11

Technology: An Invitation for Writing and Collaboration

Eve Coleman and Jeanne C. Sink with Odessa Wilson

Some collaboration begins with careful planning and clearly defined goals. Other collaboration simply evolves. The collaboration between the two of us as individuals and between our institutions, Morningside Middle School and the College of Charleston, falls into the second category. Our collaboration as individuals has evolved over the past ten years through hours and hours of conversation; through job changes for both of us; through formal course work with one of us as teacher and the other as student; and through learning, playing, writing, and planning together. It is a unique collaboration, one that has evolved into a writing across the curriculum (WAC) program that *now* is carefully planned and has clearly defined goals. Our collaboration has evolved into a formal arrangement called a "Teacher-Scholar Collaboration" through Project REACH, a Rockefeller-funded initiative, for which one of us serves as the school project chair and the other as the college partner.

Working collaboratively through a formal teacher-scholar interaction, we have documented student work with writing and technology that we could not even imagine in our early years of collaboration. A relationship that began as a personal friendship and became a professional collaboration has evolved into an important partnership that involves a college, a middle school, teams of excited and involved teachers, college students, community members, and most importantly, the students at Morningside Middle School.

Morningside Middle School

When our formal collaboration began to evolve in spring 1990, Jeanne was teaching at Morningside Middle, a school where many students present evidence of typical barriers to learning: low socioeconomic status, single-parent homes, crime-ridden neighborhoods, and a history of school failure. Morningside serves approximately 850 students in grades six to eight. Almost half of the students are from a minority group, predominantly African-American. A team from Johns Hopkins University recently collected data on the school. The university team found that sixty percent of the students had failed at least one grade, with forty-two percent of black males having failed the previous year. According to data collected in preparation for an article published by the National Middle School Association (Dunham 1991), sixty-one percent of the students are considered to be at risk for dropping out of school. The school has a large "over-age" population of students who are two to three years behind their peers in school. Morningside is considered a Chapter I school for purposes of federal aid.

The school population presented a challenge to the administrators and teachers at Morningside, who began in spring 1990 earnestly seeking ideas and funds to tackle their biggest challenge—helping the at-risk students overcome the barriers to learning that were keeping them from realizing their potential. Jeanne led the search for the "answer," taking a Telecommunication for Educators course from Eve; enlisting the help of knowledgeable faculty members, particularly those with writing process interests and backgrounds, making a visit to the classroom of teacher Gail Morse who, according to *People* magazine (1991), was doing amazing things for at-risk students in her Charlotte, North Carolina school (Solomon 1990); and, finally, writing and receiving well over $100,000 in grants within six months. The largest grant, which Jeanne wrote to fulfill a requirement in the graduate course she was taking from Eve, enabled the school to equip a student production center. When the grant was funded, Jeanne's principal, Barbara Cohn, assigned another teacher to take over Jeanne's former teaching responsibilities, freeing her to serve as a resource for the entire school. She would be available to work with teachers and students in the Production Center, as well as in individual classrooms. We later identified this allocation of a professional teacher to assist other teachers with the use of new technology to be one of the key factors in the successes that occurred. Writing, technology, team planning, and collaborative learning projects were part of the plan. The plan, a vision dreamed up in early 1990 by a core team of teachers and administrators at Morningside, is now a reality that far exceeds the initial team's wildest expectations.

Writing Across the Curriculum

Although the plan was multifaceted, including team planning, cooperative learning, and a strong emphasis on technology, the improvement of writing was threaded throughout. Eve, who serves as liaison between the Charleston Area Writing Project (CAWP) and the National Center for the Study of Writing, helped provide research on the importance of integrating writing throughout the curriculum. District humanities coordinator Beverly Varnado and CAWP codirector Sally Newell also assisted in planning, as well as Charleston (SC) Southern University faculty member Don Clerico.

Several of the teachers at Morningside—Ron Gibson, Peg Sordelet, and Odessa Wilson—are Teacher Consultants for CAWP, having completed the Summer Institute of the local writing project. Early on, the group reached consensus that the model for writing would be that of considering writing as a process and using it as a mode for learning. According to Fulwiler and Young (1990), "Some programs set out primarily to improve student writing, others to improve student learning—yet in the long run most programs try to do both" (3). Morningside's WAC plan fits the above description. The plan was designed to improve student learning, using as many modern technological tools as possible. The team hoped to make technology a hook to motivate students, as well as to provide students with the tools that professionals use in the real world. Technology expert Seymour Papert (1992) believes that we must change schools from places that instruct to places where students construct. In a sense, the Morningside team envisioned change in much the same way as Papert would describe it two years later. The team planned to use technology as a way to change Morningside from a place where the teachers' main purpose is to instruct to a place where the emphasis shifts to one in which students construct knowledge.

Writing, with or without technology, is one way to construct knowledge. One aspect of learning that is infused into almost every aspect of student learning at Morningside is writing. A casual look around Room 216, the Production and Communication Center, shows the plan in action, with students writing for many different purposes and audiences.

Morningside: An Overview of the Plan in Action

During the course of a week, visitors walk down the hall of traditional-looking Morningside Middle School, cross the threshold of Room 216, and enter the classroom of the future. Room 216 is a technology-intensive room, one where students have access to the most up-to-date tools for learning.

A South Carolina Target 2000 grant totaling $90,000 over a three-year period helped equip Room 216 with the kinds of writing and learning tools to which professionals have access. Two walls of the room are lined with Macintosh Classics. One Macintosh IIci, along with its color monitor, is the station for the CD-ROM player and a modem. From this station students run programs that require a great deal of memory, such as PageMaker, or are more effective in color, such as the Prodigy on-line service. This IIci computer also supports a scanner, which enables students to scan pictures into newspapers, hypermedia stacks, and reports, as well as to create their own images with the use of a video camcorder and Computer Eyes, a digitizing software package. In the middle of the room, one Macintosh is attached to a data display viewer that can project the computer image onto a large screen, thus allowing for whole-class demonstration. This is also the station for another modem where students can access data bases through DIALOG ClassMate. In addition to the computers, scanner, camcorder, and modems, the room houses three large stands that each hold a large TV, a VCR player, and a videodisc player. These three units are portable and go out to teachers' classrooms.

While high-tech in nature, Room 216 is also a writing-intensive place, one that invites students to produce writing for a wide range of audiences, purposes, and media. It is no longer the room of Jeanne Sink; rather, Room 216 has become the hub of activity for collaborative activities planned and implemented by teachers and students alike.

A Typical Day in Room 216

When visitors cross the threshold of Room 216, they are likely to witness a variety of activities going on at the same time, with groups of students working on collaborative projects that span subject disciplines and may span grade levels. Some students are there along with their teachers; others have been sent from their classes to work individually or in small groups. Some students even come on their own before or after school.

Desktop Publishing PageMaker: A team of seventh- and eighth-grade students may be putting the finishing touches on their eight-page newspaper, researched in the "field" (sometimes literally on the community football field), typed initially as word-processing files using Microsoft Works and later imported into PageMaker, one of the most powerful desktop publishing programs available. During the first semester of the 1991–92 school year, one of Eve's students, Willie Dasinger, opinions editor for the College of Charleston's *Cougar Pause*, spent a few hours each week teaching a core group to use PageMaker. By January of 1992 that core group had become experts, teaching

PageMaker to others who had a need to use it, whether they were students or teachers.

The success of the PageMaker group demonstrates the layers of collaboration that developed at Morningside. Jeanne and Eve worked together to link the school and the college; Willie worked weekly with the students and later reported back to his undergraduate Computers in Education class about how much these middle school students were capable of learning; the students collaborated with each other and with teachers, while using important real-world skills. Aside from the collaborative aspect, the students were developing the power and esteem that comes with knowledge. As the students became the experts in various aspects of technology, the teachers began to view them in a different light—with a heightened sense of respect for the learners. The students also won respect from their teachers with their developing on-line research skills using such tools as the Video Encyclopedia of the 20th Century and DIALOG ClassMate. In some cases, the students actually became research assistants for their teachers, using their new abilities to search print and video data bases to find information teachers needed to prepare their lessons.

Because of our ongoing collaboration, when a need arose at Morningside Eve looked for resources at the College of Charleston. The PageMaker training was one example; another was DIALOG ClassMate. Neither of us, nor anyone at Morningside, knew how to use either PageMaker or DIALOG, but we were able to collaborate to fill the need.

DIALOG ClassMate: Continuing our walk around Room 216, the visitor may find the newspaper "publishers" sitting next to a pair of sixth-grade students using DIALOG ClassMate for on-line research in preparation for a class project. Another of Eve's practicum students, Lisa Marcus, a sociology major with a master's degree in library science, conducted the initial training for DIALOG ClassMate. Lisa was attending the college to become certified to teach social studies and spent a few hours in the school each week to fulfill her pre-student teaching practicum requirement. By second semester, when Lisa was doing her student teaching in another school, the teachers and students at Morningside were able to use the system without outside assistance.

DIALOG, a research system that has been a mainstay of professional research for years, now offers ClassMate to schools. ClassMate allows on-line access to over eighty-five data bases of newspapers, journals, and magazines not found in the school library. Some of the data bases offer full-text articles, which the students may download from the computer and take back to their classrooms. The material includes student workbooks that teach sophisticated data base searching

procedures in a format that can be easily understood by middle and high school students. The search procedures are introduced in the classroom; then students come to Room 216 to use a modem to access DIALOG and execute a search they have planned in advance.

The Morning News Show: Continuing to walk around the room, a visitor may encounter a cross-age group of students working on the weekly school television show, which has become a popular event at Morningside. Some of the news team may be using the bank of Macintosh computers to write copy for the show, while another group searches the Video Encyclopedia of the 20th Century for footage to accompany a story.

Once the student researchers find what they need, they record from the laser discs onto videotape to be edited for their final version. Much of the footage contained in the $11,000 video set includes sound—speeches, interviews, and period music. Important decisions must be made by the team when editing. One student group is in charge of using VCR Companion to add graphics and text to the weekly video. Spelling becomes a weekly test in a different sense, here. The students ask several others' opinions and faithfully check dictionaries, as well as word-processing spellcheck options, to make sure no words that will overlay the video footage are misspelled. This is editing in a real-world sense.

Students working on the show must also consider other issues that professionals encounter in the real world. Questions of purpose and audience become more than classroom minilessons; they are daily considerations, which must be understood and acted upon. Important discussion takes place among the students before the final version is produced each week. The news show provides an opportunity for the team to practice many of the skills introduced in the language arts class. Students apply their language skills by interviewing, summarizing, inferring, taking notes, editing, and finally coming up with a segment that is appropriate for the intended audience and purpose. And they must do this on a weekly basis!

About now, having observed and chatted with students working on the newspaper, the morning news show, and other classroom projects, the visitors are usually overwhelmed by what they have seen and are filled with questions about how all of this came about, particularly since these activities may all be taking place at 7:00 A.M., thirty minutes before school opens! The room has become so popular that students come in on their own before school, after school, and whenever they can during the school day, to work on teacher-assigned projects and other projects such as the newspaper and the morning news show.

During the school day, teachers schedule times to accompany their

students to the Production Center, particularly when they are working on units such as the one described below.

Sample Unit: Language Arts

A good example of how teachers at Morningside combine classroom activities with the facilities available in Room 216 is Peg Sordelet's presidents unit. Peg, a veteran teacher of over twenty years, was ripe for change and open to trying new ideas. A 1991 CAWP fellow, Peg decided to modify a unit on the presidents, which she had been teaching for several years. Now, in addition to the library research the students have traditionally conducted, Peg's students use their print and nonprint research to produce a HyperCard stack. Each sixth-grade student researches his or her assigned president, using print resources, the Grolier's Encyclopedia on CD-ROM, and the Video Encyclopedia of the 20th Century, where appropriate. Using a Mac Recorder, students add music and speeches from a set Peg had used in the past, scan pictures where needed, and end up with a product far more extensive than the reports on presidents that Peg's former students had produced. With Jeanne's help, Peg linked all the student stacks into one large stack on presidents that has become a resource for other students in the school.

Peg's students, like many others in the school, have become producers of knowledge rather than mere receptors of it. A newcomer to technology, but a teacher with experience enough to see the learning outcome for her students, Peg immediately launched her sixth graders into another project in February 1992—a PageMaker-published newspaper on famous black Americans. Good teachers are quick to see the power of technology as an invitation for their students to learn and to write.

A Final Look Around: Other activities that students may be working on during a visitor's stay include a National Geographic Kids Network unit on weather for their science class. The unit, "Weather in Action," calls for students to use their writing skills to communicate with other students via modem to compare data they collect with data being collected elsewhere. The students use writing in their science class as a natural extension of what they are learning rather than the "add-on" some content teachers fear when asked to participate in a WAC program.

On the Macintosh computer with a CD-ROM player attached, other students may be using the Grolier's Academic American Electronic Encyclopedia to look up a topic too current to be found in the library's latest set of encyclopedias or other reference guides. Still

other students may be creating HyperCard stacks that go along with class-assigned projects such as Peg Sordlet's presidents unit. Some students may be filming each other for a pilot assessment project where each student will have a major project videotaped every nine weeks as part of the Video Portfolio Project. And then there are the other HyperCard stack projects.

South Carolina History Project

Gifted and Talented Program students are producing HyperCard stacks on Charleston and the Low Country region as part of a South Carolina State Department of Education–initiated project going on in three schools in different parts of South Carolina. An addition to the upcoming revision of the South Carolina history curriculum, these stacks will be used all over the state to show third- and eighth-grade students what the three geographic regions of South Carolina are like through the eyes of other students. The stacks will include text, sound, and scanned images, as well as video segments for a computer-controlled interactive video presentation. The Gifted and Talented Program students ask advice on HyperCard from students in lower-level classes who have already produced their own stacks on other topics. This is the type of collaboration that was unplanned, yet is celebrated as an important by-product of what can happen when technology is used as a springboard to writing and collaboration. In the case of the South Carolina History Project, students are constructing knowledge, not only as a classroom exercise but as a real-world project to be used to augment print materials for students throughout the state. Their motivation goes well beyond a desire for a good grade; these students are literally "making history"!

Finally, still other students may be uploading or downloading messages from KIDS-92, a global telecommunications project on Bitnet and Internet for students ages ten to fifteen (Coleman and Sink 1991; *Instructor* 1991), while their fellow students may be working on projects generated by students and teachers and placed on the "Ideas" bulletin board of Free Educational Mail.

Leaving Room 216: The school climate at Morningside is changing for students more accustomed to failure than to success. The atmosphere at Morningside is becoming one of productive activity and pride. Not one piece of equipment or software in this room containing $100,000 worth of material has been stolen from a neighborhood where crime is endemic.

By this time the visitors are ready for some background information on how teachers at Morningside orchestrate the frenzy of activity they

have just seen. Much of that orchestration and planning takes place through their planning for their REACH project.

Project REACH

While most of the equipment in Room 216 was funded through a South Carolina Target 2000 grant, much of the philosophy and spirit of collaboration at Morningside is a direct result of Project REACH. REACH, or Rural Education Alliance for Collaborative Humanities, is funded by the Rockefeller Foundation under an umbrella of programs called CHART. Like other CHART projects, South Carolina's REACH projects focus on the humanities—reading, writing, the study of American culture, and the understanding of other nations of the world—as essential for the improvement of public education in the United States (Adkins and Coleman 1992).

While each REACH site plans its own approach to improving education through the humanities, two common threads link each project. First of all, each REACH project has a university or college partner from a nearby institution who collaborates with the secondary teachers to work toward their common REACH goals and their site-specific objectives.

The second common thread, a statewide computer network, enables the college partners' collaboration with secondary schools to extend beyond the one or two REACH sites of close geographic proximity. It also gives each REACH site Bitnet and Internet access. Bitnet is an "international network of computers that links higher education institutions and other educational and research organizations" (Roberts et al. 1990, 221–231). Internet is "a vast international research and academic networking infrastructure which exchanges information among its thousand of university and research institutions" (Rogers 1991, 2). Bitnet is one of "many computer networks presently connected to the Internet via electronic gateways," according to Rogers (2). Bitnet and Internet access has been integral to broadening Morningside's collaborative efforts outside the school and even outside the country. As REACH partners, we have worked together to use Bitnet and Internet to the advantage of students. One example of the use of the Bitnet and Internet gateways is Morningside's participation in KIDS-91. Morningside students were able to participate in a global telecomputing project (described below) because of their access to Bitnet and Internet.

Project REACH enabled the two of us to expand our personal collaborative efforts into a formal partnership. In spring 1990 we attended a computer training session together and worked with the teachers at Morningside to plan the 1990–91 REACH grant, with the theme

"Against the Odds" (Coleman and Sink 1991). We found that against all odds, 350 Morningside students were able to participate in KIDS-91, an international on-line computer conference started by Od de Presno from Norway. The October 1991 issue of *Instructor* magazine reported the success of Morningside's participation in KIDS-91. The article tells how "three teachers got hooked on classroom technology—and the projects that reeled them in" (32). In the case of new Morningside teacher Cissy Meyers, the hook was KIDS-91. KIDS-91 (and KIDS-92) asks students to write responses to the following four questions: Who am I? What do I want to be when I grow up? How can the world be a better place? What can I do to make it happen? During the first year of Morningside's participation, 350 students not only wrote and posted their own responses to the conference but also read responses from other kids from all around the world. The idea of reaching out to others throughout the world showed such promise that the REACH team members decided to extend the idea. The theme for Morningside's 1991–92 REACH grant became "REACH Out to the World." That is just what Morningside students are continuing to do with the help of technology.

REACH Out to the World: Morningside Middle School's 1991–92 REACH project, REACH Out to the World, focused on the students, teachers, and administrators reaching out to discover more about other continents and cultures and collaborating with others from around the world. Because of the Bitnet and Internet access provided through REACH, all 850 Morningside students were able to participate in KIDS-92, with each student in the school answering the four questions listed above. This is in keeping with the goal of the '92 conference: "to get as many 10–15-year-old children as possible involved in a global dialog continuing until May 19, 1992" (de Presno 1992, 1).

Posting responses to the four questions was also in keeping with one of the goals for the school's commitment to WAC. Students wrote for a real audience with a specific purpose. They were well aware that other students from all over the world would be reading their responses. Likewise, Morningside students read responses written by young people their age from around the world. One result of reading responses from other parts of the world was a dawning recognition by the Morningside students that there really was a purpose for learning a second language. Many of the Morningside students commented on the fact that almost all of the responses they read were written in English, although English was a second language for many of the students participating in the conference. Once students responded to the four questions, they became eligible to go on-line and read and send messages to KID-CAFE, "an international, electronic conference for kids 10–15 . . . to talk about whatever they like, establish relationships with new friends

in other countries, discuss the future, school, hobbies, environment, or whatever" (Oldenburg 1991).

Seventh-Grade REACH Team

Collaborating as an interdisciplinary group, the seventh-grade REACH team took the KIDS-92 project even further. Using KIDS-92 as a springboard, the students developed HyperCard stacks on one of the world problems they identified when they wrote responses to the four questions. Writing was at the heart of this project, and students used writing for real purposes and to address real audiences.

Eighth-Grade REACH Team Focuses on Africa

Led by social studies teacher Odessa Wilson, teachers on the eighth-grade REACH team brought the continent of Africa to the students of Morningside Middle School. For the "kickoff" of the unit, the teachers brought in Ron and Natalie Daise, experts in African culture. Great storytellers, these experts told tales from Africa and introduced students to many of the songs that slaves brought to the United States. Students learned how certain songs were sung for dual purposes and were part of a communication system among slaves. Later in the unit the students learned about the communication role that drumming played in Africa. The culminating activities for the unit were individual oral presentations, many of which were multimedia as a result of students' research and production in the Production Center—Room 216.

In preparation for the oral presentations, eighth-grade students went to the Production Center to conduct research and develop their projects. Students researched different countries in Africa using *The Encyclopedia of the Twentieth Century* on laser discs, the Groliers Encyclopedia on CD-ROM, and DIALOG ClassMate. For example, students researching South Africa searched the multivolume laser disc set of *The Encyclopedia of the Twentieth Century* in search of footage for their oral presentations. Students were able to see Desmond Tutu speak, see black prisoners in South African jails, and see cities that were destroyed as a result of violence associated with apartheid. Those researching other countries found information on the great many newsworthy events that happened throughout Africa during the twentieth century. One student combed the electronic encyclopedia searching for clips to show African clothing, ranging from traditional to modern dress. Later, she transferred the clips from videodiscs to videotape, which she edited to use as part of her oral presentation.

As part of this unit, Morningside students used the KIDCAFE component of KIDS-92 to telecommunicate with students in South

Africa. During this period of time, students read a story about South Africa in their language arts class and wrote reactions to the story. Later, they sent letters to South African students via KIDS-92.

After the students had researched and collaborated on their African project for four weeks, Martha Overlock, who lives in Asheville, North Carolina, and is an expert artist in African drumming and the peoples of the west coast of Africa, worked with the students for two weeks as an artist in residence. Students learned that drumming was, and continues to be, an integral part of life in Africa. As part of the unit, students wrote their own "rhythm," as well as Africa fables. At the same time, students were writing mini–research papers, which tied in with the unit, in their science class. The culminating activity was a community presentation on the unit.

Finally, eighth-grade students wrote reflection essays about the African unit. The samples below echo what many of the students had to say. According to Odessa Wilson, many of the students, white and black alike, approached the unit with little interest. But the more they learned, the more they were drawn into the learning process.

Patrick, a white student, wrote:

> My knowledge of Africa has improved greatly. I understand what the colors on flags resemble, what entertains the people. Before the presentations or any research ... I thought that Africa didn't have cities in some countries. After the research, I realized that some cities in Africa are as modern as the ones in our country or any other country. Before the presentations, I thought the drumming was when they were going to invade another tribe. When I realized why and all the reasons the Africans play [drums], I was like—wow!—this is really cool stuff! I must admit though at first I was skeptic. I thought, I have no ties with Africa, let the blacks research their mother land. Don't get me wrong, I am not racist but that is the way I thought. Now my feelings have changed greatly.

In the rest of his reflection, Patrick goes on to theorize about Africa as the cradle of civilization and even speculates that Kenya may have been the site for the biblical Garden of Eden. His final sentences reflect on race relations between blacks and whites. He ends the essay with the statement, "We are all God's children." It is interesting to note that Patrick begins his essay with the impersonal statement, "My knowledge of Africa has improved greatly." From there he goes on to include a few facts he has learned. The more he writes, the more he reflects upon his newfound knowledge, even using prediction and analysis. By the end of his reflection, the unit has become very personal to him.

Another student, Benjamin, points out a personal connection he has made because of the unit as he describes his developing sense of pride in his heritage. Benjamin writes:

> On the unit on Africa, I learned that I don't have to be shamed by my heritage; but to be proud of and happy with it. I learned how to play some African beats on African drums. I also learned how to sing some African songs along with their purpose and meanings. I learned African traditions and the Africans dress and styles. Also, the presentations and information presented in Mrs. Wilson's History classes helped me realize how important my heritage is. The unit also got me involved in African studies, which I never knew was as fascinating and interesting. In fact, I wanted to dig and dig until I knew everything there is to know about the continent of Africa. I wanted to get so far in this unit that I knew more about it than the Africans that live on the continent of Africa ....
>
> Also, I would like to thank you all and Mrs. Overlock for allowing me to learn so much from the Motherland; after all, some people don't have the opportunity to learn about their homeland and their heritage.

The unit on Africa demonstrated the realization of Morningside's goal to involve students actively in their own learning, something the Morningside team had envisioned during their initial planning for their Target 2000 grant and also their REACH project.

REACHing the Goal

Working toward the goal of involving students in their own learning continues to be satisfying to teachers and students alike and has gained national attention (Coleman and Sink 1991; Dunham 1991; *Instructor* 1991). A section of the narrative for the 1991–92 REACH grant says a great deal about the spirit of collaboration at Morningside and sums up how writing and learning have come to be viewed within the school. According to the REACH grant:

> The main goal of our project is to get all students actively involved in their own learning. We want our students to be producers of knowledge rather than receivers of knowledge. All teachers will have high expectations for all students. In a school like Morningside, it is often easy for teachers and students to have low expectations. By working as a team on a common topic, students will have a fresh start. When they go into the Production and Communication Center at Morningside, they all become both student and teacher of the technology. They must be willing to share their knowledge with classmates in order for all students to be the best they can be. We want to take the competition out of the classroom and replace it with team work. By taking away the competition, school will become a more positive experience for the students. This will bring about changes in their attitudes and in their attendance.
>
> The teachers put a lot of thought and work into planning our REACH project. The activities they have planned for (telecommunications, host professors, artists-in-residence, multi-media productions,

> and visual and performing arts opportunities) are activities which allow all content areas to work together. The students will not be learning content in isolation. Students will be able to see how the content areas work together in real life. School will become real. (Sink 1991)

The Future of Collaboration

As we stated earlier, some collaboration is carefully planned from the beginning, but ours evolved over years and has involved many teachers and administrators who were ready to collaborate with each other, their students, and people from outside the school in order to help students overcome tremendous barriers to their learning. Can this type of collaboration be planned for and replicated? We don't know, but we suspect it can be, judging from other models we know of where schools have become partners with colleges, universities, and businesses. We have learned that when teams of teachers are empowered to plan meaningful learning experiences for students, learning becomes more exciting for students and teachers alike. Yet we know that our collaboration is unique, due to the combination of our personal friendship and common professional interests. As for our professional collaboration, it is continuing down a new avenue.

During the 1991–92 school year, events occurred that have set off continuing evolution of our professional collaboration and that of the programs at Morningside. Jeanne was selected as South Carolina's 1992 Teacher of the Year. In that position, she went on leave from Morningside to travel the state with her technology message as a representative of the South Carolina Center for Teacher Recruitment. One of Eve's former students was hired to temporarily staff the Technology Center. After much consideration, Jeanne accepted a new position to help steer technology for a whole district, which includes a high school with which Eve has a close working relationship. The professional collaboration of Eve and Jeanne will continue in a new direction.

As for Morningside, something positive has happened as a result of the programs initiated during the past two years. One positive factor in that new leadership is emerging in the void left by Jeanne, who wrote the initial grants to fund the programs at Morningside. One of the key new leaders is Odessa Wilson, the teacher who spearheaded the African unit. Odessa participated in the Charleston Area Writing Project (CAWP) in 1991 as a fellow. Since then, she has spoken to state REACH groups and a national CHART group about the successes of the REACH project. She has recently been asked to serve as codirector of CAWP and is quick to tell others about the marriage

of technology, writing, and learning at her school. Eve hopes to maintain her ties with Morningside and support the continuing relationship between Morningside and the College of Charleston.

Good programs will always face the problem of teachers who transfer, move, or retire and leave a program to die because it has been the particular province of one teacher. One lesson learned at Morningside is that a core of teachers must "buy in" to new programs in order to assure continuity when staff changes occur. If a program remains the province of only one or two teachers, then the program is likely to die when the key teachers leave the school. Fortunately, in the case of Morningside, a core of teachers, supported by their principal, did buy in. Our best hope for Morningside is that new leadership will continue to emerge and that students will continue to accept the invitation to take an active role in their own learning. For the sake of students, we invite other teachers to use technology as an invitation for writing and collaboration. We have seen students accept the invitation.

Appendix
Further Information About Materials and Services

The Apple User Group Connection
Apple Computer, Inc.
20525 Mariani Ave. M/S 48AA
Cupertino, CA 95014

Computer Eyes
Digital Vision, Inc.
66 Eastern Ave.
Needham, MA 02026
(617)329–5400

DIALOG ClassMate
Dialog
Marketing Dept.
3460 Hillview Ave.
Palo Alto, CA 94304
(800)334–2564

FrEdMail (Free Education Mail)
4021 Allen School Road
Bonita, CA 92002
(619)475–4852

Grolier's Academic American Encyclopedia
Sherman Turnpike
Danbury, CT 06816
(800)356–5590

HyperCard
Apple Computer, Inc.
20525 Mariani Ave. M/S 48AA
Cupertino, CA 95014

INTERNET
c/o the Consortium for School Networking
EDUCOM K–12 Networking Project
1112 16th St. N.W., Suite 600
Washington, DC 20036
(202)872–4200

KIDS–92
Od de Presno
Saltrod, Norway (Europe)
+47 41 27111
Internet: opresno @ ulrik.uio.no

National Geographic Society Kids Network
Dept. 90
Washington, DC 20036
(800)334–2564

VCR Companion
Broderbund®
San Rafel, CA 94903–2101
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Video Encyclopedia of the 20th Century
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