyn, Oakfield High School,
Oakfield, Wisconsin

Overview

This teacher gave his students a set of quite specific activities for use in developing and revising stories. Students took four kernel sentences and developed them into substantial stories.

Description of Students

Oakfield High School is in a village of 900 near Fond du Lac, Wisconsin. Our school enrolls a total of 178 students. I am one of two English teachers. About one-fourth of our students are involved in agriculture. I asked my eighth-hour literature class to tackle the composition assignment described below. The class is composed of fourteen juniors who are concurrently enrolled in a computer class learning AppleWorks (a word-processing program). They are the initial group in that course, which is now required for graduation. They have no previous experience composing on a computer, except for a warm-up exercise where I check to see that they have the computer skills necessary to execute this assignment.

The students range in ability from one girl with reading/learning disabilities to the top students in the junior class. Although most of the students rank in the top half of their class, they are not highly motivated academically. This mixture is not typical in our school, but in very small schools it happens occasionally.

These students are almost all from working-class families. Few of their parents went to college. Among their parents are a sheriff's deputy, farmers, factory workers, and an engineer. None of these students has any special training in language arts besides the basic English/language arts curriculum offered at each grade level.

Description of Teacher

I teach sophomore and junior English, literature, and advanced composition for seniors, and I coached the 1988 state championship runner-up football team. I have been teaching for fourteen years; all of these years have been spent at Oakfield High School. My college background includes classes in engineering and some computer programming—before the microprocessor was invented. Our school had a prototype microcomputer built by a former student in 1975. I learned BASIC on it, and I still do some programming on an Apple IIe computer.

After several years in the Navy, I took my undergraduate degree in English at the University of Wisconsin and did graduate work in composition at the University of Wisconsin–Milwaukee.

Objectives

1. To vary the way sentences begin. To write sentences that begin with verbals and prepositional phrases.
2. To revise by rearranging existing sentences.
3. To use linking devices such as the repetition of key words.
4. To write the small, telling detail.

My approach is eclectic. I suppose there are those who would label what I do "whole language." But I come closer to following the Knute Rockne method. Like many football coaches, I learned to analyze a

task, isolate the skills, drill them in reverse order, put them back together again, and then practice, practice, practice. The practice is critical, but only the game counts. The emphasis is on doing the task in some context. Real learning happens best on the game field. Writing is no different. It must count: that is, the writer must effectively say something that matters to someone besides a grader. Of all the things taught in school, composition (and maybe woodworking) seems the most like athletics.

Using computers has caused no change in my approach to teaching composition. After all, the computer is nothing more than a kind of pencil.

Materials Used

We have access to a computer lab equipped with ten Apple IIc and Apple IIe computers. All but two of the machines are hooked to ImageWriter printers in pairs or quads. Some disk handling is required for those two computers. I have one Apple IIe in my classroom linked to an Epson FX printer. The only software we have is AppleWorks.

For this lesson we used no other outside resources. However, we often use *Building English Skills* or *Literary Cavalcade* (a magazine for secondary students, formerly published by Scholastic) to generate composition lessons.

Time Required

I used about one class hour to teach each of the four lessons listed in the objectives. For example, we used a lesson in *Building English Skills* to teach the idea of linking paragraphs together or linking ideas in a single paragraph by repeating key words or synonyms. Each of the skills in the objectives list was taught in this way sometime in the two weeks previous to the computer version. The day before the actual composition lesson, one class hour was used to review each of the skills. Because we were simultaneously reading and discussing a novel, not all of the class hours were used as described above. Somewhat less time was actually used.

Each student entered these words on the computer screen:

He left. She laughed. Their loft. That's life.

Students were to follow the instructions listed below step-by-step without re-entering the basic word groups. (Beginners tend to retype their revisions as if they were working with pen and paper.) Bracketed remarks are addressed to the teacher.

1. Replace the pronouns with proper nouns.
2. Build up each sentence but the last one with prepositional phrases, initial verbal phrases built on the original verb, or new subjects and main verbs while maintaining the original subject and verb in a dependent clause. Leave the last sentence as it is. [Some of these instructions are arbitrary.]
3. Arrange the sentences in the order you want them to be in.
4. Rearrange the parts (change the syntax) of at least one sentence. Decide if it works.
5. Insert linking words and ideas, if you haven't accidentally done so already. [It is often the case that students have some mastery of this skill already and can do it "without thinking."]
6. Add details and, if you want, some dialogue. [This often generates new ideas and revisions.]
7. Ignore the above restrictions and revise any way you want. [But check to be sure that they have followed the first six steps. I never want to restrict potentially good ideas just because they happen not to fit my idiosyncratic ideas of what a composition assignment is.]
8. Edit.

All the above techniques had already been taught in isolation—some, many weeks before. The first day, students did steps 1–3; the second day, steps 4–5; the third day, steps 6–7; and the last day, step 8. I asked them to give me their papers a week later so they had time on their own to get to a computer and do more work.

Day One

Students were asked to replace the pronouns in the four given phrases with nouns. Most students made up names for characters and created a dramatic situation. I hoped that some students would use thinly disguised versions of characters from their assigned reading, putting them in situations that were different from what they, the characters, experienced in these reading assignments. Some did. It was, perhaps, just as well that some did not.

My students needed to learn that varying the way

a sentence begins is not just a neat trick that might make the sentence different or more interesting. Such variations often change the meaning and the logic of what is being said. These things can be subtle. By playing with these ideas, students occasionally discovered these subtleties for themselves.

The same comment can be made about revising the order of ideas or sentences in a composition. It is not always order alone that is affected. Sometimes connotations arise that were not apparent before ideas or sentences were shuffled. Writers must then judge for themselves whether these new ideas should stay or go.

Day Two

These rearrangements tend to be mechanical. I let the students discover for themselves if any benefit derives from this activity.

Inserting linking words can also be mechanical, but the computer allows more attempts and more variety. I found my students more concerned about questions of whether or not a certain word was right. My answer often was, "Try it and see." Not very profound—but it seemed to work.

Day Three

Here students had to start over at the beginning and add details. I needed to push them at first. Some were reluctant to change what already looked to them like a big improvement. I often had to suggest a detail and where to place it. Once they saw the results, students were anxious to try their own ideas. Most discarded my suggestions in favor of their own. I was pleased with this "I-can-do-better-than-he-can" attitude.

Day Four

If editing was not going to be a large task for students, this day was used to let them play around with their work for an hour. This phase is no different from editing traditional hand-written compositions.

Evaluations and Conclusions

By the third and fourth days, most students had learned to use the computer's revision capabilities. In fact, there was a marked increase in the number of revisions students made here over those made in previous hand-written assignments. A few students became entranced with revising and had trouble deciding when to stop. No one composed a final draft on the first run, editing only for spelling errors and typos. The complexity of structure in students' papers improved in a few cases. The best result, however, was their willingness to analyze what they had written. I got questions about syntax, usage, and tone that I had never heard before. This response alone made this sort of assignment a breakthrough in teaching composition. In one case, it was the student's only completed work in several weeks—this, too, was a breakthrough.

The ease with which changes can be made using a word-processing program allows student writers to consider creative ideas that are normally squelched by the forbidding prospect of recopying. Good ideas no longer die beneath the "passing tribute of a sigh." Instead their writing flourishes, full of energy [written in a country schoolyard].

Work Cited

Littell, Joy, ed. 1981. *Building English Skills*, rev. ed. Evanston, Ill.: McDougal, Littell & Company.

II ACTIVITIES FOR STUDENTS WITH MODERATE COMPUTER EXPERIENCE

9 WHAT A DAY OF THRILLING SHOCK ABSORBERS: WRITING POETRY WITH COMPUTERS—TWO EXERCISES*

Dan Graveley, Wausau, Wisconsin

Overview

These two lessons have students create poetry in ways they should find attractive. The computer is used to project works in progress and to give students the flexibility to try many new combinations of words and images.

Description of Students

Rural and suburban high school students.

Description of Teacher

I am a high school teacher schooled in modern poetry and familiar with computers and word processing.

Objectives

This writing unit is based on two poetry-writing exercises. The first is designed to encourage fresh, unusual combinations of language. It is a practical exercise in the use of rhyme, meter, tone, and poetic vocabulary. In the process of doing the exercise, the students will learn to discriminate among words, lines, stanzas, and whole poems—qualitative judgments necessary to the craft of poetry. The students will learn that it is necessary to break rules, even the minimal guidelines set by this exercise. And I hope students will discover how they can free their imaginations by letting the form, rhythm, and diction of a poem decide what the poem says—rather than holding to a preconceived idea of what that poem *ought* to say.

The second exercise depends upon the skills learned in the first. It allows the students to discover through a broad source, the yellow pages of a telephone book, raw material to include in a poem. The cataloging technique shows the students how language can, when enough imagination is applied, be used in unique ways to enliven what we regard as mundane.

The first exercise was introduced to me by Richard Hugo, who was my poetry teacher at the University of Montana. Theodore Roethke, who was Hugo's teacher at the University of Washington, would sometimes give a similar exercise as a final exam. I created the second exercise upon reading David Wagoner's poem "After Consulting My Yellow Pages."

Materials Used

For the purpose of this unit I will assume minimally, that, when needed, the class is able to meet in a lab or classroom where each student has access to a computer with a word-processing program. Also, I am assuming there is projection equipment available for the teacher to display his or her computer screen to the class. If this useful aid is not available, the chalkboard can still be substituted, but the entire lesson becomes much more cumbersome.

Time Required

At least ten class hours.

Activities

Before attempting this poetry-writing unit, it would be helpful if the students completed another unit devoted to an introduction to contemporary poets, especially American poets. A historical survey or an

* The title, "What a Day of Thrilling Shock Absorbers," is taken from a poem created by one of my students using these exercises.

Introductory Handout—Maxims

Poetry—the music of conviction.
A poem—the art of meaning what you say.
A novel—the art of saying what you mean.
You believe a good poem. You do not have to believe fiction.
Description is prose. Presentation is poetry.
Write off the subject. Keep getting off the subject.
Ask yourself, is this an aspect of the will rather than the imagination?
How can I know what I think until I see what I say?
In a poem—don't dwell, develop, elaborate, or qualify. Don't milk things.
Which language sings on its own, and which language depends on delivery?
Every piece of art has melodramatic content.

Figure 1.

attempt at a cross section of various "schools" currently writing poetry would be less profitable than a selection reflecting the teacher's personal commitment to poetry he or she values. Coupled with mimeographed copies of the poems, the works should be introduced to the students through live readings and recordings. A teacher should introduce students to ways of talking about a poem, which will be useful in understanding the process of composing and editing poetry. Class discussion should be directed toward profitable ways to study a poem: comparing it to other poems, isolating well-written lines, noting unexpected and effective combinations of words, and judging the poem's statement and tone (are they convincing?), etc. The class should not attempt (nor should the teacher) a standard literary analysis. The class should try to understand the literal statement of the poem, and the class may want to interpret what the poem reveals about the poet or speaker (persona)—the unconscious statement. But large philosophical or social implications should be dealt with only incidentally, if they are important to even a minimal interpretation of the work.

Bad poems as well as good poems can be constructive examples for comparison. I favor writers who are "ear" poets, lyrical and metrical, over the "eye," or imagistic, poets. If I were teaching a modern poetry appreciation course or unit, these are some of the American poets I would want to introduce to high school students: Theodore Roethke, James Wright, William Stafford, Anne Sexton, David Wagoner, Richard Hugo, Robert Lowell, Weldon Kees, James Dickey, Robert Frost, Louise Erdrich, Carolyn Kizer, Richard Wilbur, Galway Kinnell. Figure 1 shows the introductory handout of maxims I give my students.

Hour One

Devote this hour to introducing Exercise 1 to the class. Illustrate this exercise by following the steps outlined in Figure 2 and attempt to write a poem on the projected computer screen. Have the students supply words and lines.

Choose a poem that has been created in this way, select a stanza, and count the beats in a line or two. Tell the students not to worry if they have trouble distinguishing the beats. An alternative activity is to count syllables—seven to twelve syllables per line would be close enough to achieve an effect comparable to a four-beat line. Explain that many modern poets prefer a syllabic count.

Describe a stanza. Tell the class that they should write at least one stanza when they do the exercise on their own.

Illustrate internal and external rhyme (using the example on the computer). Explain the difference between slant (near) rhyme—cure/air—and full (pure) rhyme—cell/dwell. Point out examples. Highlight (ask the class to spot them) slant rhymes in the stanza on the screen. Alliteration, assonance, consonance, pairs of accented-unaccented sounds

Exercise 1

Group I

Nouns	Verbs	Adjectives
birch	kiss	blue
throat	curve	hot
belief	swing	soft
rock	ruin	tough
frog	bite	important
dog	cut	wavering
slag	surprise	sharp
eye	bruise	cool
cloud	hug	red
mud	say	leather

Group II

Nouns	Verbs	Adjectives
home	fail	green
air	buy	fat
car	run	grim
river	care	glamorous
bourbon	die	new
store	imagine	cheap
bar	enter	vague
railroad station	streak	timid
postcard	think	neutral
sun	flash	bad

Group III

Nouns	Verbs	Adjectives
joy	crawl	metal
dollar	earn	lonesome
eye	devour	vegetable
fish	play	rich
children	found	common
father	bang	desperate
winter	babble	red
spring	sweep	silent
mailbox	spawn	mother's
closet	hang	silver

Use five nouns, five verbs, and five adjectives from one of the above groups and write a poem as follows:

1. Four beats to the line (can vary).
2. At least six lines to a stanza.
3. At least two internal and one external slant rhyme per stanza (full rhymes acceptable but not encouraged).
4. Maximum of two end stops per stanza.
5. Clear English grammatical sentences. All sentences must make sense.
6. The poem must be meaningless.

Figure 2.

that would be full rhymes if they were both accented—all are examples of slant rhyme.

Explain an end-stop using the sample stanza.

Tell the students to break the rules of the exercise if they discover that they can write something better by doing so. But tell them not to break the final rule—*the poem must be meaningless.*

When the class begins its first group attempt at the exercise (on the screen) emphasize that you would like to see unusual, interesting statements. If the class seems to be satisfied with "the wavering clouds flew over the soft blue lake"—don't be dictatorial about what should be included or excluded. A bad line can be cut out or rewritten later after everyone sees where the poem is going. If the whole poem consists of lines such as the one I have cited, then chances are that it breaks the final rule—that the poem must be meaningless. A good idea would be for the class to start over, with the teacher suggesting a first line, something more surprising, such as:

> The road kisses, curves into lunch . . .

Then ask the students to continue the poem from there with interesting statements such as the following:

> The road kisses, curves into lunch.
> We drove that belief until our stomachs
> hurt, played our hunches to red eye
> and ruin . . . (etc.)

If the class seems to need a more complete example, and the teacher is concerned that the students will not be inspired enough to attempt the exercise with energy or some faith in its possibilities, then it may help if the teacher shows them some of his or her own attempts, successful and unsuccessful. For example, some of mine appear in Figure 3.

The students should write their first attempt at Exercise 1 in class on their computers. They can select some of their words (according to the directions) from either Group I, Group II, or Group III. Tell the students that it is not necessary for them to write finished, complete poems. Tell them that you will be satisfied with whatever they produce and that they should have fun playing with words. Explain that this exercise has a limited value and that you are most interested in what the process of writing teaches them. Tell your students, however, that you would be surprised if no good lines and language were produced because "fortunate accidents" are common in an exercise like this. It is the recognition of *what is good* and *what is not* that needs practice and skill. The students' first individual attempts should be printed and brought to class the day after they receive Exercise 1. For homework, the students should do the exercise again and bring those results to class the next day as well.

Hour Two

Before reading any student papers, spend part of the class time discussing how a writer needs to develop a tough-minded attitude about his or her own words. The precious attachment writers have to whatever they say or write (because *they* say it) can interfere with a poet's growth. Anyone who exposes his or her work and emotions to an audience is vulnerable. It is one way a poet learns, though it hurts. Poetry requires *taking risks*—the risk of being corny or foolish and the risk of failure.

Establish a precedent (with the class consenting) that comments about a student's work should exhibit both honesty and kindness. And ask writers not to defend their own work, but to leave that up to the class. Writers should try to be tough-minded—take criticism without fighting back. Otherwise, a class session can degenerate into a battle of egos.

> We drove that road, kissed, hugged;
> until hot with surprise, ruined,
> I said, too much rock—the curve
> of your throat bruised with belief.
> My God, this mud biting our wheels.
> Shoulders too frail to cry on.
>
> * * * *
>
> This is the most dangerous road in the state.
> A single lane from your lips to your throat
> but wavering, and I'm condemned
> to kiss reckless eyes and finger-bones
> like a dog. . . .
>
> * * * *
>
> The tall fir curves into fall.
> Loggers cut the limbs away
> and I am left with mud.
> You hug the lake. I stand in leaves
> and say, "I've seen what clouds
> ruin. Heaven's your surprise."
>
> I say it's no surprise but cold—
> and snow kissing a blue coat.
> The lake is elegant and lies.

Figure 3.

The remainder of this hour should be used by the students to read their first attempts at Exercise 1 aloud to the class. If there is time, the teacher might display some of the students' poems on the projected screen. The class should consider these and suggest how they can be improved or made more interesting. *Praise good language. Find things to praise.*

Hour Three

Continue reading and appreciating student work, .ut spend more time on a particular poem written by one of the class members. With the help of the class, edit this poem on the computer screen. Let the class rewrite the poem, expanding it if possible. During this hour, the teacher may want to take more time to talk about various aspects of poetic skills, skills which arise in the class's consideration of the poem you have singled out.

Students should write yet another poem on their computers following Exercise 1. For homework, have the students write their most ambitious and final attempt. Ask your students to write poems they believe are complete. Tell them that if they prefer, they can make up their own group of words for the poem rather than use those from Group I, Group II, or Group III.

Hour Four

Continue the discussion of student poems.

Hour Five

In preparation for Exercise 2, ask the class to make a series of lists on their computers using the yellow pages of their local phone books. Perhaps the teacher could obtain old books from the phone company; otherwise, the students should bring one from home.

For the first list (List A), have students thumb through the classified section alphabetically, writing down a large selection of categories. When a particular listing or a proper name strikes them or seems intriguing enough, they should write this entry down. Some examples are shown in Figure 4.

For the second list (List B), ask the students to write down sublists of "associations"—objects, tools, activities, sensations, names, and so on—which they feel are connected in some way with certain categories they have previously recorded. For example, Figure 5 shows two sublists for two of the categories I wrote down in my first list.

For List B, students should select at least five categories and make sublists for each. Both lists must be printed out and handed in.

Hour Six

During this hour, each person in the class should have a chance to read his or her poem (the last attempts at Exercise 1). The atmosphere should be relaxed. Again—*praise good language. Find things to praise. Praise ambitious attempts: both successes and failures.* Ask the class what they think about Exercise 1, what they think about writing poetry, what they have learned.

Review the essential elements, processes, and skills covered in Exercise 1:

1. Meter
2. Rhyme
3. Diction
4. Writing off the subject
5. Letting the form and language determine the poem
6. Recognizing what is good and what is not

Ask the students to try to explain what the following statements mean. Ask them to react to each statement.

1. Description is prose. Presentation is poetry.
2. You believe poems. You do not have to believe fiction.
3. How can I know what I think until I see what I say?
4. Every piece of art has melodramatic content.
5. Poetry—the music of conviction.

Ask the students whether they believe they have a subconscious mind. Can they think of occasions when a person's subconscious words or action told the *truth*? What is a Freudian slip? Do dreams sometimes speak the truth? Why isn't the conscious mind always truthful, or is it? Why do small children sometimes blurt out very uncomfortable truths to family guests ("My dad thinks your son is lazy.")? What do these questions have to do with writing poetry? How smart do you have to be to write a poem? To draw a picture? To play a guitar? To build a nuclear reactor? In what ways does writing a poem resemble pitching in a baseball

List A Examples

U-Haul	fire alarms	liquor
Great Plains Gas	fishing	loans
concrete blocks	furnaces	logging
Kentucky Fried Chicken	garbage	machines
United Methodist Church of the Pines	glass	mail order
	country clubs	marine
Birginal Motors	guns	meat
Mr. Theodor's	hospitals	Northwood's Packing
Bosacki's Boat House	insurance	mink
bus lines	junk	motel
carpets	Sam's Salvage	Schmalzer's Back Bay Inn
chiropractors	landscape	
electrician	farm supply	motorcycles
		music

Figure 4.

List B Examples

beauty parlors

wigs	young girls	mascara	bobby pins
hair dryers	old ladies	rouge	hair net
hairdos	scissors	polish	white uniforms
lotions	combs	Palace of Venus	cosmetic
shampoo	appointment	sinks, basins	facial
manicure	gay	rinse	platinum blond
movie magazines	glamor	dye	chemical smell
gossip	lipstick	curlers	chatter

motel

neon sign	love affair	bed bugs	wall to wall
towels	shower	sound of trains	carpet
sanitary glasses	soap	thin walls	sound of traffic
vacancy/no vacancy	cheap	register	doors slamming
TV	expensive	traveler's check	room number
double bed	maid	bible	key
night stand	checkout time	suitcase	exhausted
pop machine	lonely	coffee shop	pillow
complimentary coffee			

Figure 5.

game? Why were you told not to break the final rule in Exercise 1 (the poem must be meaningless)? Was it possible not to break the final rule?

Hour Seven

Have the students read their "associations" for the catalog entries they chose from List A. If members of the class have written sublists for the same categories, read these sublists together for comparison. If most of the words in some of the sublists are too vague and general despite the emphasis on specific associations (objects, tools, activities, sensations, names, etc.), tell the students that the poems they are going to write for Exercise 2 will need concrete words to make them strong. Vague associations such as happiness, sadness, love, hate, beautiful, ugly, colorful, and drab, will only work if there are very few of them.

Remind students of the class discussion about the form of David Wagoner's "After Consulting My Yellow Pages." Remind them that the poem begins with a somewhat surprising (general) statement about the "barber's college," moves to the long list (catalog) of interesting specific activities, and concludes with the question addressed to the reader.

Display on the projected screen or hand out copies of section 5 of Walt Whitman's "Song of Myself." Read it out loud and ask for reactions. Is this catalog effective? Why? Why not?

Hour Eight

Display Kenneth Koch's poem, "Locks," to the class on the projected screen.

Hours Nine and Ten

Give your students the handout for Exercise 2 shown in Figure 6.

The students should write a finished poem for Exercise 2 that will be due the next class meeting. Have them write the poem out in pencil at home (or in class) and enter it into the computer later. Some students may wish to compose at the computer. If this works, fine.

Exercise 2 is difficult to do well. It requires a great deal of imagination from the students.

Evaluation and Conclusions

As I have illustrated here, computers can be integrated into a writing class. For the teacher, the ability to display work (writing and rewriting) on a projected computer screen is an improvement over the obvious difficulties of using a chalkboard. Teachers do not have to turn their backs to their classes as they make changes. There is no messy chalk dust. Words, sentences, or whole blocks of text can be moved about easily. And, best of all, teachers can enter the material into the computer days or weeks ahead of time and never worry about the janitor coming in some night and erasing all their efforts.

I believe it would be possible to incorporate the main ideas of this poetry-writing unit into a computer program that would lead students through many of the processes instrumental to writing better poems. It should also be obvious how indispensable the teacher's role is. No computer program exists that can make the subtle discriminations necessary for the success of these exercises. Neither counting classes of words nor grammatical constructions nor measuring lengths of phrases can quantify the emotional impact of wonderful fresh language such as that in the following examples from six student poems.

> All the Bad Habits in the world
> make what people need to survive.
>
> * * *
>
> . . . Black clouds surround bad spellers.
>
> * * *
>
> The engine in the grainary
> is driving the locks off
> my ears.
>
> * * *
>
> . . . Mesmerized, as if
> ushered on her journey, through
> countless explosions of cole slaw.
>
> * * *
>
> People become laughing hyenas in the dense fog.
>
> * * *
>
> What a day of thrilling shock absorbers.

Work Cited

Wagoner, David. 1963. After Consulting My Yellow Pages. In *The Nesting Ground: A Book of Poems.* Bloomington: Indiana University Press.

Exercise 2

Write a poem. You have a choice. You can select words from either or both Lists A and B. If you want to select words from one or two of the sublists that's also fine. If you want to make the most of your poem, you might include some kind of catalog. If not, that is also okay.

Rules

1. Begin at the middle (where the action is). Do not preface or introduce or prepare what is to be said. Koch breaks this rule with his first line in "Locks." You don't have to.
2. Don't dwell, develop, elaborate, qualify. Don't milk things. Wagoner might have gone on and on about how well things were going at the barber's college; instead, he wisely gave it a couple of "good licks" (the razor, the clippers) and got out and on to another subject (fox farms).
3. Write off the subject. Keep getting off the subject. If you are going to write about a beauty parlor, don't approach the subject directly—write about scissors, witches, wigs, corpses, movie stars, or fingernails. But don't get stuck in the rut of any particular detail either.
4. Be free—even a little insane. Let the language (rhyme, rhythm, and "associations") guide the poem. *You are not in control*—the words are.
5. Before you begin writing this poem, forget all these rules. Go on a hike. Play ball. Ride a bicycle.

Figure 6.

10 CREATION OF A BOOK OF STUDENT WRITING

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Reedsburg, Wisconsin

Overview

This chapter describes the author's general procedures when using computers for essay writing, and then explains an end-of-year publication activity that has garnered a great deal of goodwill for the high school.

Description of Students

College-bound seniors

Description of Teacher

I am an experienced high school writing teacher, but a computer novice. I did take one course on using computers in writing instruction.

Objective

I teach a course called Advanced Composition 12, a semester-long creative-writing course intended for, but not limited to, college-bound seniors. During the course of each semester (eighteen weeks), students write a total of eleven papers (of various kinds) from the following general areas: expressive, informative, persuasive, and imaginative. The papers range from personal essays and autobiographical narratives to process analyses and critical essays on literature, from formal letters of application and satires to first-person stories and ballads. The writing process (prewriting, organizing, drafting, and revising) is used for the teaching of writing.

This is the fifth year I have taught this course. In the first two years, we did not use computers. Students hand-wrote their papers. Over the five years, an average of one hundred students (roughly fifty per semester in two to three sections) have taken this course. The first two years were a struggle. Students were reluctant to revise and improve their work; instead, they were satisfied with a first draft in which they made only a few corrections (often using write-overs or cross-outs) before handing the paper in for evaluation. Papers were rarely typed or written on a computer, resulting in papers displaying a wide range of handwriting—from the very neat to the nearly illegible. As much as I enjoyed teaching writing, I decided it was time to move into the modern world of using computers to teach writing.

Materials Used

Hardware: Apple IIGS computers and ImageWriter printers.
Software: FredWriter (a word-processing program), Webster's New World Spelling Checker (a spell-checking program), Writer's Helper (a style-analysis program), and The Print Shop (a graphics program).

When I first began using computers, our school had some computers spread around various areas of the building, but there was not any one place that had enough computers for a whole class to use at one time. In the class I took on computers, I learned about a public domain word-processing program called FredWriter. So that every student could have a copy, this became the word-processing program we would use for composition. Thus, wherever I could get students on computers around the building, they would have their copy of the program, making access to the computers easier. Once class began, students purchased two disks and formatted them; FredWriter was copied onto one of these disks, and the other served as the student's data disk.

Time Required

One school year (I used this in three classes each semester).

Activities

I begin the semester by using an overhead video display unit. I demonstrate FredWriter, Webster's New World Spelling Checker, and Writer's Helper. Then students go to the computers during their study halls to become familiar with the software before they begin their first paper. Once they are familiar with the software we will use for writing, I begin giving assignments.

On the average, we spend between five and seven days working on a given paper, although students are, in reality, given an extra five to seven days to complete a paper. The following paragraphs illustrate how this method works:

On the first day of a particular paper assignment, my students have done the required reading in preparation for class discussion. We spend this first class period going over the type of paper assigned. We read and discuss models both from our textbook and from examples of former students' work. We often brainstorm topics and engage in a variety of other prewriting activities. When students report to class the second day of the unit, they are to have at least a tentative topic in mind for the paper we are working on. I tell my students that they are never tied into their original topic or idea and that they can change either at any time. The topics are final only when the paper is submitted for evaluation. Some students continue to do more prewriting and organizing, while other students go to the computers and begin a rough draft. As the semester progresses and students become more adept at using computers for writing, more students go to the computers earlier in the writing process. (Our computers are located in the library, so when my students are ready to type, they sign up for a computer and go to work.) I also have three computers in my classroom, so in any given period most of my students have access to a computer. I spend my time going between the library and my classroom, offering assistance and advice whenever needed. In addition, our librarian is a tremendous help in assisting students with the computers in the library when I am working with students in my classroom. (We do not have a writing lab per se, so the running between the two rooms is somewhat annoying and time-consuming, but, for the most part, it is working quite well.) By the third class period, all students are usually using the computers to write their first drafts.

Once they complete their first drafts, usually by day four or five, students then run their papers through Webster's New World Spelling Checker that works with, among other word-processing programs, FredWriter. After using the spell-checking program, students run their papers through a writing-analysis program called Writer's Helper. This program analyzes writing in a number of different ways, printing a hard copy of the analysis upon request. With this analysis in hand, students then begin revising. They revise and edit their own work first, often working together to improve their papers. I offer to look at the students' hard copy of the analysis of their papers, but only after they have shown that they have done some revising and editing on their own. In areas where students seem to have difficulty or do not like some aspect of their paper, they will often write a note to me on the hard copy of their paper stating what they perceive to be the problem and asking how they can improve or fix it. They are very good at recognizing areas of weakness or areas where they cannot quite find the words or sentence structure to say what they want to say.

By this time, usually day six or seven (depending on the amount of time allotted for a given paper), most students have finished revising. Some students go back to the computer immediately, make the revisions, and print out a final copy, proofreading it one last time before handing it in. Other students put their papers aside for a few days before completing them. This works well, as the "final" due date of each paper is not until the first due date of the succeeding paper. Thus, the students actually have an additional five to seven days to complete their papers, as I mentioned earlier. This allows them to look at their papers at a later time with a fresh eye. The only stipulation I make is that when we begin a new paper, students must work on the previous one on their own time, as class time is now to be spent on the new paper.

Furthermore, this works very well for me, as I get a few papers in each day rather than all of them on the same day. This has the effect of spreading my work load out over two weeks for any paper rather

than over a few days, allowing me to return my students' papers within a day.

Although it appears that the writing process used in this class is linear, actually it is not. Throughout their writing, whether at the computer or with notebook and pen in hand (but to a lesser degree), students are constantly going back and adding, deleting, expanding, and even starting their papers over. As they sit at the computers in a lab situation, students frequently ask questions of each other and offer advice to each other about their writing. The result is a sharing that does not occur, at least as frequently, with hand-written work because "revising" there means rewriting the whole paper. In addition, students often collaborate, working with their peers to produce better writing. Working to improve their writing at the computer is immediate and easy; moreover, if students dislike the new version, it is easy to delete it and try again—unlike hand-written text. The bottom line is that writing on the computer is fun, and revising is easy and risk-free. The day-to-day progress through a particular paper, as outlined above, is only a rough guide for students. They know that a paper is never final until they hand it in for evaluation. After proofreading and editing a paper with their peers, a student will frequently throw out sentences or paragraphs; rearrange sentences and paragraphs; add words, sentences, and entire paragraphs; or throw everything out and start over.

Over the three-plus years that I have used computers in my writing classes, I continue to be amazed by the results. Students become very good at composing at the computer and even enjoy doing so. Some of my students are in the library working on their papers nearly every class period. They can even be found at the computers after school. Once they become accustomed to word processing, students do less writing by hand in the early stages of the writing process. They willingly do much more revising, reordering, and improving of their work than ever before. The quality of the writing my students do now is much better than in the noncomputer years.

Since we have been using computers, I have wanted to put together a book of student writing on a yearly basis. However, my original approach was to simply ask students to submit any paper they would like to have in the book. Even though students responded positively to the idea, very few papers came in; in fact, there were not enough submitted to create a book. In the 1988–89 school year, I changed my approach. I realized that many students were reluctant to submit their work for inclusion in the book because they felt their papers were not good enough. Thus, upon reading and evaluating a paper I felt merited inclusion (there were many), I asked the author in writing on the evaluation sheet and even verbally in class to make any needed corrections and submit the paper for the book. Papers began to come in. Once corrections were made, students brought me their disks. We simply loaded their papers into the computer's memory and then saved them on my disks. (It is wise to keep a backup disk.) This went on throughout the two semesters of that year. (I had six sections of composition in 1988–89 [three per semester] totaling one hundred students.)

In May 1989, we were ready to begin organizing the papers we had been saving on disk and to print out a master copy of the book. A total of fifty-five papers were submitted from thirty-five students, an excellent response for the first year. With the help of one of my students and our librarian, I began the computer work. We organized the book according to the types of writing. Thus, we created four sections corresponding to the four types of writing: expressive, informative, persuasive, and imaginative. We included a table of contents that listed the type of writing, the type of paper, the author, and the page numbers. We included a preface, which explained the book in general and briefly defined each of the four types of writing.

We began loading papers into the computer's memory until it was full (around 25,000 characters on our computers) and then printed those. When they were printed, we cleared the memory and loaded more papers, continuing this process until all of the papers were in print. When students transferred their work to my disks, they put their names under the title of the work, so when we printed the master copy, we saved some time. (The printing process took about three hours to complete, but much of that time was waiting for the printer to complete its work.) Using The Print Shop, we then created a cover and internal dividers (blue card stock was used for the cover and blue paper stock for the dividers) for each type of writing, thus enhancing the appearance of the book. In the end, we had a one-hundred-page book (including special pages and dividers). After some thought on our part, the title, *A Collection of Student Writing: Advanced Composition 1988–89*, was added and our first book was born.

Without the use of computers, this project would have been much more difficult and much more time-consuming. Before I began using computers in this class, I had suggested to my students that we might put together such a book. I explained that it would take some assistance from them in terms of typing all the papers that would be submitted, a task that would require a fair amount of time and a few good typists. The idea, however, did not meet with much enthusiasm from the students. Very few were willing to commit the time necessary or to submit papers for the project, in effect, killing the whole idea. However, because students are now required to use computers on all of their papers, once the paper is submitted for evaluation, the rest is easy. Any student who wishes to put a paper in the book simply goes back to the computer, makes any final corrections or revisions, and then saves the work on my disk.

Once we had a master copy, I took it to the printer in our building, who then printed 125 copies. Once the printing was completed, we drilled holes for the three-ring binders. The pages were assembled and placed in the binders. With the help of students from a study hall, we completed this step in only a couple of hours.

The last step was to distribute copies. Each student who contributed to the book received a copy; each administrator in the district was given a copy; each school board member was presented with a copy at a board meeting; each school library in our district (parochial and public) and the city library received copies; and copies were also distributed to various locations around town, including doctors' offices, realtors' offices, insurance offices, city hall, and the local hospital.

I would be remiss if I did not give credit to our district director of instruction and our superintendent for supporting this project. We plan to make this a yearly project, as it has created excellent public relations for our writing program and for our district. In addition, now that we have a book of student writing, students use it in class to find ideas and models for their own work. Somehow, getting students to submit papers seems much easier this year.

Evaluation

Reactions to this project have been far beyond my expectations. Most important, students who submitted papers for the book are proud to see their work in print. As their instructor, I also take pride in their work and their willingness to submit their papers for publication. The book's presence in various locations around the community has reflected positively on our school district; this year, students are even more willing to get their work in print. And there have been many positive comments from people in the community, people who have had the opportunity to read all or part of the book while waiting in the various offices around town.

In fact, one reaction from a member of the community bears description here. One student (Matt) submitted a persuasive paper on why the U.S. military should keep the F-15 Eagle fighter plane in its arsenal. Soon after the book appeared in downtown offices, a colonel from a nearby military installation read Matt's paper while he was waiting for an appointment. He was so impressed that he contacted Matt to invite him to the base as a special guest in August 1989. On this particular day, military exercises were conducted, which Matt was privileged to observe. In addition, a reporter from a daily newspaper in a neighboring town wrote a lengthy article after interviewing Matt about his writing and the colonel's invitation.

A caution: teachers should be sure that all work that is submitted is done so with the student's permission. In fact, in the preface to our book, there is a statement to that effect. Otherwise, this has been a very positive experience that we intend to continue. For future books, I plan to experiment with using a desktop-publishing program.

11 POETRY WITH GRAPHIC HIGHLIGHTS

Joseph Hackett, Sir Winston Churchill High School,
St. Laurent, Quebec, Canada

Overview

Junior high school students combined a desktop-publishing activity with poetry-writing instruction to produce illustrated poems. These poems were later displayed in the school library.

Description of Students

I was working with a class of seventeen students in grade 7 with whom I had done some writing assignments on the computer, so this was not their first computer experience.

Description of Teacher

I am an experienced language arts and history teacher with moderate computer experience.

Objective

That each student create something poetic in nature, which is further enhanced by the inclusion of a suitable visual image.

Materials Used

We used six Macintosh SE computers with the Microsoft Word word-processing program and the ArtRoundUp graphics program. In addition we used five IBM PS2 computers with the PFS: First Choice word-processing program, PFS: First Publisher printing and graphics accompaniments, and the CINQ2 poetry program, which runs on BASICA and GW BASIC.

Time Required

Four to seven fifty-minute class periods.

Activities

The first two class periods were spent in the classroom attempting to get the students to write in the poetic mode. If there were sufficient terminals, one per student, this preliminary work could just as easily be done on the computer.

Day One

Each student chose a topic for his or her poem. They were free to choose any topic, although I did suggest that they pick something they knew about which had some action to it, perhaps a sport, to begin with. For example, if the student chose baseball as his or her topic, I then suggested that he or she pick a person within that topic, such as the pitcher. From here the focus could be further narrowed to the pitcher preparing to pitch.

Once everyone had at least some sort of topic, we proceeded to examine words that might accompany the topic. As in the example of the pitcher, what actions does the pitcher go through when preparing to pitch? The students wrote down all the action words, *-ing* words, that they could think of about their topic. They were free to help each other in this quest. We then moved to the *-ly* words, *-ed* words, and the sensory words (sights, sounds, smells, feels, tastes) that might be associated with the chosen topic in the performance of its particular action. I chose a topic of my own and wrote my own list of suitable words on the chalkboard as the class worked at their desks. They suggested some ideas for my list, and I did the same for theirs. Some students take to this easily. Others need prodding every step of the way.

With about ten minutes left in class, I suggested that students begin choosing from their lists the words that might go into their poems. I did the same with my own list on the board. No emphasis was

given to rhyme. My goal was just to give them some idea about how they might organize some of their words into a verbal image—one that would come under the general heading of poetry. Students were instructed to work on their poems for homework.

Day Two

The second day was spent in the classroom. Some students volunteered to read their poems, others to merely share them with a few students. Both the students and I suggested changes and modifications. During this session I was looking more at form: how the words would eventually be laid out on the page, particularly once they were entered into the computer. I was also looking to see which students had workable poems and which students were either lost or just lacking the confidence to risk an honest effort. Some students changed their topics and began writing new word lists. Others picked up some ideas and began a new copy with their words more carefully laid out on the page. Students were instructed to work on their poems again for homework, and they were told that we would be taking these poems to the computer lab the next day.

Days Three through Five

The next three class sessions took place in the computer lab. The number of classes spent here for this activity can vary, depending on the number of students per terminal and how much previous experience they have had with the computers. At the beginning of session three, I assigned students to the computers. Students who felt that their poems were in reasonable form were assigned to one of the six Macintosh computers. When the Macintosh computers were full, other students who felt they had reasonable poems were assigned to IBM computers. Of my seventeen students, six were assigned Macintosh computers and two were assigned IBM computers. Two other students were waiting to use one of these terminals. Students assigned to computers began entering their poems. Emphasis was placed on entering the words into the computer so that they could be saved to disk. Then, as time and terminal space permitted, poems would be edited and graphics would be added.

Seven students remained who were not progressing well (I might call them "reluctant writers"). Some of these students had written poems, but they were not happy with them in their present form. They welcomed the opportunity to have the computer aid them. The others had written very little at all. I ran a poetry-writing program called CINQ2, to give these students specific direction with their writing. It is not a program I would run with all students because it presents a very rigid view of poetry (as you will see), but it provided a useful sense of direction for these seven students.

Under my verbal direction, one student in each group of reluctant writers followed the program through until he or she had a completed poem. The other students watched. This completed poem was then saved to disk and another student was given the opportunity to try the program, until each student had written at least one cinquain. The CINQ2 program is reproduced in Figure 1. The capital letters mark the way the program progresses. The lowercase words are a possible student response.

The poem can now be saved on a data disk in the ASCII format. It can also be printed. The student can then write another poem, or someone else can have a try.

The students were given the option of writing a few more cinquains, or modifying what they had already written in some way to make it a more personal effort. The simplicity of this program and the camaraderie of this group activity seemed to remove any reluctance these students had exhibited about trying to write poetry. Some took their ideas from this program and went to another computer where they began to enter them. Others tried the CINQ2 program again. By the end of this session, each student had entered some text into the computer and saved it to disk.

Days Five through Seven

In the fifth through the seventh sessions, we reviewed all of the poems in their rough form as they had been entered into the computer. While some students worked at changing words or lines and others tried using CINQ2 again, I worked with those who were happy with their rough poems and were now ready to make them more presentable. The poems that had been entered using Microsoft Word were worked on using the same program. We discussed the form the poem should take. Should a certain line be given more emphasis by creating more space for it? Should certain words be moved to show their importance? Could we change the fonts on a particular word to highlight it in some way?

PLEASE ENTER YOU'R NAME: Joe
WELCOME, Joe!

A CINQU'AIN IS A FIVE LINE POEM.
HERE'S A CINQU'AIN POEM ABOUT ME:

COMPU'TER
BUSY, FAST
FLASHING, COUNTING, TEACHING
LOVES TO WORK WITH CHILDREN
MACHINE

NOW I'LL HELP YOU WRITE YOU'R OWN POEM!
WHEN YOU ARE FINISHED I'LL PRINT YOU'R POEM.

A NOU'N IS THE NAME OF A PERSON, PLACE OR THING.
TYPE A NOU'N:? car

ADJEC'TIVES ARE WORDS LIKE 'HAPPY' AND 'SMART'
THAT DESCRIBE NOU'NS.

TYPE AN ADJEC'TIVE TO DESCRIBE YOU'R car.
ADJEC'TIVE 1:? fast
TYPE ANOTHER ADJEC'TIVE TO DESCRIBE YOU'R car.
ADJEC'TIVE 2:? sleek

TYPE A VERB THAT ENDS IN 'ING' SUCH AS JUMPING OR SINGING.
USE AN EXCITING WORD THAT YOU'R car LIKES TO DO.
VERB 1:? roaring
TYPE ANOTHER VERB THAT ENDS IN 'ING' THAT YOU'R car DOES ON
SPECIAL DAYS.
VERB 2:? speeding
TYPE ONE MORE VERB THAT ENDS IN 'ING'.
VERB 3:? driving

ACTION VERBS TELL WHAT NOUNS DO. EXAMPLES OF ACTION VERBS ARE
'KICK' AND 'DIVE'. TYPE AN ACTION VERB THAT ENDS IN 'S'. MAKE SU'RE IT IS
SOMETHING YOU'R car CAN DO.
ACTION VERB:? zooms

TYPE A PHRASE THAT STARTS WITH zooms AND TELLS ABOU'T
YOU'R car.
PHRASE:? zooms along the road

TYPE A NOU'N THAT STANDS FOR car.
FOR EXAMPLE:
'MACHINE' STANDS FOR 'COMPU'TER'.
NOU'N:? automobile

NOW I'LL PRINT YOU'R POEM.

A SPECIAL CINQU'AIN BY Joe:

car
fast, sleek
roaring, speeding, driving
zooms along the road
automobile

GREAT JOB!

Figure 1.

For example, the use of shadow letters or boldface could make a word more frightening if that were useful in the poem. Students were encouraged to play around with the form of their poems for a while until they were happy with the way they looked. If they had not already done so, they added a title at the top of the page, and the student's name was placed below the poem.

At this point, the poem was again saved to disk and we went into a graphics program called ArtRoundUp. Here the students looked through pages of graphics, trying to find one or two that might highlight their poems in some way. For example, one student wrote about building models. We were able to locate a car graphic and a boat graphic. We copied each graphic from ArtRoundUp and pasted them onto his poem page. Another student wrote about a shark. While no shark graphic was available, we did find a deep-sea diver graphic. Including this human image below the poem, which was entitled "A Shark Hunting," gave it a much more ominous tone. By working through this process of locating, copying, and pasting the graphic with one student, I enabled that student to help another while I worked with someone else.

Those students who had begun their work on an IBM computer or had used CINQ2 saved their poems in an ASCII format. As such, they could be transferred to a printing program we have for the IBM computers called PFS: First Publisher, which has multiple fonts and graphics. These students then went through the same form-improvement process as the Macintosh students. Words and lines were shifted, certain fonts were added where useful, and a suitable graphic was added. One student had chosen New York as his CINQ2 topic. PFS: First Publisher just happened to have a graphic of the New York City skyline. It made an outstanding addition to his poem.

What happens when there does *not* seem to be a suitable graphic? Teacher and student must use their imaginations. One girl wrote about Wayne Gretzky, but there were no hockey players in PFS: First Publisher. We settled on a series of stars running at a rising diagonal alongside the poem, emphasizing the still-rising star that she felt Gretzky to be.

As each poem was completed, two copies of it were printed out. Students placed one copy of their poems in their writing folders. By the end of our three sessions in the computer lab, each student had produced a poem in a remarkably professional format. As it happened, our school librarian was holding a poetry display and contest during this time, so the second copies of the students' poems ended up on a bulletin board in the school library. None of the students complained about their work being displayed in such a public arena. I think they were proud of their efforts. I think they were also surprised by the beauty of their accomplishments.

I did not assign a mark to these poems, as writing poetry is too much a subjective practice. I waited until the library display was taken down, and then I wrote comments on these copies of the poems and returned them to the students. The class had achieved the original goal of producing illustrated poems. What more can a teacher ask for?

Evaluation and Conclusions

In general I was happy with the way our poetry-writing sessions went, and the results were good. Upon further reflection, I realized that I had done about a year's worth of poetry work in this flurry of lessons. Next year, I will begin poetry writing with the CINQ2 program because it serves as an excellent introduction to the poetry-writing process. It allows each student to write a poem, thereby building confidence in an ability that they might not as yet have explored and making the first poetry-writing exercise uniform and easier on both teacher and student. It will also serve to help the students become more familiar with the computer.

Later poetry-writing exercises would bring in the idea of visual enhancement by using fonts and graphics. To solve the problem of the nonsuitable graphic, the teacher could print out some of the available graphics early on so that students can choose topics with a particular graphic in mind. The teacher should also be familiar with the various graphics available so that he or she can match up the student's topic with a suitable graphic. For example, there were hockey players in the ArtRoundUp program, so the poem about Wayne Gretzky could have used this graphic if the student had been directed to the Macintosh computer in the first place.

Further poetry-writing activities will follow throughout the school year in the hope that each student will produce a number of good works, some of which can be entered into the computer and enhanced by the use of different fonts and suitable graphics.

Instead of five classes spent in the computer lab at any one time, perhaps students might benefit more from one day a month spent composing poetry on the computer—saving the poems, printing them, and putting them in their writing folders. Then those poems students felt were their best efforts could be enhanced with graphics. In this way, students might come to a better appreciation of their own poetic efforts. In some cases, a student might be able to envision his or her finished product from the very beginning of the writing process, resulting perhaps in an exceptional work. The computer lab would be there for students to explore the possibilities.

I suggest that teachers work their own way through these programs beforehand so that they can learn from their own mistakes. Then, when a student's poem has somehow disappeared ("I didn't touch anything! It just vanished!"), the teacher just might be able to retrieve it. The teacher does not have to be a computer wizard, of course. Sometimes being just a little bit lost makes us seem a little more human to the students with whom we are working.

12 A MANUAL FOR PARENTS*

Deborah Trimble, Nekoosa High School,
Nekoosa, Wisconsin

Overview

Students used computers to create a manual of directions for proper parenting. Much of the basis for the manual came from fiction read earlier in the semester. The "manuals" were posted to be read by both students and parents.

Description of Students

Students who participated in this activity were able sophomores. The average class size was twenty-one. Nekoosa High School serves a community of about 3,000 people, a mostly white, middle-class population. A paper mill is the primary industry in Nekoosa.

Description of Teacher

I have fifteen years experience teaching sophomore/first-year English, and I have a master's degree in professional development. I believe in the process approach to writing. I have been a member of the National Council of Teachers of English and the Wisconsin Council of Teachers of English for twelve years. My prior training in computers includes an inservice introduction to computers with the representative from Apple computers when the Nekoosa High School networked computer lab was installed.

*The idea for this project was taken from the NCTE publication *IDEAS Plus, Book Seven*. Carol Young of the Clarke County School District in Athens, Georgia, suggested students try this popular idea.

Objectives

- To get to know the sophomores better at the beginning of the school year.
- To use the computer lab and AppleWorks at the start of the school year so that students will be able to use the lab independently in their writing-across-the-curriculum assignments throughout the remainder of the year.
- To evaluate the students' initial narrative and descriptive writing skills.
- To have the students revise their written work to develop more sensory details, to incorporate more grade-level vocabulary, and to develop their style.
- To explore literature that presents parenting as an issue, and to incorporate students' observations into their writing.
- To review point of view and apply it to parent/child experiences.
- To have fun doing futuristic thinking and predicting.
- To display students' work on a bulletin board and thus provide an audience for their writing, which would include not only high school faculty and students but also parents who come for conferences.

Materials Used

A networked computer lab (primarily used for introduction to computers and by advanced computer-math students) equipped with twenty-one Apple IIe computers with 3.5-inch disk drives and three printers. The software used was AppleWorks 2.0. We have no lab assistant.

Activities

The purpose of this activity is for students to create a booklet of do's and don'ts for parents. Students get involved in thinking and talking about parenthood, organizing lists, describing a childhood experience, and using imagination to create a fictional child of their own.

We use short stories from our first short-story unit as prewriting prompts. They include "A Visit to Grandmother" by William Melvin Kelley, "Forgiveness in Families" by Alice Munro, "Life Is Sweet at Kumansenu" by Abioseh Nicol, "Through the Tunnel" by Doris Lessing, "Story of the Widow's Son" by Mary Lavin, and "Shaving" by Leslie Norris.

The assignment page I gave my students is reproduced in Figure 1.

Day One

During the first part of the period (while still in the classroom), we looked at the directions for the parent handbook and then discussed and took notes on parent/child relationships we had examined in the short-story unit, in films, and in personal experiences. We continued to brainstorm for each activity on the assignment page, and students could check the library for sample dedications.

Then during the last part of the period (no more than fifteen minutes), we reviewed the sheet of directions they had used as first-year students. In a twenty-step process, it details how to use AppleWorks on the network. The directions begin with how to turn on the computer and the monitor and how to log on as a registered user and progress through how to save and print the files the students have entered.

We also reviewed another direction sheet that explains the AppleWorks keystrokes, especially pressing the open-apple key and the *S* key to save, pressing the open-apple key and the *P* key to print, and pressing the open-apple key and the *O* key to see the options menu. The last command is particularly important because students need this menu in order to choose double-spacing so that the printouts of their first drafts will have room for subsequent additions and revisions. Students should use the options menu to choose double-spacing before they begin entering text, so that the cursor is automatically at the beginning of their file and all material is double-spaced from the beginning.

We also looked at how to display the help menu by pressing the open-apple key and the ? key and how to underline by pressing the control key and the *L* key.

Day Two

We met in the lab on the second day. After students turned on the computers and monitors, we discussed the objectives of the assignment. While they were waiting to log onto the networked AppleWorks program, they reviewed their prewriting notes and the parent handbook directions. Most students helped one another in the logging-on process until I could get around to troubleshoot. The two-to-ten-minute delay from starting up the computers to getting on the system and entering text is one of the frustrations involved in using a networked system.

Students focused on using the computer to develop the descriptions of their childhood memories first because it was the section that I required them to write on the computer. In any extra time, students had the option to do any of the other handbook activities on the computer for additional credit; however, because this was the first activity of the year using the computer, only the childhood experience was required.

Days Three through Five

We continued with other class activities during days three through five. Back in the classroom, students worked on their reading journals and on short stories of their choice, which could include more parent/child relationships or, perhaps, incorporate childhood experiences. We examined descriptive writing throughout the week and discussed writing a narrative. Details we discussed included what makes an effective sensory detail and what makes a compelling and interesting narrative.

Day Six

Students returned to the computer lab to make revisions and additions to their childhood-experience files. Additionally, they had new ideas to enter about their future children and real and fictional parents. Some students used The Print Shop (a graphics program) to create covers for their work and to make sketches of real and ideal parents. Then students wrote about the graphics they had chosen or created.

1. Cover—Design and make a fancy cover for your handbook. Include a title and your name as the author.
2. Dedication page—Write a dedication page for your handbook. Include a quotation about children or young people, parenting, growing up, or living happily. Document the source of the quotation (give the author's name and the title of the work from which the quotation is taken).
3. Do's for parents—Make a list of all the things you would try to do as a parent.
4. Don'ts for parents—Make a list of all the things you would try *not* to do as a parent.
5. Sketch of the "ideal parent"—Draw a picture of the ideal parent. Your drawing may be humorous or serious. Add an explanatory caption.
6. Sketch of the "real parent"—Draw a humorous or serious picture of your real parent or guardian. Add an explanatory caption.
7. Description of a childhood memory—Write a composition about an important experience from your childhood.
8. Description of your fictional child or children—Imagine yourself in the future as a parent. Write a composition describing the appearance, behavior, and temperament of your child or children. You might want to include references to traits inherited from both parents (you and your future spouse) and to include details about how growing up will be different for your child or children in the future than it was for you.

Grading:

Number 7 is required and needs to be completed on the computer with double-spacing, other activities may be done on the computer for extra credit.
A = 1, 3, 4, 7, 8, and at least two additional activities
B = 1, 3, 4, 7, and at least two additional activities
C = 1, 3, 4, and 7

Figure 1.

Day Seven

We met again in the classroom and set the due date for the project in three weeks. Students were given the option of using the two networked computers available in the library during their study halls or before or after school if they had not finished their childhood experience or wanted to complete other sections of the project on the computer. The teacher of the Computer Introduction class also offered to let students work in the lab when he was there.

First Due Date

Students handed in their parenting handbooks. Many of them had produced their covers on the computer. I had a great time chuckling at the sense of humor many students showed in their ideal-parent sketches and future-children descriptions. I made suggestions for revisions on their childhood experiences, which students would develop in their rewriting. I focused on asking questions that would get them to be more specific, individual, and interesting in their descriptions of their experiences. These experiences ranged from a description of a student's first day in kindergarten to a description of a field trip, to a description of a student's first deer-hunting experience.

Three Days Later

It took me three days to grade the booklets. Prior to returning them, as a daily oral-language exercise, we discussed sentence revision, punctuation, spelling, language clarity, and paragraphing by examining some of the students' writing on the overhead projector. Then we looked at sensory details and practiced writing passages that would appeal to each of the five senses. Next, we corrected a vocabulary exercise that involved using fifteen terms such as *epitome*, *denizens*, and *brunt*.

Because students were reluctant to have me post their candid parent handbooks that I had returned, I compromised and required them to develop their childhood experiences using at least five of the vocabulary words we had just studied and to create a new cover to illustrate these experiences. The assignment included the explanation that these papers *would* be posted. Students had the remainder of the period to add sensory details to their writing and start jotting down ideas about how they would include vocabulary. We finished the period with directions to meet in the computer lab the following day, bringing notes and ideas for revising.

Third Day in the Lab

This was the third time we met as a class in the computer lab. Students recalled their files and eagerly entered their details. The most challenging part of their writing came when they included the vocabulary words; some students complained that the added words made their compositions sound strange. Nevertheless, I required them to improve their writing by including at least five of the vocabulary terms in order to earn an *A* or a *B* for this assignment. As a result, students developed more complex sentences and even more details.

Many students finished their revisions before the end of the period and began peer editing. When students took their papers as far as they could during the period (some finished before the bell rang), I gave them directions for the sandwich story using a beginning and an ending line from Steinbeck's short story "Flight." This gave them an enrichment activity to try at the end of the period, and it became a tremendously successful prereading activity.

The Following Day in the Classroom

When we returned to the classroom, we set the due date for three weeks away, in order to give students sufficient incubation and rewriting time. Students were required to keep their revisions and hand them in with their final copy so that their writing could be evaluated for improvement.

Meanwhile, we shared and compared student versions of the sandwich story before students started the Steinbeck unit that would begin with his story "Flight." Students said they enjoyed hearing the variety of sandwiches peers created and were impressed with the details Steinbeck used in "Flight" in comparison.

Due Date for Childhood Experience

What an exciting day! Students proudly brought in booklets that were indeed new and improved. From poster-size artistic sketches to collages to photos to colorful posters done on The Print Shop, these covers said it all. As I spent the next three days eagerly reading the revised copies of students' childhood tales, I was more than satisfied with improvements that included more complex vocabulary and sentence structure and carefully proofread spelling

and punctuation changes. Done on the computer, these papers were a pleasure to read, and I eagerly returned them with *A*'s and *B*'s for grades. Thus I shared my happiness at their success with the students before posting the booklets on the bulletin board for parents to read and admire during their classroom visits.

The only disappointments were those few students who failed to use the computer for their papers. Because I have persisted in my requirement that students write on the computer, and because I have begun to utilize group work with the computers, even these individuals have used AppleWorks successfully and have become more confident as the school year has progressed. I also found that the bulletin board display was a motivator and that individuals more readily completed subsequent assignments in order to feel the pride that comes from seeing one's work displayed for others to read and admire.

Evaluations and Conclusions

When I surveyed my students after we used the lab, responses included the following comments:

> I enjoyed getting out of class and learning new things about the computers because otherwise I never have a chance to go in the lab to use them.
>
> It's faster and easier than writing.
>
> You can fix your mistakes before you print it out.
>
> It's neat, you can change mistakes and reprint it rather than rewrite the whole thing.
>
> It was a change of scenery.
>
> I like using it because it's helpful and you can set things up on the screen.
>
> Everyone had their own computer.
>
> I like the independence, being able to type my thoughts as I came up with them.

When I make out next year's budget, I plan to include computers for my classroom, disks for the students, and Writer's Helper for the network so that students can do more editing and evaluation of their papers before turning them in. But compared to last year, we have come a long way and love it; this year, I have heard students describe writing as fun, thanks to word processing!

13 IMAGINARY WORLDS

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Overview

In this collaborative activity, a class of students created a collection of science fiction stories. The stories had common elements, and a good deal of peer editing was involved. The computer and a desktop-publishing program were used to create the final product.

Description of Students

The project was initiated with a class of gifted students, grades 7 through 12, but could be used with any upper-elementary or secondary students.

Description of Teacher

I am experienced in gifted education/English; I also have extensive computer experience. Even novice computer users can direct this project, however.

Objective

To provide an opportunity for collaborative creative writing.

Materials Used

Any computer and any page-layout program can be used.

Time Required

Approximately eight weekly class meetings. (This schedule is flexible.)

Activities

I wanted my class of gifted junior and senior high school students to experience the rewards and difficulties of the collaborative process through participation in a creative-writing project. Scheduling was difficult, though; the gifted program was operated on a pull-out basis, and group meetings of the entire class were infrequent.

Another consideration was the wide range of ages and interests of the students—it was important that the topic and format of the publication accommodate the needs and abilities of everyone. Because many of my students were science fiction and fantasy fans, I suggested that they create a shared-world anthology.

Many science fiction universes have provided ready-made settings for enthusiastic amateur writers. There are "fanzines" devoted to television programs (*Star Trek*, *Dr. Who*), movies (the Star Wars saga), and novels (Marian Zimmer Bradley's Darkover books). Occasionally, fans' stories even appear in anthologies from major publishers.

Established authors also visit their colleagues' imaginary worlds. For example, Robert Lynn Asprin and Lynn Abbey's Thieves' World and C. J. Cherryh's Merovingen Nights anthology series have attracted many notable contributors, who bring their own unique characters, styles, and perspectives to the originator's setting. The basic continuities (historical data, geography, etc.) must be respected by contributors, though, to avoid disturbing inconsistencies among the stories.

Although this type of shared-world and fan fiction can be of very high quality, I felt that determining the specifications of a universe from the beginning would be an excellent creative-writing

experience for my class. Critical-thinking and problem-solving skills would also be demanded.

A fascinating account of such a project can be found in *Medea: Harlan's World.* The award-winning writer Harlan Ellison suggested the "live" creation of a planet by a group of his fellow science fiction writers as part of a fan convention. Individual participants prepared sections of a "précis" outlining the planet's topography, weather, natural history, and other features. The mimeographed précis was then distributed to the group (which included such respected names as Larry Niven, Frank Herbert, Hal Clement, and Poul Anderson). A few days later, over 1,000 convention participants witnessed the group's spirited discussion as they brought the planet Medea to life: The writers shared ideas, disagreed on details of nomenclature and planetary physics, and ultimately left the session prepared to begin their own short stories set in Harlan's world.

My students followed a similar procedure to create the planet Titania, even constructing a model of its most distinctive feature, a floating city. (A good resource is Lin Carter's *Imaginary Worlds*, unfortunately out of print. Check your library!) They decided to concentrate on one episode of the planet's history: a rebellion of idealistic youths against a despotic technocracy.

The next step in what I considered prewriting activities was character outlines. Each student contributed a description of a character and an illustration of some kind—a portrait of the character, a map, or a diagram (of vehicles, living quarters, or other Titanian artifacts). I encouraged the students to approach their characters in a manner that reflected their own personalities and interests. In this way, the class would be assured of an engrossing and enjoyable writing experience, as well as an interesting mix of characters in their publication. For example, one student, herself an accomplished dancer, described a spy who used dance performances to gain access to the rulers' city. Another student, now in medical school, used a knowledge of chemistry and physics to design the system that kept Titania's floating city aloft.

Each student then recounted an incident or aspect of the rebellion in a three-to-five-page story. (Several students chose to write their character's personal account of one incident in a *Roshomon*-like sequence.) I suggested different formats for them to consider: journal entries, transcripts, memoirs, "official" histories (cf. Bram Stoker's *Dracula*, Thornton Wilder's *Ides of March*). Again, this permitted the students to write in the form best suited to their talents. For example, the student with a gift for realistic dialogue chose to write a transcript of the interrogation of a rebel prisoner.

These individual sections, written outside of class, were arranged in a rough chronological order, copied, and distributed to class members for peer review before final revisions and editing.

Computer Applications

When I assigned this project for the first time, I typed all of the sections onto mimeograph stencils. Today, the project can be produced far more effectively and enjoyably with a microcomputer.

Your students' imaginary world can be created with virtually any computer system, from an Apple II computer and a simple word-processing program to a Macintosh computer and a powerful page-layout program. In an ideal computer lab situation, each student would enter his or her text at a work station. The editor (student or teacher) would then use these individual files to prepare the finished document. A spell-checking program would be helpful here.

Illustrations in virtually any medium can be added to the project by simple cut-and-paste techniques; or, images can be scanned by the computer, modified in a graphics program, and then inserted into the text. Of course, students skilled in draw/paint programs can create their own illustrations directly on the computer.

Other applications in addition to these programs can be useful in this project. Details about the world's "specs" and characters can be kept in a database for easy retrieval. For example, database fields in a character file can include name, age, sex, physical description, etc. If you have access to a modem and a user account, your students may wish to publish their work electronically. CompuServe's Science Fiction and Fantasy Forum, for example, offers an exciting opportunity for students to share their work with interested readers outside their own group.

Suggestions

1. Participate in the project yourself, creating a character and contributing a story.
2. Select a student editor/proofreader to check for

inconsistent details (spelling of names, etc.) within and among students' texts.

3. Include the students' description of the world, maps, and list of characters in an introductory section of the publication.
4. Keep in mind that you will most likely be creating camera-ready pages for photoduplication. Make sure that the duplication process will not degrade the quality of text or illustrations. For example, colors, patterns, and textures may not reproduce well.
5. Use a consistent, simple layout throughout the entire publication. Avoid multiple columns.
6. Avoid mixing fonts and styles. Choose easy-to-read fonts and use appropriate line-spacing.
7. Consider the judicious use of a color ribbon of hand-applied spot color (using markers, pencils, etc.).
8. Have the students design an attractive and sturdy cover, laminated if possible.

Evaluation and Conclusions

I sent copies of this completed project to two writers I came to know through my involvement in science fiction fandom. (One, Susan Schwartz, has since become a major figure in science fiction.) They responded with many enthusiastic comments and valuable suggestions for improvement. My students enjoyed these professional critiques. Peer review and my feedback also aided in the revision process.

The imaginary world project is extremely flexible and can be adapted for use with different hardware and software, class sizes, grades, and student ability levels. Other themes for the project, in addition to the create-a-planet idea, are alternate histories (e.g., What if the ancient Romans had colonized America?), and distant future Earths.

This project proved to be an involving educational experience which allowed creative expression and problem-solving as well as providing experience in word processing and other computer applications.

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14 COMPUTER ACTIVITIES WITH MINIMAL HARDWARE: DEBATE, CONTINUOUS STORY, AND MYSTERY SENTENCE

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Overview

Two high school teachers created three activities their schools could share. They initiated a debate and sent disks of student propositions back and forth. They also created stories that many students could add to and started a contest to see if the other school could spot literary passages that had been altered.

Description of Students

The students who participated in these activities were ninth graders in general English classes.

Description of Teacher

I have fifteen years' experience in teaching secondary English, and a master's degree in education. My past experience with the computer as an educational tool began and ended about twelve years ago when I was finishing up a student-teaching experience. As a member of a suburban high school faculty, I was eligible for a class whose objective was learning how to program a Hewlett-Packard 2000. The class lasted a week, and I successfully programmed the computer: I wrote a five-question multiple-choice grammar quiz on the parts of speech. That ended my experience with any computer for a decade, much to my disappointment.

Objective

While taking a course on computer uses in writing instruction, the idea of electronic mail was raised. It seemed like a way to stimulate student writing and give the students a realistic audience to boot. Jack Peterson (Cumberland High School) and I decided that we would try this. At first, we thought we might get other schools involved, but the logistics of this soon became a problem. We decided to keep it between the two of us so, if things got out of hand, we could more easily regain control.

We decided that the specific educational objectives of this kind of an activity were genuine. Depending on the exact activities chosen, teachers could include work on a variety of writing skills, and if they wanted to spice things up, they could inject a little competitive incentive. We did.

We discussed a variety of ideas and finally settled on three activities that we thought would be manageable for us: a debate, a class story, and a mystery-sentence activity.

The student objectives for each of these activities are all good, sound writing objectives. The debate calls upon the use of argumentation skills, asks the students to use logic and reasoning, necessitates the use of support materials, promotes the use of persuasive language, and, to a lesser degree because this activity was used with older kids, develops reading-comprehension skills. The class story calls upon comprehension skills such as description, characterization, the use of dialogue, and plot development. The mystery-sentence activity is a style-teaching activity that is designed to make the student more aware of style differences among authors. With this activity you could get into such things as sentence structure, diction, and even more-abstract concepts like mood and atmosphere.

Materials Used

We selected AppleWorks as the word-processing program both schools would use, but I found out that not all machines are created equal. For those

with computers that had 128K of memory, there would be no problem. Everything would probably fit into one file. But for our older machines with only 64K of memory, there would be a problem: everything I wanted to put in one file might not fit. We stayed with AppleWorks, and I adjusted my files.

Time Required

These activities may be ongoing, or teachers may choose to spend only a certain number of class hours on each activity. For the debate activity, as suggested here, a minimum of four exchanges are required. The continuous story ends after the tenth exchange.

Activities

After Jack and I decided we would do three activities, we set up the ground rules. We decided that the activities ought to be simple enough to be manageable for cross-grade student participation, yet they should be challenging enough to be interesting.

Debate Activity

We decided on two debates, one initiated in Cumberland and one initiated in Spooner. This would give more students the opportunity to participate, and each school would also be able to select the debate topic. The topics and all subsequent propositions were agreed upon by the participating teachers so all students involved would have a fair chance to respond. It would do no good to dream up a question about which one side might be lacking knowledge.

The instructions for setting up a debate are outlined in Figure 1 and are fairly traditional. The school that thought up the resolution acted as the affirmative side and began the debate. Any number of people on each side could participate in a given response, but we made sure each response was labeled with the author's name so everybody knew who they were talking to at the other school. After the first school had its say (both schools, because there were two debates), the disks were enclosed in mail-safe packages and sent to the other school via a local-schools mailing system run twice a week.

In the meantime, students at each school were waiting to receive the disk with the opponent's proposition on it so they could respond and send it back. Students at my school were given the disk to respond to on their own time unless I had those students in class. Then, students could use class time for responding. In all cases, the teachers were responsible for sending the disks back and forth.

For our purposes, we limited the debate responses to three for each school, plus a summary statement for a total of four writings per school.

Continuous-Story Activity

The continuous-story activity was done in a similar way. This can be a fun writing activity that is limited only by how wild teachers want to get. It is desirable to place some restrictions on this activity, though, or the flow of the tory can be compromised in the name of sensationalism, and the plot line may suffer. Figure 2 shows the instructions we gave our students.

Mystery-Sentence Activity

This is an interesting activity that forces students to look at styles of writing. The first school picked a literary selection to be altered or added to, and then they passed it on to the other school to see if the addition or alteration could be detected. The instructions for setting up this activity are given in Figure 3.

Evaluation and Conclusions

The strength of these activities as computer activities is that they allow many students to use a computer even if the number of available computers is limited. This is good because the computer has a place as a tool in writing instruction. Much research supports this opinion, including the work I did for my master's degree project in 1989 (a complete list of references follows). Such research suggests that using the computer as an aid to writing instruction can enhance student writing. It would also be more difficult to do these activities on an inter-school basis using pencil and paper: for example, compare mailing a disk to mailing and keeping track of an accumulation of sheets of paper.

Additionally, as writing activities, all three activities involve the question of purpose and audience, two necessary ingredients for a good writing activity. Furthermore, they all ask for and require the reader's participation. Students must call upon comprehension and evaluative skills, as well as employ various writing skills.

The results of these activities may be printed and multiple copies can be produced more easily with

Instructions for Debate

1. Team A is the affirmative and has the burden of responsibility to prove the resolution. Team B is the negative.
2. Any student from each school may react to the resolution, but the argument must be written in paragraph form as if it were from one point of view.
3. You may write as much as you want each time. Be sure to address the arguments presented and stick to the issues.
4. In order to keep the debate on one continuous file, before you write anything, put three line spaces between the previous arguments and yours, identify your school, yourself, and your position (affirmative-1 means that this is the first response from the affirmative side; negative-3 means this is the third response from the negative side, and so forth). Then insert two line spaces and begin your argument.
5. For this debate, each school will have three opportunities to react to the resolution and previous arguments and will write one summary of position at the end of the debate. The summary should be labeled "Affirmative (or Negative) Summary of Position."
6. Be sure to save what you have written using the file name *Debate 1*. After you save what you have written, return this disk to your teacher.

Figure 1.

Instructions for Continuous Story

1. Any student may add to the story.
2. Each entry should be of reasonable length so as not to monopolize the text.
3. Any student may create a character (only one), but he or she has the responsibility to develop that character. No character may be eliminated except by its creator.
4. Before you begin to write, read the story through so that what you write will make sense.
5. Observe all the regular rules of writing mechanics, including spelling, punctuation, and capitalization, as well as correct usage and grammar. Review rules of punctuation for dialogue if you use it.
6. Before you add any new text to the story, print your name in parentheses at the beginning of your first paragraph.
7. Be sure to save what you have written under the file name *Story 1*. After you have saved what you have written, return this disk to your teacher.
8. This story will end after the tenth entry. The person who has the story at that time will be responsible for ending it.

Figure 2.

Instructions for Mystery Sentence

Person A will select a short literary passage in which the author's style is evident, then copy this passage and either substitute a sentence or replace a sentence with an original one that does not fit with the style of the passage.

Person A will give the passage to Person B whose job it will be to analyze its style and determine which sentence does not fit with the style of the passage. Person B must also specify reasons for the choice that he or she made.

Person B then selects a passage for the next person. This procedure continues until each person has had a turn.

Figure 3.

computer technology. As an added benefit, students' work looks more professional.

Conversely, if computets are in limited supply (which may be the reason for doing activities such as the ones discussed here), trying to get everybody involved at the same time is difficult. Perhaps then the activities can function more as an enrichment or as a kind of independent-study activity, rather than as part of a regular unit.

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15 "SONG OF MYSELF": A CLASS POEM

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Overview

In this activity, students write a collaborative class poem based on Whitman's "Song of Myself." After individually generating many ideas, students move from computer to computer responding to different prompts on the screens. These responses are peer revised, edited, and then published as one class poem.

Description of Students

A heterogeneous eighth-grade class. Students should be familiar with the basic operation of the computer and a word-processing program. They should also have some knowledge of the keyboard.

Description of Teacher

Master's degree in computer education. Eighteen years teaching experience: junior high English teacher for thirteen years, K–8 computer coordinator for five years. Instructor in computer and language arts for four years at Lesley College, Cambridge, Mass.

Objectives

Students will

1. create a free verse class poem using vivid sensory images.
2. integrate the steps in the writing process with their use of the computer.
3. reach outside themselves to create sensory images that represent the accomplishments and problems faced by past and future inhabitants of the earth.

Classroom Management Strategies

Available class time and adequate access to computers are management issues that teachers face as they integrate technology into their existing curricula. This activity addresses these problems by involving students in an activity that is relatively short, requires minimal computer time; yet, through cooperation and collaboration, results in a quality piece of writing. In this alternative to the traditional way of using computers (one computer for each person), students write, share, and discuss their ideas as they move from computer to computer.

If the teacher has access to only one computer in the classroom, the students could respond to one prompt per day. While the class is working on other activities, students could take turns entering their ideas. This approach would take longer, but it would achieve much the same result.

Materials Used

1. Walt Whitman's *Leaves of Grass*, which includes the poem "Song of Myself"
2. A copy of the student activity sheet for each student
3. Computers with word-processing capabilities
4. Six 8" x 10" pieces of oak tag for computer labels
5. A disk on which to save materials
6. Materials for publication

Time Required

Six fifty-minute class periods.

Activities

As the students work through the writing process, the literary focus is on the development of detailed, concrete sensory images to communicate abstract thoughts and feelings. A workshop environment will emerge in which students can work on different aspects of the project—some activities using the computer and some not using the computer. In this computer writing lab, the computer is used as a tool. The students will be sharing, discussing, and making decisions while the teacher acts as a facilitator and a mentor.

Day One

The teacher should explain Walt Whitman's free verse poem, "Song of Myself," reading selected parts of the poem that emphasize Whitman's sensory images, as well as other aspects of the poem discussed on the student activity sheet (Figure 1).

Using the student activity sheet, students can work with a partner or in groups to generate ideas for each section. Encourage them to start with the section about which they have the most to say. The student activity sheet should be completed for homework for the next class.

For teachers with adequate time and computer access, the student activity sheet can be completed on the computer by adding at least two more computer writing lab sessions. The teacher can create a "Song of Myself" Prompter File by entering the student activity sheet on any computer and saving it as a prompt file. The frozen-text feature of the word-processing programs Magic Slate, Bank Street Writer, III, and FredWriter will prevent students from accidentally erasing the prompts. Then make multiple copies of the disk for each computer.

Individual students or partners can load the "Song of Myself" Prompter File and enter their ideas by composing on the computer or copying from the previously completed student activity sheet. A sample screen is shown in Figure 2. A management tip: In order to identify each student's file and to keep the original prompt file blank, students should be instructed to save their file using another file name. Example: File name: Prompter.Ann.Scott. See your word-processing manual for instructions about how to rename a file. As an option, the students can choose to print out their files.

Day Two

The students can share their ideas by creating a "choral reading." Following the model on the student activity sheet, the teacher can say, "I think I will listen . . ." Going around the room, the students can select one of their ideas and say, "I hear . . ." The teacher can change to a different topic and keep the momentum going.

Encourage students to expand or revise their own ideas during this group sharing and before the next class.

Day Three

On day three, the students move to the computer lab. Attach triangular shaped pieces of oak tag on top of six computers so that they stand up. (Fold 8" x 10" pieces of oak tag into thirds and form them into triangles.) Label each tag to correspond with one of the sections from the student activity sheet. Examples: "I hear . . ." "I understand . . ." "I saw . . ." "I want . . ." "Injustices . . ." "Who are you?" For the last category, encourage students to add words, phrases, or ideas from their lists that would fit a typical eighth-grade student or preadolescent. Load any word-processing program into the six computers. At the top of the screen, type the same prompt that is on the oak-tag label.

Students can move from computer to computer, adding one or more of their favorite sensory images to each prompt. At the end of the class, the file from each computer can be saved on a disk. For ease of management and retrieval, each file should be named with the corresponding computer label. For example, file name: I hear. Then print out the completed files.

Day Four

A variety of activities related to this project can be going on during this computer writing lab. For example, partners or small groups of students can be assigned to use the computer for revising and editing the six prompt files from the previous lab. This work can be done on-screen or from printouts. Class discussion can determine the guidelines for revising the images and ideas of a classmate. Should the content be left as is? If the peer editors have ideas for improving an image, should they get the permission of the original author before making a change? Can

"Song of Myself": Student Activity Sheet

Walt Whitman wrote "Song of Myself" in 1855. This unusual poem was inspired by the idea that everyone, whether alive now or in the past, is connected because we have all lived and shared sights, sounds, and feelings about life. We have shared values and understanding. While this concept is difficult and abstract, it presents a great opportunity for us to explore the past, present, and future in a boundaryless and limitless way.

Using "Song of Myself" as a model, write a free verse class poem that is a song of yourselves. In ordinary life, we are constantly made aware of the limitations of our powers. In this poem you can forget your limitations and write as if you were the way Whitman imagined. Write as if you were all of life, as if you were everywhere and in all time—past, present, and future—seeing, hearing, feeling, and understanding everything. Imagine yourself in many different places, including places where you have never been. Let your poem keep changing subjects as it goes along, as Whitman's does. You will probably find, after you write it, that it all goes together in a way you would not have expected when you began.

Follow the directions below to generate as many ideas as you can:

1. Add at least 5 specific images and details to the following statements as a way of gathering your thoughts. You may do this by yourself or with a partner.

   I think I will listen . . .
   I hear the sound of human voices . . . (where, why, etc.)
   I hear . . .

   I understand . . .
   . . . the courage of Neil Armstrong as his foot touched the surface of the moon

   I stand in a meadow and look . . .
   I see . . .

   I think about the future . . .
   I want . . .

2. List 5 injustices that you are aware of from the past or present. Using Whitman's runaway slave section as a model, create an anecdotal paragraph to describe one of these injustices.
3. End the poem with a section on yourself. Who are you? Make a list of attributes that are uniquely you as a preadolescent. Don't be shy, be proud, bold, and even boastful.

Figure 1.

Sample screen: (*Prompts from the teacher file are in italics.* Student input is in regular text.)

I understand . . .

. . . *the courage of Neil Armstrong as his foot touched the surface of the moon*

. . . the situations between nations

. . . the need to help the poor nations

. . . the need for education

I don't understand how people can kill animals for sport or the pain of parents with missing children.

I stood in a meadow and looked . . .

I see . . .

. . . a wet green rain forest after a shower, dripping, dripping

. . . a caged tiger yearning for freedom, pacing, pacing

. . . guns, the bombs, and the soldiers

. . . the Minutemen on the Lexington common fighting for their freedom

. . . the future generations learning from the past

I feel . . .

. . . the school's budding as its heart beats

. . . the sun on my arms and the wet tongue of my cat

Figure 2.

the students add a new inage at this point? These peer editors will edit for correct spelling and capitalization.

Additionally, on several computers, students can take turns entering the "injustice" anecdotal paragraphs from their student activity sheets. A publishing committee can be established to determine publishing alternatives.

Day Five

Again, the students will be involved in a variety of activities during this computer lab. Some students can finish entering their "injustice" anecdotal paragraphs. Students who wish to have their anecdotal paragraphs included in the class collaborative poem can share them with the class. To include all of them in the class poem, however, would probably be too much. The class will need to decide, either by consensus or by vote, which paragraphs would enrich the poem. The other paragraphs can be published in a different format. (For an example of a class poem, see the Appendix.)

Students can print the files for final publication. Using Whitman's poem as a model, the publishing committee can determine the most effective order and format for the text, such as a book or a bulletin-board display.

Day Six

During this final day of the project, students can complete any unfinished activities, share the final poem, or work on the following expansion activities:

1. Students can revise and edit their student activity sheet or prompter file in preparation for publishing individual "Song of Myself" poems.
2. Students can share, collect, and publish the individual anecdotal paragraphs based on the injustices they described.
3. Students can share their ideas about the uniqueness of being an eighth grader and then use different formats—poems, short stories, art, etc.—to portray themselves.
4. Students can use desktop-publishing software to enhance the final pieces of writing with professional layout, text, and graphics.

Evaluation and Conclusion

At the conclusion of this lesson, I felt that it was one of the most successful activities I had ever used with students. It was also one of my first attempts at integrating computers into my existing curriculum.

The students' ability to reach out beyond their rather self-centered early adolescence and think about others in profound ways exceeded my expectations. What more could I have asked for: The students were actively and enthusiastically involved in what they were doing. In the computer-writing workshop environment, there was mobility and socialization, but no disruptive behavior. My role became that of a mentor and advisor, and the final product was one in which we all took great pride.

As students started entering their text, I panicked as I saw that their work lacked a consistent format. I thought that I would have an enormous amount of final editing to do. As it turned out, these irregularities enhanced the free-verse format of the poem, and the students' text was left mostly as they had entered it.

Although designed for eighth-grade students, this activity could easily be adapted to high school students who are studying Whitman in more depth.

APPENDIX

Song of Myself: A Class Poem

Walt Whitman wrote "Song of Myself" in 1855. This unusual poem was inspired by the idea that everyone, whether alive in the past or alive now, is connected because we have all lived and shared sights, sounds, and feelings about life. We have shared values and understandings. While this concept is difficult and abstract, it presents a great opportunity for us to explore the past, present, and future in a boundaryless and limitless way.

This poem was created by a heterogeneous eighth-grade language arts class. After students created their own individual poems, each person contributed to the following class poem.

I understand the situations between nations, the need to help the poor nations, and the need for education.

I know what it's like to suffer,
I understand pain.
Too many people hurt all over the world.

I also know happiness,
where the sun shines bright.
I understand what it's like to feel joy, happiness, and love.

I understand the pain of being hit with a rabbit punch in a boxing match.

I understand the pain of someone with AIDS and their frustration as the doctors cannot find a cure.

I understand the injustice done to the Native American Indians by the white men.

I understand the complexity of an alarm clock going off at the wrong time.

I reach my hand out and touch . . .
Moist grass,
Gooey cake batter,
Coarse and fine sand,
Ocean water,
Powdery chalk dust,
A soft, cashmere sweater,
Hot candle wax,
Electrical static and shocks.

I feel the school's budding as its heart beats.
I feel something that I'm glad that I didn't step in slithering around my feet in the cafeteria.

I feel a needle poking in my arm for blood.
I feel the sun on my arms and the wet tongue of my cat.

I feel the cold chill of death,
the only future for a starving child.

I understand why the world is decreasing in value.
Why we destroy it and how we treat it.
I understand the meaning of peace.
I understand the meaning of love and care.

I don't understand how people can kill innocent animals for sport.

I cannot possibly understand the pain of parents with missing children.

I understand that life goes on, but you eventually die.

I understand the cries of help from the starving people in Ethiopia.

I don't understand. God, the universe, my brother, assassins, Reagan, some of the people from Iran or Libya.

I see the guns, the bombs, and the soldiers.
The American flag, the president's hope, and the soldiers.
I see battle. I see the death.

I see Minutemen on the common, fighting for their freedom.
The signing of the Declaration; Hancock's name is flared.
The building of our country.
The future generations learning from the past.

I see an innocent child
being lured into a strange man's house
never to come out again.
And I hear his cries for help.

I see children starving in the streets, trying to find food,
children trying to play and forget their hunger.

I see missiles flying overhead,
and mushroom clouds in the distance,
as I stand in a meadow, to see the destruction of the Earth.

In the future, I want . . .
No threat of war: nuke or otherwise.
No drug or alcohol abuse.
No fear of violence:
Robbery.
Rape.
Murder.
Child abuse.
Kidnapping
No pollution
A solution.
the earth will survive what we already have.

I want . . .
. . . freedom for all
. . . no threat of nuclear war
. . . peace
. . . cures for diseases
. . . pollution control

. . . lots of money
. . . everyone to be happy
. . . all the countries to be friends
. . . NO killing of the people of the world

I want . . . my life to be good and healthy,
I and a good family, a swell house,
And I don't want fat kids!

Nor can I understand why the blank eyes of the starving children look up into my face. But I do. I know, because I can feel their pain and their hunger. We yearn to fill our stomach, to know what it is to be loved. They don't know the feeling of terror we have, always knowing that at any second death can come and break down the door we tried to keep locked for so long. But finally death wins to bring us to somewhere unknown, like space—an endless realm which goes on and on . . .

I see a wet green rain forest after a shower, dripping, dripping . . . a caged tiger yearning for freedom, pacing, pacing . . . I see the streets after the bombs had been dropped. I see the children whose parents lay dead on the streets.

I see . . .
Green and blue waves rolling in and spilling over rocks on a sandy beach.

A still, crisp ocean day:
A small sailboat sailing off into a bright sunset.
Castles—
fancy, detailed, old, on the rolling
hills of Europe.

I see Minutemen on the common, armed and ready to shoot the Redcoats down. The Declaration is written, Hancock's name flared across the page. A new government . . . formed by the Constitution. Washington leads the way as the first President of our nation. We are free until . . . the bombs explode.

The people at a Celtics game . . .
The kids of my class . . .

I want a job in which I serve people.

I want to take care of the environment and help the less fortunate people.

I want to make this world live in peace and harmony.

I want to solve the problems of pollution and the destruction of the earth.

I want poverty to end.

I want to accept the future, the exploration of space, to find an alien civilization, reduce stress, and find a cure for cancer.

I walk in the door after coming home, unfortunately, from school. I hope she's not home, my alcoholic mother. I then hear glass shattering in the kitchen and she screams, then yells for me to go to the kitchen. Swallowing my fear and tears, I walk slowly to the kitchen.

"Clean it up!" she screams, pointing to the shattered beer bottle. I get down on the floor to pick it up. She kicks me in the mouth. I fight the tears and pain. I look up to her sick, evil wretched face; she kicks me again.

I stand up; run; she hits me in the back with a beer bottle.

I run out the door; maybe never to come back.

16 TEAM MYTH-WRITING

Jean Bowen, D. C. Everest Junior High School,
Schofield, Wisconsin

Overview

High school students were put into groups of three and collaborated to create a myth.

Description of Students

Eighth-grade gifted students.

Description of Teacher

I teach English at D. C. Everest Junior High, where I am an active member of our gifted and talented committee.

Objective

To teach students collaborative-writing techniques and to give them additional prewriting and revising skills.

Materials Used

Apple IIe computer (64K memory) and PFS: Write software. Our school has a computer lab that is supervised by a computer-literate teacher each hour. Some hours it is used for computer-literacy classes, but fortunately it was available for my eighth-hour class, and the computer teacher was the supervisor that hour. The lab contains Apple IIe computers, and we used the PFS: Write word-processing program. My own knowledge of computers is limited, so the computer teacher gave the students instructions about how to log-on, save files, print files, etc. I was there mainly to answer assignment- or English-related questions.

Activities

As the culmination of a mythology unit that I regularly teach, students were divided into groups of three and given an assignment to create a new god or goddess and write a nature myth. The nature myth should explain the creation/existence of some natural phenomenon (rainbows, snow, hurricanes, etc.). They were to do their prewriting, writing, revising, and editing on the computer. Students were told that several of their myths would be published in the school's literary magazine.

I deliberated over how many students to have in a group. Finally, I decided that three would be a comfortable number to fit around a computer; three students should produce an adequate flow of ideas that could be combined into one story. I tried to include at least one computer-literate student in each group.

Before announcing the project, I had students read and discuss various nature myths. On a Friday, I gave them a fact sheet for creating a god or goddess and told them to write down some ideas for Monday. Students were also told to bring a computer disk to class.

When I gave them the details of the project on Monday, the students were generally excited about it. There was some disappointment that I had set up the groups already, but I explained my reasons for that.

These are the details of the assignment that I gave my students:

1. Groups of three would work together to create a new god or goddess and to write a myth explaining the creation/existence of some natural phenomenon.

2. Prewriting was to be done on the computer.
3. Equal contributions should be made by all team members.
4. Students would have five days in the computer lab to work on this. (Out-of-class work was also encouraged.) The myth was due the following Monday.
5. Several of the students' myths would be published in the school's literary magazine, the *Sting*.

On the first day in the computer lab, there were some obvious reservations about group membership and some groups were slow getting started. I told them to enter all of the ideas they had each accumulated over the weekend and then to print a copy for each group member. Students seemed to enjoy this prewriting activity, and no group appeared to be off-task.

I noticed that some students were possessive of their own ideas and were trying to dominate their groups. There appeared to be a computer-literate student in each group, so the groups needed very little direction from the computer teacher to get started.

Some students made lists of potential gods or goddesses, while some made lists of potential natural phenomena to write about. The amount of prewriting that was accomplished varied greatly, but no one had time to print anything out that first day. (One group even created a god of English teachers—Ehllbow.)

One thing I did not expect the first day was the concern the students had for finding the "right" word. The thesauruses were in big demand.

Groups really began moving along on the second day. They started to function more as a group. Some groups switched keyboarders, trying to find the most efficient person for the job. I still saw a strong concern over word choice, and again the thesaurus was frequently consulted. All of the students seemed to be engrossed in their characters and stories.

The students' enthusiasm for the assignment was building. Members of one of the groups were quite proud of their opening sentence. There was some walking around to read other groups' stories, but no one objected or raised accusations of copying. In fact, students from one group walked around occasionally and helped other groups. They reacted to other groups' stories and there was a lot of positive reinforcement. I heard comments like these: "It's good," "It's great," "It's art," "I love it. It's so romantic and intriguing."

One group could not decide which god or goddess to use as its main character, so they held a secret ballot. One group said they were doing "mad libs" writing—they took turns, each writing a paragraph (with ideas from other team members).

Much work was accomplished on the second day by all but one group. This group was laboring over each word and sentence they wrote. I suggested that because they were writing on a computer, they could let their ideas flow as quickly as they could, enter them, and then revise and edit. After a quick demonstration, they saw what I meant and tried it. Suddenly, their writer's block was gone. They followed this procedure on succeeding days, and things went much faster. They discovered the advantages of word processing.

Some groups did print out their work on the second day, but most of them were not far enough along yet.

On the third day, three students were missing because of a field trip, so there were three groups with only two members present. I was glad this happened, however, because it seemed that groups of two worked better than groups of three. There were fewer disagreements.

Again, I noticed lots of enthusiasm for what they had written. Students took pride in the sentences they had contributed and gave one another lots of positive reinforcement and pats on the back. One student literally glowed with self-pride when his friend came over and told him he had written a good sentence.

One student called me over and said, "You gotta read this; it's real interesting." It was the group that had taken the secret ballot, and they had found a way to incorporate all of their gods into the story. What I liked was that I *could* read it. With their writing clearly displayed on the computer screen, I could easily move around the room and see the students' writing come to life.

There was still a great deal of concern over word choice, which slowed up some groups. I noticed they had trouble putting the editing off, and they tended to do it as they went along (something I do myself). Once again, group members occasionally walked around and commented on other groups' stories. I had expected a lot of secrecy in writing the stories, but that did not happen. The computer made

writing a very public act—and my students liked that.

Days four and five in the computer lab were pretty much the same as the rest. Very little time was wasted, and students worked diligently to complete their stories. Not all of the groups were able to hand in their stories Monday, so I gave them a few extra days to hand them in. I did not, however, devote any more class time to this project.

Evaluation and Conclusions

On the Monday that we returned to the classroom, I asked students to give me their opinions about the activity we had just completed. Most of them raved about how much they enjoyed the project. These are some of their comments:

> I would like using the computer more when writing. We have one at home, but I never have time; at school, I do.
>
> It wasn't only fun, it was an interesting learning experience, probably for all of us, maybe including you, too.
>
> The group blended ideas to forge a story. The only problem is the story loses personality after the ideas are okayed by the whole group. I would shrink the groups to two people.
>
> Being in a group can help you construct better sentences and catch other people's mistakes.
>
> Using the computer is good because it is kind of a break from having to write just on paper and your hand doesn't get as tired. It's easier to correct because you can move words around and you don't have to use white-out.
>
> I loved it so much . . . Combining all of our separate skills helped with the total outcome of the story . . . Getting out of the classroom itself and having a feeling of freedom was a joy in itself . . . I like you picking our groups, by the way, because some kids didn't have to feel left out. Thanks.
>
> Sometimes I felt my ideas would have been a little better than what we ended up with.
>
> I really dreaded working with the people who were in my group. I thought that with their imaginations, I would be lost in the shuffle! I was wrong, though. One of the advantages of working with those particular people was that they made my imagination shine through.
>
> I think it is a good idea to work together, by combining the skills of computers and people.
>
> I could have written my own myth much faster and easier. I guess writing a myth is easy, and you might want to try and use this project on writing something else.
>
> I did not enjoy writing in a group. When I write I like to take my ideas and use them.
>
> . . . working in a group of people you don't love too much is still better than working alone.

Clearly, some of the students had some legitimate concerns, but, as a whole, I was very satisfied with the results of this project. I saw genuine interest in writing that I know would not have been present using the previous method. I saw students sharing the responsibilities (for the most part) involved in the project. Editing was a much bigger concern than it had been in the past, and I was totally amazed by the increased use of the thesaurus (sometimes correctly, sometimes not).

I am not convinced that three is the right number of students for the groups, and I will probably try this activity with pairs of students next year. One other change I am considering for next year is not to schedule five days in a row in the lab. I think students need to spend a day or two during the project looking over their printed copies and reorganizing their thoughts.

Next year, I hope to use spell-checking programs and editing programs throughout the year, including in this assignment.

Overall, I would make only minor changes in this assignment. Students showed real enthusiasm for writing and editing, which was my objective for this collaborative myth-writing project.

17 IN SEARCH OF CARMEN SANDIEGO

Joseph Hackett, Sir Winston Churchill High School,
St. Laurent, Quebec, Canada

Overview

"Where in the World Is Carmen Sandiego?" is a popular computer game that combines geography and problem solving. The author used the program as a prewriting activity for students, preparing them to write detective stories. This activity also involved a large measure of peer revision.

Description of Students

These students are urban junior high school students from multicultural backgrounds. I am currently working with a class of seventeen grade 7 students, most of whom always seem to be at loss for words when writing assignments come along. It is also difficult to motivate them to reread their own work. Although they do seem to enjoy attempting to correct their fellow students' writing, they often wrestle with the difficulty of understanding the others' handwriting. As well, once given advice from their peers, they are reluctant to change what they feel is a finished piece.

Description of Teacher

Experienced language arts and history teacher with five months computer experience.

Objective

That each student write an adventure story.

Materials Used

I used five IBM PS2 computers equipped with the PFS: First Choice word-processing program and "Where in the World Is Carmen Sandiego?," a computer game. In addition, I used six Macintosh SE computers equipped with the Microsoft Word word-processing program. All of this equipment is kept in one of the school's three computer labs.

Time Required

Seven fifty-minute class periods are required for this assignment. Three periods are used for the preliminary work, and these are followed a week later by four periods devoted to word processing, editing, and printing. If time is a factor and more computers are available, the second block can be cut to two periods.

Activities

I had taken my students to the computer lab on a few previous occasions to use the computers to enter their written work, so they had some familiarity with the computers and the word-processing programs used in the lab. None of them had played "Carmen Sandiego" before, but this was not a handicap.

The object of "Carmen Sandiego" is to track a thief who has stolen a treasure from a major world city. By visiting places in the city, such as the hotel or the airport, the player gains two types of information. One type of information is about the thief: gender, hair color, method of transportation, hobbies, and character traits. When the player gains enough information, he or she visits Interpol and puts the information into Interpol's computer, which will then issue a warrant in the thief's name.

The second type of information the student obtains is about the thief's next destination: the color of the country's flag, its geographical features,

the type of currency used there, or a historically significant fact about the country. By checking the possible air connections available, players can guess from the three or four choices given which country they should fly to in pursuit of the thief. When players reach a new city, they are given confirmation that they are on the right track if a V.I.L.E. henchman appears at the first place they visit for information. Should no henchman appear, players must fly back to their previous city immediately and try a new destination. The trail usually takes players to four cities before an arrest is finally made, provided a warrant has been obtained. I had played this game at least twenty times before I gave my students this assignment; I think it is necessary for teachers to be familiar with it before they use it in their classes.

Our first session was spent in the computer lab. I put the students in groups of four or five, and each group gathered around one of the five IBM computers. Each computer was provided with a game disk. Although there is a Macintosh version of "Carmen Sandiego," currently we have only the IBM version. (I have been assured that we will be getting the Macintosh version in the future.) The students were given a brief description of how the game worked, and off they went. I spent a hectic fifteen minutes racing from group to group, re-explaining the game, helping them with the clues, getting them out of dead ends, and giving hints to those who were completely lost. We stopped at that point, and I insisted that students begin to make notes on their travels so that they could better follow what they were doing. A few of them had been doing this already. The remainder of the period was less hectic; as students began to understand the game better, they were able to help one another. I was able to aid them in their note taking, but I tried not to be too much of a presence. As the period ended, students were instructed to bring their notes to class the following day.

The second session was spent in the classroom. I instructed the students to write about their experience in the computer lab during the previous class and to make it read like an adventure. For the next fifteen minutes, the students wrote rough copies at their desks. We stopped, and some of them read their attempts aloud. I tried to reinforce the idea of an adventure by pointing out those stories which fit this type. Some students had caught on right away and had developed a character name, a rank, and included some of the cities to which they had traveled. We then began another brainstorming/writing session during which I supervised those who seemed to be having difficulty. With about ten minutes left in the class period, I asked the students to discuss their main difficulty with this assignment. They soon agreed that their note taking in the lab had not been done carefully enough. Some could remember two cities they had visited and one clue, some knew all of the clues but none of the cities, and some could only remember that we had played a game. I told the class that we would be returning to the lab the following day, and they could adventure some more; they would be responsible for writing out their adventures afterwards. I re-emphasized the need for good note taking. Students put the rough copies of their adventures into their writing notebooks.

The third session was spent in the computer lab. In groups, huddled around the five IBM computers, students worked their way through two to four complete adventures. I circulated throughout the lab, helping with clues, checking their notes, and sharing the joy of their successes. With five minutes left, all game playing stopped. I then went over what I wanted them to do for homework. Each student was to write out in paragraph form any one of their adventures. These accounts should include what their goal had been, what clues they had followed, where their travels had taken them, and how they had brought the case to a successful conclusion. Students should give themselves a fictitious name. "No, not James Bond. Make up one of your own." "Yes, you can combine two cases in some way." "No, you do not have to include every city." "Yes, it is still a rough copy and can be done in pencil." And, "Yes! I am going to collect them tomorrow."

The next day I collected the completed papers and encouraged the others to get their homework done as soon as possible. During the next week, I had time to read over, but not correct in any way, these preliminary copies. I was mentally grading them in order to have students of close to equal ability working together when it came time to enter the papers into the computers. This week also gave the reluctant ones time to finish their work. Even so, two students had not done their rough copies by the time I was ready to take them back to the lab.

Sessions four through seven were spent in the computer lab. Students were told to enter their rough copies into the computer without worrying about errors. Naturally, some had to wait for a

computer. I tried to group the faster keyboarders together to solve this problem. The two who had not yet done the assignment sat together at a neutral table and began writing.

As soon as a student finished I saved his or her work on a data disk, using the student's name as the filename. The IBM subdirectory was called CARMEN_ and the Macintosh folder was labeled CARMEN. Another student was then given the opportunity to enter his or her rough copy. By the end of this, the fourth session, more than half of the students had finished this step, and the two reluctant writers had finished their written drafts. All partially finished work was then saved.

In session five, students who had not yet entered their rough drafts were given priority. I used the remaining computers to look over the finished copies of the drafts and to give advice about improvement. My suggestions included adding extra cities or mentioning specific clues that had aided a particular student's search. I also pointed out sentences or paragraphs that did not make sense, perhaps because a word or phrase was missing. The students began to edit each others' work, looking first at basic readability and ease of understanding. Then they looked specifically at sentences and punctuation. Finally, they were allowed to use the spell-checking program to correct problem words. I played the role of semi-partial observer. If asked a specific question, I would help the student correct a mistake. My objective was to help them improve their written work, but not to do the work for them. Once this student editing was complete, I asked students to inform me if they were happy with their adventures. Those students who were had their names typed below their stories, and we printed out two copies, one for the student's writing journal, the other for me to evaluate. By the end of this, the fifth session, all who were present had at least entered their stories into the computer, and two stories had been printed out.

Session six followed the pattern of session five, only now I was dealing with the slower keyboarders and the least imaginative students. Unfortunately, one or two of the rough drafts had somehow not been saved, so a couple of students had to start over. (Teachers, be forewarned about this potential calamity.)

About halfway through this period, some of the better writers were completely finished with their own work and had even helped some of their closest peers, so they asked if they could play the game again. I do not think it is a good idea for my best students to work with my weakest students because the difference in their writing levels is significant. My best students can write solid and interesting paragraphs. My weakest still do not capitalize the personal pronoun *I* consistently. Because there were two spare terminals and because they had done their fair share, the students who had completed their work were given this reward. This served as an encouragement for the others, as well as allowing me to concentrate on the weaker students. By the end of this session, about eight adventures had been printed out, and most of the others were close to being completed. I knew we needed another session in the lab, and I feared that the boredom factor might set in among those already finished. I prepared other alternative activities for them for what I hoped would be our last lab session.

The seventh and final lab session was interesting and insightful. Those who were completely finished played "Carmen Sandiego" or a mystery game called SLEUTH, which is available from most shareware dealers. SLEUTH is something like the board game Clue; it calls for the player to do some careful reading and deductive thinking in order to solve a murder. (I have no qualms about kids playing thinking games. Someday I will do a mystery-writing activity based on SLEUTH.) I was free to work with the slower and weaker students, to give them the individual attention they really needed. Their paragraphs were brought up to an acceptable level, and I felt I made some teaching points with each of them, points that are often not absorbed when explained on a chalkboard to a whole class. As well, the corrections could be made quickly on the computer, without the entire paper having to be rewritten. Once these paragraphs were printed out, these students joined their classmates at the reward terminals.

As it happened, my weakest student, a girl who has been in Canada for only one and a half years, was one of the two who spent session four doing her written assignment. She was absent the next two days, and it took her all of session seven to enter her draft. She suggested coming in at lunchtime to go over her work. Coincidentally, she was working on the IBM computer (which happened to have MCGA color) and with the PFS: First Choice word-processing program (which can operate with a mouse). We spent the lunch hour going over her

paper on the computer. She had capitalized all of her *I*'s correctly, but nowhere else did a capital letter appear, not even in the name of her character. She had also used plenty of commas but very few periods. I went over her sentence structure, or lack thereof, using the mouse to drag the cursor along the lines instead of using my finger as I might on a piece of paper. As I moved the cursor, I read her words in a normal tone of voice, occasionally stopping to breathe. She began to react to these pauses, and we added periods. But she had no idea that the next letter should be capitalized. I could sense that she was catching on to the breath test for sentences, so we graduated to the change of subject/change of sentence concept. Again, she started to show some recognition. But again, she did not instinctively capitalize the first letter of a sentence. Finally she said, "You mean every time you put a period, the next letter is a capital?" I had been writing capital letters on every assignment of hers I had marked during the school year, and all the while she had little or no idea what I had been talking about. Then we checked her spelling. Because English is not her first language, she spells unknown words phonetically. The spell-checking program was confused by most of her mistakes. I was able to offer advice, explanations, and a little confidence-building to keep her going through the entire paper. Finally, we printed out her work and she was given a copy of a reasonably complete story. I felt that I had taught her more in this forty-minute editing session than I had the whole year.

I think that the computer could serve as a great remedial aid. Naturally, this student's mark will not be a great one, because I did many corrections beforehand. Her overall grade will be a blend of her written work and her computer-entered assignments. However, she will get a passing grade, and I hope that she will be sufficiently encouraged to keep trying, especially in light of the real value of her finished product.

Evaluation and Conclusions

I thought the series of lessons went very well. The students enjoyed the computer game, which is certainly educational in its own right. Their compositions were definitely more interesting than their usual work. I attribute this to the adventuring they did beforehand. How can they imagine going to Paris until they feel they have been there? They were better able to assign themselves a role in their adventure story because they had played a role in its creation. They were also more open to peer editing this time, probably because they knew their work would be printed and would look presentable when it was done. Therefore, it was worth the effort to correct it, and it was also easier to correct because they did not have to rewrite the entire story to make up for one spelling mistake.

As an additional benefit, I discovered a new use for the computer: one-to-one remedial instruction. Sitting at the computer with a student who would benefit from a tutorial, I commanded her attention as never before. The cursor seemed to be a much friendlier pointer than the teacher's dreaded finger. Because the other students had interesting activities to occupy their minds, they did not become bored. I could give students attention where it was needed, while still maintaining control over the group.

This activity would have been easier if we had had the game for the Macintosh computers as well. In addition, when it comes time to use the computer for word processing, the ratio should be no more than two students to each computer. I have another grade 7 class of thirty students. If we get "Carmen Sandiego" for the Macintosh, we will be able to do the first three sessions as outlined above, but the drafting and editing process will be done by hand in the classroom. Those students who are willing to come in at lunch or after school will be able to enter their stories. My previous experience with this larger class indicates thirty is just too large a group to function in a computer lab that has only eleven terminals.

The "Carmen Sandiego" game is a sound educational tool in its own right. This experience suggests that language arts teachers can put thinking-type computer games to good use as a basis for encouraging writing. The story lines of the games can help students get over the block many of them have when the teacher asks them to use their imaginations. Thinking games often introduce new words and settings that can aid students in writing their own stories. They also encourage logical thinking, which tends to carry over into the writing that follows. This lesson block will be a permanent part of my junior English program for years to come. I hope to adapt other thinking games, SLEUTH for example, to my future writing lessons.

18 THE COMPUTER'S ROLE IN REVISION

Vicki Sadowski, West Allis-West Milwaukee Schools,
West Allis, Wisconsin

Overview

In this lesson plan, students use several pieces of computer software to develop an essay for a literature class. The chosen software demonstrates the variety of help that is available to beginning writers and emphasizes various important approaches to revision.

Description of Students

The students who participated in this activity were high school juniors and seniors of above-average ability.

Description of Teacher

Experienced high school teacher, computer novice.

Objectives

To have each student:

- learn the multiple uses of a computer for writing.
- learn and apply a variety of revising techniques, aided by the computer.
- study the changes made during revision and analyze their effect(s) on the final paper.

Materials Used

We used fifteen Apple IIGS computers for this activity. Each computer was equipped with AppleWorks, Writing a Character Sketch, and Writer's Helper.

Time Required

This lesson takes approximately three weeks.

Activities

Step One: Preparation

The first phase of the project came in late March when I introduced my classes to two topics: a novel by Ken Kesey and the AppleWorks word-processing program. The novel was easy. I gave the students some background on the work and then assigned the first part for right after spring vacation. Using a computer screen and an overhead projector, I spent a class period showing the students how to use the AppleWorks word-processing program. Because our program includes TimeOut, a series of options that includes a spell-checking program and a thesaurus, I also demonstrated those functions on a sample paragraph.

My classes spent the next two days in the writing lab. They typed in a paragraph written earlier in the semester and used various TimeOut functions to make changes in their work. I told them that their grade for this work would be a technical one, based on their ability to use the AppleWorks TimeOut programs, make changes in their text, and save and print their work. My goal was to familiarize my students with the equipment and software in a relatively nonthreatening way. Students more familiar with the programs and/or computer equipment served as aides. They helped me answer questions, resolve minor problems, get paragraphs printed out, and so forth.

Step Two: Prewriting

After spring break, we proceeded to phase two of the project. At this time, I introduced the students to an MECC program (Writing a Character Sketch) specifically geared to writing a character sketch. This

program has a good prewriting component that is composed of three sections: external qualities, behavioral traits, and interactions with other characters. My students were directed to pick one of the three main characters developed in the first part of the Kesey novel and then to use Writing a Character Sketch to do a prewriting assignment.

Each section has students answer questions by listing specific details from, in this case, the novel. From these details students decided logically on their character's dominant qualities. Then they chose the details, listed earlier, which best supported those qualities. When students had a complete list of details and examples to support the dominant impression they had formed of their character, they were able to print out a copy of this information.

This part of the project was completed in three days, and students were instructed to use their prewriting information to write a rough draft for the following Tuesday. Students went home with a good collection of ideas and were much farther along in finding a focus for their papers than in past years.

Step Three: Revising and Rewriting

During one class period, I again used the overhead projector to show students the Writer's Helper program, placing special emphasis on the Revising Tools portion of this software package. Using the demonstration essay, we analyzed the paper and talked about how to use the information the program presents to the writer.

My students were scheduled to use the writing lab (fifteen computers) for the next four days. While some students began typing in their rough drafts, others used the time to continue reading the novel. As students finished typing their papers (using AppleWorks and TimeOut), they saved their work to the lab disk I had earlier required them to provide. Most students finished typing, saving, and printing their work by the end of the second class period.

Students were then instructed to use Writer's Helper and the Revising Tools (as well as TimeOut if they chose) to analyze and improve their essays. I set a minimum of six options to be used from Writer's Helper; however, I let the students choose the specific options (such as transitions, usage, word frequencies, etc.) they felt would most benefit their papers. For instance, some students focused on structure. Writer's Helper allowed them to outline their document, check for paragraph coherence, and analyze their sentence lengths or word frequencies. Other students used the audience menu to check their diction level, transitions, prepositions, references, and overuse of "to be" verbs. The third section of this program allowed students to analyze and improve their individual word choice, particularly usage problems, homonym use, and gender. My choice of six options helped to insure that the students had to try a variety of revising techniques and could not limit themselves to a single component. The availability of the TimeOut program allowed students with very basic spelling and word-choice problems to check and correct those errors as well.

My students worked two days on this phase of the project. They used the information supplied by the programs to modify and improve their papers, save their work, and print out their final copies. They also used a great deal of information from their classmates. It was interesting how often students spoke with each other during these two days. Sometimes they helped each other run the software, but they also helped each other rewrite their essays in response to the computer's information. I was busy answering questions too, of course, but students turned to peers for valuable help.

So that I could make sure they had not blindly followed the computer's advice but had carefully considered their changes, I required each student to turn in the earlier printed copy of his or her rough draft, as well as the final draft. I required (for the following Monday) a list of the specific options students had used and a brief explanation of how they had tried to implement the suggested changes to improve their papers. I wanted students to think about and report on their revision strategies.

Results and Conclusions

The papers were turned in with a minimum number of last-minute problems. There were some drawbacks and several benefits in using this project.

One problem involved logistics: switching classrooms with the teacher who runs the writing lab, getting fifteen computers for so many days, rounding up fifteen copies of Writer's Helper from other schools in the district, and so forth. These types of problems will vary from school to school.

This project did have many benefits, however. Probably the most important benefit for me was the

time I put in preparing to present the materials in my classes. I began to feel really comfortable with both the computer and the programs; I realized, as the project went on, that I *could* answer most questions and resolve most problems. The same realization was true for my students who had not previously used computers for this kind of work and most likely would not have pursued this knowledge on their own. The concentrated computer use got them over many of their anxieties; using several different programs showed students the many applications computers have for writing. Most students said that they probably would work with the computers, in the lab, for future assignments.

Another positive result of this project was that it reinforced my lectures on the nature of revision—that revising is not just editing surface errors. Revising Tools (a component of Writer's Helper) showed students many of the elements that we had worked on since the beginning of the year: sentence variation, word choice, transitions, topic sentence coherence, unity, and so forth. This program also showed them how these elements contribute to the overall readability and effect of the final paper.

Most students also indicated they appreciated the ease of editing and making changes made possible by the computer. They also liked the final appearance of their papers.

I felt that having students help each other figure out problems and answer questions was also a useful benefit. It gave some students pride in their problem-solving ability, and this experience also made them think and talk about writing in ways they never had before. When doing a similar project, I would definitely try to incorporate, utilize, and encourage this aspect of the activity more fully.

All in all, in spite of chaotic moments and lots of little hassles from a first-time project, I felt the students and I learned a lot. I most definitely will do future assignments like it. However, next year I will spread the "learning the programs" sections out and do them much earlier in the school year. Then, when I approach specific assignments, students will already be familiar with the programs and comfortable using the computers.

I pronounce this particular project a SUCCESS.

19 USING COMPUTER JOURNALS TO TEACH CRITICAL-THINKING SKILLS AND THE WRITING PROCESS

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Overview

In these computer lessons, students are given opportunities to perform such critical-thinking operations as comparing, observing, problem solving, imagining, critiquing, etc. The lessons use the journal format to allow students to engage in personal reflection (self-learning) as well as a collaborative dialogue with the teacher and with other students. Using the computer allows students to create, edit, and store journal entries with ease, to disseminate and share these entries in a multitude of ways (via network, disk, or hard copy), and to revise and edit those entries into polished papers.

Using These Activities as a Resource

The key to the success of the activities in this chapter is their flexibility: They can fit into each teacher's unit of study, foster many types of writing, and support numerous composing processes and subprocesses. They can also be used for whole-class instruction, individual remediation, or enrichment.

The purpose of the activities is to provide guidance and structure for journal writing in the computer classroom, while at the same time offering teachers the flexibility to determine the content, procedures, and products that will most closely match their teaching styles and goals.

Although the activities presented are in many ways self-sustaining, it is the teacher's approach to the activities that will ultimately determine their effectiveness. The computer is merely a tool, and, as such, it has its limitations as well as its strengths. The teacher's resourcefulness will provide the specific content for the activities and (in time) also many additional activities based upon these same operational tasks. Using the activities, questions, and procedures presented below as models and springboards, teachers can develop their own lessons, tailored to their own topics and units of study, and their own teaching goals and objectives.

Goals

The goals of these computer journal activities are to help and encourage students to

- see the value of developing better thinking skills.
- participate in discussions.
- ask and answer questions.
- think independently and draw their own conclusions.
- express their own points of view.
- make decisions.
- try again when they make mistakes.
- cultivate and accept differences of opinion.
- examine the thinking behind their own expressed opinions and the opinions expressed by others.

The computer makes it much easier for students to achieve these goals. The text on-screen lacks permanence and can be easily manipulated, so students tend to explore ideas, take risks, and try again when they make mistakes. With the various presentation styles on the networks (including the option of hiding one's identity), students are able to discover their voices and to feel less fearful about participating in group discussions. Consequently, students can make decisions, express their own points of view, and ask and answer questions more confidently with the support of the technology.

Description of Students

Students in grades 7–12 should be ready to carry out these activities after receiving instruction about the computer and the word-processing software being used in the classroom.

Description of Teacher

Any English teacher who knows the hardware and software he or she is using and the objectives and procedures of a specific activity can teach critical-thinking skills using computer journals.

Materials Used

The teacher may adapt and use any computer hardware and software for these activities, and he or she may incorporate any other audiovisual equipment (overhead projector, etc.) or classroom facilities (chalkboard, etc.) to facilitate the teaching of these activities. Specifically, the teacher will need:

1. a floppy disk for each student;
2. software:
   a. word-processing software: an easy-to-use and well-documented word-processing program such as Norton Textra or a powerful program (and industry standard) such as WordPerfect; or
   b. network software such as Realtime Writer (IBM) or Timbuktu (Macintosh);
3. a list of critical-thinking activities on some aspect of English allowing practice in any or all of the twelve critical-thinking areas described later in this chapter.

Time Required

The time required for each activity will vary depending on how it is being incorporated and used in a particular classroom. Generally, one class period will be needed to complete each activity. Some activities may require more in-class time and/or outside preparation, particularly if the teacher wishes to exercise the option of helping students turn the journal entries into formal assignments by revising and editing their original entries. It is important to remember that classroom management is more complex in the computer classroom; therefore, the teacher should also make allowances for administrative and procedural difficulties that might arise.

Procedures

Preparation: Creating a Sense of Community in the Classroom

In these activities, the teacher's major responsibility is to establish a classroom climate in which open and productive thinking will develop. Teachers can add immeasurably to the effectiveness of the activities by provoking varied, well-thought-out, and extended responses from the students. The following examples are some ways in which they can do this:

1. Establish a specific protocol for writing, sharing, responding, and evaluating student writing. This protocol should be posted, so that it is understood, followed, and respected by all students. (The protocol will vary depending upon the type of hardware and software being used.)
2. Reserve time at the beginning and end of each class period for student questions, problems, concerns, administrative tasks, printing tasks, etc.
3. Set up and post a list of available teacher time for consultation and student help on which students may reserve conference time.
4. Explain that the computer is a writing tool and, as such, that it can be used in numerous ways to support writing processes. Encourage students to write and to use the computer in a manner that is comfortable for them; encourage them also to explore many different ways of using the computer to carry out their various writing tasks. Help them examine their alternatives by building a variety of writing strategies and approaches into the journal activities (brainstorming, freewriting, invisible writing, revising, dialogues, etc.). Have students periodically evaluate the various strategies, examine the role of the computer, and discuss their feelings about the electronic classroom.
5. Emphasize to the students that:
   a. they should complete an entire critical-

thinking activity before sharing, printing, or posting it to the network.

b. they should complete an entire remedial or enrichment activity before continuing on to a new one.

6. Discuss the concept of critical thinking, explain its goals, and provide an overview of each of the specific critical-thinking skill areas.
7. Introduce the class to the journal process that will be followed in the computer classroom by taking the students through a simulation of a critical-thinking activity on the computer.

A Plan for These Activities

1. *Lecture*: Conduct a review and a detailed discussion of the critical-thinking skill that is being emphasized in the lesson.
2. *Assignment*: Assign a specific journal activity (using a handout). Explain each step students will be required to carry out, including how they will carry out each step: (a) working individually at their computer terminal, (b) working in pairs collaboratively, or (c) working as a class on the network.
3. *Prewriting/Writing*: Separate the activity into prewriting, planning, and writing, and have students engage in specific strategies for each stage (for example, brainstorming, outlining, freewriting).
4. *Student/Teacher Interaction*: As students are prewriting/writing, circulate, observe, supervise, and assist them in their work. Make comments and suggestions, carrying on a dialogue with individuals for the benefit of the class as a whole. These dialogues can be oral or made available to students on the network.
5. *Discussion*: Provide time for class discussion and sharing after each student has had time to complete the activity: (a) use the discussion time for consideration of the variety of possible responses to the activity; (b) use familiar and comfortable discussion techniques from your own repertoire to encourage student participation and sharing of ideas; (c) use the questions provided in each critical-thinking skill area and appropriate questions from other skill areas to expand on overlapping concepts; (d) develop and use your own specific questions for the topic or work you are teaching; and (e) use the network, hard copies, or transparencies for uniform visual presentation of student writing.
6. *Listening and Note Taking*: During the discussion, have all students take notes on what is being said about a particular work. (This can be done in a notebook or on the computer, depending on how the text is being shared.)
7. *Sharing and Feedback*: Have writers summarize the feedback they have received, and have the rest of the class contribute additional points the writers might have missed. If the class is working on a network, the teacher can record the comments on his or her screen as they are being shared. This way the comments themselves can be simultaneously viewed by all of the students for even further review and comment.
8. *Revising*: Have students revise their journal entries by copying their original entries to a new file. Then have them incorporate the details and information from the class discussion into the entry to create a new version. If the class is working on a network, then other options are for students to revise their entries in groups at the terminals, or to revise them as a class on the network.
9. *Critiquing*: Allow students an opportunity to critique the two versions of an entry. Again, this can be done by each student individually, by students in groups, or as a class.
10. *Editing*: Have students edit their own and each other's work on both the computer screen and on hard copy. Then discuss the similarities and differences between print (hard copy) and text on-screen.
11. *Evaluation*: There are a number of alternatives for monitoring progress and evaluating student work.
    a. Have students keep an activity record that can be checked at the teacher's discretion and/or at scheduled times. The record will be kept by the student and can consist of completed activities, the thinking skills worked on most, and any remedial or enrichment tasks completed. (Have students turn in individual journal entries or the activity record on hard copy or disk, whichever format is preferable or most efficient.
    b. Check student progress by periodic individual conferences.

c. Grade completed activities according to a predetermined set of criteria based upon the topic(s), objective(s), and critical-thinking skill(s) being covered.
d. Keep in mind that not all students have an affinity for computers. It is important to be attuned to these differences when grading.

Activities

Although the following activities can be taught with or without computers, using the computer shifts the students' focus from the physical burdens of writing and their fears about the permanence of what they are putting down, to what they think about a topic and have to say about it. Presented below are thirty-six journal activities in twelve different critical-thinking skill areas. These critical-thinking skill areas are summarized in the Quick Reference Guide shown in Figure 1.

Although the activities shown in Figure 1 are developed around the single topic of "characters," the basic structure (objective, journal activity, analysis and discussion) may be used for any topic of study simply by changing the journal activities. Teachers may use any single activity or mix and match a number of activities either within a single skill area (1, 2, or 3, etc.) or from multiple skill areas (1a, 2b, 3a, 2b, 4c, 11a, etc.) to create their lessons. Teachers may also follow any or all of the procedures outlined in the preceding section to carry out the activities and use any of the questions from the analysis and discussion sections that follow to provide direction and to facilitate discussion.

1. Observing

Objective: to be able to record all the details of what is seen without using personal opinion.

Journal Activities

a. Have students study an illustration or photograph of a character and write a detailed description of the character.
b. Have students record observations about a character as they are reading a work.
c. Have students make observations about a character while the story, passage, or poem is being read out loud.
d. Have students write a summary describing the observations made about the character.

Analysis and Discussion

Have students reread their observations to make sure they have said exactly what they want to say. Have them include as many details as possible about each observation, and have them make sure that they have not included personal opinion in their observations. Here are some questions you might use to help students analyze and discuss their observations:

- What conclusions can you draw from the observations you have recorded?
- Which hypotheses might you test?
- How might you determine the validity of each hypothesis?
- What assumptions did you make in reporting?
- What is the difference between objective and subjective reporting?
- Can you provide examples of each?
- Why is it important to report accurately about an observation?
- Can assumptions distort, alter, or modify an observation? In what ways?
- What visual or auditory observations did you make?
- What other kinds of observations did you make?
- Did you observe (collect data) in a multisensory way (eyes, ears, touch, taste, smell)?
- What other sensory observations might you have made if you had been able to observe the real thing rather than an illustration?
- How do your observations compare to those made by different students?
- Can your observations be classified?
- How might you classify them?

2. Looking for Assumptions

Objective: to be able to tell the difference between what is really true and what is assumed. Assumptions are like guesses—some are true and some are not.

Quick Reference Guide

Critical-Thinking Skill

1. *Observing*—to be able to record all the details of what is seen without using personal opinion.
2. *Looking for Assumptions*—to be able to tell the difference between what is really true and what is assumed. Assumptions are like guesses, some are true and some are not.
3. *Collecting and Organizing Data*—to be able to obtain information, to organize it according to a logical plan, and to keep a written record of where information was obtained.
4. *Comparing*—to be able to look at two things and tell how they are similar or different.
5. *Classifying*—to be able to put items into related groups, with the understanding that many types of groupings are possible.
6. *Hypothesizing*—to be able to offer possible explanations or reasons for something that has happened or for something that is going to happen.
7. *Criticizing*—to be able to tell why you like or dislike something, understanding that these become the standards or bases for your judgments.
8. *Interpreting*—to be able to examine a body of information or data for what is being stated and to make statements about what the information or data contains. Statements are: *True*, if supported by the information/data; *False*, if contradicted by the information/data; *An Assumption*, if not supported or contradicted by the information/data.
9. *Imagining*—to be able to make up or invent any situation, adventure, experience, or feeling to complete an imaginary picture.
10. *Coding*—to be able to mark assumptions, value-laden statements, or extreme uses of language in a text and to make determinations as to the appropriateness of the language used. Does the text read as it was intended to be read?
11. *Problem Solving*—to be able to use the skills of collecting and organizing data, assumption, and hypothesizing to solve a problem, understanding that one must also identify any subproblems before solving a major problem.
12. *Summarizing*—to be able to include important ideas and leave out unimportant ideas.

Figure 1.

Journal Activities

a. Have students identify some assumptions about a character based upon an illustration or quotation from a story, book, play, or poem.
b. Have students identify the assumptions that a character made about a situation or character in a story, book, play, or poem.

Analysis and Discussion

Have students supply some data (evidence) to support each assumption. Here are some questions students might find helpful:

- What clues helped you make your assumptions?
- Did your assumptions turn out to be correct?
- Were your assumptions similar to or different from those of other students?
- What is the difference between a fact and an assumption?
- What are the consequences of making inappropriate assumptions?
- Do we all make the same assumptions in the same situations?
- Can assumptions sometimes get people in trouble?
- What evidence supported or disproved your assumptions?
- Did the amount and the quality of the evidence supporting your assumptions determine their credibility?
- Does this suggest a cause-and-effect relationship?
- Have you made value judgments?
- Do you think the assumptions you identified might determine your attitude or behavior toward someone or something?
- Can you identify the assumptions behind "labels" that you used to classify someone or something?

3. Collecting and Organizing Data

Objective: to be able to obtain information, to organize it according to a logical plan, and to keep a written record of where information was obtained.

Journal Activities

a. Have students organize, in outline form, information about a specific character. Have them keep lists of the sources from which they obtained their information and the contradictions they find in the different accounts.
b. Have students generate a bibliography from the list of sources they collected during their library research.

Analysis and Discussion

Discuss not only the techniques of bibliographical research (how to locate information, what resources are available, how to use the library facilities) but also the importance of consulting several sources of information. Here are some questions students might find helpful:

- Where did you obtain your information?
- Did different sources have different biases in discussing the same topic?
- Did those sources leave you with different impressions about the topic?

4. Comparing

Objective: to be able to look at two things and tell how they are similar or different.

Journal Activities

a. Have students compare their views of how a character is portrayed in a book and a movie (the character's physical appearance, behavior, etc.). Are the print and visual presentations alike or are they different? On what points (if any) do they agree or disagree?
b. Have students compare two characters in a story, book, play, or poem.
c. Have students compare two characters from two different stories, books, plays, or poems.
d. Have students compare the kinds of devices used in different genres to give the reader insight into character.
e. Have students compare two sets of words taken from two different works that describe a hero or a villain. In what way do those words lead them to make value judgments about a character?

Analysis and Discussion

Have students determine if they have considered all relevant points and included all those they wish to present in their comparison. Here are some questions students might find helpful:

- What conclusions can you draw from each comparison?
- Might different comparative points lead to different conclusions?
- Do any of the comparisons clearly reveal any partiality or favoritism of one choice over another?
- Do certain assumptions and/or value judgments reveal or support this bias?
- What are the assumptions and value judgments in your comparisons?
- What are the facts in your comparisons?
- Did you identify more differences than similarities?
- What might this indicate?
- Have you acquired some new understanding about what is being compared?

5. Classifying

Objective: to be able to put items into related groups, with the understanding that many types of groupings are possible.

Journal Activities

a. Have students make a list of words that describe a certain character and then classify or assign that list of words to groups.
b. Have students list and classify the characters from a story, book, play, or poem that they have read.
c. Have students make a list of fifteen characters from the stories, books, plays, or poems that have been read during the year; then, have them classify the characters.

Analysis and Discussion

Here are some questions students might find helpful in their analysis:

- Why did you set up the groups you did?
- Are there other ways the information might be grouped?
- What are some other possible classifications?
- Are any of the classification groups related?
- Can any of the information be put in more than one category?
- What purpose did classifying serve?
- Did that purpose determine the type of grouping or classification you used?
- What discoveries did you make or insights did you gain from your classifications?
- What did you learn by classifying?

6. Hypothesizing

Objective: to be able to offer possible explanations or reasons for something that has happened or for something that is going to happen.

Journal Activities

a. Have students suggest several hypotheses for the behavior of a character in a story, book, play, poem, or movie.
b. Have students suggest several hypotheses about how the plot of a story or book might have unraveled if a character had been different—if a hero had been a villain and vice versa, if a victim had been empowered, if an outcast had been an insider or an insider an outsider, if an omniscient observer had been an active narrator, etc.

Analysis and Discussion

Here are some questions students might find helpful:

- Which of the hypotheses merit testing and which do not?
- What order would you test them in?
- Why would you test them in that order?
- What are the different ways the hypotheses can be tested?
- What do you think would be the best way to test them?
- What information or data would you need to prove them right?
- How would you go about gathering that data?
- What conclusions might you draw from the data?

7. Criticizing

Objective: to be able to tell why you like or dislike something, understanding that these become the standards or bases for your judgments.

Journal Activities

a. Have students criticize a character's behavior.
b. Have students criticize a character's personality traits.

Analysis and Discussion

Have students consider whether they liked or disliked who or what they were criticizing and why they think that is the case. Here are some questions students might find helpful:

- Did you like or dislike who or what you were criticizing?
- What are the reasons for the opinions you have stated?
- Have you stated positive as well as negative points?
- What standards did you use for your judgments?
- What suggestions might you offer for improvement?

8. Interpreting

Objective: to be able to examine a body of information or data for what is being stated and to make statements about what the information or data contains.

Statements are
True—if supported by the information/data;
False—if contradicted by the information/data;
An Assumption—if not supported or contradicted by the information/data.

Journal Activities

a. Have students interpret or "read into" a character's behavior in a short story or book.
b. Have students determine what meaning they get from a statement made by or about a character in a short story or book.
c. Have students write five true statements and five false statements about a character in a short story or book.

Analysis and Discussion

Have students mark the statements that they have made which go beyond the information or data presented in the text. Here are some questions students might find helpful:

- Are your statements or conclusions supported by the material presented in the text?
- When you read "into or beyond" what is in a text, is there a difference between these kinds of ideas and statements of fact?
- Is it possible to have two interpretations of the same text?
- Which interpretation is correct?
- How can we decide?
- Which interpretation contains more information?
- Which interpretation contains clearer information?

9. Imagining

Objective: to be able to make up or invent any situation, adventure, experience, or feeling to complete an imaginary picture.

Journal Activities

a. Have students imagine that they are a friend or an advisor to a character and imagine what advice they would give that character.
b. Have students write a story about an illustration or photograph of a character in a story, book, play, or poem they are reading.
c. Have students imagine what it would be like if they were to meet a particular character from a story, book, play, or poem they are reading, and then have them write a detailed account of the character and the encounter.
d. Have students imagine what it would be like to lead the life of that character for one day. What is the character like (personality and temperament)? What does the character believe in? What does the character do? Where does the character go? What happens? Who does the character interact with? How do they get along? How is the character perceived by others?
e. Have students imagine that they are the casting director for a Hollywood movie. They must find

the right actor or actress to play the role of the character they have previously selected in a movie. Who would they pick and why?

Analysis and Discussion

Have students share the ideas, perceptions, and fantasies they have written in their journal entries. Make sure that students do not express any judgments or criticisms during the discussion. In addition, have students discuss various responses to the activity itself. Here are some questions that might aid in such a discussion:

- Why did you include that (particular point) in your description?
- How do your ideas compare to other ideas we have heard?
- What was your reaction to _____?
- What were some of the emotions you experienced?
- Did _____ make you happy? Depressed? Anxious? Calm?
- What is your conception of _____?
- How do you think (that) came about?
- What might be the problem in doing (that)?

10. Coding

Objective: to be able to mark assumptions, value-laden statements, or extreme uses of language in a text and to make determinations as to the appropriateness of the language used. Does the text read as it was intended to be read?

Journal Activities

a. Have students write a theme on "The Character I Liked or Disliked the Most." Have students exchange and critically read each other's papers, and then code the paper by marking the extreme words (*always*, *never*, etc.) with an *E*; the assumptions (words not grounded in fact) with an *A*; and value-laden words (expressing likes or dislikes) with a *V*.

b. Have students return each other's papers, and have the writer make a list of the marked words in the theme. Ask students to determine if those words reflect their intended meaning to the reader. If not, have them explore how those words distort the message they are trying to get across to their reader.

Analysis and Discussion

Ask students to make sure that their journal entries read exactly as they want them to read, that their entries have been coded properly, and that they have not overlooked any assumptions or terms. Here are some questions students might find useful:

- Are there any changes you would make?
- Do you see any patterns in the types of words that you have marked?
- Does this suggest a pattern to your thinking?
- Do you seem to report opinion as fact?
- Why is it important to be able to report accurately from an observation?
- How does coding help you read what you write more critically?
- How does coding help you to write more accurately?
- Why is this important?
- Who seems to benefit most from this extra attention to your text?

11. Problem Solving

Objective: to be able to use the skills of collecting and organizing data, assumption, and hypothesizing to solve a problem—understanding that one must also identify any subproblems before solving a major problem.

Journal Activities

a. Have students discuss how they would go about writing a script for a TV program or music video starring a particular character in a particular scene.

b. Have students discuss how they would determine the criteria they would use for casting the starring role. What would they base their criteria on? Have students develop the criteria.

c. Have students develop a rehearsal schedule for the episode or video that includes specific techniques the director might use to get the star "in character."

Analysis and Discussion

Here are some questions students might find useful:

- Did you make any assumptions in order to solve this problem?
- What were they?
- Were the assumptions valid?
- How would you test them?
- How did these assumptions influence the type of solution you chose?
- Do different solutions reflect certain values?
- Did your assumptions reflect your attitude(s), belief(s), or value(s)?
- Which values?
- What conclusions did you come to, based upon your assumptions?
- How did you apply the knowledge you gained?
- What procedures or steps did you follow to solve the problem?
- How did these procedures differ from those used in someone else's solution?
- How did the assumptions differ?
- How might you account for the differences?
- Is one solution better than another?
- How can you tell?
- How much evidence is needed to support such an assertion?

12. Summarizing

Objective: to be able to include important ideas and leave out unimportant ideas.

Journal Activities

a. Have students summarize a character from a story, book, play, or poem in an original four-line poem.

b. Have students summarize the actions of the main character in a story, book, or play they have read or in a movie they have seen. This is to be done in not more than seven sentences.

c. Have students write a three- to four-sentence summary of a story, book, play, poem, or critical review they enjoyed.

Analysis and Discussion

Have students make sure that they have included the most significant points in their entries and omitted all unimportant points. Have them also consider whether what they have written is brief and concise. Here are some questions students might find useful.

- What is a major or important idea?
- What details are considered unimportant?
- How do you determine whether a point is significant/insignificant or relevant/irrelevant?
- What is considered objective reporting?
- Is your summary objective, or does it contain value judgments?
- Why might two summaries be different?
- How would they differ?
- Could the two summaries be equally valid?
- Why should you summarize information?

Conclusion

The thinking activities that make up these computer lessons allow for different preferences in learning styles (visual, auditory, etc.) and are designed to stimulate students to weigh alternatives and to develop logical criteria for making choices and decisions. Thus, the activities discourage single-answer, right-or-wrong responses. As students become more skilled in the thinking operations and the oral and written expression of them, they will gain confidence and good judgment in applying critical-thinking processes to other learning situations. Personal computers and computer networks support and play an important role in the preceding activities because

- they make writing responses to the activities easier for students.
- they allow students to fully explore their ideas, their voices, and their various responses to the activities.
- they allow students to endlessly manipulate their words, punctuation, and ideas without the fear of making an indelible mark.
- they make writing more enjoyable for students.
- they allow students to visually interact with and format their text.

- they allow students to share, respond, and collaborate in a multitude of ways with the teacher and with other students.

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III ACTIVITIES FOR STUDENTS WITH SUBSTANTIAL COMPUTER EXPERIENCE

20 TALKING ON THE SPUR OF THE MODEM: A GLOBAL TELECOMMUNICATIONS PROJECT FOR TEACHERS AND STUDENTS

Jeff Golub, Shorecrest High School,
Seattle, Washington

Overview

This lesson plan describes an opportunity for students to communicate electronically with other students in other classrooms around the country and around the world through participation in AT&T's Long Distance Learning Network.

Description of Students

The project is open to students in grades 3–12. No previous computer experience is necessary for students to participate in this activity.

Description of Teacher

The teacher should have at least some computer experience and should have access to a computer equipped with a modem.

Objective

The Long Distance Learning Network provides students with a real audience and a real purpose for their writing and communication activities. Students are motivated to explore various topics and issues as they interact electronically with their peers around the world and prepare papers and other documents for presentation.

Materials Used

It is essential that the teacher have access to a computer equipped with a modem. This is how messages will be electronically sent and received throughout the project. AT&T will provide participating teachers and schools with the necessary software, password, simple instructions, and other information and materials.

Time Required

The Learning Network offers two sessions, one in the fall and one in the spring. The fall session runs from October 8 to December 21 (eleven weeks); the spring session runs from February 4 to May 17 (fifteen weeks). Teachers can sign up for either or both of these sessions. The cost for participation is $315 for fall and $375 for spring.

For detailed information about the Learning Network, and to obtain an application form, write to AT&T Learning Network, P.O. Box 4012, Bridgewater, NJ 08807. Or call the AT&T Learning Network Information Center at 1-800-367-7225, extension 4158. You can participate in either the fall or spring sessions, and you will be asked on the application form to select one of six curriculum areas that will become the focus of your students' work during the semester. The curriculum choices include:

Computer Chronicles—develops composition skills, an understanding of language mechanics, and an extended vocabulary through the production of a newspaper on current/local events.

Mind Works—enhances creative writing skills and helps students develop a sense of style by allowing them to experiment with various forms of expressive writing, such as short stories, poetry, and essays.

Places and Perspectives—encourages students to explore the history, culture, government,

and geography of their region and compare it with others in the Learning Circle.

Energy Works—focuses students' attention on understanding various forms of renewable and nonrenewable energy by sharing ideas and experiments with their peers in the Learning Circle.

Society's Problems—enables students to explore and compare problems that confront their respective communities and propose common solutions.

Global Issues—encourages discussions on a range of environmental, social, and political issues that affect the world population. Students are encouraged to propose joint solutions, fostering a sense of cooperation.

[The above descriptions of the six curriculum areas are taken from the promotional brochure provided by the AT&T Learning Network.]

When you sign up to participate in the Learning Network, you will be assigned to a Learning Circle composed of six to nine other classrooms around the country (with a couple of the classrooms being located in other parts of the world). Each classroom's teacher in your Learning Circle will have selected the same curriculum area on which to focus their students' efforts throughout the semester.

Activities

One of the most fundamental skills for students in the twenty-first century will be that of information management: how to gain access to information; how to select appropriate information from an overload of available resources; how to analyze and evaluate information that students read, see, and hear daily; and how to communicate one's conclusions and insights clearly, completely, and persuasively.

What an incredible opportunity is therefore offered to students who participate in AT&T's Long Distance Learning Network. This program allows students to practice and develop these information-management skills and use them to communicate to real audiences for real purposes.

The students in my debate class took advantage of this opportunity during the fall semester, 1989. We enrolled in the Learning Network and were assigned to a Learning Circle made up of seven other participating classrooms. Five of our electronic partners were from other parts of the United States, and two were from West Germany. Throughout the semester, students and teachers in all eight classrooms exchanged notes electronically with each other through their computers and modems. We introduced ourselves, read about specific reports and projects being prepared by the other classes, participated in surveys, answered questions, and provided information about our region of the country.

During the first week of our electronic exchanges, students from the eight schools introduced themselves by posting messages giving their names and other pertinent information. Some students mentioned their favorite TV shows; others talked about their plans for college or their favorite sports and hobbies. It was interesting to note how many student introductions ended with the request to "Write back soon" or with "Hope to hear from you" or "Write back and tell us about yourself." As these messages of introduction came in each day, I posted them on the bulletin board in the back of my classroom and encouraged my students to respond to the students who had written to let them know their messages had been received and read. Suddenly, students were writing with a definite audience and purpose in mind, establishing connections, and making new friends. Two students, for example—one from my class and another from a school in Indiana—discovered from each other's introduction that they shared an interest in collecting guns. Several messages passed between them as they shared information and insights about various aspects of their hobby.

Part of the introductory messages included descriptions of the schools and the surrounding geographical area. My students wrote about Shorecrest High School's marching band being invited to play at President Bush's inauguration; and we heard, in turn, about some outstanding accomplishments of the other schools in our Learning Circle. We even agreed to exchange "welcome packs," a collection of "stuff" from each region. My students assembled and sent such artifacts as a copy of our school newspaper, a few postcards showing such Seattle landmarks as the Space Needle and the Kingdome, a map of Seattle, and a photograph of our school. Students in New York sent us a photo of themselves and their teacher, among other items.

Within two weeks after the start of our electronic exchanges, all eight participating classrooms began

organizing and researching one or more topics related to our common theme, "Global Issues." A teacher from one of the schools in Indiana posted the following message:

> I will have two classes participating in the circle—both of them are Current Affairs classes. We will be working on a problem related to the environment or endangered species. We have begun research and will continue to narrow our idea. I am going to let my students do a great deal of communicating—I think it is more fun for them that way. My 1:30 class will be sending this message. For most of them it is their first experience with telecommunications. We will be reading and sending mail several times a week—probably reading every day.

The teacher in New York wrote about her plans for her students' "Global Issues" project: "My students most likely will select the broad idea of 'Improving World Relations' which is a positive way of referring to ending the Cold War. Using that broad topic, students will explore various related aspects such as *perestroika*, nuclear weapons and arms limitations, human rights, the United Nations, tourism, and protecting world peace and environment."

One group of students from the New York school decided to prepare a paper dealing with the Berlin Wall conflict. To gather information for their report, then, they posted a list of questions and asked the students in West Berlin to answer them. Some of the questions included:

1. Do you know any East German escapees?
2. Are your lives at all affected by the situation?
3. Does this topic receive a lot of coverage in the media of your country?

Within a week, the West Berlin students wrote back with responses that included personal anecdotes and other insightful information. A few weeks later, one of the West Berlin students posted another message, one of the most exciting exchanges we received the whole semester. It began: "Hi, there, from Berlin. I have some important news for you! Communists open Berlin Wall . . ." The student combined an eyewitness account with a summary of local media coverage to give us an extraordinary report of this historic event. The student ended his report by saying, "I've written this text in very big cooperation with my dictionary."

Another group of students concentrated their efforts on trying to do something about the ozone layer. Here is a message they sent:

> We are concerned with an important issue in our world today. It has been given a lot of thought, but no one has taken any action. The ozone layer is depleting as we speak. If something is not done right now, there will be little hope of saving it for the future. To save the ozone layer, we need everyone's help!!! . . . Some questions that we would like your classes to answer are:
>
> 1. How many of you use aerosol products (deodorant, hair spray, etc.)?
> 2. How many of you would be willing to refrain from using these products as a step against the companies that produce them? . . .

Three more questions followed, and the note ended in a plea for a prompt response. Within a few days, almost all of the participating teachers had polled their classes and electronically returned the results of the survey to these students.

Through such exchanges of information, we helped each other investigate various global issues and prepare reports that described our findings and insights. It was a wonderful experience for my students as they wrote for a real audience, made connections with their peers, and shared insights and information. All of this was accomplished simply by talking "on the spur of the modem."

Evaluation and Conclusion

The Learning Network program represents a cooperative community effort, a way of learning that will be characteristic of instruction in the schools for the twenty-first century. Through this electronic communications project, teachers and students can explore and experience the future of education.

21 INTERNATIONAL GROUP WORK: USING A COMPUTER CONFERENCE TO INVIGORATE THE WRITING OF YOUR STUDENTS

William Wright, Bread Loaf School of English,
Middlebury, Vermont

Overview

William Wright is one of the creators of BreadNet, a computer network for writing teachers. Most of the people on the network are secondary-school teachers who, in the summers, attend the Bread Loaf School of English, a graduate program in literature, writing, and theater run by Middlebury College. Teachers who attend the six-week summer session in Vermont go back to their homes and schools across the country, some to places as remote as McGrath, Alaska, and Wilsall, Montana. They use the BreadNet network to communicate by dialing into a central computer and using electronic mail and a computer-conferencing system.

Description of Students

The students of teachers on BreadNet range from second graders in the Atrium School in Watertown, Massachusetts, to twelfth graders in Lima, Peru. The exercise I will describe might best be done with middle-school classrooms, but it can be done with any age group.

Description of Teacher

William Wright, formerly an English teacher in a middle school, came up with the idea of BreadNet in 1983 while working on a paper about computers and writing at the Harvard Graduate School of Education and reading about the work of James Levin and colleagues in San Diego. The network had two main goals: to let isolated teachers share ideas and to set up ways for students to write for audiences of readers other than the teacher.

With support from the Bread Loaf School of English, Bill Wright was able to work with English teachers around the country and, for six years, try different telecomputing projects ranging from one-to-one e-mail exchanges to group work on a computer conference. He has also worked at a research company where he consulted with computer companies and information services.

Objective

To have teams of writers in classrooms around the globe work together on a meaningful task. We (those teachers at Bread Loaf School of English experimenting with online information services) hope these activities will improve writing proficiency, help students learn more about other parts of the world, and help them gain a fresh view of their own communities.

Materials Used

Computer, modem, communications software, word-processing software, subscription on a network with conferencing software, and a phone line. Bread Loaf teachers without phone lines in their classrooms used modems at home to send and receive files. For those who want thoughtful exchanges of ideas with other teachers, this might be the best arrangement.

Time Required

For students doing writing and editing: at least three one-hour blocks of time per week for six weeks. For uploading/downloading files: at least two one-hour blocks of time per week for the six-week period.

Either the teacher or a student who has experience in using a modem can take on the task of sending and receiving files. A student might be asked to collect onto a single diskette the writing that will be uploaded to the network.

Activities

I will briefly describe two telecomputing activities, but first I will offer this gentle warning. It may take you some time to set up a modem and get used to it. I urge you to solicit the help of your computer teacher or someone else who uses modems. I also suggest that you get the proper training and spend a few months working with other teachers on a network before you try to set up a project for your students. Teachers should plan carefully and not be too ambitious at first. Nothing is worse than getting your students excited about a telecomputing project and then not being able to follow through.

An electronic network can be a tremendous support and professional development tool for isolated teachers (and what teacher does not feel cut off?). An electronic network should not be used, however, as an expensive way to send pen-pal letters. If you set up one-to-one exchanges between classrooms, then you should set specific dates for uploading (usually two weeks between batches) and have your students do several kinds of writing, not just letters. Matching students one-to-one with students in partner schools can present problems. One problem is that it can become a management nightmare for the teacher. It is better to send four or five selected pieces or four or five group-written pieces (not a piece of writing from each student) to the partner school.

A better use of this medium is to set up a computer conference so that several classrooms can work together. This, unlike one-to-one exchanges, allows you to do what cannot be done any other way.

Several Classrooms Working Together

A project set up using computer conferencing lets many classrooms, not just one partner school or one pen-pal, share writing. This is especially important when connections are made to an overseas site. For example, rather than have just one classroom in New York be part of the rich, compelling writing exchange with the school in Lima, Peru, we set up a computer conference called "World Trade" which allowed a group of classrooms to benefit. We also found a way to cut down on costs of exchanges with overseas schools, which all have to pay telecomputing surcharges. Rather than have thirty redundant pieces of writing come across the wires from Peru, we encouraged collaborative work. Classrooms signed up for a week-long slot. Teams of students sent descriptive essays, work that they knew that seven other classrooms (not just one partner) would see. Students reading the pieces at the cooperating schools put up constructive comments about parts that were not clear. Models of good writing and models of revision were there for lots of students to see. This collaborative writing not only saved telecomputing costs, but also allowed for the kind of writing that people will have to do in the workplace.

My colleagues and I had other collaborative writing workshops using telecomputing—a structure which, when a good moderator is in charge, seems to produce the most benefit for the cost. One such venture, called "Workshop," produced some rich writing and excellent comments from students across the country who were reading the writing. The opening note on the Workshop conference appears in Figure 1.

A computer conference like Workshop can involve as few as two and as many as ten or more classrooms. A smaller number (five, for example) will let each classroom have a couple of publishing opportunities during a semester. It is important to have a moderator who sets up a schedule, makes sure that each classroom follows through, and steps in if comments get out of hand. The moderator might use other media from time to time to move a project along. For example, he or she should not hesitate to make telephone calls or send schedules and how-to tips through the regular mail.

Starting with Common Reading Material and a Common Theme

Another project my colleagues and I set up had each classroom starting a telecomputing project by reading the same articles, in this case, reprints of *Time* magazine's planet-of-the-year issue. We started this project in the fall by having a team of teachers work online to plan and develop some ideas for working in the classroom. We had schools register for the limited number of slots in the seven-week online project (held just before the twentieth anniversary of Earth Day, the project was called "World Class"). Participating teachers agreed to read and send notes

"WORKSHOP" by WWRIGHT, Feb. 9, 1988 at 19:26 about
RESPONDING TO STUDENT WRITING (975 characters & 218 notes)

The purpose of this workshop is to provide a forum for student writers interested in peer responses. It is open to all ages and all types of writing. Each Sunday a different school will be offering its work for your reactions. Comments will be accepted through that week. Please don't put up more than five pages of writing, and please limit comments to sixty lines.

Each contributor should give his/her name, age, and school. You may wish to note if the work is still in progress. Feel free to offer any questions or concerns that you might like to see the group address.

Each person writing comments should also note his/her name and school, as well as the name of the piece you're responding to. Please balance criticism with positive suggestions and try to be specific in explaining your reactions.

—Bill Durbin (wdurbin)

Note: Bill Durbin (wdurbin) will moderate this conference. Bill will put up the first writing on Sunday, February 14. Let him know if you would like to contribute writing at a later date.—WWW

Figure 1.

Schedule

February 1—BreadNet office mails reading materials to schools.

First week—Each class sends to the main conference a half-page introduction. Send to your cluster [there were five clusters of classrooms as well as the main conference] one or two informal essays about environmental problems. Begin thinking of five questions that your class wants to ask an online expert. [In this case, it was the global environmental specialist in Senator Gore's office. We took a tape recorder to his office, transcribed the answers, and uploaded them to the conference.]

Second week—Moderator of each cluster selects two questions for the online guest. Cluster discussion begins. During the week, the moderator sends excerpts to the main conference.

Third week—Clusters discuss global warming and rain forest destruction. Moderator sends excerpts to the main conference.

Fourth week—Clusters take a break. Main conference open to anyone. [We asked that notes sent up be limited to sixty lines.]

Fifth week—Clusters continue. Focus on local problems and how these are also national/international problems. Also, what can we do locally to solve the problems we have discussed so far?

Sixth week—Clusters focus on solutions to problems discussed earlier and on answers to questions raised earlier. Suggest ways to take action.

Seventh week—Each class sends two or three essays to a special conference that we set up.

Figure 2.

to the conference at least twice a week. The schedule that we mailed out appears in Figure 2.

Evaluation and Conclusion

One of the benefits of electronic communication is that teachers can stay in touch with each other throughout the project and make quick adjustments. Teachers might set up an online interactive journal for the participating teachers, a special conference where they can enter their thoughts. At the end of a project with several schools, teachers might let the evaluation be more of a discussion than a survey. Ask what participants would do to improve it next time.

In the last exercise I described, teachers said they wanted time earlier in the process to discuss with other teachers how to manage the day-to-day work in the classroom. Some teachers, for example, asked volunteers to be part of the online project. Others broke the class into teams. Some gave copies of the downloaded materials to each team. Others posted all the downloaded and printed conference notes on a wall in the classroom.

We found that limiting the clusters (smaller conferences) to around eight classrooms worked best. Otherwise, even with guidelines limiting what people put up on the network, the result can be an overwhelming amount of information to download. Some online projects are open-ended. An aspect of this one that teachers liked was that it had a definite beginning and ending, with specific tasks to complete. Our specific project was fairly ambitious (it included seventy classrooms, twenty-five from overseas) and should not be attempted without the proper staff and resources. However, my colleagues and I feel that the model can work with fewer classrooms (maybe six or eight) and a shorter time (maybe three or four weeks). The important thing is to plan ahead and have a strong moderator to keep things moving.

22 WRITING EXCHANGES ON AN ELECTRONIC NETWORK

Jeffrey Schwartz, Fairfield, Connecticut

What is Sewickley like? What interesting things are there? Here in Kyle, it's a small community (pop. around 500), quiet, not much to do, on the plains, and located on the Pine Ridge Indian Reservation in southwestern South Dakota. What is your school like?

—Little Wound to Sewickley

Wilsall is a super small town and I'm sure that you would go crazy if you lived here. We have one grocery store and two bars and that is it. The closest movie place is 25 miles away and it gets to be a real pain to have to drive to Livingston to just see a movie . . . I hope to hear from you soon. Tell me everything about yourself.

—Wilsall to Sewickley

What's life like in Wilsall, Montana? Well, here in Sewickley it is pretty boring. Sewickley is about fifteen miles north of Pittsburgh on the Ohio River. I don't know what impression you have of the city but Pittsburgh is nothing like the dirty, scummy ugly city it was made up to be. Actually it is very beautiful.

—Sewickley to Wilsall

Overview

This describes a three-way cultural exchange conducted in 1987 at Sewickley Academy in Sewickley, Pennsylvania. For one semester, Jeff Schwartz's students communicated with students at Wilsall High School in Wilsall, Montana, and Little Wound High School on the Pine Ridge reservation in Kyle, South Dakota. Three teachers—Joanne Tulonen, Bill Noll, and Jeff Schwartz—used BreadNet, an electronic conference of the Bread Loaf School of English (Middlebury College) to plan the exchange and send messages. Students wrote over 500 messages using electronic mail (e-mail), including letters, interviews, drafts, revisions, questions, and local histories.

Description of Students

Though electronic exchanges may be done effectively at any age, the particular project included juniors and seniors in high school. Students at Sewickley went to a private school just outside a major urban area. In Wilsall, students lived in a Rocky Mountain town of about 200 people with one general store. Little Wound students came from the Pine Ridge Sioux reservation in one of the poorest counties in the United States. Differences in background (race, gender, economics, geography) helped to spark curiosity among student writers.

Description of Teacher

Although the three of us were all familiar with computers and word processing, we had varying degrees of experience with electronic networks. It is not necessary to know intimately how a modem works if you have access to someone, another teacher or a student, who can help send and receive messages. It is crucial to agree on a common schedule,

one that is both very carefully planned and flexible. Students depend on timely responses to their mail.

Objectives

The central goal of the project was to improve writing skills. We did this by creating a situation where students were motivated to write to real readers. Other goals were to increase awareness of writing as a situation, to increase confidence in writing and communicating, and to increase knowledge and understanding of the cultures and histories of different American communities. At the end of the course, almost all of my students agreed that they were more aware of cultural differences in the United States and had learned not only about Wilsall and Little Wound, but also more about their own community. One wrote:

> This course was designed to help students improve their writing. But I feel that I have learned something valuable to me along with improving my writing. One can study about a place, battle, or people, but one never truly knows and understands a people until he has corresponded with those people. In this class we have corresponded with people that many of us know nothing about. We may speak the same language, but we are very different.

Pedagogical Approach

In a sustained writing exchange such as this one, it is important for teachers to agree on classroom goals and assumptions. Before our courses began, the three of us met in person in Vermont and later electronically on BreadNet to plan and revise a common curriculum. It helped us a great deal to have a shared understanding of the writing process and why it was important to create a cross-cultural exchange that would make communication real for our students. All three of us were inclined to use exploring, drafting, revising, and peer feedback. We encouraged a student-centered class, where students could be involved in as much of the process as they wanted. Our theoretical models for writing came especially from the work of James Britton and James Moffett who, along with Dixie Goswami and others at Bread Loaf, have long advocated correspondence among other approaches for writing to learn.

Prior Computer Use

In any extended use of telecommunications, it helps to start small. Our three-way exchange developed out of a previous year's two-way exchange between Sewickley and Wilsall. Inevitably, there are glitches that frustrate even the most noble efforts. Therefore, I would recommend starting with a small, manageable project at first and then letting it grow.

In the fall of 1985, Joanne's students in Wilsall and mine in Sewickley sent about three exchanges that raised interesting questions about cultural differences, writing, and the use of computers. The next year, we built on our discoveries. First, we wanted the exchanges to be more interactive. In 1985, we sent a finished essay electronically that arrived at the other school faster, but just as efficiently as the regular U.S. mail. In 1986, we added the letter exchange so that there would be ongoing connections between students. We also added other types of writing—sets of questions and drafts—that required a response. Not only did our exchange become more interactive, but also it took greater advantage of the computer's speed in transmitting mail. In 1986, most mail sent was read within twenty-four hours and some was read within minutes.

Second, we attempted to build into the exchange more attention to stereotypes and differences between cultures. That first year we were not prepared for students' limited perspectives about what it was like to grow up on a ranch in Montana or attend a prep school in Pittsburgh. In 1986, we built the study of stereotypes, including discussions and reading and writing assignments, into our curriculum. We also added Bill's school in South Dakota, so that we now had to confront images, in one writer's words, of "cowboys, Indians, and preppies."

In all three of our schools, we had already made a commitment to using the computer as a word processor. Telecommunications struck us, then, as simply an extension of that use. All of our students used computers and learned to save their files appropriately so that they could be uploaded to the electronic mail service we were using. Students were fascinated by the whole process and came to see telecommunications as a natural part of their writing processes.

Materials Used

At least one computer is necessary, although a writing lab full of computers is ideal. Students wrote their messages using a word-processing program so that when we sent "e-mail" we could quickly upload their files. Likewise, we downloaded all incoming

files onto word-processing software so that we could store and print files at will.

For telecommunications, you also need communications software (we used Point-to-Point because it was compatible with our Apple word-processing software), a modem, direct access to an outside phone line at school or at home, and a subscription to an electronic mail service (Bread Loaf currently uses Unison, though any commercial service or bulletin board will do). In Pittsburgh, I reached Unison by dialing a local Telenet number, so I never had to pay long-distance charges. Because they lived in rural communities, Joanne and Bill had to call a long-distance Telenet number to reach Unison. As telecommunications has proliferated, there are now many less-expensive services to choose from. Some states like Vermont have their own educational bulletin board with free access.

Time Required

Depending on the scope of your project, an electronic-writing exchange could be a semester-long course, a once-a-week project, or an after-school activity. Class time is better spent on writing and discussing the exchange, rather than on actually sending the messages, which can be arranged during free time. It is important, though, to demonstrate how electronic mail works and to allow students to try it at least once during class time.

Activities

The writing exchanges depend completely on teacher time and motivation. Our exchanges centered around nine central activities. Some could take a week of class time (conducting the introductory interviews), a day (writing a letter), or a month (learning how to conduct a formal interview and completing an oral history). Sometimes one activity led to another. For example, many of my students read about Native American history; some wrote a letter to *USA Today* in response to an article on technology and education; a few corresponded with or phoned their writing partners outside of school. As motivation rose, each school exchanged newspapers and photographs. I have heard of projects where classes created and exchanged videotapes as well. In a local exchange, it is even possible to share guest speakers or visit the other school, as we did in the Clairton-Sewickley project.

This is a brief description of the nine writing projects (taken from Schwartz's "Using an Electronic Network to Play the Scales of Discourse"), which the three of us agreed on and revised as we moved along:

1. *Interview*: After interviewing each other, students introduced their classmates to the other schools.
2. *Self-Portrait*: Students then introduced themselves by telling the story of a significant experience. This broadened the range of writing to include narrative and allowed students to be more detailed and personal than they were in the interviews.
3. *First Letter*: Students at all three schools were matched so that every student would correspond throughout the course with a student at each of the other two schools. Now, students were writing informally to individuals in addition to writing to a whole class. The letters were different from essays in that (1) they were more frequent, (2) they were directed to a single reader and thus a more concrete audience, (3) they were usually written more in the voice of the writer—something that carried over into the more formal essay writing, and (4) they covered a broader range of topics.

   The letters were more involving, but they also presented some problems. For instance, when letters were delayed because of absenteeism, scheduling, or computer constraints, the correspondent became easily discouraged. Another problem was that sometimes when students did not share their letters with the rest of the class, others missed something that could have added to their understanding of life at the other two schools.
4. *Questions about Community*: With background information from the first three exchanges, students brainstormed questions for the other two communities. At Sewickley, we also anticipated questions from the other schools, adding topics that someone at Little Wound or Wilsall might not think to ask.
5. *Essay on Community*: Based on the questions received and topics anticipated in the fourth exchange, students wrote essays directed to a dual audience: On one level they addressed their individual correspondents, but they also wrote broadly enough to be understood by both classes

at the other two schools. Topics included activities, geography, local places, drug problems, government, religion, music, school, sports, family, career or college ambitions, native language, and economics.

6. *Response to Draft of Essay*: To encourage more interactive communication, drafts of the community essays were sent for feedback. This was one of the most difficult communications because, even with instruction, students found it hard to respond. Feedback included anonymous group responses and "signed" individual letters. At Sewickley, students had to use feedback to revise their essays. In most cases, those changes focused on clarifying terms, information, or tone. One of the most significant learning experiences for the writers was to anticipate a reader and explain ideas, opinions, and facts that would not need to be explained to a peer or teacher in the same school.
7. *Final Essay on Community*: Using peer and teacher feedback from the other schools, as well as peer and teacher feedback in class, students revised their essays and mailed (U.S. Postal Service) all of the final versions of their essays on disk, at once, to the other two schools.
8. *Oral History*: Students moved beyond writing what they knew to writing a formal essay based on interviews with authorities about local history in their respective areas of the country. This involved original research, because the students ultimately uncovered history made by ordinary people who had lived it. During this research and writing, their primary audience remained the students at the other two schools.

   At Sewickley, the oral-history project included practice interviews, drafts of questions, formal requests for permission to quote from their subjects, tape recording interviews, transcribing interviews, summarizing transcripts, planning essays, drafting, peer responses, revision, and sharing the final project with their subjects. Students spoke to judges, a garbage collector, a mayor, a chauffeur, one of the founders of their school, someone who lived through the great Pittsburgh flood of 1936, and many other local residents of Sewickley and the other towns from which the students commuted to attend school.

   The oral histories were the most extensive written project and culminated in an exchange of disks, some electronic mail, and a published anthology. Although the outcomes of the oral histories varied, those at Sewickley were collected and published in *Smoky City Memories*, an anthology that was distributed to local libraries and historical societies.
9. *Essay Evaluating the Project*: This essay was assigned at Sewickley only; and, because it was written to the teacher, it was not sent to the other schools. For this last formal piece of writing, students conducted another kind of research, this time using their own writing as data. Based on changes they saw in their work over the semester, students evaluated what they had learned.

In addition to the course's nine key projects, students had other opportunities to write about and reinforce the attention to context required by the electronic exchanges. Frequently, my students wrote me letters analyzing their exchanges, generalizing about the different communities, and informing me about their progress. It is important to make time not only for the mechanics of distributing and reading e-mail, but also for writing about and discussing the exciting issues and problems raised by the exchanges. Throughout the semester, students wrote interviews, transcripts, stories, letters, questions, drafts, reflections, feedback to drafts, outlines, summaries, plans, notes, and oral histories for a variety of purposes to a variety of readers and in a variety of personae. As they learned about the different communities, they were also learning about writing.

Evaluation and Conclusion

Electronic writing exchanges are a fantastic way to broaden students' awareness of their own community in relation to others, to break down stereotypes, and to expand students' abilities as writers and critical thinkers. It provides the kind of context for meaningful communication that is so frequently missing in our classrooms. As one of my students wrote:

> Something that is strong in my mind is a kind of respect and understanding that we have built with other students through writing. . . . I guess writing took over as our source to communicate and get to know these distant people. And, my God, it worked.

Beyond careful planning and following students' own leads, I think the key to a successful electronic exchange is commitment to the possibilities of a communication that surpasses the ordinary bounds of the classroom. The focus is not and should not be on the technology itself, but rather on computers as a means to accomplish what just cannot otherwise be produced.

An exchange like this can have many variations. It can be part of a larger course (as at Wilsall and Little Wound) or an entire elective (as at Sewickley). It may cross state or even national boundaries, or it may be done successfully between two local schools. (For a longer description of a local project, see J. Schwartz's, "On the Move in Pittsburgh: When Students and Teacher Share Research.") The exchange may involve high school students, as ours did, or younger students in elementary or middle school. Electronic exchanges may be entirely based on letters or they may focus on a written discussion of a shared subject, such as local history, current events, environmental concerns, literature, etc. I have also used an electronic network to create a national literary magazine, where students in grades K-12 send submissions to a central editorial board. This past year at Greenwich Academy, editors in fourth, seventh, and twelfth grades selected and produced an entirely student-controlled publication.

The central advantage of all of these projects is that it makes writing more real for our students. In most classrooms, it is very difficult to write genuinely for a reader beyond fellow students or the teacher. An electronic exchange gives student writers real readers and real purposes for their writing. When my students at Sewickley wrote to their peers in Montana or South Dakota, they had to anticipate what their readers would know in a way that was simply not necessary when they wrote to me. They wrote for more purposes than I could artificially create when they wrote to inform, persuade, entertain, or simply connect personally in a letter. They also used a wider variety of genres than they would typically be exposed to. (For a longer discussion of the value of this type of writing see Schwartz's, "Using an Electronic Network to Play the Scales of Discourse.") When real communication takes place, there is bound to be communication breakdown too. Students learn through these experiences to confront their own stereotypes, to examine the ambiguity of their own writing, and to use language to see themselves differently in relation to their world.

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23 AUTOBIOGRAPHICAL NEWSPAPER

Catherine Morics, Greenfield High School,
Greenfield, Wisconsin

Overview

Middle school students created a newspaper about themselves. The project took five weeks and involved peer revision and the use of word-processing, graphics, and revision software.

Description of Students

At Greenfield Middle School, students are placed at random in one of four groupings called "houses." There are five teachers within each house. Our writing lab is available to the English department of each house for one week each month.

Description of Teacher

I have a master's degree in adult education and have taught adult literacy and high school equivalency programs for three years. I have been teaching middle school English for the last three years. I have had no formal education in using computers, but I have used one at home.

Objectives

My goal was to end this year with a project that the kids would absolutely love. I wanted them to produce a piece of writing that would give them a positive attitude about their writing and would make them feel competent. The individual objectives were to:

1. create an autobiographical newspaper incorporating graphics and text;
2. compose this autobiographical newspaper using Professional Write and PFS: First Publisher;
3. use Writer's Helper for prewriting and revising;
4. evaluate using conferencing and peer editing;
5. perform peer-editing activities and have conferences and evaluations with other students and the teacher.

Materials Used

The lab contains nineteen IBM clones, six Panasonic printers, one teacher's station, and a hard-disk system. The computers are stationed against the walls. The software used was Professional Write, PFS: First Publisher, and Writer's Helper.

For this particular assignment, Bonnie Jenko (a colleague who first suggested and developed the idea of an autobiographical newspaper assignment) and I created the Autobiography Project Pack. This pack contains a Fact Sheet that students can fill out together with their parents. This Fact Sheet records the students' vital statistics: date and place of birth, birth weight, and so forth. The pack also contains eight chapters dealing with such matters as "Birth and Early Childhood," "Likes and Dislikes," and so forth. Each chapter concludes with an Evaluation Sheet to be used by the student editor when he or she evaluates the student writer's work. The student editors use the "CUPS" system of editing. CUPS stands for Capitalization, Usage, Punctuation, and Spelling. Peer editors put the appropriate capital letter in the margin when they spot an error in the text they are reviewing, e.g., S for spelling error. The student who has written the piece must review the sentence and find and correct the error.

Activities

Week One

Objectives: Students were to:

1. read and understand the Autobiography Project Pack;
2. begin collecting and organizing information from birth and early childhood;
3. practice the CUPS system of editing.

Procedures: Read and discuss the Autobiography Pack. Practice editing using the errors on the Autobiography Pack. Students were first given quiet time to decide and think, then they broke up into small groups to brainstorm and begin prewriting activities. Students had the option to create a private autobiography that they might not want to share, but they had to be able to select at least three chapters to share with the others.

Comments: I underestimated the amount of time needed to explain the project. I felt the Autobiography Pack was very clear, but students had hundreds of questions about the eight chapters. Students were also reluctant at first to share information.

Week Two

Objectives: Students were to:

1. begin writing the first drafts of their first few articles using Professional Write (Writer's Helper was also available for prewriting activities.);
2. print everything done the last part of the class on Tuesday;
3. practice peer editing their own and another student's writing, using the Evaluation Pack.

Monday to Wednesday

Procedures: Students met directly in the writing lab with only their Autobiography and Evaluation Packs. The Fact Sheets needed to be filled out. However, students did not have to begin with the first chapter in the pack, Birth and Early Childhood. The teacher should work individually with students when necessary. Students often needed to be reminded to simply write the first draft. Changes in content and mechanics should be considered later.

Comments: The students were very excited about this assignment even though they refused to admit it. Most students began writing immediately, completing chapter 1 (Birth and Early Childhood) with no trouble at all. The students were excited but worked quietly with intense purpose. I really enjoyed seeing them work with their writing.

Wednesday to Friday

Procedures: After a quick refresher course on the CUPS editing system and style, peer editors were assigned. Using the Evaluation Pack, students evaluated both their own work and the work of the student to whom they had been assigned as a peer editor. Students constantly needed to be reminded that, in order for this exercise to work, it was necessary for everyone to have all of their materials. Only the writer could make changes on his or her text. Students who generally had problems getting started were scheduled for initial evaluation conferences.

Comments: Only two students had less than one typed page. A peer tutor would be assigned if these two students continued to have problems. The majority of students were still rather excited, and some worked harder than ever. I was concerned that the students seemed to be confining their evaluation comments to mechanics. The peer editors were so taken with the students' early-childhood stories that too many writing techniques were forgotten. The evaluation questions ask the editors to answer a number of questions about word choice; sentence length, structure, and appropriateness; and to make judgments about the work's style.

Week Three

Objectives: Students were to:

1. edit and revise prior weeks' work;
2. continue to write various articles of their choice;
3. select and design their newspaper's headline using graphics from PFS: First Publisher and save the format on the network.

Monday and Tuesday

Procedures: Students were to make changes to the first drafts of their work and begin new articles from the Autobiography Pack. Students constantly needed to be reminded to include descriptive language and to pay attention to the elements of style in their writing. Students also completed the headline for their newspaper using the graphics from PFS: First Publisher. All work done so far needed to be printed by the end of Tuesday's class.

Comments: PFS: First Publisher presented many problems. This program is much too complicated

for students in this age group to use. However, with the aid of our computer specialist, we managed to get a wonderful collection of newspaper headlines.

Wednesday through Friday

Procedures: Students were assigned a different peer editor for this week's work. The same procedures as for the prior weeks were followed.

Comments: The excitement still had not worn off. The most popular article from the Autobiography Pack was Likes and Dislikes. This assignment caused the students some problems because they had to write paragraphs, and they were tempted instead to write down a list of their favorite items. About 60 percent of the students used all three revising activities available in Writer's Helper and printed their summaries. About 25 percent of the peer editors used this same procedure on their writer's work. This is the first time that I saw many of the students identify writing problems and draw conclusions on their own, using Writer's Helper. The peer editing became more concrete than in the prior two weeks for some students. Others still could not get serious about personal writing.

Week Four

Objectives: Students were to:

1. continue writing articles from the Autobiography Pack using Professional Write and Writer's Helper;
2. select and save graphics from PFS: First Publisher for use in the body of their texts;
3. complete evaluation using conferencing, peer editing, and the Evaluation Pack.

Monday and Tuesday

Procedures: Using a book containing the graphics available on PFS: First Publisher, students selected and saved graphics they wanted to use. Students must have written at least three of the eight chapters in the Autobiography Pack. Students had to print all writing done on this project by the end of class on Tuesday. The drafts and printout of prewriting summaries had to be brought to class the following day.

Comments: Everyone was very busy in the lab these two days. Many students completed all of the writing (the eight separate articles) and were working on making improvements. This was the longest period of time we had ever spent on a project, and it was nice to see that the students were capable of consistent work on a project of this length. Most of the students were using Writer's Helper. I was very anxious to see the final results.

Wednesday through Friday

Procedures: Students were placed in groups of four or five. The teacher helped only when asked. Students were given the opportunity to discuss the Revising Tools (a revision aid in Writer's Helper) summary result and possible revisions in a group setting. This was the last opportunity for students to have their work evaluated before the final grading. Students needed to make sure that their Evaluation Packs (for all eight articles) were complete and that more than superficial editing had been done.

Comments: It was rewarding to see so much serious work on writing accomplished. The class, while all on-task, did seem to get a little loud. This upset some of my peers.

Week Five

Objectives: Students were to:

1. make their final revisions;
2. transfer text into newspaper format with graphics and banners and print final copies.

Procedures: This entire week was spent in the writing lab. All articles including headlines for individual articles and graphics had to be completed. This was the last week available to our class in the lab. Students who did not complete this assignment during week five would have one hour each morning to complete this final phase.

Comments: This week saw a flurry of activity as everyone worked to get their assignments "perfect." I have never seen as many students become as concerned about the accuracy and effectiveness of their writing. Although this was an exhausting week, it was very rewarding.

Evaluation and Conclusion

The strengths of this project are many. First, it was highly motivational and was my first experience in incorporating graphics with text. Both teachers and students were favorably impressed with the results. Second, the writing looked great. This project was a real showpiece, and because of this, it fulfilled its primary purpose as a rewarding experience for

everyone. The writing was organized, creative, and original. Students felt as though they had really accomplished something. The students wrote about something that they knew well, themselves, and I learned much about them.

This project could be done using pen and paper, but only on a smaller scale due to the extensive rewriting and editing involved. I do not feel that the effect would be as rewarding to the students. The appearance of these "newspapers" was impressive. Many students needed copies for divorced parents and other family members.

One serious problem of this project is to ensure that the writer's privacy is protected. Students at this age do not always use the best judgment and may write more than they really want to share. Constant reminders are needed to protect some students. Another real concern regarding this project is that many students cannot distinguish a criticism of their writing from a criticism of themselves. This was something that I was deeply aware of, and I took pains to emphasize the benefits of constructive criticism.

In the future, however, I will change a few things. For example, this will be the first writing project I will do in the fall, because I will learn valuable information about my students and their writing abilities. Had I possessed this information, it would have changed some of the things I did this semester. Additionally, I will no longer require a childhood story, and I will shorten the length of time for the assignment.

This was a wonderful experience for all!

24 AUTOBIOGRAPHICAL NEWSPAPERS AS AN INTRODUCTION TO JOURNALISM

James Ross, Webster Transitional School,
Cedarburg, Wisconsin

Overview

This activity combines some direct instruction in journalism with autobiographical writing. Students used several pieces of computer software—a word-processing program, a simple graphics package, and a prewriting program.

Description of Students

Suburban sixth- and seventh-grade students with no journalism background.

Description of Teacher

I have had eighteen years' experience teaching middle school English. I developed a word-processing curriculum for the school, and I am very familiar with the computer programs used in this assignment.

Objective

To produce an autobiography in newspaper style by creating the student's own newspaper name (flag), writing articles, and including photographs with captions/(cutlines). The end result looks like a newspaper page.

Materials Used

IBM computer equipped with the Writing Assistant word-processing program (any word-processing program should work), The Print Shop, and Writer's Helper (optional).

Time Required

Six weeks of five forty-minute periods are needed for this assignment, although the time will vary depending on available computer time and how much class time you want to use for writing, printing, and laying out the newspaper. You could use less class time to work on writing and pasting up, while giving students a greater amount of time for at-home completion of the assignment. I think using class time is more beneficial, however.

Additional Note

I would suggest that the teacher produce his or her own newspaper right along with the students. Go through each process before they do. This experience will help the teacher understand the process better and allow the students to see their teacher doing the assignment also. Referring to a real newspaper's appearance will help guide you through the unit.

Activities

This assignment began with the same introduction to newspaper vocabulary and fill-in-the-blank testing I had used in past years when I had tried this activity without computers. I continued teaching the unit over the next few weeks, while students were given time to memorize the terms and definitions.

Understanding the vocabulary would be directly tied into the students' final projects. One newspaper term even most adults do not know is *flag*, the newspaper's name which appears at the top of the first page. They confuse this word with *banner* or

masthead. As a way of reinforcing this term and integrating letter writing into the unit, I had the students use our school word-processing program to write business letters requesting local flags from random cities across the country. Although I did locate a reference book with newspaper editors' addresses, I decided to let the students choose any two or more towns that were in the zip code book. Unique names seemed to be an attraction. They addressed their requests to the postmaster of that town. Some students who had friends or relatives in foreign countries wrote to their contacts but still were required to write at least one formal business letter. As students wrote their first letter of request, they quickly saw the advantage of the word processor. All they had to change was the inside address (and envelope) for additional letters. I arranged a special check-off method with our local post office, so the students themselves were responsible for actually sending their letters. When a student brought his or her letter to the post office, the clerk would postmark a card I had duplicated as proof that the assignment had been completed. Replies came from all over the world, filling four bulletin boards. These flags, with their interesting and varied names, were quite useful for the final project.

While we waited for the replies to arrive, we turned to the next part of the unit—learning how to write newspaper articles. Using filmstrips and overheads, I explained the concept of the upside-down pyramid, focusing on the lead. Using worksheets and computers, the students practiced this writing skill. Slower students found journalistic writing quite difficult and needed lots of practice. The more practice you can arrange here, the better your final products will be. Especially practice the concept of the lead paragraph with the five *W*'s (who, what, when, where, and why). For a more creative assignment, I had students turn well-known nursery rhymes into news articles, an idea I had seen in *Learning* magazine several years ago. Again, we used our word-processing program to write and edit the articles. By using boldface to emphasize the datelines and by setting the margins narrower, the students were able to get the look of a real newspaper article. Having plenty of news writing under their belts, they were now ready for the final project—an autobiographical newspaper.

I printed up an information sheet (Figure 1) and discussed the requirements with the students. Over the next few weeks, the students and I worked on our newspapers. (I wrote my own just as the students did.) I had thought of using Newsroom for the project, but I wanted the students to use their own photographs and make the newspaper posterboard size. Some students did use graphics and headlines from this program but then cut and pasted their articles as I required.

Some students brainstormed ideas for their articles using Writer's Helper. I added my own questions, which helped them develop their thoughts for this specific assignment. Students who initially said that they did not have any special events in their lives were surprised to see just how many topics they could expand upon.

Students wrote articles, printed headlines, and constructed "flags" for their newspapers using Writing Assistant and The Print Shop. (Graphics Libraries, a part of The Print Shop, was particularly helpful here.) Various headline sizes were obtained by using The Print Shop's Sign and Letterhead fonts and graphics. A lot of experimentation was needed, but we were very satisfied with the final results. Students signed up on the chalkboard underneath different font styles, so that we could print several flags or headlines at one time. This system saved computer time and paper. Our now completely filled bulletin board was helpful in giving students ideas for their own newspaper flags.

Some more capable students were given a few extra requirements to fully develop their newspapers. Other students could use those additions to accumulate more points for their project grade. An evaluation sheet (Figure 2) was also handed out and discussed in detail, so students would know my expectations. Grades would be based upon the total points earned in conjunction with each student's level of ability. Class time for the next two to three weeks was spent brainstorming, writing, revising, editing, and printing articles along with writing and printing headlines and cutlines. A week and half before the due date, I handed out a "Last Minute Tips" sheet that reviewed the key points necessary for doing a good job. Most students saved the dummy details for homework (on the final weekend, of course).

Evaluation and Conclusions

When the project was due, the students and I were excited to see each other's final results. Immediately, I posted the newspapers all over the room, taking up

every conceivable space and even running into the hallway. With the evaluation sheet I had discussed ahead of time in hand, I slowly made my way around the room, grading the projects over an eight-day period (including many weekend hours). Later, I also had each student grade another student's project in order for them to get an idea of what was involved in the evaluation process. Although some students had difficulty writing the news articles and laying out the dummy to exact specifications, they made every effort to complete the project.

At parent conference time, I received many positive comments—students enjoyed the challenge and parents enjoyed the results. Although I had used computers before in my language class, I had never used them to this extent, especially on one project. Having to write as much as they did, the students made good use of their recently acquired keyboard skills. The autobiographical newspaper was certainly a successful culminating project. I look forward to repeating this unit in the years to come.

The Final Project: An Autobiographical Newspaper

The Assignment

Your assignment is to write, edit, and print an edition of an imaginary newspaper about you—an abbreviated autobiography. This pretend newspaper should be created on two (or more) of the sheets of the posterboard (12"x16") that I will provide. The following items are to be included in this "personal edition":

1. A newspaper flag with your own choice of name and any artwork to go along with it. The date on the flag should be your birthdate through the assigned due date. For example January 14, 1977-April 11, 1989.
2. A minimum of 9 articles written in journalistic style covering highlights from your life, from birth to the present time. Articles should include full datelines with city and date. (Make up dates if necessary; years should not be a big problem.)
3. Headlines for each of your stories written in various sizes just as a regular newspaper.
4. Some photographs (which will be returned) with cutlines (captions) illustrating events in your life.
5. Each page of your newspaper should have your newspaper name and page number. (Check a regular newspaper to see how this is done.)

In order to produce this newspaper, you will have to type your articles with narrower margin settings like those we have created in class. These settings should allow you to make three or four columns on each sheet. Arrange all of the required items to fit on your paper. Be creative in terms of your newspaper's layout and content. Again, check our local papers for ideas.

How to Get It All Done

I suggest you attack this assignment in an organized manner, setting some daily and long-range goals. Reread the directions very carefully, working in a step-by-step manner. I will demonstrate all these procedures in class.

First, generate a list of as many significant events in your life as possible. These would include birth, "firsts," school, family trips, special personal experiences, hobbies, and anything else you can remember. Discuss the assignment over the dinner table. Parents can be quite helpful in this area.

Second, write newspaper-sounding accounts of each of these. Make sure they follow the concept of the inverted pyramid, starting with a lead paragraph. Be sure to include a full dateline with each article. Write as detailed an account as possible. Edit and proofread your articles. You and/or your classmates are your copy editor(s).

Figure 1. *(continued on page 116)*

Use Writing Assistant to print each article that you write into narrow columns on plain white paper. Then cut the articles into strips. These strips will later be laid out and eventually pasted onto your larger white sheets.

Third, find some family photographs and write cutlines to illustrate a few of your stories. Or include a photo of something you haven't written about and write a cutline. Again, check real newspapers.

Fourth, write headlines for each of your articles. Use The Print Shop on either Sign or Letterhead screens to create them. You might want to wait till later to see what sizes would be appropriate for the space available. This step could involve some experimentation.

Fifth, think up a newspaper name; write/design your flag. Use The Print Shop Sign screens (and graphics if desired).

Sixth, work on your dummy, laying out how you'd like the paper to look; decide where you want to have some articles. Will any articles have to "jump" (be moved)?

Seventh, paste up headlines, articles, photographs with their cutlines, and the flag on the white tagboard I gave you. Glue stick works the best. Work with clean hands!

Remember, refer often to a real newspaper if you are in doubt or want ideas. As always, you can also ask me for help.

Evaluation

Your newspaper grade will be based on a ratings sheet covering six different areas: general appearance, layout, articles, headlines, cutlines, and extra information. Attached is the evaluation sheet that will be used for grading. It will be explained in class, so that you will know my expectations ahead of time. The total points accumulated in conjunction with your individual level of ability will determine your final grade.

Last Words

Try to make the format of your newspaper look as close to the real thing as possible. Use a regular newspaper and my working sample as guides. I know this is a lot of work, but I think you will have fun researching, writing, laying out, and pasting up. Good luck!

Figure 1. *(continued)*

Newspaper Evaluation Sheet

Name _____

****Appearance/Newspaper Look****...2 4 6 8 10 12 14 16 18 20

Layout	**Comments**
Flag (name, date, creativity).....1 2 3 4 5 6 7 8 9 10	
Spacing (too open, crowded).....1 2 3 4 5 6 7 8 9 10	
Proportion articles to photos.....1 2 3 4 5 6 7 8 9 10	
Articles (in general)	
Number of articles..... _____	
Datelines (city, date).....1 2 3 4 5 6 7 8 9 10	
Leads (inverted pyramid method)....1 2 3 4 5 6 7 8 9 10	
Style (wrdg./pt. of vw./object.).....1 2 3 4 5 6 7 8 9 10	
Mixture of topics.....1 2 3 4 5 6 7 8 9 10	
Creativity; depth; editing.....1 2 3 4 5 6 7 8 9 10	
Proofreading (sp./grammar/mech.)..1 2 3 4 5 6 7 8 9 10	
Headlines (in general)	
Correct method (sent. form).....1 2 3 4 5 6 7 8 9 10	
Size variation.....1 2 3 4 5 6 7 8 9 10	
Creativity in wording.....1 2 3 4 5 6 7 8 9 10	
Correct capitalization.....1 2 3 4 5 6 7 8 9 10	
Correct location/separation.....1 2 3 4 5 6 7 8 9 10	
Cutlines (in general)	
Well developed/related to picture....1 2 3 4 5 6 7 8 9 10	
Creative wording.....1 2 3 4 5 6 7 8 9 10	
Location relative to picture..... ..1 2 3 4 5 6 7 8 9 10	
Separate entity (not art. repl.).....1 2 3 4 5 6 7 8 9 10	
Extra Information	
Headline article (DOB.).....1 2 3 4 5	
Obituary (shows relat.).....1 2 3 4 5 6 7 8 9 10	
Editorial.....1 2 3 4 5 6 7 8 9 10	
Review.....1 2 3 4 5 6 7 8 9 10	
Weather.....1 2 3 4 5	
Business (stock market, etc.).....1 2 3 4 5	
Advertisement(s).....1 2 3 4 5	
Other(s).....1 2 3 4 5	
Other(s).....1 2 3 4 5	
Total Points Accumulated ..... _____	

Figure 2.

25 ANALYZING AUTHORS' STYLES

Sandra Lucht, Gillett High School,
Gillett, Wisconsin

Overview

This teacher used three common computer programs to analyze the styles of major American authors. Her students tried to guess who the author of a passage was by the information provided by these computer programs. She found her students became much more aware of stylistic features than they had in the past.

Description of Students

Juniors and seniors taking an elective, college preparatory American literature course in a small, rural high school. This is an economically depressed area. Only a few students own computers, but several would have had some classroom computer background either in basic programming or word processing.

Description of Teacher

Experienced high school English teacher with a master of science in the teaching of English, a member of the Central Wisconsin Writing Project. Essentially self-taught regarding computers, this teacher participated in a conference, a workshop, and two classes to learn ways to use computers in her English classroom. This classroom included a writing lab with eight computers.

Objectives

To use packaged grammar and style programs to analyze authors' writing; to recognize specific characteristics of each writer's style; to identify the authors of unidentified writing samples.

Materials Used

Eight computers, including four Apple IIe's, three Laser computers, and one Apple IIGS, all connected by data transfer switches to four ImageWriter II printers. Writing samples had been typed and saved by the teacher, using AppleWorks. Students used Ghostwriter, Sensible Grammar, and Writer's Helper to analyze the samples. (Each program accepts some word-processing programs other than AppleWorks. Writer's Helper cannot be used on Laser computers.)

Time Required

As a culminating activity at the end of a literature unit, the amount of time this lesson requires varies with (1) access to computers and printers, (2) number and length of writing samples, and (3) student preparedness in terms of prior knowledge concerning elements of style and familiarity with these software programs. Students who are well-prepared and who have sole use of a printer can run printouts of all excerpts during one class period and can then analyze them for homework or during a subsequent class period. If students do not have access to printers and must analyze on-screen, at least one period is necessary to study the identified excerpts and one or two days are needed to analyze the unidentified excerpts. If students work in cooperative learning or competitive learning groups, fewer computers are needed, but time must be added for group discussion and decision making.

Activities

Description of the Lesson

Because one section of American literature did not

have access to the writing lab during class time when the teacher first introduced this lesson, she worked with a control group of ten literature students who were also enrolled in writing workshop classes. They were asked to analyze excerpts from works by Hemingway, Fitzgerald, Steinbeck, and Faulkner, using Writer's Helper, Ghostwriter, and/or Sensible Grammar to note characteristics of style, specifically:

1. Readability
2. Sentence and paragraph length
3. Sentence structure
4. Writing "maturity," as determined by:
   a. ratio of active to passive verbs
   b. ratio of subordinate to coordinate conjunctions
   c. type and frequency of punctuation
   d. type and frequency of transitional words
5. Vocabulary "maturity," as determined by:
   a. ratio of different to repeated words
   b. ratio of short to multisyllabic words
   c. frequency of informal, vague, wordy, or pompous phrases

The Software Used

The segments of the software used included (1) the "Evaluating a Writing Project" portion of Writer's Helper, (2) all portions of Ghostwriter except the homonym checker, (3) both punctuation and grammar parts of Sensible Grammar, and (4) a teacher-prepared data disk, which contained one identified writing sample by each author and several other samples from each author labeled only by partial title. The 600-word samples identified as Hemingway, Fitzgerald, Steinbeck, and Faulkner consisted of equal segments taken from the beginning, middle, and end of short stories which the class had studied. The shorter, unidentified excerpts were taken from works not discussed in class.

How the Lesson Was Introduced

Students can work individually or in small groups of no more than four (larger groups have difficulty viewing the screen and sharing printouts). If one student in each group has already used the computer programs, no detailed explanation concerning software is necessary. If the majority of the class is untutored, the teacher should use one class period to explain the analyses themselves; this could be done by projecting samples on the overhead projector, explaining the significance of each datum, or by handing out mimeographed printouts and asking the students to determine the significance of the data.

Explaining how to use the software takes only a matter of a few minutes in class or the teacher may prepare a simple, how-to instruction sheet to give to the students. The amount of time the introduction requires is based on the depth of prior style analyses and the class's computer experience.

Sequence of Activities

1. *Students study major authors*: American literature students had spent two months reading speeches, short essays, short stories, and one novel each by Hemingway, Fitzgerald, Steinbeck, and Faulkner. Most works had been intensively analyzed in oral discussions. Students had examined these works' content, purpose, and major elements of style.

This lesson could also be used after a short-story unit with one story each from six to twelve authors. However, the computer analysis works best with samples by authors whose writing styles are not too similar.

2. *Students use computer software to analyze writing style*: Instructions were simple. The students were told to use each of the four identified excerpts and run any or all software-analysis programs to gather concrete data concerning each author's style. When they thought they had discovered sufficient data to recognize similar combinations in other works, they were asked to run as many or all of the shorter excerpts as they had time for, using the software that had given them the most useful data earlier, and to determine the author of each unidentified excerpt.

After the procedure has been introduced and explained, depending on the number and length of control samples, evaluating them could take one, two, or more class periods. Again, variables include the availability of hardware and software, students' prior literary and software background, printing out files versus on-screen study, and individual work versus group work. The volunteer group used in-class time only; did not have to share computers, printers, or software; and, on average, worked three days.

3. *Students present their findings*: Students can, at a minimum, hand in a matching sheet, matching author to selection. Better, identifications could be simple listings of the file name, the identified author, and the primary data leading to each identification; for ease of checking, the teacher could prepare a format. Allowing for evaluation time, if computer accessibility permits, submissions could be AppleWorks printouts with stylistic data in boldface and student commentary inserted in brackets. Ideally, students should be prepared to defend their choices in an essay or an in-class discussion, clarifying their responses with the data that led them to their conclusions. If students worked in groups, each group could present findings orally, either formally or informally. Points could be given for correct assessments.

Evaluation and Conclusions

Because this was an experiment conducted by American literature students who volunteered and who were also in writing workshops, the exercise did not include all American literature students. However, a good cross section of students volunteered, so the results are probably indicative of those that would have been acquired if all the literature students had participated.

The ten volunteers were distributed in three different writing-workshop sections, so each student did have access to either an Apple computer or a Laser computer and an ImageWriter printer. If all American literature students in a section had been involved, they would have had to double- or triple-up on computers; and, because the computers are connected to printers by data transfer switches, if all students had printed out, taking turns might have created some confusion. The analysis does *not* have to be printed, but the thinking process will be more in-depth when students can double-check and compare their findings. A second advantage to hard copy is that analysis can be completed later and is not limited to the computer lab, a primary consideration if accessibility to the computers is limited.

Computer analysis is an active, challenging approach to what has in the past been a rhetorical discussion involving the teacher and only the most involved and knowledgeable literature students. The computer data present concrete facts for students to consider. The specific information acquired helps some students feel safe and, therefore, unintimidated, willing to try to compile the facts into a conclusion. Some nonliterary students are highly motivated by this logical, somewhat mathematical approach; it allows them to work with or against students who have dealt more in the abstract. Students who think they can guess the author based on prior knowledge are challenged to find the data that will support their thesis. Students who have no preconceived ideas are compelled to analyze the data for patterns and exceptions.

For differing reasons, the students enjoyed the computer analysis: some because they could use it to support in a different way what they already knew (or thought they knew); some because it appealed to their logical left brain; some because it gave them concrete data when on their own they had little to go on; some simply because it was different. Regardless of why the exercise was challenging, it was enjoyed by all who participated. Several asked, "Are there any more we can do?" This lesson is motivational, involves critical thinking, and lends itself to cooperative and or competitive learning approaches. Furthermore, there is definite carryover into the writing student's awareness of his or her own style.

Some problems did arise, however. Because these students had read four authors fairly extensively, several could make quick and frequently accurate judgments based upon what they already knew. Therefore, they thought they had little need to scrutinize the computer data. Content clues are an example. Students were quick to think that any reference to war or hunting must come from a Hemingway story and any gin-drinking character must be in a Fitzgerald invention. Since some content clues in the initial excerpts were too obvious, future excerpts will include the hunt in Faulkner's "The Bear" and an alcohol-induced haze in Steinbeck's *Tortilla Flat*.

However, as Salinas Valley and Yoknapatawpha County are integral aspects of Steinbeck's and Faulkner's characters, plots, settings, and themes, they *are* closely related to style. After all, if Faulkner's illiterate narrator lived elsewhere, his use of language would be somewhat different. Therefore, some content clues are justifiable, but to channel focusing on *style*—the use of diction, sentence structure, etc.—the teacher might preclude or limit content data submitted as proof of identification.

Dialogue presented problems too. Because of the sentence length alone, a page of Hemingway's

dialogue contrasts sharply with a page of Faulkner's descriptive prose. Because proportion of dialogue to narrative and descriptive prose is a style indicator, care might be taken to have excerpts reflect that ratio, though dialogue excerpts could be analyzed separately from primarily narrative segments. Care should also be taken to find dialogue excerpts that are not too obvious in content, but they should still relate to what the student has learned about the author in class. For example, a bored Fitzgerald flapper might be confused for Catherine Barclay playing word games, until one considers sentence length, dialogue tags, and word usage.

Sensible Grammar was the least valuable program for evaluating these four authors because word usage changes with time. What might have been contemporary when the story was written could very well be labeled pompous or wordy now. There is some value in scrutinizing the marked words as diction clues, but the negative effects of discovering all the so-called mistakes these famous authors "got away with" probably make it a dubious exercise.

Because the teacher is not aware of any computer program that helps recognize and analyze figurative and sensory language, that aspect of style must be left to the students' detection, without computer help.

Using the computer to analyze writers' styles is an effective and educational change-of-pace lesson. Students become aware of mathematical factors such as readability, words per sentence, ratio of subordinate to coordinate conjunctions, etc.; and they come to recognize how these factors relate to the impact of the total work. If asked to do such a comparison without the aid of computer software, students would probably revolt against the tedious exercise. With the computer's speed and black-and-white results, students are able to analyze the authors' styles in considerable detail, but without drudgery. Two goals which seem to be met are an increased familiarity with the authors who are being analyzed and an increased awareness of how these factors being studied consolidate to create a persona and a voice. I hope that this awareness will transfer to the students' own writing.

26 NONTRADITIONAL LIBRARY RESEARCH: TOPICS AND METHODS

Patricia LeRoy, Cassville High School,
Cassville, Wisconsin

Overview

In this activity, non-college-bound students had an opportunity to use a variety of computer databases in the library. Materials found through these databases were used to write a research paper.

Description of Students

Rural non-college-bound high school seniors who have low motivation, but whose ability levels range from low to high. Their prior education in research is limited to a traditional ten-page research paper for composition class. Most of the information they used was compiled from encyclopedias, and the average grade was in the *C–D* range. Nine of the eighteen students have had two semesters of a computer class, which includes programming and word processing. The other nine had played computer games and occasionally used a computer, but they had no formal training.

Description of Teacher

I have a B.S. in English education and two years' teaching experience in junior and senior high school. I have taken one course on using the computer in the English classroom, geared toward people with little computer experience. I have no other computer experience.

Objectives

1. To expose students to a new method of finding information on a given topic.
2. To create files for the school vertical files for others to use.
3. To reinforce the importance of documenting sources.
4. To develop skills in writing, editing, and revising.
5. To strengthen good communication skills in writing and working in small groups.

Although not a formal objective, my colleagues and I also felt the need to give these students an activity that would help rekindle their interest in the library. Past research projects for these students in particular had been very negative experiences because of the mundane topics and limited sources available in our small library. Thus, their papers were mainly repetitions of various encyclopedia entries, with a few words of their own thrown in to aid them in their defense when threatened with the charge of plagiarism.

We felt that with a database search these students could look beyond what was readily available in our library, and that they would be more willing to look into a topic when the material they received was sent to them from California, for example. My colleagues and I hoped it would make the information seem more important to them because it would come from some "exotic" place.

Materials Used

1. The on-line telecommunication network "DIALOG Information Services."
2. The video "Introduction to Classmate," which summarizes the uses of on-line database searches.
3. Library Media Skills handouts that describe the search process. These handouts come with DIALOG Information Services.

4. Handouts (taken from the book *The Write Source*) that describe criteria for the research paper.
5. Ten Apple IIe computers, the AppleWorks word-processing program, and ten printers.
6. Note cards, etc.

Time Required

Total time in and out of class for this project is approximately seven weeks. Total time in class is twenty days. I did have the students reading a novel concurrently with the research project. The novel was assigned during week three of the project, to ensure that each student had something to do if there were not enough computers available (which was always the case), or if the material that they were required to send for had not yet arrived. (It took on the average of two weeks for most materials to arrive.)

Activities

(Fifty-minute class periods are assumed here.) This project requires a great deal of small-group work and independent study. Each day my students were given five points for using class time, and zero points for not using class time. This counted for 10 percent of their final grade.

Day One

Introduce the project. Figure 1 illustrates the handout I gave my students. I asked that each of the suggested topics on the handout be discussed with me because students were unfamiliar with many of them and I did not want them to select something in which they would not have a lasting interest. I also asked that pairs of students work together on a topic. My reasons for pairing students were that such pairing would result in better use of the time needed to do a database search (three searches per hour), and more focused topics. The assignment for day one was to choose a topic.

Day Two

Students were taken to the Instructional Media Center. They were to use the card catalogue and the *Reader's Guide* for any information that was readily available. Most students came up with one or two sources in our library, although none had enough to do a complete paper.

Day Three

I showed the students the ten-minute video "Introduction to Classmate." We discussed a second handout from Library Media Skills called "A Guide to the On-Line Galaxy." This handout deals with the advantages of using a database search and the fourteen vocabulary words the students would need to conduct a search.

Day Four

We finished the handout on "The Search Process." This handout is based on isolating major concepts needed to conduct a database search. A search demonstration was then conducted on the topic "How is caffeine removed from beverages?" As the assignment for day four, I asked student pairs to isolate the major concepts in their topics and plan their searches.

Days Five to Seven

The media director, Donna Williams, conducted the searches with the students. She could help six students per day. The students were to use the printout from their searches to send for information and to create bibliographies for their final projects. Each student pair sat with the director at the computer, described their topic and key concepts, and identified the articles they wanted to receive.

The other students worked in pairs in the computer room with me. Students had to make arrangements to switch rooms in advance. The students were paired according to their computer knowledge (high knowledge with low knowledge). In each pair, the more knowledgeable student helped the less knowledgeable student learn the necessary commands, and he or she sat ready to help while the novice practiced these basic word-processing commands. This arrangement worked quite well, and it was an obvious source of pride for the more knowledgeable students.

Days Eight to Ten

Using a guide from *The Write Source*, I planned lessons to teach students about the format of a research paper. These lessons guided students through sample papers, paragraphs, and exercises in narrowing paper topics. My students sat in pairs

Research Project Handout

The project is based on doing traditional and nontraditional methods of research. The topics are ones that are controversial, new, and not looked at much in previous student research. Your final project is to create a new file for the vertical files of the library. Your file will contain the following:

1. A bibliography, which you have compiled, of at least 15 entries pertaining to the topic.
2. Copies of five of the articles, essays, materials, etc., which you used in your research.
3. A three- to five-page paper done on the word processor, which examines an aspect of the topic which you've chosen to research.

For the topic you've chosen, you are to use the following method in your research:

A. Check the *Abridged Reader's Guide* for information.

B. Check card catalogue.

C. Do a search on the On-Line Database.

Because of the controversial nature of some of the topics, the Telecommunications Search may be the only source of your information. You are required to send away for at least two sources of information, but remember that you need to include five pieces of material in your file. If the on-line search is the only place you are able to find information, you will need to send away for five or more articles.

Before the search is done, you will need to prepare a few isolated concepts of the topic. This is a type of narrowing the topic exercise, and will not only help in your search for information, but will help to focus your research from the beginning.

After the initial research and while waiting for your information to arrive, continue to think about your topic, and continue to look for information. You will be more confident when you do begin the writing of your paper after giving the topic more thought.

Two people per topic. Each must be looking at a different aspect of the topic. Example: Student life on college campuses: Focus 1—the declining reputation of fraternities; Focus 2—meeting the challenge of minority admissions.

Topics

Health food	Surrogate mothers
Computer viruses	Organ donor banks
Aphrodisiacs	Transvestism
Cosmetic surgery	Lesbianism
Working mothers	Medical ethics
Teenage stress	Changing male role in parenting
Success rate of young or teenage marriages	Sexual behavior of college students
Alcoholism: effects on friendships	Student life on college campuses
	Job chances with high school, vocational, college diploma

Figure 1.

and used the lessons to guide their thinking about their papers.

Proper procedures and format for footnotes and bibliographies were also discussed in the lessons, and students used some sample exercises to practice writing bibliographies. Last, we discussed preparing note cards for bibliographies, and the students were assigned the task of turning in twenty note cards in ten days. We went through some sample note cards as well.

Two-Week Break from Class Time Spent on Research

The material which the students sent away for came in during this period, with two exceptions. The most notable highlight of these two weeks was the excitement the students showed when an article they had sent away for came in. Each day, students asked if anything had arrived for them. When it did, not one student shoved it in his or her notebook and forgot about it. Students began reading the material almost immediately.

I assigned a novel to my students at this point in the course; it was completed one week after the final papers were due. This was to prevent anyone from saying "I don't have anything to do," when we resumed work in the computer room. Because of the limited number of computers, only half of the class could work on writing their papers at one time.

Day Eleven

I checked the students' note cards, and I had a one-on-one conference with each student regarding the focus of his or her paper. Other students were to work on papers or read the assigned novel.

Days Twelve to Seventeen

Students worked mainly in the computer room during this period. The first day, I had the paired students work together writing the introduction to their papers. Because they had shared the same topic and read much of the same material, this worked well.

Days thirteen through seventeen were spent using the computers on alternate days, continuing research, and reading the novel. The students' rough drafts were due on day seventeen.

Day Eighteen

The class spent an hour on peer conferences. They read as much as each student had written, commented on the papers' strengths and weaknesses, and discussed how the papers could evolve. I circulated through the room to answer questions, but I left the main discussion to the students. At the end of the class, I gave students different due dates for their final project: Each student was given two more class days to work on the computer to revise and edit his or her final draft. Differing due dates were assigned on the basis of who had used the computer first, etc.

Grading

The projects were graded on the basis of a checklist. Each file had to contain the required materials. The paper was graded on the basis of the student's use of proper formats and procedures for the footnotes and the bibliography, and for its overall focus and accuracy. Ten percent of the project grade was based on daily points as I discussed earlier.

Conclusion

The final product resulting from this lesson was excellent. The fact that the students knew their files were to become part of the public domain added to their accuracy and effort. The fact that the topics were of high interest to the students also helped. The typical research-related problems did occur—topics that were too broad, difficulty in narrowing a paper's focus, footnote questions—but overall the outcome was quite good.

The major problem I encountered was the limited number of terminals available for student use. Some pen-and-paper writing was done, but there was no way around this problem of too few computers in our school. Keyboarding was also a problem. I had three students who might not have ever finished typing their papers. One of them, a learning-disabled boy, was paired with another student, and they did a group research project. I raised the requirements for their file because they were working together, and each did an equal amount of work in the end. One student did all of the typing, though. The other two boys having difficulties with keyboarding had to show me some effort in their attempts at word processing; but, ultimately, their final paper was entered by someone else.

The experience of using the database research method was the greatest benefit my students obtained from this project. The students may not use it again for quite some time because they are non-college-bound, but I am glad that they are familiar

with this information-gathering tool. I made sure that they knew they could use the database to find information on jobs, raising a family, current trends in agriculture, health-related topics, etc. I hope that some of them will find a need or a desire to use this resource again some day.

Our school gained from the project as well. We now have nine new files in our vertical files on topics ranging from changing roles in male parenting, to cosmetic surgery, to transvestism. In a small library like ours, such materials are important. The fact that these materials came from our own students is a source of pride to all of us.

Works Cited

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27 DRAWING INTO NARRATIVE

Rick Monroe and Jessica Hohman
Woodinville High School, Woodinville, Washington

Overview

Students in a basic English class used a drawing program to create a picture of a personal experience and used that as a writing prompt.

Description of Students

Woodinville is a suburban three-year high school. At the sophomore level, we teach two basic courses called Alternative English 10. Students in this class read and write at least two grade levels lower than their peers. Thirteen of the fifteen students in the two basic English classes do not have computers at home and have not used a computer before entering this class. It should be noted, however, that most of these students have Nintendo games.

Description of Teachers

Rick Monroe is in his eleventh year as an English teacher. He has a B.A. in English and a master's degree in education.

Monroe's computer experience, like most teachers', has been serendipitous. Seven years ago, while teaching eighth grade at St. Joseph's in Seattle, he was introduced to the Apple IIe, and, in less than a year, he helped establish a computer writing lab for the entire school. In the fall of 1988, the Woodinville High School library purchased a Macintosh SE with a 45-MB hard drive. In the fall of 1988, Monroe taught himself how to use PageMaker, Microsoft Word, Microsoft Works, and SuperPaint. Six short months later, he found himself administrator of a Macintosh Plus LAN (local area network).

Jessica Hohman has a B.A. in English and is currently completing her final quarter of the Teacher Education Program at the University of Washington.

Hohman has worked with Apple and IBM computers in business. Her experience includes working as a desktop publisher and as a bookkeeper using Macintosh computers. Over the course of these work experiences she has learned to use Microsoft Word, PageMaker, SuperPaint, and Microsoft Excel.

Objectives

1. To help students visualize a past incident in their lives, tapping into imagination before writing.
2. To help students use memory to gather details for writing.
3. To serve as a prewriting technique.

Much has been written about helping students tap into their more imaginative selves before writing. Teachers are well aware of the works of Rico, Elbow, Moffett, and others and the importance of using memory to help students discover a subject.

This lesson is used to help students launch a piece of writing they will spend six weeks developing. It can also be used to help students respond to literature. For example, Jessica used the same approach with the science fiction novel *The Wizard of Earthsea*. Students drew what they thought was an important issue or plot turn, using their drawing to get them started on a response to the novel.

Materials Used

In our LAN, twenty-seven Macintosh Plus computers are driven by a Macintosh SE/30 server. The LAN is also set up as a classroom—the computers are situated in an L shape along the outside walls of

the room—so students can sit at a desk or meet in small groups easily.

Although our LAN has two 40-MB hard drives used to launch programs and save files, stand-alone computers that can use SuperPaint or MacDraw would be adequate. The word-processing program we used is Microsoft Works 2.0, and even though it has drawing capabilities, it is limited and a bit cumbersome. The computer to student ratio is 1:1.

Time Required

More able students need a minimum of four days to complete the assignment if they are already familiar with the hardware and software.

Activities

These sophomores had no prior experience with the painting program SuperPaint but were familiar with the Macintosh environment, because they had been writing with Microsoft Word twice a week for a month. Near the end of the class period preceding Day One, students were given the following prompt:

> Think about an experience important to you for some reason. Draw what happened. Include color, action, and more than one person.

Day One

Students were given one period to experiment with SuperPaint. They could experiment with the prompt or just learn about SuperPaint on their own.

Day Two

Students moved to the computers after several minutes of thinking about the prompt and doodling in their learning logs. Remember, these were basic students, and they needed to talk through their ideas. We allowed them that time.

Once at the computer, students loaded SuperPaint and drew their autobiographical experiences.

Day Three

Students met in writing groups and talked about their pictures for twenty minutes. When each member of a group finished explaining his or her pictures, the group moved to the computer. Individual students began entering a draft of what they had told their writing group.

Day Four

Students completed their drafts and printed them. Remember, these were basic students, so, for the following six weeks, we spent two days a week in the LAN developing this piece. We spent a total of two days drawing and twelve days writing and revising.

After the initial drafts were completed, students met in writing groups. Back in the LAN, students revised their writing while we consulted with them. We established the following routine:

Monday and Wednesday were writing days in the LAN. We left students alone one of those days to work on their pieces. On the second day, we consulted with students, asking them questions about their writing. We showed them how to punctuate dialogue, how to use the spell-checking program, how to use the cut-and-paste option, and how to use any other features they needed to develop their pieces.

Evaluations and Conclusions

This lesson proved valuable because students had an opportunity to develop a piece of writing over time. In addition, students were enthusiastic about the writing because it came out of their own experiences.

The students' writing was more detailed and better organized than in previous assignments. Final drafts averaged two-and-a-half double-spaced pages. The final product was titled and practically error free. More importantly, students asked if they could either continue their story or write a new one the next trimester.

Our plans for the future include publishing a class anthology and setting up template files for poems, essays, and short-story excerpts. Each template will be designed to allow students to copy the template they choose and imitate its structure, tone, use of metaphor, or argument.

28 CONNECTING THE VISUAL AND THE VERBAL

Gail Hawisher, University of Illinois at Urbana-Champaign

Overview

This activity tries to integrate text and graphics by having students use a painting program to create pictures of their feelings. They then write essays elaborating on the pictures. Both graphics and word-processing text are combined in the same document.

Description of Students

College students who are English education majors. (This activity was used as a sample lesson to demonstrate what the prospective teachers themselves might try with students in grades 6–12.)

Description of Teacher

Experienced high school and college teacher who for five years has used word processing to teach writing but, up to now, has never used a graphics and drawing program.

Objectives

1. To use visual learning as a prewriting activity, thus encouraging students to make connections between what they envision and what they inscribe.
2. To demonstrate the potential of drawing and graphics software in a writing class as a way of helping students articulate meaning.

Samuels and Samuels (1975), for example, show how visual and verbal thinking came to be opposed to one another, with the verbal in writing coming to be regarded as more efficient in presenting abstract meaning. The two scholars suggest that this emphasis on the verbal to the exclusion of the visual encourages writers, in this case students, to lose their sensitivity both to themselves and to their world. Those of us who teach in high school will readily recognize the disparagement of the visual in English classes. Oftentimes, we consider pictures as appropriate for elementary classes but inappropriate for the serious thinking required of high school students. Drawing and graphics software offers us the chance to reconsider intuitive and imagistic thought as contributing significantly to learning processes (Fortune 1989).

Materials Used

Twenty networked Macintosh SE computers with SuperPaint 1.0 drawing software, Microsoft Word, and an ImageWriter and Apple laser printer. (It should be noted that any drawing software, computer, and dot-matrix printer could also be used with success.)

Time Required

A minimum of two fifty-five-minute class periods.

Activities

This activity was used both as an introduction to drawing software and as a prewriting activity for a paper students were to write regarding how they felt now that a particularly difficult semester was drawing to a close. These students had just finished all of their college coursework and were about to begin their student-teaching experience in the schools. I wanted to show them the potential of drawing software for helping them think about the subject of their paper topic and for helping them work with

high school students during student teaching. The first day, students experimented with the drawing software. All of the tasks were designed to give them practice in working with a graphics program. They were asked to perform the series of tasks listed below.

1. Draw a small circle.
2. Draw a larger circle around the smaller one.
3. Draw a perfect square in the smaller circle.
4. Use the eraser to wipe out what you've drawn.
5. Using the pencil and paintbrush draw a picture of your neighbor.
6. Print this picture with the laser printer.
7. Draw a scene one commonly encounters in our town, and give the picture a name.
8. Draw a picture of how you feel now that you are beginning student teaching and give the picture a name.
9. Print out your pictures using the laser printer.

Any exercises that allow students to use the various functions of a graphics program would work here. The last exercises before printing were intended to allow students to connect their feelings with their drawings—to connect the intuitive with the verbal.

When the students arrived for their next class, they were asked to call up SuperPaint. I approached the task with great seriousness and thoughtfulness, so that these older students would realize that we were not so much playing games with drawing as trying to use imagistic thinking to enhance our verbal thinking. I also took part in the activity.

The following directions were written on the board:

1. Draw a picture of how you feel at the end of the semester.
2. Draw a picture of the way you would like to feel.
3. After you have finished and printed your pictures, write a paragraph in which you try to capture the essence of your visual expression.

Toward the end of the period, we had great fun in sharing what we had drawn and written. For the most part, the visuals showed the students suffering at the end of the semester and then depicted soothing scenes of the way they would like to feel. Interestingly, one student, who had missed many classes and hence had done far less work than the others, drew pictures that showed none of the stress and pressure the other students seemed to be experiencing.

To finish the activity, the students were to write a one-page paper entitled, "Who Me? A Student Teacher?" in which they tried to encapsulate the experience of beginning student teaching after a particularly difficult semester. To help them with this task, they now had prewritings in the form of visual images they had produced of themselves as a student teacher, as a student at semester's end, and as a person at one with the world.

Evaluation and Conclusions

This activity can be extended in many interesting ways. We used it to compile a memory book for our class. That is, each of us put our name on the two pictures with our one-page essay, and I took the packet to a local copying store where students were able to purchase it for $2.50. We also made a cover for it that listed our phone numbers so students could call one another for help while they were student teaching the next semester.

But there are other extensions of this lesson. Conceivably, instead of asking students how they themselves feel after a particular experience as I did (e.g., a trying semester of work), they could be asked about how they feel about others. For example, using a combination of graphics and word-processing software, students might do the following:

1. Write down the name of an important person in your life.
2. Draw a picture of an outing on which you've gone with this person.
3. Draw a picture of this person's good points.
4. Draw a picture of this person's bad points.
5. Draw a picture of how this person makes you feel.
6. Write an essay in which you try to capture the special relationship you and this person share.

I have done this particular assignment without the use of computers and imagistic drawing, but it would be interesting to see how drawing software might enhance the lesson.

Another possibility would be to build on the two assignments presented above and have the students

work toward a transactional piece of writing. After student teaching, when the class again meets for two weeks, students might be asked to draw pictures of what one *needs* to be a good student teacher. This prewriting could then be transformed into an essay in which students discuss what they perceive to be essential characteristics of a successful student teacher.

I am eager to try other possibilities with graphics and drawing software to see how a combination of visual and verbal perspectives may help students explore their ideas. Computers provide us with unique opportunities for our teaching and hence for our students' learning if we are willing, along with our students, to become learners-in-progress in our own classrooms.

Works Cited

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29 USING COMPUTER POWER TO GENERATE INDIVIDUALIZED BUSINESS LETTERS

John F. Beaver, SUNY/College at Buffalo

Nancy Deal, SUNY/College at Fredonia

Overview

The authors used the computer's mail-merge capability to send out a series of business letters seeking information about various states. Students learned both about business procedures and American geography.

Description of Students

A class of twenty-five sixth-grade students at the American School of The Hague in The Hague, The Netherlands. The students represented many nationalities, but all spoke English. Their previous computer experience included simple computer-literacy activities (identifying computer-system components, handling disks and equipment, and using mathematics tutorials). In addition, students had also used AppleWorks version 2.0 to write original stories.

Description of Teachers

John F. Beaver has had twelve years' international educational experience in Australia, Egypt, Holland, and Malaysia—seven years as an elementary or middle school teacher and five years as a computer coordinator. Nancy Deal is an English professor.

Objectives

There were three objectives to this lesson plan:

1. Students would create eight business letters, in appropriate format, requesting information needed to complete a research project.
2. Students would use computers to remove part of the drudgery inherent in many research processes.
3. The unit would seek to integrate discrete disciplines like social studies and language arts to strengthen English, research, and computer skills.

The need to take the drudgery out of the research process was especially apparent to us based on our past experience with such projects. Before using the power of the computer in this activity, students wrote their letters by hand. The earlier method not only required much more class time to complete the activity but also frustrated the students. After devoting one class period to teaching conventional business-letter format, students then wrote and copied eight separate letters. Because most students naturally made some errors—in spelling, grammar, formatting, or handwriting—the letters usually needed revising. Consequently, several additional class periods were required to allow the students to perfect their final drafts. The extensive manual corrections resulted in decreased student motivation and products that were often unpolished.

Materials Used

Fifteen Apple IIe computers, two ImageWriter printers, and fifteen copies of AppleWorks 2.0 integrated software program.

Time Required

Two class periods of approximately one hour each.

Activities

Each student was assigned to investigate and report on one of the fifty United States. Rather than present the project as another exercise using only the library for research, this activity required students to compile primary source material. Students were told that they would conduct original research, gathering materials from real-life settings—agencies within the chosen states themselves. Once they gathered the information, students would report the findings to their classmates.

To introduce students to primary-source research, the teacher required that the information be obtained through existing agencies likely to supply such material. Research expectations included collecting maps, posters, and illustrations; gathering biographies of important contributors to the state's history; reporting on demographic information; and detailing information on climate and topography. After students selected which states they wished to research, they were supplied with names and addresses of appropriate primary sources of information such as chambers of commerce, travel and tourism offices, state historical museums and societies, and state educational services.

The teacher introduced students to the activity, stressing the importance of professional business correspondence to achieve the desired responses. First, the students learned business letter format—creating letterheads with the sender's and receiver's names and addresses, personalizing salutations, and dividing paragraphs into blocks. The class discussed the important content and organizational elements to include in their letters. The first paragraph needed a clear statement of purpose and the reason for requesting the information. Students were told to identify themselves, their school, and their particular class and project. In the second paragraph, students were instructed to convey the heart of their request; they formulated specific questions about their state and designated the specific material needed. The concluding paragraph indicated the time limitations for the project and included a courteous thank-you that suggested how the requested material would be used in the final product.

Students first drafted letters at the computer, and then they presented them to the teacher for suggestions and corrections. We had to be especially careful that the letters had the appropriate locations for merged information. (See the sample student letter in Figure 1.)

Once all of the students had created and saved their letters, the teacher created a database of the mailing addresses for all the contact locations in each of the fifty states. This INFORMATION database contained the name or title of the source individual, street address, city, state, and zip code. It also included a category that permitted entering the name of the student researching the state. A copy of the database file was placed on each student's data disk. Once this operation was completed, the text in the students' letters could be combined (or "mail merged") with the information in the database to create a series of personalized letters.

The next class period, students were taken to the computer lab and shown how the mail-merging process works. Working in pairs, students loaded the file, INFORMATION, as well as their own letters into the computer's memory. Then they were told to follow the steps in Figure 2 carefully. (Note: *OA* means the open apple key. Thus, *OA-C* means pressing the open apple and the *C* keys together.)

After the students completed the steps in Figure 2, the teacher supervised the printing process with the students taking turns at the two computers that are connected to printers. The computer's power to select particular records using the OA-R command (choosing STUDENT NAME equals Nicole, etc.) allowed each student to print out his or her eight inquiry letters. Each letter included an individualized letterhead. Figure 3 illustrates what the letters looked like when the address information was merged with the basic format.

The students were thrilled with the results they received, and they were amazed that the computer could perform such tedious work for them. They were excited about their projects in particular and letter writing in general. They were even eager to do more!

Evaluation and Conclusion

As a result of the computer-assisted writing project, students maintained a high level of interest throughout the activity. By combining the computer's word-processing powers with the capacity to mail merge a database, a difficult task became easy, even enjoyable, to perform. The computer eliminated the drudgery of copying eight different letters; students were able to correct mistakes easily without rewrit-

ing an entire letter. Students were able to combine the use of two skills: writing and word processing.

The quality of the letters and the students' motivation were both higher than in previous years. They became enamored with the potential of mail merging and wanted to learn how to create their own databases for later use. In future years, the mail-merge instructions should be preceded by an opportunity to create and manipulate databases so students learn more about this process.

This activity extends to other student applications as well—for instance, writing the thank-you letters to the sources students contacted for their projects, writing announcements (graduation, etc.) to relatives, writing letters to parents about special school events or achievements. Teachers can also use AppleWork's mail-merging capabilities for their own school correspondence and parent communication. Creating a student database that includes parents' names and mailing information allows teachers to send beginning-of-the-year letters, open-house notices, student progress reports, and parent conference announcements in an easy and personal manner.

Ms. Nicole Lerouse
Room 7
American School of The Hague
38 Haagestraat
The Hague, The Netherlands

October 7, 1987

<SOURCE NAME>
<ORGANIZATION NAME>
<STREET ADDRESS>
<CITY NAME>, <STATE NAME> <ZIPCODE>

Dear Sir or Madam:

My name is Nicole Lerouse, and my sixth grade class is studying the different states in the U.S. I chose your state because I went there once on vacation. For our assignment, we are supposed to collect information about our state's history and special features.

I would like to ask you to send me information and pictures about your state. I would like a map of the state, population figures, names of famous citizens from your state, and information about the geography, agriculture, and main manufacturing products of the state. My report also needs illustrations and posters of the landscape and landmarks of your state.

To meet the due date for my report, I will need to receive the material by December 1, 1987. I hope international postal fees will not keep you from sending the information as soon as possible. Thank you for helping me with my project. I look forward to seeing the materials you send me and learning more about your state.

Sincerely,

Nicole Lerouse

Figure 1.

Instructions for Mail Merge

1. Go to the INFORMATION file and press OA-C to copy the records to the clipboard for later use.
2. Go to the letter file, place the cursor in the letter heading where the source name is to appear, press OA-A for the options menu, choose *MM* for mail merge, then choose *1* for the SOURCE NAME category, and ESC to escape back to the letter file.
3. Go to the letter file, place the cursor in the letter heading where the source name is to appear, press OA-O for the options menu, then choose *MM* for mail merge, then choose *1* for the ORGANIZATION NAME category, and ESC to escape back to the letter file.
4. Next, move the cursor to the location where the street address is to appear, press OA-O for the options menu, then choose *MM* for mail merge, then choose *2* for the STREET ADDRESS category, and ESC to escape back to the letter file.
5. Now, move the cursor to the location where the city name is to appear, press OA-O for the options menu, choose *MM* for mail merge, then choose *3* for the CITY NAME category, and ESC to escape back to the letter file.
6. Continue this process until all of the personalizing data have been added to the letter. Press OA-S to save the file with the mail-merge characters included and bring the disk to one of the computers with a printer connected to it.

Figure 2.

Ms. Nicole Lerouse
Room 7
American School of The Hague
38 Haagestraat
The Hague, The Netherlands

October 7, 1987

Director of Educational Programs
Michigan Department of Tourism
1400 Allegan Street
Lansing, Michigan 48823

Dear Sir or Madam:

My name is Nicole Lerouse, and my sixth grade class is studying the different states in the U.S. I chose your state because I went there once on vacation. For our assignment, we are supposed to collect information about our state's history and special features.

I would like to ask you to send me information and pictures about your state. I would like a map of the state, population figures, names of famous citizens from your state, and information about the geography, agriculture, and main manufacturing products of the state. My report also needs illustrations and posters of the landscape and landmarks of your state.

To meet the due date for my report, I will need to receive the material by December 1, 1987. I hope international postal fees will not keep you from sending the information as soon as possible. Thank you for helping me with my project. i look forward to seeing the materials you send me and learning more about your state.

Sincerely,

Nicole Lerouse

Figure 3.

30 CHOOSE YOUR OWN ADVENTURE

Elizabeth A. Jones, Osceola Middle School,
Osceola, Wisconsin

Overview

This project teams a writing teacher with a computer-science teacher. The computer-science teacher teaches the students several simple BASIC commands. The writing teacher then shows them how they can create a multiple-ending adventure story in BASIC. Students read and respond to each other's adventures.

Description of Students

Eighth-grade English class consisting of twenty-two students of mixed abilities. All have had prior computer instruction.

Description of Teacher

I have taught seventh- and eighth-grade English for eighteen years. I have minimal computer training; however, I do use some software with my seventh graders and I am familiar with Apple Writer. I also know a little about programming in BASIC and some of the commands involved.

This project is co-taught by our computer teacher, John Jenkins, who works with the students on programming techniques. I could not do this writing activity without the computer teacher's help. It would take too much of my instruction time to teach the required programming skills in addition to helping with the actual writing of the stories and programming them. However, this is a worthwhile joint project because the students are acquiring new computer skills while they are also developing writing, reading, and thinking skills.

Objectives

Students will:

1. develop a story with multiple plots and endings;
2. write a story with action, suspense, and description;
3. write a story for their peers to read and enjoy;
4. practice writing, reading, and editing skills;
5. use some creative-thinking skills in designing their stories.

I chose the computer for this type of story for several reasons. First, the students were already somewhat acquainted with programming their own material because they had programmed a story outline with several choices or branches in computer class. Second, this story, with its different parts, might be too long and confusing for students to write on paper. I also wanted to see if they would put more effort into the creation of this story because they would be working with the computer and their peers would be reading the stories.

Materials Used

The only materials needed for this project are computers and a disk initialized in the DOS format for each student. In our school, we have a computer room with eighteen Apple IIe computers. This project can be done with fewer computers, as each student works at a different pace and they can pair up and help each other. Students also need to understand some elementary programming skills and to use their imaginations.

Activities

At least two weeks prior to my assignment of the story, the computer teacher showed the students how to do a very brief story outline consisting of five branches or choices. He explained how students could name their programs, number the content lines, and use the PRINT command with quotation marks on the text they were putting on their disks. Next, he explained how to use the INPUT command when they wanted to have the reader make a choice. A typical sentence on the screen and an input command looked like Figure 1.

In Figure 1, the letter *A* is a "variable" used to hold any answer typed in by a reader. The number 400 is telling the program to go to that line if the reader answers NOT. If the reader answers KNOCK the program will just continue on line 40. Students enter their content on lines numbered by tens so that, if they wish at a later time to go back and add more information, they will have enough space to do so without interfering with the rest of the text.

They are also taught the control commands: SAVE, LOAD, LIST (which lists their program on the screen), RUN (which executes the story for the reader), and HOME (which brings up a clean screen).

Mr. Jenkins also explained to them some other techniques for centering their text on the screen and spacing words so that they did not divide awkwardly. After he had been over these items with the class and they had practiced using the commands, I explained my part of the project.

Day One

I explained to the students that I wanted them to write an original choose-your-own-adventure story. Directions to the students included the following requirements:

1. The story had to have a minimum of seven choices or branches.
2. Each part of the story had to be in paragraphs that consisted of description, characters, and action. (Students were not to write just a single sentence as a lead-in to a choice.)
3. The beginning of the story should set the stage for the adventure and somehow indicate the goal of the adventure.
4. At least one of the endings in their story had to be successful so the reader could achieve the goal.

Days Two and Three

Students worked on writing their stories and dividing the text into portions which they numbered line-by-line. By numbering each group of sentences, the students would not become confused when they did their programming.

Some students took longer than two class periods to write their stories. Of course, it depended on the amount of content they had. I found that most of the students worked on their stories outside of class once they got started on them, so I only gave them two class periods for writing their stories and then set a due date for their final copy a few days afterward.

After students finished writing and numbering, I read their stories over and discussed with them parts that could be expanded and parts that needed to be edited. I also had students share their stories in peer revision groups. These conferences resulted in many changes to the original stories.

```
10 PRINT "AS YOU APPROACH THIS DREARY LOOKING HOUSE ON HALLOWEEN YOU ARE
NOT SURE IF YOU SHOULD KNOCK ON THE DOOR OR NOT. YOU BEGIN TO RAISE YOUR
HAND BUT SHOULD YOU KNOCK OR NOT?"

20 INPUT A$

30 IF A$ = "NOT" THEN 400
```

Figure 1.

Days Four to Eight

Those students who had completed the revision meetings began working in the computer room, programming their stories. By the end of the eighth day, most revision meetings were completed. Some students finished earlier than others. I asked these students to help others who were having trouble programming their stories.

Days Nine and Ten

Students exchanged their disks and read each other's stories. I asked them to evaluate each story on a scale of 1 to 5 (1 being the best) by answering the following questions about the story:

1. How detailed was the description and action?
2. Was the text readable?
3. Were the choices clear and easy to follow?
4. Did you achieve the goal of the story?
5. Was the story entertaining?

These were the fun days, as students got to see how well their peers did on their adventures. There were a few disappointments as programs "crashed" and stories came to an unexpected end, but there was also excitement as students saw their programs being used.

Evaluation and Conclusions

When the students finished reading at least three other students' stories, I took their disks to evaluate them. I went through every choice or branch in the stories. I looked for the requirements I had emphasized: did the program work, and did it have one choice that led to a successful ending? In addition, I judged the quality of language and text. I also looked at the critiques that the students did for that story. I found the peer critiques to be very interesting. It was clear students wanted me to know when they liked a story.

The quality of the stories varied a great deal. Sometimes, the story content was good but the student had not programmed the text correctly so the reader could not read every option. Other students were very quick at learning the computer skills but did not put a lot of effort into the story content. I have had stories that were twenty pages long, written on paper, while other students only managed to write a single sentence of content before a choice.

One observation I have made with this assignment is that the boys appeared to be more enthusiastic than the girls. This may have been because the assignment was on the computer. Whatever their motivation, the boys did write more than I felt they would have done for a regular narrative story. Many of them paid more attention to spelling, punctuation, and word division than they did normally. Perhaps seeing their words on the screen made them more careful in regard to editing. Also, the boys tried to make their choices complicated so that it would be difficult to get to the successful ending. The girls did not seem to show as much enthusiasm for using the computer, although they had the same computer skills as the boys. I do not believe the girls' efforts were affected by the use of the computer in this assignment. Both boys and girls worked well together in the computer room and helped each other when it was necessary. And all of them enjoyed reading each other's stories.

On the whole I was pleased with this project. However, the only way I can do it is with the co-teaching of John Jenkins. I do have the software StoryTree, but I have found the students like programming the stories themselves better than having a prepared program to use.

DIRECTORY OF SOFTWARE

Mention of any particular computer software or hardware or its manufacturer does not imply endorsement by NCTE.

AppleWorks, Claris Corporation, 5201 Patrick Henry Drive, Santa Clara, CA 95052.

Apple Writer, Apple Computer, Inc., 20525 Mariani, Cupertino, CA 95014.

ArtRoundUp, Dubl-Click Software, 9316 Dearing Avenue, Chatsworth, CA 91311.

Bank Street Writer, I, Broderbund Software, Inc., 17 Halldrive, San Rafael, CA 94901.

Bank Street Writer, III, Broderbund Software, Inc., 17 Halldrive, San Rafael, CA 94901.

The Bank Street Prewriter, Scholastic, Inc., 730 Broadway, New York, NY 10003.

CINQ2, Not commercially available. Contact Joseph Hackett for information.

FredWriter, Public Domain Software. Available from many users' groups or bulletin boards.

Ghostwriter, MECC, 3490 Lexington Avenue N., St. Paul, MN 55112.

HBJ Writer, Harcourt Brace Jovanovich, Inc., 1250 6th Avenue, San Diego, CA 92104.

MacDraw, Claris Corporation, 5201 Patrick Henry Drive, Santa Clara, CA 95052.

MacWrite, Claris Corporation, 5201 Patrick Henry Drive, Santa Clara, CA 95052.

Magic Slate, Sunburst Communications, Inc., 39 Washington Avenue, Box 49, Pleasantville, NY 10570.

MECC Writer, MECC, 3490 Lexington Avenue N., St. Paul, MN 55112.

Microsoft Excel, Microsoft Corporation, 16011 N.E. 36th Way, P.O. Box 97017, Redmond, WA 89073.

Microsoft Word, Microsoft Corporation, 16011 N.E. 36th Way, P.O. Box 97017, Redmond, WA 89073.

Microsoft Works, Microsoft Corporation, 16011 N.E. 36th Way, P.O. Box 97017, Redmond, WA 89073.

Newsroom, Springboard Software, Inc., 7807 Creekridge Circle, Minneapolis, MN 55425.

Norton Textra, Symantec Corporation, 10201 Torre Avenue, Cupertino, CA 95014.

PageMaker, Aldus Corporation, 411 First Avenue South, Seattle, WA 98104.

PFS: First Choice, Software Publishing Corporation, P.O. Box 7210, 1901 Landings Drive, Mountain View, CA 94039.

PFS: First Publisher, Software Publishing Corporation, P.O. Box 7210, 1901 Landings Drive, Mountain View, CA 94039.

PFS: Write, Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94039.

Point-to-Point, Pinpoint Publishing, 5865 Doyle, Suite 112, Emeryville, CA 94608.

The Print Shop, Broderbund Software, Inc., 17 Halldrive, San Rafael, CA 94901.

Professional Write, Software Publishing Corporation, P.O. Box 7210, 1901 Landings Drive, Mountain View, CA 94039.

Realtime Writer, Realtime Learning Systems, 2700 Connecticut Avenue N.W., Washington, D.C. 20008.

Sensible Grammar, Sensible Software, Inc., 335 East Big Beaver, Suite 207, Troy, MI 48083.

SLEUTH, Shareware Program. Available from many Shareware Dealers.

StoryTree, Scholastic, Inc., 730 Broadway, New York, NY 10003.

Success with Writing, Scholastic, Inc., 730 Broadway, New York, NY 10003.

SuperPaint, Silicon Beach Software, 9770 Carroll Center Road, Southwest, San Diego, CA 92126.

Timbuktu, Farallon Computing, 2000 Powell Street, Suite 600, Emeryville, CA 94608.

Webster's New World Spelling Checker, Simon & Schuster, Inc., 1230 Avenue of the Americas, New York, NY 10020.

Where in the World Is Carmen Sandiego?, Broderbund Software, 17 Halldrive, San Rafael, CA 94901.

WordBench, Addison-Wesley Publishing Co., Jacob Way, Reading, MA 01867.

WordPerfect, WordPerfect Corporation, 1555 N. Technology Way, Orem, Utah 84057.

Writer's Helper, CONDUIT, The University of Iowa, P.O. Box 388, Iowa City, IA 52244.

Writing a Character Sketch, MECC, 3490 Lexington Avenue N., St. Paul, MN 55112.

Writing Assistant, IBM Corporation, Box 2889, Department 8M3/239-2, DelRay Beach, FL 33444.

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John F. Beaver is an assistant professor of education at SUNY/College at Buffalo, New York and coordinator of IBM's New York State Initiative Study in the western New York region. He has been involved in computer education for more than a decade. His career includes thirteen years as an international educator. He recently completed two texts designed to introduce educators to productivity computing using Microsoft Works. In addition, he regularly makes presentations and conducts workshops at regional and national educational technology conferences. With Nancy Deal, he has conducted several studies examining writing-across-the-curriculum practices among college professors from different campus environments. He has also designed and implemented a series of workshops that help K-8 teachers integrate technology use into their extant mathematics, science, social studies, and language arts instruction.

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Nancy Deal is an assistant professor of English at SUNY/College at Fredonia. With a background in teaching secondary English and language arts, she is currently active in the research and implementation of writing-across-the-curriculum programs. She also pursues teaching and scholarly interests in women's writing and literature.

Jeff Golub teaches English, speech communication, and pre-college writing classes at Shorecrest High School in Seattle, Washington. In addition to his classroom instruction, Jeff also works extensively with NCTE: he is currently serving on the NCTE Executive Committee as a representative-at-large; for three years he edited the *English Journal* column "Computers in the Classroom"; and he has edited two books that were

published by the Council: *Activities to Promote Critical Thinking* and *Focus on Collaborative Learning*. Jeff uses his computer at home for everything except washing the dog and drying the dishes, and he is currently operating an electronic "homework hotline" for students at his school and in his district.

Dan Graveley has an M. F. A. in creative writing from the University of Montana at Missoula. He has taught high school- and university-level English in Wisconsin, California, and Montana. Dan has published poetry in *CutBank*, *Intro*, and *Choice*, as well as other magazines. He lives near Minocqua, which is in northern Wisconsin.

Joseph Hackett is a teacher of Canadian history and English at Sir Winston Churchill High School in St. Laurent, Quebec. In 1988, he was introduced to the personal computer and began experimenting with its use in the language arts curriculum. The articles contained in this collection, his first publications, represent the results of his experiments. In November 1989, he presented his findings on using computer games to encourage writing to the GEMS conference in Montreal, Quebec.

Joan Hamilton was a junior high language arts teacher for thirteen years and currently is the K–8 computer coordinator for union #47 (Bolton-Stow) Massachusetts. She is an instructor in computers and language arts at Lesley College, Cambridge, Massachusetts, and she has presented other workshops for teachers interested in integrating the computer into the classroom curriculum. She authored an article in the fall 1990 issue of the Massachusetts Reading Association magazine, *Primer*, entitled "Getting the Computer Out of the Corner: A Teacher Tool, A Student Tool."

Gail E. Hawisher is associate professor of English at the University of Illinois at Urbana-Champaign, where she also directs the Center for Writing Studies. In addition, with Cynthia L. Selfe, she edits *Computers and Composition*, a professional journal for writing teachers. Her most recent publication (with Anna Soter) is *On Literacy and Its Teaching: Issues in English Education*. In 1989, she also published *Critical Perspectives on Computers and Composition Instruction*, a book she coedited with Cynthia L. Selfe. Her articles have appeared in the *English Journal*, *Research in the Teaching of English*, *Computers and Composition*, and *Collegiate Microcomputer*.

John Heyn teaches English, literature, and composition at Oakfield High School in Oakfield, Wisconsin. His entire fifteen years in teaching have been spent there. At Oakfield High School, he advises the school newspaper and is currently the head football coach. In addition, he coached the baseball team to a pair of state championships. This is his first published article, although several of his short stories have previously found their way into print. Heyn is also involved in gifted and talented education.

Jessica Hohman teaches English 10 and 11 at Woodinville High School in Washington state. During the 1989–90 school year, she directed the interdisciplinary Macintosh local area network in her building. She was nominated for inclusion in the upcoming *Who's Who in Education* publication, and she is a member of NCTE and WSCTE.

Mary Hoppe is a teacher of English and speech at Bonduel High School in Bonduel, Wisconsin. She has an M.S.T. in English and is the yearbook advisor, drama director, and head forensics coach. A member of NCTE, Mary is married, the mother of four children, and the grandmother of "the most beautiful grandchild in the world."

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Rick Monroe teaches English 10 and 11 at Woodinville High School in Washington state. During the 1989-90 school year, he was the project leader for an interdisciplinary Macintosh local area network. He has published articles in the *English Journal*, the *ACE Newsletter*, the *SLATE Newsletter*, and the *Washington English Journal*. Rick's latest essay is included in another collection submitted to NCTE for publication. He also serves as a member of NCTE's Instructional Technology Committee and its Curriculum Commission.

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James Ross is a teacher at Webster Transitional School in Cedarburg, Wisconsin, where he has taught sixth- and seventh-grade language arts for the past twenty years. He has also presented inservices on middle school programming and team teaching to numerous schools around the midwest. In addition to working on the district's language arts curriculum committee, Ross developed and wrote his school's initial word-processing curriculum in 1984. In 1990, he was nominated for a Herb Kohl Teacher Fellowship. He also has received the Governor's Recognition Award for developing a curriculum aimed at making students aware of the abilities of people with disabilities.

Vicki Sadowski received her bachelor's and master's degrees from the University of Wisconsin–Milwaukee. After teaching English in grades 7 to 9 for three years, she moved to the high school level. She has been teaching at West Allis Central High School for sixteen years. In addition to her teaching, Vicki has been involved with writing evaluation programs, a teacher/mentor program, and has taken several courses on using the computer in the classroom.

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Dwight Worman is an English teacher at Webb High School in Reedsburg, Wisconsin. Currently in his eighteenth year of teaching, he teaches both sophomore English and an advanced composition class for college-bound seniors. He is a member of NCTE and has served as chairperson of the K–12 English curriculum development committee in Reedsburg.

William W. Wright, Jr. set up and directs BreadNet, the network of the Bread Loaf School of English. His background includes work as an English teacher and as a project director for American Institutes for Research. In the latter role, he helped computer companies design manuals and screens that are easy for people to use. He has helped develop online services for groups and companies such as AT&T, Apple Computers, and the Rockefeller Foundation. Currently he is leading an effort to set up a network for NCTE.

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