EXEMPLARY SOCIAL STUDIES TEACHERS’ USE OF TECHNOLOGY IN THE CLASSROOM

By

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This dissertation is dedicated to Laura, Burke, and Josh.
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This study investigated three exemplary social studies teachers and their use of technology in the classroom. Literature on teacher beliefs, teacher learning, facilitators and barriers to technology use, and social studies and technology helped to frame the study and clarify research questions. A case study methodology was used to gain insight into these teachers’ classrooms and describe the process in which they integrated technology into their instruction. Extensive classroom observations, interviews, and teacher materials provided the data to complete this investigation.

This study suggests that it is instructive to focus on social studies teachers in common classroom situations where they have had to manage with limited technological resources. Two middle schools and one K-12 school in Florida served as the typical settings in this study and provided each exemplary teacher with a unique set of
circumstances in which to use technology. Despite numerous barriers, these teachers engaged their students in a number of compelling activities using technology.

Findings from this study suggest that social studies teachers use a broad definition of technology, not limiting their applications to computers, but expanding the definition to include low-tech devices such as the VCR, CD player, and slide projector. They also show that educators should not be distracted by the image that technological applications can present; but they should use technology that will truly enhance their teaching. In addition, schools and school districts should rethink the professional development available for social studies teachers and make more effort to match this training to instructional needs. Finally, schools need to evaluate the necessity of the computer lab and consider placing more computers in individual classrooms.

Suggestions for further study include a continued examination of typical classroom settings, further investigation into the role of independent learning, additional exploration of the practices of exemplary teachers, and a renewed focus on the overall role that technology is having to improve teaching and learning in the social studies classroom.
CHAPTER 1
INTRODUCTION

Statement of the Problem

The question of how, and how much, to integrate technology into the social studies classroom is one of persistent debate among social studies educators. Martorella (1997) viewed the use of technology in the social studies as a “sleeping giant” that had the potential to revolutionize the discipline. However, he also argued that while other subject areas have embraced technology, the social studies have been slow to respond to innovations, often remaining on the sidelines surrounded by radical transformation. He specifically recommended that the social studies research community engage in more “research, reflection, and developmental efforts” (p. 512) if meaningful change was to take place in the field.

Since Martorella’s assertions, research in the area of social studies and technology has grown. Many studies have focused on preservice teachers and how they are using technology in their teacher education programs (Keiper, Harwood, & Larson, 2000; Mason & Berson, 2000; Willis, 1997). These studies highlight a wide range of issues such as digital resources, computer-mediated discussion, and Internet use. Despite differences in focus, these studies feature a common theme: that technology does have an important role to play in social studies classrooms.

At the same time that research on preservice teachers’ technology use has increased, additional emphasis has been placed on social studies teacher educators’ integration of technology into their methods classrooms. A number of leaders in the
social studies (Mason et al., 2000) issued “Guidelines for Using Technology to Prepare Social Studies Teachers” to provide direction for methods teachers attempting to model “best practices” in their technology use. Mason and colleagues presented five principles that should guide technology infusion into teacher education programs:

- Extend learning beyond what could be done without technology.
- Introduce technology in context.
- Include opportunities for students to study relationships among science, technology, and society.
- Foster the development of the skills, knowledge, and participation needed by citizens in a democratic society.
- Contribute to the research and evaluation of social studies and technology.

They concluded that following these five principles is the “minimal platform for the use of technology in the social studies” (p. 114), but that it is ultimately up to the individual instructor to make substantial reforms in social studies classrooms.

Molebash (2002) put these guidelines into practice in his investigation of an elementary social studies methods instructor. In particular, he sought to determine how this professor’s constructivist beliefs influenced how she integrated technology into her methods course. But rather than viewing these five principles as rigid steps that social studies educators must follow, Molebash viewed their implementation as a “first step” that should “grow and evolve over time” (p. 451) as more social studies teachers begin to follow them in their classrooms.

While research into preservice teachers and social studies educators has increased, studies of practicing teachers’ use of technology has been limited. Most of the recent research has used surveys and questionnaires to gain insight into technology in the social studies classroom. Most of the data indicate that social studies teachers are often the
slowest in their schools to adapt to new technologies. Becker, Ravitz, and Wong (1999) found, that despite numerous claims that technology can be a powerful tool in the classroom, social studies teachers appeared to adhere to traditional teaching practices and to resist technology.

While the survey data are informative, more qualitative studies are needed to paint a clearer picture of social studies teachers’ technology integration. Milson (2002) and others investigated social studies classrooms in which new technologies are explored, but the focus in most of these studies has been on the students, not on the teachers. Given the role that Thornton (1991) and others have ascribed to social studies instructors as “curricular-instructional gatekeepers,” the classroom teacher has a tremendous influence on what is covered in class, particularly with technology use. Surveys and questionnaires are useful for providing snapshots of technology use, but qualitative data can be even more instructive for anyone interested in social studies education. Understanding the many instructional factors involved in deciding whether or not to use technology is a difficult endeavor at best, but this understanding is essential if social studies research is to make the strides that Martorella advocated in 1997.

**Purpose of the Study**

In an era when public school teachers are pulled in many directions by standardized tests, parent demands, curricular concerns, student discipline, and numerous other competing interests, finding ways to bring technology into the classroom is challenging. While some teachers have the latest computer equipment, most American classrooms have had to survive with outdated machines and software. Researchers have tended to focus on the more progressive classrooms and technology-savvy teachers; but seeing how
teachers in common settings use technology may prove to be even more informative, especially for teachers entering the profession.

The present study suggests that it is instructive to focus on teachers who have had to cope with the kinds of struggles that many teachers face, and who have had to manage with limited technological resources. It also suggests that a focus on excellent teaching is appropriate. Berliner (1986) argued that while no teacher is perfect, all educators can benefit from “exemplary performances from which we can learn” (p. 6). Even the best educators can continue to learn and improve their instruction, and a study of these teachers and their classrooms may prove beneficial in many respects.

In their investigation of subject-matter knowledge among history teachers, Wineburg and Wilson (1991) pointed out that their study was just a beginning in understanding what is known about expert teachers’ content knowledge. Even though many of the teachers they interviewed had an expert knowledge of history, a number were not able to translate this content knowledge into meaningful learning for their students. By painting rich, realistic portraits of two exemplary American history teachers, Wineburg and Wilson were able to make a significant case for the importance of historical content and effective teaching.

The present study follows along the same lines as Wineburg and Wilson, in that it offers a starting place for studying the impact of technology in the social studies classroom. It paints a picture of what wise teachers do to make the social studies more meaningful for their students by exploring the beliefs, concerns, and opinions of exemplary teachers as they attempt to use technology. The most effective method for investigating these issues is through a qualitative approach to research.
Marshall and Rossman (1999) cite three traditional explanations regarding the purposes of a qualitative research study. Despite wide differences in approach and methodology, most qualitative studies contain a combination of exploratory, descriptive, and explanatory aims. This investigation incorporates elements of each of these aims to illuminate the primary research question: *How do exemplary social studies teachers use technology in the classroom?*

The present study’s primary objective was to investigate three exemplary social studies teachers’ use of technology in their classrooms. To better understand their classroom practices, I examined these teachers’ beliefs about instruction, social studies, and technology in general. I also explored the ways that these teachers learned to integrate technology through individual efforts, work with colleagues, and formal staff development. The context in which these teachers operated was also significant, and I looked at both the facilitators and barriers facing these teachers as they attempted to integrate technology into their classes. Finally, I considered the influence that the discipline of social studies had on these teachers’ technology decisions and explored some of the effective ways that they used technology in their instruction.

A second purpose of this inquiry was to construct a narrative for the technology integration of each of these exemplary social studies teachers, situated within the particular settings in which they taught. These settings were chosen not because they were ideal for technology integration, but because they were typical in terms of access and technical support. Through the vignettes in Chapters 4, 5, and 6, I attempted to document specific lessons that demonstrated each teacher’s use of technology and to provide a detailed description of these classrooms.
A final purpose of this case study was to analyze patterns related to these teachers’ use of technology and attempt to make sense of them. Multiple sources of data were used to create distinct categories of inquiry, which followed closely with the major concepts explored in the study. Once these categories were determined, patterns emerged from the data that helped to emphasize the characteristics the participants had in common and to clarify the distinctive aspects of technology use that these teachers chose to employ. The final, and most difficult, phase of any qualitative study is interpreting the patterns, once they have emerged. Finding meaning from the observations, interviews, and other data is essential to the study.

**Research Questions**

**Primary Research Question**

How do exemplary social studies teachers use technology in the classroom?

**Guiding Research Questions (Subquestions)**

- What do exemplary social studies teachers believe about instruction, about social studies, and about technology?
- How do exemplary social studies teachers learn to integrate technology into their instruction?
- What factors facilitate or restrict exemplary social studies teachers’ use of technology?
- What is it about the social studies that calls for a unique approach to integrating technology into the discipline?
- In what compelling ways are exemplary social studies teachers using technology?

**Description of Chapters**

The remainder of the dissertation is organized as follows: Chapter 2 provides a conceptual framework for the study by developing a working definition of technology and examining the research on exemplary social studies teachers. This chapter also
contains a literature review of the study’s major constructs: teacher beliefs, teacher learning, facilitators to and barriers of technology use, and social studies and technology. Chapter 3 details the methodology of the study and briefly describes the participants and settings. Chapters 4, 5, and 6 present narratives of each of the participants’ use of technology and explore the issues accompanying these practices. Chapter 7 looks at these exemplary teachers together and presents a cross-case analysis of their technology integration. Chapter 8 features conclusions and recommendations emerging from the study.
CHAPTER 2
REVIEW OF RELATED LITERATURE

The review of the literature addresses four major areas of research related to the use of technology by exemplary social studies teachers: teacher beliefs, teacher learning, facilitators of and barriers to technology use, and the integration of technology into the social studies classroom. While there is considerable overlap in these areas, particularly between teacher beliefs and teacher learning, each is addressed separately to focus the study and extract some of the differences that appear in the literature. Each literature category corresponds to one of the guiding research questions, with the exception that the final two questions are addressed together in the section on social studies and technology. Before these areas of research are addressed, however, two concepts at the heart of the study need additional explanation: exemplary social studies teachers and technology.

Research Questions Addressed in the Literature Review

Primary Research Question

How do exemplary social studies teachers use technology in the classroom?

(Exemplary social studies teachers, technology)

Guiding Research Questions (Subquestions)

• What do exemplary social studies teachers believe about instruction, about social studies, and about technology? (Teacher beliefs)

• How do exemplary social studies teachers learn to integrate technology into their instruction? (Teacher learning)

• What factors facilitate or restrict exemplary social studies teachers’ use of technology? (Facilitators and barriers)
In what compelling ways are exemplary social studies teachers using technology? What is it about the social studies that calls for a unique approach to integrating technology into the discipline? (Social Studies and technology)

**Exemplary Social Studies Teachers**

With the passage of the No Child Left Behind Act in 2002, the debate about what constitutes a “highly qualified” teacher has emerged as a critical issue in public education. While supporters of this act (Mathews, 2003; Paige, 2002) argue that content knowledge is all that is necessary to become an effective teacher, detractors (Bracey, 2003; Darling-Hammond, 2003) contend that being able to teach this content is what is most important. This debate is especially pointed in the social studies field, where teaching strategies can range from traditional lecture to inquiry-based problem solving. Given the wide range of instructional approaches in the social studies, differing conceptions of how to characterize exemplary teaching have emerged in the literature.

Stanley (1991) focused on three conceptions of teacher competence that have emerged in the social studies literature: teacher effectiveness, teacher knowledge, and critical thinking and critical pedagogy. In the teacher effectiveness model, also known as the process-product model, teaching can be viewed as a process in which a number of behaviors can be observed and quantitatively measured. Adherents of this approach (Good & Brophy, 1994; Porter & Brophy, 1988) argued that, based on years of classroom observations, a strong enough research base existed to describe many characteristics of an expert teacher. A number of researchers have criticized this approach, finding it too narrowly focused and limited to only a few areas of social studies instruction. Among these critics, Armento (1986) found that the teacher effectiveness model was flawed because it did not account for more complex instructional issues. Furthermore, she noted that teacher education programs showed few changes as a result of this line of research.
A second area of teacher competence that Stanley (1991) examined is knowledge of subject matter. Largely because of the influence of Lee Shulman and associates at Stanford University, a great deal of attention has been paid to what good teachers know about their subject. Noting a lack of content testing for teachers, Shulman (1986) proposed a new type of knowledge—pedagogical content knowledge—that would combine pure content expertise with instructional competence in the classroom.

According to Shulman, pedagogical content knowledge "goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching" (p. 9). While knowledge of one’s subject is important for Shulman, what is more important is how this understanding is transferred to students. In general, studies concerning pedagogical content knowledge have found that more experienced teachers are able to transmit subject matter knowledge in a way that makes it more accessible to their students. In assessing the overall impact of this line of research, Shulman and Quinlan (1996) held that “excellent teachers transform their own content knowledge into pedagogical representations that connect the prior knowledge and dispositions of the learner” (p. 409). While there is some dispute as to how this process takes place, the major thrust of this line of research is that experienced teachers develop more complex methods of reconstructing content knowledge as they gain experience.

A significant element of Shulman’s research applied directly to studying the subject matter knowledge of social studies teachers. Gudmundsdottir and Shulman (1987) first applied this concept in a comparison of an experienced and a novice social studies teacher. They concluded that while both teachers had strong content backgrounds, the experienced teacher’s ability to grasp “the larger picture” (p. 69) enabled him to relate it
to his students more clearly than the novice. After extensive interviews with eleven experienced history teachers, Wineburg and Wilson (1991) settled on two teachers—Elizabeth Jensen and John Price—to show their beliefs about how content knowledge impacts instruction. They called Jensen the "invisible" teacher who acted more as a choreographer shaping the movements of her students as they conducted a debate on the Revolutionary War. John Price was more of an actor and performer and was able to capture his classes' attention primarily through his actions. Despite differences in teaching styles and approaches, the authors argued that both of these teachers were able to express their subject matter knowledge in a way that was understandable to a wide range of students.

Stanley’s (1991) final area of teacher competence focused on critical thinking and critical pedagogy. In the critical thinking domain, Stanley stressed Newmann’s (1990) work concerning characteristics of teachers who used higher-order questioning in their social studies instruction. In this longitudinal study, Newmann selected five high schools with diverse populations in which social studies departments emphasized higher-order thinking and engaged in problem-solving activities. By observing a wide range of social studies lessons, Newmann developed seventeen dimensions of thoughtfulness and sought to determine how well teachers addressed each of these criteria. Other major goals of Newmann’s work were to identify characteristics of higher-order thinking for social studies teachers and to determine if students in classes with teachers who emphasized critical thinking showed more thoughtfulness. Newmann’s findings were inconclusive on this matter.
Stanley (1991) addressed critical pedagogy as a final feature of teacher competence, choosing to focus on teachers who challenge the status quo and encourage their students to take action on injustices in the world. Research in this area has focused on a wide range of issues ranging from confrontation of racism and sexism in individual classrooms to questioning the dominant views portrayed in most social studies textbooks. Stanley argued that the competent teacher would stress “active student participation” (p. 257) over most of the traditional methods used in the social studies classroom.

In assessing these areas of teacher competence, Stanley argued that each of these areas provided an important component for understanding what makes an effective social studies teacher. He stated that it was up to the individual teacher to decide how much of each of these areas to bring into his or her instruction. He concluded his article with the following assessment:

Consequently, teacher competence for the social studies is not merely a matter of eclecticism. Instead, practical judgment must be used to determine the ends of social studies as a field of study and then to select the best means to achieve these ends in particular classroom situations. (p. 259)

Since Stanley’s review, the debate over what characteristics make an effective social studies teacher has continued. In her review of the research on history teaching, Wilson (2001) highlighted the rift between the work of Brophy, VanSledright and others with the teacher effectiveness model and the work of Shulman focusing on teacher knowledge and beliefs. She argued that both “camps of explanation” (p. 537) clearly explained how the teachers in their studies taught, but that they did pay not enough attention to the factors that made the teachers effective in the first place. Too often, she contended, researchers in this area have become so engrossed in the lives of the teachers they are studying that they lose sight of the original question of effectiveness. Because of this lack of focus,
Wilson recommended that future research connect exemplary teaching more directly to student learning. While many studies describe what students know or do not know about history, the link to the role of the teacher in the learning progress remains unexplored. Wilson concluded that this proposal would require a new way of thinking about subject matter knowledge and a new approach to studying classroom life; but that in order to remove this “black hole in our research landscape” (p. 540), a renewed approach to studying exemplary history teaching was necessary.

**Technology**

The term “technology” comes from the Greek word *techne* meaning an art, craft, or skill. This definition often runs against the conventional thinking about technology in education that emphasizes the machines and hardware rather than the knowledge that can be gained from their use. The Association for Educational Communications and Technology (1996) emphasized the procedure involved in using educational technology and defined it as “a complex, integrated process involving people, procedures, ideas, and devices for analyzing problems, and devising, implementing, evaluating, and managing solutions to these problems, in situations in which learning is purposive and controlled” (p. 4). But the process involved in using technology is usually ignored in educational circles; and schools boast about numbers of computer labs and wired classrooms rather than focusing on the learning that students have gained through these technologies.

Over the history of American public education, technology has experienced a dramatic change—from the abacus and the chalkboard, as major innovations of the 1800s; to radio and television in the 1900s. During this same time period, the overhead projector, record player, tape recorder, videocassette recorder, and compact disc player entered many classrooms across the country. As each of these innovations was
introduced, teachers were told that these new technologies would radically impact how they would lead instruction; but for the most part, these changes brought only minimal alteration to the classroom (Cuban, 1986; Kerr, 1996). What remained constant throughout this transformation, however, was the emphasis on the machinery introduced to schools and not on the learning that followed.

Today, most of the reports and studies that focus on technology in education refer directly to computers. The International Society for Technology in Education (ISTE), one of the largest organizations devoted to promoting technology in the classroom, has published technology standards for teachers, students, and teacher educators. In the National Educational Technology Standards (NETS) for Students (1998), ISTE defined technology-based instruction as “instructional applications that involve some aspect of computers or related technology” (p. 372). Accordingly, many of the guidelines for using technology in the classroom involve computer skills such as operating a computer, searching the Internet, creating databases, or producing PowerPoint presentations.

In their book *Technology and Teacher Education*, Mehlinger and Powers (2002) explored various conceptions of what technology is. One common view is that it is “the application of science to industry” (p. 10), but for these authors, this definition provided little connection to education. They also dismissed the definition of technology as a process, because, again, very few educators choose to see technology apart from the machinery involved in it. They saw technology as “relatively new electronic media, such as computers and video and the associated hardware, networks, and software that enable them to function” (p. 10). Their conception of technology, while including video, focused primarily on computers and the major impact they were already having on schools. But
while some educational technology focuses on computer tools that improve efficiency for teachers (e.g. electronic grade books, attendance reports), Mehlinger and Powers were concerned primarily with how teachers in the classroom have used computers and how they can be used in the future.

A broader definition of technology was provided by the Office of Technology Assessment (OTA) in their 1995 report, “Teachers and Technology: Making the Connection.” In establishing a standard for educational technology, they used the following statement to qualify their assertions:

Although many people view educational technology as synonymous with computers, for the purposes of this report, the Office of Technology Assessment adopts a broader definition of educational technology that includes computers, VCRs, televisions, telephones, video and still cameras, audio devices, calculators and other hand-held devices, microcomputer-based lab equipment (such as sensor probes and measurement devices), videodiscs, CD-Rom, satellites, multimedia, and telecommunications networks. (p. 50)

While definitions provided by most technology proponents such as ISTE (1998) and Mehlinger and Powers (2002) focused mostly on computers, the OTA’s description of technology encompasses a wide range of items that can be used in the classroom. Some of these items, such as satellites or sensor probes, are not practical for social studies teachers, many of the other devices are commonly used in classrooms around the country.

The present study uses a broad lens, such as the one used by the Office of Technology Assessment, to examine the use of technology by exemplary social studies teachers. It focuses not only on these teachers’ use of computers, but also on other forms of technology that they employed to enhance their instruction. While computers remained the focus for several of the observed technology lessons, televisions, VCRs, CDs, slides, and other forms of technology also played a large part in the classrooms of these exemplary teachers. While much of the research cited in this chapter relates to computers,
a broader conception of technology helped to illuminate the innovative approaches the
teachers used in their classes.

**Teacher Beliefs**

In recent years, many researchers have acknowledged the great influence that
teacher beliefs have on instructional practices. Richardson (1996) explained that although
research into the related area of teacher attitudes has been prevalent for decades, studies
of teacher beliefs are fairly recent and concentrate on a wide range of topics. Despite the
relatively recent body of research in this area, scholars have found a strong connection
between teacher beliefs and classroom practice. Many researchers hold that a better
understanding of how teachers apply their beliefs will benefit current educators and play
a larger role in teacher preparation.

This concept, however, is complex and overlaps a number of associated areas.
Pajares (1992), in a widely cited review of the research, drew a number of conclusions
about the nature of teacher beliefs. First, he argued that beliefs are formed early in life
and tend to self-perpetuate throughout a teacher’s career. Even if change does occur, it is
often temporary, and teachers can easily revert to previous ideas and routines. Second, he
claimed that beliefs were “inextricably intertwined” (p. 325) to knowledge. A number of
researchers have also noted the connection between knowledge and beliefs
(Feiman-Nemser & Floden, 1986; Munby, Russell, & Martin, 2001; Richardson, 1994)
and in some cases have used the terms interchangeably. In addition, Pajares (1992)
contended that belief change in adulthood is a rare happening; and usually takes place
only with a change in authority. Overall, the issue of teacher beliefs is multifaceted, and
therefore makes any kind of analysis difficult. To clarify the concept of teacher beliefs,
three areas of teacher beliefs that influence the use of technology by exemplary social
studies teachers were examined: beliefs about instruction, beliefs about technology, and beliefs about social studies.

**Beliefs about Instruction**

Since the beginnings of the American school movement, vigorous debate has continued over the role of the teacher in providing the best possible environment for student learning. In his pioneering work on the teaching profession, *Schoolteacher: A sociological study*, Lortie (1975) argued that despite efforts from teacher education programs, outside organizations, and many teachers, traditional practices have remained the norm in American schools. Lortie maintained that with so much time devoted to non-instructional responsibilities, teachers were unlikely to change their classroom routines. He suggested that while many teachers wanted to change their instruction, they “are like practitioners in other fields—they are reluctant to try new approaches unless they feel sure they can make them work and avoid damaging their reputations” (p. 234). As long as this reluctance to take risks remains in place, Lortie concluded that the teaching profession would see little change in the foreseeable future.

Cuban (1993) similarly viewed teaching as an inherently conservative profession and argued that classrooms have changed very little in the past 40 to 50 years. He stressed that if any changes did take place, they were more likely to be incremental than fundamental. New technologies such as computers have changed the physical appearance of classrooms, he argued, but the traditional methods that teachers have used in instruction have remained the same. Among the characteristics that Cuban ascribed to these traditional classrooms were a heavy reliance on textbooks, whole-class instruction, and “teacher talk” over “student talk” (p. 7). Cuban supposed that without substantial reform efforts, the nature of the instruction would remain constant for years to come.
Despite this tendency for teachers to adhere to traditional practices, a number of studies have documented how non-traditional instructional methods have been successful. Among the characteristics that Cuban (1993) attributed to this approach were small-group learning, more “student talk” than “teacher talk,” and “varied instructional materials” (p. 7) that the teacher can use in a variety of situations. Based on a collection of case studies, Bray, Kramer, and LePage (2000) characterized their view of the expert teacher. They held that this teacher was constantly reflective on his or her practice and embraced the opportunity for improvement. The authors went so far as to say the expert teacher is “thrilled at the prospect of trying something original and different, thriving on opportunities to learn about current educational trends and social issues” (p. 79). For Bray, Kramer, and LePage, the effort to improve instruction comes with the recognition that students have diverse learning styles and may not benefit from traditional methods.

Several studies have explored exemplary social studies teachers’ beliefs about instruction. From a pool of twenty teachers, Onosko (1992) identified ten as outstanding and ten as less than outstanding; and then described characteristics shared among the more accomplished practitioners. One of the major similarities among the outstanding teachers concerned the issue of depth versus breadth of content coverage. Nearly all of these teachers felt that trying to cover too much material actually impeded student efforts to learn, and they advocated a concentrated approach to various subjects to encourage higher-order thinking among students. Also, Brophy and VanSledright (1993) interviewed seven exemplary elementary teachers and found that they preferred a variety of learning activities compared to the traditional, worksheet-driven social studies curriculum. These teachers, as a whole, found textbooks to be ineffective tools for student
learning and much preferred “engaging students in a variety of forms of teacher-student and student-student discourse” (p. 5). Even though studies such as these show the preference of many social studies teachers a wide array of teaching methods, social studies classrooms as a whole remain among the most traditional of the major academic disciplines.

What is important about this area, however, is that the debate surrounding instructional methods still continues. While some researchers try to support a particular pedagogical stance through their studies, it should be recognized that different situations call for different pedagogies. While looking at instructional approaches as absolutes can be useful, most teachers use a mix of methods and are hard to characterize.

**Beliefs about Technology**

While the literature in the area of teacher beliefs about instruction is a fairly recent phenomenon, the literature pertaining to beliefs about technology is an even newer, and thus a more unexplored, area of research. Cuban (1986) applied his ideas about the conservative nature of teachers and their reluctance to change classroom practice to their caution in using new technologies. He found that if the technology supported existing practices (i.e., multiple choice test construction or drill and practice software), teachers were much more likely to embrace it than they would if it involved modifying or radically changing their instruction. In a more recent study, Cuban, Kirkpatrick, and Peck (2001) interviewed twenty-one secondary teachers and found that thirteen of them said that technology had changed their instructional practices. Upon closer examination, however, these changes were primarily of an institutional nature (e.g. grade tabulation, record keeping, test construction) rather than revisions in instruction. Even though a few
of these teachers reported that technology had made them more student-centered, observations showed little change in traditional practice.

Studies of teacher beliefs in regard to technology are fairly evenly split between analyses of survey data and case study research. In their landmark study of six hundred technology-using teachers, Hadley and Sheingold (1993) used a lengthy questionnaire to explore what teachers believed about technology use in their classrooms. Of the technology-using teachers questioned by Hadley and Sheingold, eighty-eight percent indicated that computers made a difference in their teaching. Among the teachers who said that computers had made a difference in their teaching, a majority also indicated that they were able to spend more time with individual students, to lecture less, and to expect better work from students.

In another large-scale study, Niederhauser and Stoddart (2001) surveyed over one thousand elementary teachers about their uses of educational software. The authors discovered a significant relationship between the type of pedagogy preferred by these teachers and the types of software used in the classroom. They categorized the software using three descriptors—open-ended, skill-based, and combined—and generally found that teachers used the types of software that fit best with their pedagogical stance. For example, if a teacher was interested in more teacher-directed software, drill and practice programs such as Reader Rabbit or Math Blasters would be desirable. For teachers engaging in more student-centered teaching practices, an open-ended piece of software such as Where in the World is Carmen San Diego? or Oregon Trail would be preferred. In their conclusion, the authors contended that if instructional change was to take place, teacher beliefs about technology should not be ignored. They added that professional
development could assist teachers in choosing the right type of software for their beliefs, and it was “ultimately teachers who determine” (p. 29) how effectively technology is used in the classroom.

The Teaching, Learning, and Computing Survey of 1998 undertaken by the Center for Research on Information Technology and Organizations addressed beliefs about technology on an even larger scale. This study of over 4,000 teachers, administrators and technology coordinators yielded a number of reports related to technology use and school contexts. In one of these reports, “Constructivist-Compatible Beliefs and Practices among U.S. Teachers” (Ravitz, Becker, & Wong, 2000), the authors sought to determine the relationship between teachers’ stated beliefs about technology use and whether or not this was apparent in their classroom practices. The report showed that across almost every subject area, teacher beliefs were a strong indicator of the type of instruction used. As the title of the report showed, the authors argued that teachers who held more constructivist views used activities in the classroom (i.e., projects, group work, problem-solving tasks) consistent with these beliefs.

A number of qualitative studies have also explored the relationship between teacher beliefs and technology use. In one such study, Windschitl and Sahl (2002) examined three teachers at a private school in Seattle that had recently initiated a laptop computer program. These middle school teachers had varying beliefs about the technology at the beginning of this initiative. One teacher believed that technology could provide a “hook” to bring more students into the learning process, one was dubious about the effect laptops could have in his classroom, and the third was new to technology, but excited about the possibilities it could bring to her classroom. After two years of using laptops, only one of
these three teachers was using technology on a regular basis; the others returned to traditional practices used before the introduction of these machines. Overall, the authors found that understanding teachers’ decisions on whether or not to use technology was a complex enterprise, and more research was needed to better comprehend the role of beliefs in this process.

In contrast to the previous study, findings from the Apple Classrooms of Tomorrow (ACOT) project (Sandholtz, Ringstaff, & Dwyer, 1997) held that teacher beliefs changed as a direct result of having an extensive amount of technology introduced into their classroom. According to the authors, participants in this project became more constructivist in their teaching approaches and attempted more collaborative and inquiry-based activities over time. They argued that “the introduction of technology to classrooms does not radically change teaching; instead, technology can serve as a symbol of change, granting teachers a license for experimentation” (p. 171). But they also recognized that change cannot happen without support from a number of sources, including, but not limited to, administrators, colleagues, parents, technology consultants, and the community.

This area of the literature would benefit from more studies connecting teacher beliefs to classroom technology use in a more typical classroom environment. Most of the studies described in this section, such as the ACOT project, involved grants or investments from large corporations. In addition to the many institutional pressures teachers face on a daily basis from parents, administrators, and other stakeholders in education, participants in such studies would also feel obliged to use the technology supplied for them, even if it meant teaching in ways that were not comfortable to them.
Because of the forced nature of much of this computer implementation and expectations from the technology providers for positive results, many of these analyses should be regarded with a critical perspective. Studies of teacher beliefs in more typical settings in which the technology has not been thrust upon teachers have the potential to impact practice more than those in selective environments.

**Beliefs about Social Studies**

One of the biggest problems with judging teacher beliefs about the social studies is a debate over how to define this field of study. Even with this uncertainty, recent inquiries have found that beliefs about the discipline, however one defines it, have had a great influence on how teachers approach the subject in their classroom. These beliefs are often grounded before teachers have even started their teacher education programs, and tend to be perpetuated once teachers enter the classroom.

Case studies of preservice teachers (Angell, 1998; Goodman & Adler, 1985; Johnston, 1990) have discovered that while some young teachers grow in their understanding of the discipline, others remain content to rely on previous attitudes and experiences. Goodman and Adler (1985) analyzed the perspectives of sixteen preservice elementary teachers towards the social studies with interviews throughout an entire year, and sought to determine the influence of various factors on their belief systems. This study found that while student teaching did play a significant role in shaping the belief systems of these students, childhood conceptions of the social studies along with other factors were equally important in affecting instruction. In a case study of two preservice teachers, Angell (1998) described how one grew in her understanding of social studies and teaching, while the other remained satisfied with her previous beliefs. What is perhaps most significant about this study is the change that one student was able to
achieve. In contrast to those who argued that teacher beliefs were fairly rigid, Angell contended that given the right social interactions, change in beliefs could occur. These studies also highlight the disconnect between teacher education programs that emphasize a constructivist approach to social studies, and classrooms that continue to use memorization and teacher-directed learning as their focus.

At the same time that case studies of preservice teachers have emphasized the importance of beliefs about social studies, inquiries into the perspectives of practicing teachers have also emerged. In one such study, Brophy (1992) profiled Mary Lake, a fifth grade teacher who was able to make history “come alive” (p. 152) for her students. This teacher used storytelling to capture student imagination, and, through an in-depth examination of topics, was able to bring her students into history. She took a personal approach to the subject, beginning the year with students’ autobiographies and timelines as a means to explain their place in history. Brophy argued that the visible worth she placed on social studies and the time she devoted to its instruction made the subject more meaningful for her students, and by limiting the content she covered, she was able to provide a significant depth of coverage for her students.

The question of depth versus breadth in coverage is significant for social studies teachers. VanSledright (1997) profiled two eighth grade American history teachers, Nancy Kerwin and Bob Jansen, and compared the ways in which they approached instruction. Kerwin was concerned about presenting students with a chronological account of history and used the textbook to guide them through a steady array of facts and concepts. Jansen, on the other hand, chose to concentrate on a few significant historical themes and relied on his own background and content expertise to lead students
through this unit. Despite going into more depth, Jansen was able to complete his unit in only twenty days compared to the thirty-eight that Kerwin used. While he believes that “pursuing depth in historical study appears to be a worthwhile goal” (p. 41), VanSledright acknowledged that it had its limitations with the omission of important historical details.

Beliefs about subject matter have also received a good deal of attention at the secondary level. Wineburg and Wilson (1991) explored the subject matter knowledge of two high school American history teachers and found that despite different classroom approaches, both of these teachers saw the importance of having their students actively participate in historical inquiry, and not have their students become “little historians.” John Price, one of the participants in this study, noted in describing his approach to teaching, “My mission is to really get them excited about some of the characters along the way so that they have some interest in the past” (p. 329). Through experience and constant reflection, both of these teachers conceptualized social studies in a way that suited their personal beliefs, and more importantly, enhanced student learning in the process.

In looking at the importance of social studies teachers’ beliefs as a whole, Thornton’s (1991) description of instructors as “curricular-instructional gatekeepers” (p. 237) deserves attention. In this capacity, Thornton argued, teachers have a great deal of control over how the subject is presented in their classrooms. Social studies teachers have traditionally allowed textbooks to dictate how their classrooms are managed and have reduced the subject to an exercise of memorization and regurgitation of facts. In this process, many students have grown to dislike social studies. Thornton stated that while
research has heightened an understanding of social studies teachers’ practices, he believed that there needed to be more case studies of exemplary practice if meaningful change was ever going to take place.

This area of the literature has grown dramatically in the time since Armento (1986) surveyed the research in the social studies over fifteen years ago and noted a lack of qualitative studies. Inquiries like many of those detailed in this section have become much more common in the literature and have provided needed insight into the beliefs of both preservice and inservice teachers about social studies. But the pendulum may have swung too far toward the qualitative paradigm, and Seixas (2001) and others have advocated additional quantitative studies to present a more balanced picture of the influence of teacher beliefs on social studies teaching and learning. But even without the benefit of such data, recent studies have significantly increased the understanding of the effects of beliefs on both current and future social studies teachers.

**Teacher Learning**

A concept closely related to teacher beliefs is that of teacher learning. It is presumed in this area of the literature that teachers continue to learn from the time they enter the profession until the time they leave the classroom, although how and to what degree varies. In commenting about possible changes in the future of schooling, Lortie (1975) remarked that inservice training necessary to promote teacher learning rarely “rises above the superficial level” (p. 234). If school districts had serious concerns about the future of their teachers, Lortie claimed, staff development would receive much greater attention. In the nearly three decades since Lortie’s landmark study, there has been a steady increase in the area of teacher learning. Richardson and Placier (2001) regarded teacher learning as the most significant factor for enacting changes that might actually
improve education. In reviewing the research in this area, the authors found that teacher learning is much more likely to be meaningful where there is an environment encouraging “commitment, collaboration, and empowerment” (p. 929). In an effort to attract and retain qualified teachers, more attention is being paid to the lifelong development of teachers (Steffy, Wolfe, Pasch, & Enz, 2000) and the support that is needed along the way.

With the arrival of personal computers in the school environment, teachers have been strongly encouraged to make use of new technologies in their classrooms. Because of the numerous demands placed on teachers, taking the time to learn about new innovations and implementing them in the classroom is a daunting task, but many teachers have found ways to make this happen. Many of the articles focused on learning about technology have come from the traditional professional development perspective, in which outside agencies have come into schools to train teachers on various applications. Fewer studies have been written about the influences of colleagues, both inside and outside the school, for enhancing one’s technological expertise. Even less has been published concerning how teachers explore technology through personal endeavors. Understanding the importance of each of these three areas in regard to learning about technology is crucial if one is to arrive at a deeper understanding of technology implementation.

**Professional Development**

Feiman-Nemser (2001) maintained that staff development traditionally has been a “dissemination activity” (p. 1041) in which teachers passively receive information on any number of topics. Teachers sit in a crowded cafeteria, auditorium, or media center and listen to an expert tell them what they need to know about some area deemed important
by administrators at the school or district level. The problem with this approach, as many critics have noted, is that these one-time-only training events usually have little bearing on how teachers improve their instruction. Prominent educators, including Linda Darling-Hammond (1997; Darling-Hammond & McLaughlin, 1996), have proposed alternative models of staff development that are sustained (more than just one-time-only events) and directly connected to teachers’ daily experiences. Darling-Hammond acknowledged that these activities would likely involve more time than was currently being spent by teachers in staff development, but in the long run they would relate more directly to what teachers were doing on a daily basis.

The traditional staff development approach for technology training has produced limited results in helping teachers become more proficient in their technology use. Even as schools acquire more and more machines and construct additional computer labs, little support has been given to teachers in using this technology. One report (Quality Education Data, 1998) stated that only five percent of federal expenditures on educational technology was spent on professional development. The President’s Commission of Advisors on Science and Technology (1997) recommended a significant increase in teacher training from five percent of federal expenditures in the technology budget to thirty percent. At the present time, this increase has not been realized. More hardware has been added in many districts, but the support provided for teachers has not followed.

Hasselbring et al. (2000) powerfully showed the importance of professional development for teachers in their review of the literature on technology and teacher development. The authors contended that many teachers were not ready to use technology in their classrooms and argued:
In sum, a school can have the best hardware and software available, yet it is unlikely that they will be used well, or even used at all, if teachers are not trained. Training teachers on the integration and use of technology appears to have a significant impact on whether they feel comfortable in using technology. Training also increases the likelihood that they will use software and web sites for instruction. Thus, as schools continue to purchase more and better technology, the benefit to students will increasingly depend on how well teachers are prepared to use these new tools. (p. 5)

Even though professional development opportunities have increased in many states, many teachers have not taken advantage of these offerings and remain ill equipped to use technology in their classrooms.

Despite the limited attention paid to professional development activities, several studies have been published in recent years that show positive results from technology training. Several of these studies claim that after such training teachers displayed more confidence with technology integration and became more student-centered in their approach to teaching. The Southwest Educational Development Laboratory (Burns, 2002) undertook a project with 150 teachers at six schools to “create learner-centered, technology-rich learning environments” (p. 36). Teachers in this project received thirty-six hours of professional development over the course of two summers and, in addition, received on-site support from consultants. Results from this venture showed that teachers learned valuable technology skills and strategies and became more constructivist in their approach to teaching.

Similar results came from the ten-year Apple Classrooms of Tomorrow (ACOT) Project. While the initial thrust of the project was to observe the impact that providing hardware and software would make in the classroom, professional development later became an integral part of the study. Project coordinators established the ACOT Development Center, whose efforts had three major components: a weeklong practicum
with instructional tools and practices demonstrated, a four-week summer leadership institute, and continued follow-up support by ACOT coordinators. In a report assessing the impact of the professional development initiative, the authors (Ringstaff, Yocam, & Marsh, 1996) reported seeing three major changes in the teachers who participated in the study. First of all, the teachers’ classroom organization changed, with teachers spending less time in front of students and more time assisting collaborative learning. Second, the teachers indicated that they used more technology in their instruction, and students were more motivated as a result. Third, and most significantly, the participants in this study underwent an attitudinal change and felt more excited about using technology in their classrooms and towards teaching as a whole. According to the authors, the teachers in the study took this enthusiastic attitude back to their schools, and their eagerness positively influenced other teachers.

While these two models for professional development provide some useful data showing how teachers can learn about technology and impact student learning in the process, they are not representative of the state of affairs in most schools today. What is missing in the research is how staff development takes place in more typical settings without the assistance of substantial external funding. Success stories from individual schools or districts may prove more valuable to the educational community as a whole than these more intensive studies of well-funded institutions.

**Collegial Activities**

Many educators have participated in collegial activities that enable them to learn and grow within the profession. Collaboration allows teachers to share ideas and build relationships that can sustain them in their professional growth. Duck (2000) described the importance of support groups in promoting the growth of teachers, particularly those
new to the profession. He elaborated on several mentor programs that pair novice teachers to experienced ones as particularly effective for building a collegial environment in individual schools. Feiman-Nemser (2001) also emphasized the importance of collegial interaction, but argued that educators needed to rethink the entire idea of professional development. She advocated establishing “communities of practice” in which teachers would “rethink their pedagogy, their conceptions of subject matter, and their role in curriculum development” (p. 1043).

Willis (1993) undertook a review of the literature analyzing barriers to technology use in the classroom and found that isolation was a major obstacle to teachers’ learning more about technology. One finding that came out of a number of these studies was that “small, school-based groups, supported by consultants, seem to be an effective way of providing on-going support and encouragement” (p. 28). Another important finding was that the precise structure or makeup of the group did not matter as long as there was consistent sharing of ideas. A second, and perhaps more revealing, study on the importance of collegial activities, came from Becker (1994), who surveyed forty-five teachers labeled as exemplary users of technology. One of the common characteristics that Becker found among these teachers was that they had created social networks at their schools through which to share ideas about computers. In schools with exemplary technology-using teachers, Becker found that nearly twice as many teachers used computers as in schools without such teachers in place. None of the schools in Becker’s study had special technology initiatives in place, but he contended that the impact of these networks of teachers interested in technology was more significant than formal staff development on technology.
Both of the projects mentioned above in the Professional Development section allowed participants to work among colleagues to discuss various aspects of technology integration. In the SEDL project (Burns, 2002), teachers worked for much of the time during summer sessions in small groups to complete a portion of a larger technology project. According to the author, this dialogue continued among colleagues even when the sessions were completed. As part of the ACOT project (Ringstaff, Yocam & Marsh, 1996), project coordinators established e-mail accounts for teachers and facilitated communication among project participants. Based on teachers’ suggestions, coordinators also worked on developing an online bulletin board for teachers to continue their conversations begun at the ACOT Development Center.

**Individual Learning**

This area of teacher learning is probably the most significant, but it is also the area that is addressed least in the literature. Lortie (1975) conducted one of the most thorough studies of teachers to date and made some keen observations about how instructors learned on the job. He argued that most people who go into teaching enjoy learning and enjoy being in classes, but when they encounter students who do not share the same sentiment, it is often frustrating for them. Because of this dissatisfaction, many teachers often become more inwardly focused and isolated, rather than looking to colleagues for support and guidance.

Even though many teachers learn a great deal about technology on their own, little has been written about how they go about this task. In a recent report issued by the National Center for Education Statistics (Smerdon et al., 2000), researchers asked over two thousand full-time teachers about their technology use, including questions about their preparation and training. When asked about various sources that prepared them to
use technology in their classroom, ninety-three percent of the respondents indicated that independent learning was the most important factor in their training. In this response, teachers also expressed the extent to which independent learning, professional development, and colleagues impacted their preparation with technology. Of those that indicated that their preparation was supported by individual learning, thirty-nine percent said that independent learning played a “large” role in their training, over twenty percentage points greater than learning from professional development activities and colleagues (p. 79). Other factors, such as college and graduate work and student assistance, were mentioned as well, but they had a much less significant role than the other three areas of development.

Individual learning about technology remains an area relatively untouched by researchers. Several factors account for this lack of understanding. Single-subject research is time consuming, and it may not lead to any conclusive findings about how these teachers learn about technology. In addition, many advocates of technology feel that instruction is more effective in group settings than on an individual basis and do not even want to encourage this type of learning. A third factor may be closer to the heart of this issue—the fact that teachers learn about technology at much different rates at different times. In his landmark book *Diffusion of Innovations*, Rogers (1995) showed that individuals take to new technology in different ways. He identified five groups in terms of their adoption rates from fastest to slowest: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards. Rogers claimed that these categories held fairly firm for the adoption of any innovation and roughly followed an S-curve in their distribution.
Understanding of these five groups is essential to anyone trying to convince teachers to integrate technology in their teaching, especially those in the social studies. As research has shown (Becker, Ravitz, & Prenovost, 1998; Berson, 1996), social studies teachers are among the slowest of the core subject area instructors to use technology in their classrooms. Many proponents of technology have taken the stance that Rogers (1995) identified as “individual blame” (p. 114), in which teachers who do not use technology are criticized for not adapting the latest innovations in their instruction. Knowledge of diffusion theory reveals that the late majority and especially the laggards do not respond well to having technology forced upon them and are more likely to integrate technology into their teaching if they are given the time to see it used in ways that match their teaching style. Many technology supporters in the social studies claim that as new teachers trained in technology enter the social studies classroom, the curve will begin to swing upward, and more teachers will incorporate it into their teaching.

In the NCES report (Smerdon et al., 2000) cited above, a large number of teachers indicated that they did not feel prepared to use technology in their classroom. Only ten percent felt “very well prepared” to use technology in their teaching, and just twenty-three percent indicated that they were “well prepared” (p. 75) to use it. While examples of successful professional development programs have added somewhat to what is known about training teachers to use technology, much more can be done to strengthen this area of research. The NCES report also suggested that professional development activities could encourage teachers to spend more time learning about various technology applications. If this assumption is correct, studies of the types of opportunities created through professional development would also be appropriate. New
innovations in technology make planning professional development difficult, but if teachers are to keep pace with these changes and support student learning, more opportunities to learn about technology need to become available for future educators.

**Facilitators and Barriers**

While the previous section described various means by which teachers learn how to use technology, this section examines facilitators and barriers facing teachers as they apply what they have learned to actually implementing technology in their classrooms. Facilitators and barriers are often interconnected concepts. Researchers interested in how teachers learn about technology tend to focus on factors that facilitate technology use, and studies of teachers not using technology will often concentrate on barriers to classroom implementation. Most of the research in this area consists of quantitative studies taken from surveys or self-reports. Many of the studies explore facilitators and barriers simultaneously, but this section addresses facilitators and barriers to technology use as separate concepts before linking them to recent studies focusing on both factors.

**Facilitators**

The literature related to facilitators of classroom technology integration consists of both self-reports and case studies to determine what or who supports teachers in their use of technology. One facilitator for teachers’ use of technology is their recognition of the positive impact of technology on their students. Hadley and Sheingold (1993) surveyed 600 technology-using teachers and assessed a number of factors influencing their technology use. When asked what incentives existed for incorporating technology into their teaching, the top responses all involved “expanding students’ learning, experience, capacities, and productivity” (p. 281). While personal time invested and self-esteem were also deemed important by many of these teachers, the impact on children’s growth was
seen as the motivating factor for using technology. The authors also stated that the desire for student growth with technology often paralleled the teacher’s development in learning the same sorts of ideas and skills.

Another factor that supports teachers in their use of technology is accessibility. If teachers have access to computers, televisions, etc., then they will be more likely to use them. In a study of secondary teachers in Australia, Zammit (1992) asked in a questionnaire what encouraged them to use computers, and access was overwhelmingly the top response. Many of the teachers in the study reported that access to technology was adequate at their schools, but some were also concerned that accessibility would become much more difficult if additional teachers began to use technology. Zammit discovered in follow-up interviews that access was important for these teachers not only in the classroom, but also in lab settings. Interviews with computer coordinators showed that computer labs were fully booked over ninety percent of the time, and without additional access in the classroom, many teachers chose not to take their students to these labs.

Through the Apple Classrooms of Tomorrow (ACOT) project, researchers discovered that access to a computer lab was not always what teachers wanted. Johnson, Schwab, and Foa (1999) observed that many of the teachers in their study would much rather have a few computers in their classrooms than twenty-five in a remote lab setting. In comparing computer use in the classroom to that in a lab setting, one teacher in the study remarked, “Would business people use computers as tools if they could only use them 25 minutes per week in a room down the hall” (p. 43)? The authors suggested that teachers who had access to computers in their classrooms actually changed their
instructional styles to meet student needs, moving away from teacher-centered to more student-centered teaching approaches.

While access to technology is the obvious first step to helping teachers use technology, support must accompany this phase. In addition to professional development activities, much attention has been paid to the role of technology coordinators in individual schools. As part of the Teaching, Learning and Computing survey, Ronnkvist, Dexter, and Anderson (2000) examined the influence of technology support at the school level, reporting data from principals, technology coordinators, and teachers. The authors first defined technology support as assistance with both technical content (such as troubleshooting or equipment repair) and instructional content (with subject area software and classroom strategies). According to the study, most teachers were aware of the technology support that was available to them. On average, they found support available for technical help 90% of the time and for instruction 80% (p. 13). While teachers in this study deemed technical support important, most felt that they needed much more guidance in instructional matters to use technology more confidently in their classrooms.

In addition to student motivation, access, and support, studies have looked at a number of other factors to determine what facilitates teachers’ use of technology. These factors include, but are not limited to, parental support, supportive administrators, district policies, and student interest. Most of these studies focus on teachers who have been identified as exemplary technology users but do not examine the average teacher who may use technology, but just not at the same level as those exemplary users. Studies of factors that assist typical technology users would be a significant addition to the research.
Barriers

The research in this area relates more to barriers facing teachers in their use of technology than to factors facilitating its use. Many of these studies derived their lists of barriers from teacher surveys and questionnaires. Frequently cited barriers included financial constraints, concerns about inappropriate material, teachers’ weak knowledge base about technology, and poor quality of available software. Among these barriers, three were the most prevalent in the literature: limited access to technology, lack of support, and inadequate time to learn about technology.

As a logical contrast to the importance of access showed earlier in the review, a significant barrier facing teachers attempting to use technology is limited access. Zammit (1992) asked teachers about encouragers to their technology use and also had teachers report disincentives to classroom implementation. Software quality was important to many of the teachers in this study, but access was a much greater concern. Respondents indicated nearly equally that access was important for students in both the classroom and in a lab setting. The NCES survey (Smerdon et al., 2000) also revealed that access was a great concern for teachers trying to use technology. This lack of access was a greater concern among teachers in some settings than in others. High school teachers were more concerned about access than elementary teachers, larger schools had more problems with access than smaller schools, and city schools had less access than suburban and rural schools.

A second concern among teachers attempting to use technology is a lack of support. The need for assistance is apparent at many levels. Teachers in Hadley and Sheingold’s study (1993) noted a lack of financial support from the district, inadequate administrative support at the school, and not enough help supervising students using
computers in the classroom. Teachers from the NCES survey (Smerdon et al., 2000) noted a number of support problems: inadequate training opportunities, lack of administrative support, lack of support regarding ways to integrate telecommunications into the curriculum, and a lack of technical support or advice (p. 91). The report suggested that having a technology coordinator would help to reduce the barriers teachers perceived in regard to their use of technology.

According to Ronnkvist, Dexter, and Anderson (2000), about ninety percent of the schools surveyed had someone designated as a technology coordinator (p. 6), but in only nineteen percent of these schools was it a full time position. In many cases, coordinators were also classroom instructors, network coordinators, or media specialists. With responsibilities well beyond helping teachers use technology for instruction, it was extremely difficult for these coordinators to have a significant role in providing the desired support. Therefore, technology coordinators were much more likely to supervise classes or troubleshoot hardware problems than they were to assist and train teachers in how to use technology in their classrooms. While individual technology coordinators have shared success stories from their individual institutions, a more systematic study of the impact of positive technology support would be beneficial for the research literature in this area.

In a number of studies, lack of time was the factor that teachers most frequently mentioned as the greatest barrier to their technology use. Data from the NCES report (Smerdon et al., 2000) brought out major time concerns among respondents. Teachers surveyed were given the choice of defining time as a small, moderate, or great barrier to their use of computers and the Internet for instruction, and no matter the level of
experience, time was perceived as a great barrier. Teachers participating in Hadley and Sheingold’s (1993) questionnaire responded to thirty-five perceived barriers to using technology. Of these responses, the top two both related to time: lack of time to develop lessons that used computers, and scheduling enough time to integrate computers into instruction.

Even though these studies identified a number of barriers, they generally agreed that barriers could be overcome, given the right conditions and support. Access has improved in many schools across the country, and many schools have pulled computers out of labs and placed them in teachers’ classrooms. Support is still a major issue in many areas, but findings from such studies as the ACOT project have presented models for how teachers can be assisted in their technology integration. Time is the issue for which none of these studies attempted to provide a solution. Teachers have so many constraints on their time that learning about technology and fitting it into classroom schedules is a nearly impossible task, and research to this point provides few solutions.

**Key Research that Addresses Both Factors**

Cuban’s recent work, *Oversold and Underused: Computers in the Classroom* (2001), is of primary significance for understanding facilitators of and barriers to technology use. Cuban focused on a number of San Francisco area educational institutions, from pre-school through university, and claimed that despite assurances that computers would revolutionize education, instruction has remained primarily unchanged at all levels. Even in Silicon Valley, the heart of the technology industry, classrooms have been only marginally altered by this influx of computers and associated software.

Cuban’s analysis of technology use in two San Francisco area high schools provides an interesting paradox in the examination of facilitators and barriers. Both
schools that Cuban and his colleagues studied had an abundance of technology available. They were well above the national average in connectivity to the Internet, and all of the teachers in both schools had their own e-mail accounts. Yet despite sufficient access, many teachers still did not use computers in labs, the media center, or even in their own classrooms. Cuban acknowledged that results from these schools may not be totally representative of others around the country, but the reasons that teachers offered for not using technology more were consistent with other studies presented in this section.

Time was a major concern for teachers for fitting computer use into their classroom schedules and but for finding opportunities to try out new software or other products. A second complaint heard often from teachers was the lack of relevant support for learning about technology. Through in-depth interviews, Cuban found that most of the technology training teachers received was related to basic computer skills and “irrelevant to their specific and immediate needs” (p. 98). Teachers wanted to have specific ideas and methods that would work for their subject area and their students, but this type of training was unobtainable. In his final analysis, Cuban argued that while schools as a whole have pushed for technology integration, little teacher training has accompanied the growth in technology, and therefore little has actually changed in terms of daily classroom practices. Given the nature of schools as institutions reluctant to change, Cuban saw little possibility for the technological revolution to have a significant impact.

**Social Studies and Technology**

In his analysis of the history of teaching in the social studies, Cuban (1991) concluded that instruction had changed little since the beginning of the twentieth century. He noted a number of incremental changes that had been made in the use of textbooks, films, videos, and other classroom activities, but he argued that the fundamental change
advocated by many social studies educators had not occurred. Although other changes had influenced the structure of many social studies classrooms, teacher-centered instruction and the use of textbooks still dominated the field.

This historical perspective is significant for analyzing the impact that technology is currently having in the social studies. A number of studies (Becker, 2000; Becker et al., 1998; Berson, 1996) have noted that social studies teachers have not brought new technologies into their classroom teaching at the same pace as teachers in other disciplines. Becker and Ravitz (2001) reported that twenty-four percent of English teachers used computers more than twenty times during the year, compared to seventeen percent of science teachers and only twelve percent of social studies teachers. While recent studies have highlighted individual areas of success within the social studies, there has been little fundamental change in the practice of classroom teachers. As Social Education editor Michael Simpson (1999) asserted, “We are still at the early stages of identifying and evaluating the best uses of current technology in the classroom, far from the instructional and technical possibilities that will be realized in the ‘cybercentury’ to come” (p. 133). This section summarizes research that has explored technology integration in the social studies, examine some of the prominent areas of current research, and consider possibilities that exist for social studies teachers wishing to use technology.

**Research in Social Studies and Technology**

Ehman and Glenn (1991) analyzed research in the field of social studies and technology, most of which took place in the late 1980s with the introduction of computers to social studies classrooms, and found little significant work at that time. The existing research was scant at best, and many of the studies examined the impact of the drill and practice software that accompanied the first classroom computers. The authors
did note, however, that research designs were improving and recognized a few promising
areas that could eventually lead to instructional improvement. With databases and
simulations, in particular, Ehman and Glenn recognized potential for technological
improvement and hoped that the research base would widen in this area.

Berson (1996) discerned similar results in his review of the literature on computer
use in the social studies just five years after Ehman and Glenn’s analysis. He examined
different applications of computer technology, including drill and practice, tutorials,
games, simulations, problem solving, and word-processing. While studies of applications
such as these had increased the research base, Berson saw little evidence that would
validate the instructional necessity of computer use in the social studies classroom. But
he also maintained that the study of computer effectiveness in the social studies was “still
in its infancy and encompassed a dynamic process” (p. 496) that would see significant
changes in the near future. He emphasized the impact that the World Wide Web and the
Internet were beginning to have in social studies classrooms and held that these areas
would necessitate examination.

In an issue of *Theory and Research in Education* devoted to technology in the
social studies, Diem (2000) noted continued problems related to social studies teachers’
 attempts to use technology. Most of the research showing social studies teachers using
technology emerged from single studies unique to a particular population, which would
be difficult to replicate in many schools without the resources to provide for additional
hardware, training, and support. Diem argued that to make more meaningful
generalizations about technology use in the social studies, researchers needed to “go
beyond these singular social studies constructs” (p. 498) and take a more “holistic”
approach to describe what would benefit social studies teachers. Research on teachers without advanced technology skills or without a classroom full of computers may prove more effective at influencing instruction than descriptions of ideal situations.

More recently, Whitworth and Berson (2003) examined the literature from 1996-2001 in the three major publications of the National Council for the Social Studies: *Social Education*, *Social Studies and the Young Learner*, and *Theory and Research in Social Education*, and articles from general education journals. The authors conducted a content analysis to bring out major themes in these articles. While software reviews and overviews continued from previous years, articles highlighting Internet resources were by far the most prevalent in these journals. The authors held that the use of the Internet advocated in many of these articles was not promoting significant improvement for the social studies classroom, but “continue[d] to serve the primary function of facilitating students’ access to content and remain[ed] somewhat relegated to being an appendage to traditional classroom materials.” If the goal of civic education is to be met in the social studies classroom, Whitworth and Berson concluded that there needs to be more innovation in the uses of classroom technology.

**Teacher Education**

Even though the social studies and technology literature is lacking in a number of areas, one subject that has received well-deserved attention is that of preservice teacher education. Social studies educators are becoming increasingly aware of the concerns expressed in national reports that beginning teachers are ill prepared to use technology upon entering the classroom. Many college methods professors have begun to write about their experiences integrating technology into their courses (Mason & Berson, 2000; White, 1997; Willis, 1997). Meyers (1999) added that social studies educators must
expose preservice teachers to technology “in as many different settings as possible, and must provide connections from the methods classroom to the practical setting” (p. 117). If schools of education increasingly expose their students to technology in realistic settings, Meyers and others contend that the initial transition into teaching will be much smoother.

Keiper, Harwood and Larson (2000) examined preservice teachers’ perceptions of benefits and obstacles facing them as they attempted to learn about integrating technology into their instruction. Eighty-eight percent of the participants in this study indicated that data collection was the most perceived benefit of technology use, followed by students’ acquisition of technology skills, the use of dynamic sounds and images, and as a communication tool. Among the barriers expressed by these preservice teachers, accessibility was the biggest concern, followed by dealing with students of differing ability levels, dependability of machinery, and supervision of students. The authors concluded that as these preservice teachers begin their professional careers, “they will need to effectively weigh the benefits and obstacles of computer use” (p. 578) and decide the best ways to integrate technology into their teaching.

**Studies of Practicing Social Studies Teachers**

Although many studies have emerged in recent years on preservice teacher education, research describing how practicing social studies teachers are using technology in their instruction is deficient. Much of what is known about social studies teachers is through survey data, and even these studies are not representative of the current state of instruction. Northrup and Rooze (1990) surveyed nearly 500 National Council for the Social Studies members to ascertain computer availability and utilization. While 84% of respondents had access to computers, the uses for classroom instruction
were limited. Word processing, simulations, and drill and practice software made up over 70% of the computer programs utilized. Teachers also showed a strong desire for more technology training, especially in software related to the social studies. Since 1990, most of the survey data on teachers has emerged from larger studies of technology users (Becker, Ravitz, & Wong, 1999) and has not specifically focused on characteristics unique to social studies teachers.

Descriptive studies of how social studies teachers are using technology in their classrooms are limited and generally have focused on specific technology applications. In their study of San Francisco area high schools, Cuban, Kirkpatrick, and Peck (2001) described a novice social studies teacher who had used digital video to have students debate the question: does democracy really exist? This teacher argued that while this lesson could have been taught without technology, its use enabled more students to participate in the classroom discussion. He added that for active learners, in particular, this use of technology “brings them into the class, and allows their ideas to be viewed and valued” (p. 824). Milson (2002) concentrated on a sixth grade teacher (Pam) in a typical technology environment to investigate how she conducted inquiry through an approach known as the WebQuest (see below). Although the findings from the study apply more to students than teachers, Milson still emphasized the role that Pam had in directing students through an Ancient Egypt WebQuest and in helping them gather information without providing it for them. While studies such as these are useful for examining how social studies teachers are currently using technology in their classrooms, they still provide only a glimpse at what is currently taking place in the field, and more case studies focusing on this issue would provide needed insight.
Areas of Promise

In an address to members of the National Council for the Social Studies, Becker, Ravitz, and Prenovost (1998) discussed strategies that social studies teachers might use if they wanted to become more constructivist in their approach to instruction. Some of the approaches suggested by these presenters included simulations, databases, web authoring, and PowerPoint presentations. While these types of activities are still relatively untested by social studies teachers, some exciting new avenues for technology use in the field have garnered attention in the literature.

As mentioned above, one powerful approach to using technology in the social studies is an inquiry activity known as the WebQuest. Dodge (1995) described this approach, which he helped to create at San Diego State University, as an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet. Students participating in WebQuests usually work collaboratively to accomplish an authentic task and are challenged to extend their thinking in the process. WebQuests usually have a specific content-area focus, and social studies activities are well represented on Dodge’s WebQuest page. Milson and Downey (2001) described the implementation of a WebQuest on Ancient Egypt and suggested a number of reasons why it was a valuable activity for the social studies classroom. The authors contended that the WebQuest helped to structure data collection for students, aided the teacher who had limited computer resources, and benefited students who enjoyed working in small groups.

Another area of potential for social studies teachers wishing to use technology is with handheld computers. Whitworth, Swan, and Berson (2002) discussed the promise that Personal Digital Assistants (PDAs) had in the classroom for writing, research,
organization, and assessment. More directly related to social studies, the authors pointed out that with individual handheld computers, students could analyze primary sources such as those available through the Smithsonian Institution, Virginia Center for Digital History, or Holocaust Cybrary. While most of these handheld computers operate only with text at this time, the authors believed that the technology will soon advance to the point that it will be possible for digital images, maps, and movies to be readily available for students, and that teachers needed to be ready to use this new technology.

**Summary**

This section has attempted to explore the literature related to exemplary social studies teachers’ technology use. To articulate the main terms within the primary research question, this section began with an exploration of exemplary teaching and technology. Stanley’s (1991) analysis of teacher competence provided a strong framework from which to view accomplished practice. Both the teacher effectiveness model (e.g. Good & Brophy, 1994; Porter & Brophy, 1988) and the program of subject matter knowledge (Shulman, 1986) have provided needed insight into exemplary teaching. While most of the research on technology has dealt with computers, a broader definition of technology helped to emphasize some of the innovative activities that the exemplary teachers in the present study are incorporating in their classrooms.

After clarification of these terms, the first major area investigated was what teachers believe about instruction, social studies, and technology. The research shows that beliefs are a powerful indicator of classroom practice, and while most of the research in this area has consisted of surveys and questionnaires, case studies (Brophy & VanSledright, 1993; Windschitl & Sahl, 2002; Wineburg & Wilson, 1991) have added much to the knowledge about how beliefs influence practice. The second area focused on
three components of teacher learning: structured staff development, learning from colleagues, and independent learning. While most of the research indicates that teachers would benefit from sustained training and collaboration with colleagues, the reality is that much of what teachers learn about technology takes place on an individual basis (Smerdon et al., 2000). The third area of the literature considered both facilitators and barriers for teachers attempting to use technology in the classroom. Factors that encouraged technology use included access in both classroom and lab settings, support in implementing technology in the classroom, and belief in the positive impact technology could have on student learning. Barriers to technology use also included access and support, but time was of the utmost concern for teachers. Even though access and support are improving for many teachers, Cuban (2001) showed that this improvement still does not guarantee that teachers will actually use the technology available to them in meaningful ways. The final section looked at the research related to social studies and technology and some of the innovative ideas that social studies teachers are beginning to implement in the classroom.
CHAPTER 3
METHODS AND METHODOLOGY

Qualitative Research

Because of a desire to investigate exemplary social studies teachers’ use of technology in a natural setting and explore the classroom culture surrounding its use, I chose to undertake the present study using a qualitative research paradigm. According to Sherman and Webb (1990), qualitative research describes experiences that are “lived,” “felt,” or “undergone” (p. 7). To portray these experiences in as thorough and real a manner as possible, the qualitative researcher attempts to describe the entirety of the situation in its natural setting. Context is essential in understanding the experiences of participants and cannot be removed from analysis.

Whereas in quantitative research surveys, questionnaires, or other measurement tools are used to discover findings, the qualitative researcher is the primary instrument of data collection and analysis. S/he attempts to interact with participants in order to find meaning in the data and becomes thoroughly involved in all aspects of the learning environment. Bogdan and Biklen (1992) argue that this search for meaning is essential for qualitative researchers, and that the process of interacting with study participants is much more important than simply looking at outcomes.

Merriam (2001) states that while the human element of qualitative research can lead to error, it also allows greater opportunity to interact with information in a way that may be omitted otherwise. She notes that with the qualitative researcher, “mistakes are made, opportunities missed, personal biases interfere,” and that it takes a certain type of
individual to undertake this type of research. Merriam focuses on three characteristics that she believes make an effective qualitative researcher. She holds that the investigator needs to be open to encountering ambiguous situations, sensitive to all aspects of the setting and context of the study, and able to communicate, both in asking probing questions and in listening to participant responses. All of these characteristics played a critical role in the investigation of these exemplary teachers.

I encountered a number of ambiguous situations that required me to be flexible throughout the study. One of the challenges was to concentrate on these teachers in settings that were not always conducive to technology use. Participants would sometimes go to great lengths to use technology in their classes for one lesson, but not use it in other situations that in my mind would have been ideal for its implementation.

I also had to remain perceptive of the setting and context in which each of these teachers conducted their daily instruction. Familiarity with two of the three schools provided some insight on the teachers’ instruction, but I still learned a great deal on each successive observation. Because most of the present study took place in the latter part of the school year, more disruptions faced teachers than at other times of the year. Preparation for the state’s year-end assessment test took away from much of the instructional time given to social studies, and computer labs were often unavailable for purposes other than students training for this test. Therefore, the teachers felt pressure to get through more material at the end of the school year.

Finally, communication played a much greater role than I anticipated in the study. Interviews constituted a crucial part of the data collection process and illuminated what I observed in the classrooms. Merriam (2001) emphasizes the importance of researchers
being good listeners and hearing not only what is expressed, but also “what is not explicitly stated but only implied” (p. 23). As the study progressed, I developed a good rapport with each of the teachers and was able to uncover deeper meaning in a number of their comments. In addition to challenges faced in the interview process, it was sometimes difficult coordinating observations with participants because of field trips, jury duty, a house move, and generally hectic end-of-year schedules. E-mail communication was not always sufficient, and visits to the schools were sometimes necessary to confirm plans with participants. On several occasions, teachers would tell me that they would be teaching about one subject, and when I arrived, students would be working on a much different topic. Despite my frustration at the number of changes in plans, the process reminded me of the flexibility needed to be a classroom teacher.

Merriam (2001) holds that these characteristics—openness to encountering ambiguous situations, sensitivity to all aspects of the setting and context of the study, and an ability to communicate—while important for qualitative researchers, are not skills that can be learned easily or acquired by taking a university course. Certain personality traits may be preferable, but the primary means by which qualitative researchers become more skilled is through experience. I had some experience with qualitative research before this inquiry, but still received a great deal of guidance in this process. While I could have undertaken another type of study using a quantitative methodology, a desire to study exemplary social studies teachers in a natural setting lead me to a qualitative case study research design.

**Case Study**

Based on the questions posed, the desire to investigate the process that these teachers underwent when using technology, and the unique role of the researcher in
qualitative studies, I concluded that a case study approach was the most appropriate methodology to employ. One unique aspect of the case study approach is the type of research questions that are asked. Yin (1994) asserts that “how” and “why” questions are best suited for case study research, but that “what” (p. 6) questions that are exploratory in nature are well suited to this approach as well. Both the main research question and the guiding questions outlined in the present study are the types of questions that Yin and others describe as best answered with a case study methodology. Since the present study is situated in real classrooms, a case study approach provides the opportunity to describe the practices of exemplary social studies teachers with technology and examine the rationale behind many of their classroom decisions.

Merriam (2001) affirms that case study is the most suitable approach to use when the study in question involves a process. The process that Merriam describes has two important facets: First, it describes, monitors, and puts the study in its proper context; second, it helps to analyze and interpret the issues in question. Chapters 4, 5, and 6 of this dissertation provide the context that Merriam suggests, and Chapters 7 and 8 help bring the relevant findings and issues to the surface.

In qualitative research, and with case studies in particular, the role of the researcher is complex, and inextricably woven into the overall fabric of the case itself. Stake (1995) emphasizes the unique roles that the researcher undertakes when conducting a case study: researcher as teacher, advocate, evaluator, biographer, theorist, and interpreter. While the case study researcher may feel pulled in many different directions by these distinctive roles, this dynamic also allows the investigator to have a richer understanding of all aspects of the case in question. Throughout the present study, I developed strong
relationships with each of these social studies teachers, and with this report have
attempted to shed greater understanding on their use of technology.

Investigator Bias

Stake (1995) emphasized the unique roles that the researcher undertakes when
conducting a case study. One of the roles is that of researcher as advocate; the
investigator describes the present situation and does his or her “dead level best to
convince the readers that they too should believe what the researchers have come to
believe” (p. 93). While some critics argue that researchers should attempt to remain neutral, Stake argued that qualitative research necessitates a close relationship between the investigator and his or her data, and neutrality is not possible or advisable. He concluded that it is “better to give the reader a good look at the researcher” (p. 95) rather than attempting to conceal beliefs and opinions.

In regard to technology, the debate over its implementation is rarely neutral and has its strong supporters and ardent opponents. Among those who advocate the use of technology, the belief that it is inherently positive, no matter what the situation, is a frequently used argument. Rogers (1995) described this approach to technological advancements as sometimes dangerous and warned of a pro-innovation bias. He described this stance as the belief that “an innovation should be diffused and adopted by all members of a social system” (p. 100). He argued that overlooking this bias in research could lead the investigator to overlook potential shortcomings of the innovation in question.

While I conducted the present study, I tried to be an advocate for technology use in the social studies classroom, but at the same time, be aware of a possible pro-innovation bias. I attempted to convey the idea that technology is only a tool that can support
teachers and not a panacea that will solve all of education’s problems. This sentiment was shared by each of the three teachers in the study. However, I also sought to acknowledge my own beliefs about the positive results that can emerge from technology use in the classroom. Through classroom teaching and university experiences, I believe that I am qualified to discuss the benefits that technology can bring to the social studies classroom.

While by no means an expert technology user myself, I did make numerous attempts to incorporate everything from video clips to virtual tours to e-mailing the South Pole during my seven years of secondary teaching. With a specialization in technology in my doctoral program, I have taken a number of classes and engaged in other research studies that have explored the impact that technology can have on the social studies classroom. My most meaningful experience with technology in my university education was the opportunity to teach a masters’ level class to future secondary social studies teachers entitled “Integrating Technology into the Social Studies Classroom.” In addition to learning a number of technical skills and competencies, students critically examined a number of technology applications and questioned their appropriateness for the social studies classroom. This critical approach to studying technology helped me to examine my own beliefs about technology and whether or not it is appropriate for the social studies classroom.

Berson, Lee, and Stuckart (2001) contended that despite the promise that has been put forth by proponents of technology, its impact on social studies education has been limited. The authors assert:

Whether blame rests with the lack of teacher preparedness, failure to seamlessly integrate technology into instruction, insufficient access to computers, or only partial realization of the potential of the hardware and the software to enhance the
content, the efficacy of technology for transformation of schools remains unrealized. (p. 222)

As I observed these teachers and examined their reactions to technology, I endeavored to find a balance between the positive outcomes of using technology in the classroom and the formidable obstacles that can restrict its use. As a proponent of technology, I would have found it easy to impose my opinions on these exemplary teachers, and, in fact, each teacher asked me my opinions on technology use at various times during the study. However, I tried to remain aware of my biases towards technology at all points in the inquiry and not let these ideas negatively interfere with how I conducted the study.

Access

Before I began any data collection, I had to gain access to the subjects and the settings used in the study. Since I had already worked with two of the teachers, I was familiar with their classrooms; but I knew that the present study would be more intensive than previous investigations, and I needed to be clear about expectations. I talked informally to each of the teachers in January 2002 and each expressed an interest in participating in the study. After obtaining permission from the university to conduct research in late February 2002, I received informed consent (see Appendix A) from the three participants and authorization from the three schools to conduct research. I began observing these teachers in April 2002 and completed my investigation in October 2002 (See Appendix B for a list of important dates in the study). While I would have preferred to complete data collection in a single school year, each of these teachers had student interns from January until March of 2002, and the two months at the end of the school year proved to be insufficient to complete the necessary investigation.
Participants

Three teachers, who for a number of reasons can be considered exemplary, were chosen for examination in the present study. Patton (2002) and others have described the approach of identifying these teachers as purposeful sampling. The power of this type of sampling comes not from having a representative sample that can be related to the population at large, but from the “information-rich cases” (p. 230) that each of these participants can provide to the study. Patton goes on to describe various types of purposeful samples, and the present study fits most closely within his description of “extreme and deviant” (p. 230) samples. In searching for study participants, I was not looking for extreme cases to compare, but rather sought to find rich examples of outstanding social studies teachers.

Researchers in this area (e.g. Brophy, 1992; VanSledright, 1997; Wineburg and Wilson, 1991) have identified a number of traits that characterize exemplary social studies teachers. Among the characteristics most often attributed to outstanding teachers are a passion for subject matter, an emphasis on in-depth content coverage, a thorough subject matter knowledge, and an ability to express this content knowledge in such a way that subject matter is engaging for students. The teachers in the present study exemplify these characteristics.

Each has won awards related to teaching, one has National Board Certification, and each has served his or her school in capacities well beyond the classroom. University faculty have identified these teachers as outstanding mentors, and all have served as supervisors of preservice social studies interns. Though their individual school situations and school populations differed, each teacher clearly valued student learning and encouraged high quality work. These teachers evidenced a depth of knowledge of their
content and viewed social studies as essential for their students’ education. Furthermore, although each teacher infused technology into his or her instruction, none could be considered technology experts.

Below are brief biographical sketches of each of the participants with reference to background, teaching assignments, classrooms, and technology conditions. The names are pseudonyms. More detailed descriptions follow in Chapters 4, 5, and 6.

Mr. Clayton

Mr. Clayton did not always envision a career in education, but with a number of family members, including his father, already in education, becoming a teacher was always a possibility. After a brief look at engineering as a possible career, Mr. Clayton became a political science major. He also had minors in history and secondary education. After earning a master’s degree in social studies education, he taught for three years at a large high school working with eleventh and twelfth graders in American history and American government and politics. At the same time, he began taking courses towards a Ph.D. in Educational Leadership, despite being two to three hours from the university where he took classes.

With a desire to be closer to the university, Mr. Clayton began teaching ninth grade civics at a laboratory school where he has now been for five years. He has been active at the school, serving as a faculty coordinator, committee head, and coach. He has been named Teacher of the Year at his school. As part of his civics course, he also initiated a service-learning project to get his students to investigate local issues and a tolerance mentor program that brought high school and elementary school classes together for ten weeks to promote cooperation among students. Despite a strong desire to remain in the
classroom, when the opportunity arrived to become an assistant principal at his school, he accepted the offer and began his new duties in the fall of 2002.

Mr. Clayton had a computer class in his master’s program, but has not had any systematic training with technology since that course. During his first teaching assignment, he served on a district committee on Instructional Technology and Assessment and helped the district determine how to spent grant money. Early in his career, he used video clips, word processing, and music as his major technology activities, and in his current placement, he leads students through WebQuests, Internet searches, and simulation activities. He gives himself a B for his current use of technology and adds, “I’m not among the best for sure, but I do probably make more attempts than most to incorporate it into my lessons” (Clayton, Interview, 4/24/02).

I first came into contact with Mr. Clayton when I observed one of his student teachers and discovered that we had a mutual interest in incorporating current events and issues into the social studies classroom. This shared interest led to a classroom investigation of student interaction with current issues and technology. I felt that his ability to motivate students and his desire to learn more about technology would make him a strong participant in the present study.

Ms. Hart

While Mr. Clayton was not always sure that he wanted to pursue education as a career, Ms. Hart had thought about being a teacher most of her life. After earning an undergraduate degree in economics, she completed her master’s degree in social studies education during a fifth-year program at the same university. She taught two years at an established middle school before transferring to a new middle school in the same district. At the new school, she assumed the role of team leader and became fully involved in the
life of the school, serving as the chairperson of several key committees and earning several grants on behalf of the school. In addition to her middle school commitments, she was working towards a Ph.D. in social studies education and teaching classes at the local university. She has received numerous awards for her teaching ability and has also earned National Board Certification.

Ms. Hart’s teaching assignment during most of the present study consisted of two classes of eighth grade American history and one class of sixth grade world cultures. In these classes she taught students with a wide range of abilities on a daily basis. Because of an emphasis on math and language arts at the school, social studies and science were one-semester courses, and she received a brand new group of students halfway through the year. Despite having to cover a huge amount of material in just four months, she embraced this challenge and clearly worked hard to make a difference in the lives of her students in the short time she taught them. In fall of 2002 Ms. Hart assumed a new assignment teaching in an integrated sixth grade science and social studies program.

Among the three teachers in the study, Ms. Hart had the most formal and the most recent training with technology. She took a technology course in her master’s studies nine years ago and also had several courses on integrating technology through her doctoral program. As a team leader, she spent a great deal of time on the computer organizing and planning team activities. During time away from school, she tried to search Internet sites for primary sources and pictures that would assist her in her instruction. Among the technologies she used in her classroom were slide shows, music, Internet searches, and WebQuests. She was positive about the amount of technology she used for instruction, but indicated that she would like to do even more.
Although I had not had the opportunity to work with Ms. Hart or her students on previous studies, I knew her briefly from the university and was aware of her reputation as an outstanding teacher. Based on a number of inquiries that I made around the university and the district, this reputation was confirmed. When first contacted about contributing to the study, she was enthusiastic about the benefits of reflecting on her own teaching and was eager to participate.

**Mr. Robbins**

Mr. Robbins was the most experienced of the teachers, with thirteen years spent in the public schools. His academic background was primarily in history with a B.A. in the subject, and he earned advance degrees in social studies education. After eight years of teaching, he took a ten-year hiatus from teaching and served as president and general manager of a small business. The attraction of public school teaching remained strong, however, and he chose to return to the classroom as a middle school social studies teacher.

During the present study, Mr. Robbins taught three classes of eighth grade American history to gifted and talented students in a magnet school setting. With class sizes of 18-25, he was able to get to know all of his students well and had a strong rapport with them. His enthusiasm for teaching was apparent, and he was quick to boast that he had “the best teaching job in the county” (Robbins, Interview, 4/26/02). Overall, Mr. Robbins’ highly visual, interactive classroom atmosphere was extremely positive, and student responses indicated that this was a class that they enjoyed attending.

In terms of technology, Mr. Robbins jokingly referred to himself as a “dinosaur” (Clayton, Interview, 5/8/02), but he had a good deal of experience with computers and other innovations. He bought his first computer, an Apple Macintosh, after seeing a
commercial in the 1984 Super Bowl and continued to be an Apple user at home. He received additional training with technology during his doctoral program and collaborated on several research articles related to computers in the social studies classroom. When I began the study, he had just received two new iMac computers, and he acquired three additional machines during the course of the study. The classroom also contained an overhead projector, mounted television, and CD player. Some of the technology-based activities he used in his teaching included video clips, slide shows, primary source investigation, and simulations. Despite his “dinosaur” comment, he considered himself somewhere between average and savvy in terms of his technology use.

I worked previously with Mr. Robbins on a study related to technology and historical understanding, and we had developed a good working relationship as a result. Even though his school was well equipped in terms of technology, I knew that he was critical about its use in his classroom. With more teaching experience than both Mr. Clayton and Ms. Hart, his perspective helped to balance the ideas of the other teachers.

**Settings**

I conducted the present study in three schools in a medium-sized southern school district: two 6-8 middle schools and one K-12 laboratory school. Each school has leadership that encourages the acquisition of more hardware, and in some areas these efforts have been successful. The technology available in these schools would be considered fairly typical for the region and for the nation as a whole.

**Granger**

Granger (Mr. Clayton’s school) is a laboratory school affiliated with a local university. This K-12 institution serves students from all parts of the county, and parents
are responsible for transporting their children to and from the school. Demographically, the school attempts to reflect the race, gender, and socioeconomic characteristics of the county and state as a whole. Mr. Clayton’s classes are non-tracked and reflect the school’s mission for serving a diverse student population. The campus is the oldest among the three school settings, but the buildings have been fairly well maintained.

Granger is fairly well equipped in terms of technology. Both of the classrooms in which Mr. Clayton teaches contain eight networked computers stationed on one side of the classroom. In the mid 1990s, the school received a grant that allowed for the construction of a technology lab that would assist in the integration of technology in the sciences, but would be available for other subject areas as well. The lab is state-of-the-art with thirty-two networked iMac computers and contains a master destination unit that the instructor can use to display information to classes and control student computers. The major difficulty for teachers desiring to use this lab is that, because of overcrowding at the school, some classes must use the lab as their regular classroom.

The current head of the school is generally supportive of teachers using technology and assists in the acquisition of new equipment for the school. Outside of the technology lab, teachers at the school gain access to a portable destinations unit with a DVD player, a room suitable for videoconferencing, a wireless network, and a portable cart with laptop computers. Even though this equipment was acquired for instruction, Mr. Clayton believed that few teachers had taken advantage of the technology available to them.

**Chance**

Chance (Ms. Hart’s school) is a fairly new middle school in its sixth year of operation. It is located in a section of the county experiencing rapid growth; its population includes children from a wide socioeconomic range. In contrast to Granger’s
space constraints, Chance has a sprawling campus and courtyard that separate sixth, seventh, eighth, and exploratory wings. In addition to housing classrooms, each building has a teacher planning area and computer lab. Because students remain in their wings most of the day, the chaos that often accompanies class changes is not as apparent at Chance as in some other middle schools.

Technology at Chance is adequate in some areas, but lacking in others. When the school opened six years ago, the school received a number of computers from local businesses, but many were already up to five years old. Since that time, hardware and software acquisition has been limited, and many machines are incompatible with modern computer networks. While the school’s labs are frequently used, a variety of computer brands makes maintenance of each lab difficult for all involved. Most teachers have individual classroom computers, but these computers, including the one in Ms. Hart’s room, are used primarily for record keeping and test preparation, and are not adequate for student use.

Alexander

Alexander (Mr. Robbins’ school) is a middle school that houses a county magnet program for technology and gifted studies. The school is situated in the middle of an established working-class neighborhood, and buildings are tightly contained within the school grounds. Like many other middle schools, it is stirring with activity, and the gifted program exemplifies this characteristic. Students are involved in school activities such as band, chorus, and clubs, and frequent field trips enhance these programs. During my time there, students participated in several workshops and traveled on field trips to a local Civil War battlefield and to a Renaissance festival.
Even though it has been classified as a magnet for technology, Alexander is not unlike other area schools in terms of technology availability and access. Sixth grade students are required to complete a technology class as part of their program, but other than that experience, they have limited exposure to technology in the remainder of their middle school experience. The three computer labs in the school are extremely popular, and teachers sign up well ahead of time for week-long activities. While they are used for a variety of purposes, standardized test preparation is their primary focus. In individual classrooms, one computer reserved for the teacher is the norm. Mr. Robbins functioned with one computer for several years, but with the support of the Parent Teacher Association, he was promised five brand new iMac computers for student use. While two new machines did arrive during the school year, the other computers had not arrived by the time I completed my classroom observations.

Data Collection

Merriam (2001) described three techniques that are crucial to collecting data during a case study: document analysis, observations, and interviews. I used all three techniques to corroborate and triangulate information gained from this process.

Documents

Merriam (2001) described documents as “a wide range of written, visual, and physical material relevant to the study at hand” (p. 112). Other qualitative researchers have referred to these types of items as artifacts, records, or physical materials. In the course of the present study, I analyzed a number of documents, most of which were provided by the teachers themselves. Items in this category included lesson plans (see Appendix C), student assignments, classroom activities, handouts, readings, quizzes, course syllabi, and examples of exemplary student work. While I did on occasion ask for
these documents, the teachers often gave me these items without a specific request. Two other items were also significant in this category. Each participant supplied a professional vita that described education, work experience, awards, and other professional experiences. These documents provided evidence of the accomplishments of these exemplary teachers, guided interview questions, and shaped the biographical sketch of each participant.

**Observations**

I spent approximately fifteen hours in each teacher’s room in the course of “informal” observations. During these visits, I attempted to get a feel of how these teachers conducted their classrooms and examined how their teaching philosophy played out on a daily basis. During each observation, I took notes on the structure and organization of the classroom, what the teacher was doing, and what the students were doing. I later put these notes into narrative form and used them to help build a biographical sketch of each teacher and to assist in data analysis.

In addition to these classroom visits, I made two “key” observations (about two hours each) in which I saw these teachers use technology in the course of their lesson and took extensive field notes. According to Bogdan and Biklen (1992), field notes are critical to participant observation studies. They contend that in order for the study to be successful these records should be “detailed, accurate, and extensive” (p. 107). With each of these lessons, I wrote ten to fifteen pages describing as much as I could about the class, focusing on the role of the teacher in directing or facilitating technology use. I also included in the field notes observer’s comments that attempted to deal with thoughts, ideas, patterns, or guesses I had regarding the lesson and the study as a whole. While many of these comments proved to be unrelated to the study’s key questions, others
provided significant insight and guidance during the data analysis phase of the study (See Appendix D for a representative sample). Combining the informal and key observations, I spent approximately twenty hours of observation in each teacher’s classroom, or sixty hours total for the inquiry.

**Interviews**

Probably the most valuable component of the data collection for the present study was the interview. In describing the importance of interviewing for qualitative research, Seidman (1991) argued that interviewing “is a powerful way to gain insight into educational issues through understanding the experience of the individuals whose lives constitute education” (p. 7). With this sentiment at the heart of the present study, I conducted the following interviews with each exemplary teacher:

- A background interview to obtain general information about teaching.
- A background interview to obtain information about technology. (See Appendix E for background interview questions)
- A pre-observation interview before a key observation using technology.
- A post-observation interview after a key observation using technology. (See Appendix F for observation questions)

The first three interviews were semi-structured to guarantee that questions related to each of the four guiding concepts were addressed. I did have a few guiding questions after the two key observations, but much of the content for these interviews came directly from the substance of the lesson itself.

In addition, I interviewed the participants on several other occasions when important issues that related directly to the study arose. For example, Mr. Robbins had a guest speaker—someone who provided computer advice in the local newspaper—address his classes about such issues as file sharing, copyright, computer viruses, and junk
e-mails. After this presentation, I had a brief conversation with Mr. Robbins about his thoughts on the speaker and any impact it may have had on his students.

Interviews varied in length from about ten minutes to just over an hour. Overall, I conducted four to five hours of interviews with each participant for about fifteen hours of total conversation. I used the Nomad II digital audio player and the Olympus microcassette recorder to tape interviews and transcribe them verbatim into a workable form. However, I learned a valuable lesson regarding technology in this process when I accidentally erased two of my interviews as I was transferring them to the hard drive of my computer. For the remainder of the study, I used both recorders simultaneously during the interviews. After the interviews were transcribed, I erased the tapes to protect the identity of each participant.

**Data Analysis**

Numerous qualitative researchers (Bogdan & Biklen, 1992; Merriam, 2001; Stake, 1995) have noted that data analysis should not be conducted as a separate stage of a study, but should be treated as a crucial component that constantly guides inquiry. Yin (1994) described data analysis as the process of “examining, categorizing, tabulating, or otherwise recombining the evidence to address the initial propositions of a study” (p. 102). From the moment that I began to think about the investigation of exemplary social studies teachers and their use of technology, I developed constructs and corresponding questions that would guide me through the study. As I crafted interview questions and conducted background interviews, I began to note similarities in the beliefs and actions of these teachers and attempted to dig deeper into the evidence. Observer’s comments (Bogdan & Biklen, 1992) also proved to be valuable as I conducted observations and expressed some initial views about how these teachers used technology in their teaching.
Before I reached the formal data analysis stage of the study, I had already framed tentative reactions to my research questions and created some initial categories of interest, and these steadily grew as the study progressed.

For the more intensive portion of data analysis, I based my inquiry on the four forms of analysis and interpretation suggested by Stake (1995), who held that analysis was “a matter of giving meaning to first impressions as well as final compilations” (p. 71). Through *categorical aggregation*, I was able to find multiple examples of some of the factors influencing these exemplary teachers as they used technology. I based some of these categories (e.g. beliefs about social studies, staff development, barriers to technology use) on the major constructs for the study, but as I reviewed interview transcripts, observation field notes, and relevant documents, I was able to develop additional codes and categories that guided this level of analysis.

I also used specific instances from the data to investigate significant events in which *direct interpretation* of the situation is appropriate. Stake (1995) argued that most of the time spent in case study analysis should be on this step, rather than focusing too much on the categorical data acquired in the first step of analysis. One significant example of this type of interpretation emerged from Ms. Hart’s experience (to be further described in Chapter 5) in which two student technology aides attempted to repair her only computer. This machine was constantly malfunctioning, and by the end of the study it was removed from the classroom. This event helped to shed light on Ms. Hart’s beliefs about technology, and how she dealt with some of the barriers restricting her technology use.
As I continued to read through relevant data, I searched for *correspondence and patterns* based on categories developed in the beginning of the analysis. As with the initial categories, I already had an idea of some of the patterns, but others emerged from the data. To organize and manage the large amount of information that surfaced in this analysis, I constructed a cross-teacher matrix with examples of conceptual issues from all three exemplary teachers. Strauss and Corbin (1990) encouraged the use of this conditional matrix to help organize information and to bring out patterns that may not have otherwise appeared.

As his final category of analysis, Stake described his idea of *naturalistic generalizations* that would help the reader better understand the study in question. While Stake’s first three categories are within the control of the researcher, this final area of analysis is less concrete. Stake identified naturalistic generalizations as “conclusions arrived at through personal engagement in life’s affairs or by vicarious experiences so well constructed that the person feels as if it happened to himself” (p. 85). To make these accounts more personal, Stake contended that an emphasis on “time, place, and person” are the most important steps in the final narrative. Through naturalistic generalizations, I am hoping that the readers will connect what they have learned in reading my study to their own personal experiences. I have tried to present descriptions of these teachers that are full, accurate, and interesting, and that resonate with the reader on many levels. I anticipate that the present study will be of interest to social studies teachers, social studies educators, administrators, and others who have an interest in how technology can be used in the social studies classroom. With these groups in mind, I include an Implications
section in Chapter 8 that attempts to help the reader draw connections and make generalizations.

In addition to the four steps advocated by Stake, Creswell (1998) added description as another crucial stage in the analysis of qualitative data. He held that before analyzing the data in a formal way, the researcher should attempt to put together a narrative that will help to establish the context of the study. This narrative could be as formal or informal as the researcher feels is necessary, but should contain as many details as possible that shed light on the story. Earlier in this chapter, I provided a thorough background of the school settings and brief sketches of these exemplary teachers. These descriptions were crafted to help the reader understand how these teachers use technology and to provide an early portrait of three unique individuals in their natural school environments. Chapters 4, 5, and 6 build on these initial sketches and provide a more complete picture of the complex nature of these teachers’ use of technology.

**Metaphor**

Lakoff and Johnson (1980) argue that the use of metaphor is much more than simply a matter of language and is part of our everyday lives. They add that metaphor is an “open-ended” (p. 115) concept that can have different meanings for different people. Patton (1990) believes that in qualitative research metaphors can be powerful and effective ways to communicate findings. In the present study, I developed metaphors to describe each of the exemplary teachers—Mr. Clayton the model citizen, Ms. Hart the connector, and Mr. Robbins the storyteller. In this metaphor development, Patton (1990) contends, "It is important to make sure that the metaphor serves the data and not vice versa" (p. 402). These descriptions emerged after all of the data had been collected and I was beginning the more intensive portion of data analysis. Mr. Robbins’ portrayal as a
storyteller was the first to emerge and, after several variations, metaphors for Ms. Hart and Mr. Clayton were chosen.

**Credibility**

It was imperative that the findings from the present study be rigorous and appropriate within the qualitative paradigm. Patton (2002) presented five sets of criteria for evaluating the worthiness of qualitative data: traditional scientific, social construction and constructivist, artistic and evocative, critical change, and evaluation standards and principles. While the present study shows elements of a number of these groups, it fits most closely within the social construction and constructivist criteria. Within this approach, the researcher recognizes the biases inherent in this type of research and is more interested in triangulation and particularity than finding internal and external validity. Patton argued that three criteria are necessary for the credibility of qualitative data: rigorous methods, credibility of the researcher, and a belief in the value of qualitative inquiry. In the course of the present study, these three elements were critical for ensuring that the inquiry would be conducted in a careful and thorough manner.

A key component in ensuring that qualitative methods are rigorous is the attention paid to numerous forms of triangulation. Patton (2002) found that triangulation was much more successful than any single method and provided “more grist for the research mill” (p. 555-6). By comparing data from observations, interviews, and other data sources, I sought to find similarities in the data and tried to determine why differences in the findings might have existed. Another form of triangulation Patton detailed was looking at data over time. In the interviews I conducted later in the study, I asked questions similar to those I asked at the beginning of the study and compared similarities and differences in
responses. A third form of triangulation Patton described was review by the research participants or member checks.

As I constructed the stories told in Chapters 4, 5, and 6 of the dissertation, I shared narratives with the participants to ensure that the accounts I created were fair, complete, and as accurate as possible. Once these sections were completed in April 2003, I provided Mr. Clayton, Ms. Hart, and Mr. Robbins with copies of their individual chapters and received feedback from each participant. All agreed that their portrayals were appropriate and provided additional information to strengthen my descriptions. Typical of the comments received was a clarification by Ms. Hart that when Chance was built, the computers at the school were already used, and not brand new, as I had originally thought. Similarly, Mr. Clayton and Mr. Robbins confirmed that their portrayals were accurate and added key insights into access and support issues. Stake (1995) argued that member checks “regularly provide[d] critical observations and interpretations” (p. 115) to his research and ultimately improved his analysis. Even though I did not receive a great deal of feedback from the participants, their input was still critical.

The second criterion Patton (2002) placed on the credibility of data was the credibility of the researcher. As a former teacher and a teacher educator, I believe that I present a useful and reasonable perspective on exemplary social studies teachers and the classrooms they lead. In addition, exposure to technology in my own teaching, at conferences, through research, and as part of my graduate studies has fostered my ability to think critically about its use in the classroom. To form the narratives for each of the teachers, I had to spend a good deal of time in each teacher’s classroom, and this prolonged engagement helped me to experience how these teachers used technology.
Finally, I kept a researcher’s journal to track my progress in completing this inquiry and to show my thought process from initial steps in formulating research questions, to collecting and analyzing data, to completing the written report. (See Appendix G for a representative sample)

The third criterion Patton (2002) used to determine the credibility of a qualitative study is an inherent belief in the value of this type of research. While I examined both qualitative and quantitative data in the literature review, the nature of case study methodology makes the qualitative paradigm more appropriate for the type of inquiry I conducted. Stake (1995) argued that the decision to undertake a qualitative study is not a simple one, as “humans are generally curious, and researchers have a special compulsion to inquire” (p. 46). I came into the present study knowing that this type of research was time consuming, complex, and often marginalized in education, but given what I wanted to know about these exemplary teachers and their use of technology, it was clear from the beginning of the study what approach I would take.

Limitations

In their assessment of qualitative research, Marshall and Rossman (1999) noted that “there is no such thing as a perfectly designed study” (p. 42). This study is no exception. While I have noted above the steps I have taken to ensure its credibility, the present study could have benefited from selected changes.

First of all, I could have taken greater care to give more voice to the participants in the study. While interviews definitely helped these teachers tell their stories, framing the present study within a case study methodology places boundaries on what participants are willing and able to share. Second, because of limited time and resources, I was able to study only three exemplary social studies teachers. While studying more teachers would
have increased the internal validity of the study, this was not possible because of constraints with time and available resources. The third limitation of the study relates to the time frame in which these teachers were studied. Coordinating my schedule along with these teachers’ schedules meant that most of the classroom observations and interviews had to be conducted at the end of the school year. The remainder had to be completed during the fall of the next year. I recognize that this separation may make each teacher’s story somewhat disjointed, but I tried to tell these stories in such a way that the division would not be apparent.

Exemplary Teachers

In-depth studies of exemplary teachers who are using technology in innovative yet realistic ways may hold the key to a better understanding of how technology should best be applied in the classroom. As Feiman-Nemser and Floden (1986) noted in their chapter on “The Cultures of Teaching”:

The practical wisdom of competent teachers remains a largely untapped source of insights for the improvement of teaching. Uncovering that knowledge is a major task in research on the cultures of teaching and can lead to policies that build on what teachers know. (p. 505)

While researchers have previously undertaken case studies of exemplary social studies teachers (Grant, 1996; Thornton, 1988; Wineburg & Wilson, 1991), these studies have focused more on what teachers know and believe than on what they are actually doing in the classroom. By providing examples of good teachers who used technology in powerful yet practical ways, I hoped to shed light on the type of wisdom that would be useful to social studies teachers and educators at all levels of experience and expertise with technology.
I mentioned in an earlier section the numerous awards and accolades that these teachers received, but when I asked participants what made them outstanding teachers, they did not mention these awards. While each of the three teachers brought up unique reasons for their success, such as organization, an interesting classroom atmosphere, a passion for public education, interest in subject matter, and a strong work ethic, what was constant in all of their responses was the relationship they had with their students. All of these teachers enjoyed working with young adolescents and felt that they related well to this age group. This relationship was one in which the teachers modeled appropriate methods of behavior and action, and the students usually responded with the same respect accorded to them. Mr. Clayton effectively summed up the nature of this teacher/student connection in his response to the question of what made him an exemplary teacher. This response also highlighted how these teachers saw their roles as social studies educators. He remarked:

And I think what makes me a good teacher is that I value every kid for some reason, maybe not as a scholar, but as a future citizen. And I really try to think of every kid I’ve ever taught as someone who is going to live next door to me and be my neighbor because you know in a way, they all will be and I’m really trying to work on things with them that make them more social and more effective in terms of being part of a larger whole, or working for a greater good. You know, again, it sounds kind of obvious and it sounds kind of corny, but I’m trying to create more effective citizens, immediately and for the future. And I think what makes me successful is that I try to model it through being a good citizen myself. (Clayton, Interview, 4/24/02)

**Typical Settings**

In an era when public school teachers are pulled in many directions by the pressures of standardized testing, parent demands, curricular concerns, student discipline, and numerous other competing interests, finding ways to bring technology into the classroom is difficult at best. While some teachers have been blessed with the latest
computer equipment, the majority of American educators have had to make do with machines and software that do not keep up with new innovations in technology. But as indicated in Chapter 2 of this dissertation, the technology literature does not focus on these typical settings. Researchers have tended to focus on the more progressive classrooms and the more advanced teachers in terms of technology use, but seeing how teachers in common settings use technology may prove to be even more instructive, especially for teachers entering the profession.

This sentiment was voiced in a report authored by the President’s Committee of Advisors on Science and Technology (PCAST) that advocated more empirical studies based in typical settings. In their recommendations, the group (PCAST, 1997) contended:

It is important that a substantial amount of research also be conducted under conditions more typical of actual classrooms … without access to unusual financial or other resources, or to special outside support from university researchers. (p. 95)

This panel wanted to ensure that technology was not studied in isolation just for the sake of acquiring technical skills, but that it would focus on learning about technology within the K-12 curriculum. In finding appropriate settings, I was concerned that I find schools and social studies classrooms that used technology as part of their regular instruction, but in ways that went beyond word processing and drill and practice software.

Defining what is typical in terms of technology in the classroom is a difficult venture, but state-compiled statistics provide a glimpse of what is taking place in the typical classroom setting. In the state of Florida, where I conducted the present study, access to technology is a recurring issue in political and educational circles. In determining the most current state of affairs with technology, the number of students per computer is often the most frequently cited statistic. Education Week’s Technology Counts report (2002) profiled all fifty states and showed that Florida had improved its
computer access for its students and was operating slightly better than the national average. Access to computers had improved from 4.2 students per instructional computer in 2000 to 3.6 in 2001. In terms of Internet-connected computers per student, the most recent figure in the state is 7.1. While statistics such as these do not show what students are actually doing on the computer, they are important for seeing trends in access and availability.

The Technology Counts state profile (2002) also mentioned that teachers desiring certification had to document a hands-on activity using technology. According to Florida school officials, this requirement would ensure that “more teachers integrate technology into instruction” (Technology Counts 2002: Florida State Snapshot). The report also highlighted one unique program in the state, the Florida Virtual High School, which served more than 5,000 students in locations across the state. Especially in rural districts in which course offerings were limited, this online high school offered unique opportunities for student learning. Jim Horne, Florida’s Secretary of Education, has suggested a similar venture for the state’s teachers with an “education portal” that could foster communication among educators and provide online learning opportunities (Technology Counts 2002: Florida State Snapshot).

While reports such as these provide a limited account of the current state of affairs in Florida’s schools, they still do not fully answer how technology may be used in a typical classroom. I chose these typical settings based on a number of factors, but primarily on personal experiences with Florida secondary schools. I spent three years teaching in a rural Florida school district and visited schools all over the state in a university course, “Perspectives in Secondary Curriculum and Instruction.” As I met with
administrators and teachers in these middle and high schools, my core question was, “What role does technology play at your school?” In some schools technology played a significant role with elaborate computer labs and an average of ten computers per classroom; in others, teachers were fortunate to have one computer in their classroom, and in some schools, technology was non-existent.

For the purposes of the present study, I attempted to choose schools that were not at either extreme of technology availability, but those with average access and availability. With its connection to the university and a director with a strong vision for technology, Granger is well equipped, but space problems make its implementation difficult for teachers. Chance had acceptable technology when it opened in 1996, but hardware and software acquisition has not kept pace with advances in technology. Alexander is a magnet school with the latest technology in many areas, but an emphasis on standardized testing makes using the school’s resources difficult for many teachers.

Even though it is difficult to argue that these settings are entirely typical, I would argue that they fall somewhere within the range of schools that I have seen around the state. The teachers in the present study, while exemplary in their pedagogy, have had to struggle with the same difficulties that others face. From malfunctioning computers, to scheduling conflicts with the computer lab, to a promise for new machines that have yet to be seen, these teachers were able to adapt and continued to use technology in ways that engaged their students.

**Summary**

In this chapter, I have discussed the importance of qualitative research and its appropriateness for this inquiry. I briefly portrayed the exemplary teachers and the schools in which they work. Next, I explained the three data collection techniques
utilized and the analysis procedures used to examine the data. Finally, I explored issues of bias and reasons for studying exemplary teachers in typical settings. In Chapters 4, 5, and 6 I expand the description and analysis of the study’s participants. Throughout this chapter, I have also described the significance of the case study approach and suggested how the present study is best suited for this methodology.

Shulman (1983) recommended undertaking case studies as a means of examining the “possible” in education, not just relying on quantitative data to figure out what is the norm. He added:

Another increasingly influential type of research is the case study, persuasively drawn portraits of teachers, pupils, schools, or programs. They lack the hard statistical data of the more traditional policy study, but richness of portrayal or drama of human detail often sway the beliefs of decision makers far more effectively than do tables of means and frequencies. (p. 494-5)

The investigation of exemplary teachers provides the opportunity to show what can be done through integrating technology in the social studies classroom. Even the best teachers can continue to learn and improve their instruction, and case studies can afford the insight needed to improve individual practice and bring about a general improvement in the field.
CHAPTER 4
THE MODEL CITIZEN

Character is ultimately who we are expressed in action, in how we live, in what we do—and so the children around us know, they absorb and take stock of what they observe, namely us—we adults living and doing things in a certain spirit, getting on with one another in our various ways. Our children add up, imitate, file away what they've observed and so very often later fall in line with the particular moral counsel we unwittingly or quite unself-consciously have offered them.


Vignette One

On this warm spring morning, twenty-eight ninth grade students are packed into Mr. Clayton’s civics classroom. The room was an afterthought in designing the building and is oddly squeezed between larger classrooms on either side. In the five years since he has been at Granger, Mr. Clayton has never had a classroom of his own, but he does not complain about being a traveling teacher. He does not have to worry about designing bulletin boards or cleaning rooms, but, at times, he is still envious of those teachers who are able to control classroom space for whole-class discussions or cooperative activities. In addition to the thirty or so desks in the room, nine networked computers are tightly aligned along the windows at the far end of the class. Because of the limited space in which these machines are placed, it is difficult for Mr. Clayton to conduct any class activities using these computers, and for the most part, they remain untouched.

For the previous week, Mr. Clayton’s class has been reading and discussing Jonathan Kozol’s Savage Inequalities. This book, focusing on the plight of some of the most impoverished schools in America, attempts to meet one of the major objectives of
Figure 4-1. Mr. Clayton’s second-period classroom

the civics course: “to provide students with learning experiences that allow them to come to understand the larger world, nation, state, and community in which they live.” While fourteen and fifteen year olds usually have a fair understanding of their own school environment, Mr. Clayton wants his students to have a broader knowledge and understanding of students and schools in other areas of the country. Although examining a variety of schools first hand would have been the optimum way for students to understand differences in education, Mr. Clayton takes the next alternative, Kozol’s book and an accompanying documentary, *Children in America’s Schools* (1998), to bring a wide array of school portrayals to his students.

On this particular day, Mr. Clayton chooses to show the final part of this video, which not only presents schools in a variety of settings, but also contains a town meeting
with Kozol and other stakeholders in Ohio’s education system. He has tried a number of approaches to using video in this classroom, but the layout is not conducive for viewing. The screen is fairly small, a 21 or 25 inch model, and is positioned in a cabinet in the top right corner of the classroom. While the students sitting close to the set have a clear view, those sitting farther back not only get a strong glare from the morning sun, but also have to deal with the air conditioning unit turning on and off every couple of minutes. When the unit is off, the room gets rather warm, and by 10:00 when this class begins, it is already 85-90 degrees outside. Mr. Clayton decides to turn the air on during parts of the video and endures a few student complaints of not being able to hear. The logistics of showing a video are complex, but Mr. Clayton still feels that the benefits outweigh the problems associated with its use.

Before watching this portion of the video, Mr. Clayton passes out worksheets with five questions—ranging from specific questions about the film’s content to more open-ended questions about the state of American education. These questions help to guide students during viewing, but they are not the only form of assessment that Mr. Clayton uses for the video. He stops the movie at a number of key places, and students respond to key statements or phrases. At one important juncture during a comparison of rural and suburban schools, a person in the video remarks, “It makes you wonder if America likes its children.” Mr. Clayton uses this opportunity to contrast rural and suburban schools, in particular to ask why pregnancy rates are higher in poorer schools.

A few of the student responses in this interchange include the following:

- Students in rural districts have more free time outside of school and are more likely to engage in sexual activity.
- In rural districts, there is not enough formal instruction about how not to get pregnant.
• Students in rural districts are more stressed and sex can be a good stress reliever. (This comment gets a loud chuckle from the class, but Mr. Clayton brings the focus back quickly.)

• More students in rural districts do not think their lives will go anywhere, and they are not as likely to push them towards success.

Mr. Clayton concentrates on this last statement and moves the discussion to one student in his class whose mother had given birth while still a teenager. This student relates that while her mother did not regret having her daughter, she still wishes things had been different. This example shows the close relationship that Mr. Clayton has with many of his students and how much trust they have in him to share that type of information. As a follow-up to this line of questioning, Mr. Clayton asks rhetorically, “Do babies of young mothers really have a choice?” Students ponder this question for a while and then return to the video.

Later in the class period, the video has ended and students are responding to their study questions. Since most of the students have finished reading *Savage Inequalities*, Mr. Clayton asks them if anything surprised them about the video. A number of students remark that the book is too redundant, but that the video shows a wider variety of schools. One student, in particular, contends that if the book had pictures to go along with Kozol’s descriptions, it would have been more relevant. Mr. Clayton then poses a key question that is at the heart of his beliefs about using video in the classroom: “Does it make it more real to see the video?” Most students immediately nod in agreement, but after a short time of contemplation, some doubts emerge. While the video was able to personalize the stories of schools in Ohio, a few students assert that it is not the same as looking at the differences in schools in their own community.
Mr. Clayton then redirects the dialogue to students’ ideas about schools other than Granger that they have personally experienced. A number of these ninth graders take the opportunity to complain about the conditions in local middle schools, focusing primarily on poor facilities and bad food in the lunchroom. On the other hand, several students eloquently describe the newer schools they had attended and relate generally positive middle school experiences. After discussing schools on both extremes, another student inquires about where the average schools are. Mr. Clayton ends this part of the conversation by asking students to think of area schools they could visit that would represent a broad range of school environments, and they eagerly dive into this task.

(Clayton, Observation, 5/16/02)

**Defining Technology**

Although some educators would argue that the use of a television and a VCR is a fairly primitive application of technology, Mr. Clayton prefers to take a broader approach to their use in his classroom. In several interviews, he refers to technology as a tool and equates it to a good book or a good speaker. When asked more specifically to give his definition of technology, he points to three attributes that technology can bring to the classroom: its ability to motivate children, to facilitate communication, and to introduce students to multiple perspectives.

First, he argues that students enjoy technology because it helps them to become more active and not just sit at a desk reading a textbook or listening to a teacher. He emphasizes the interactive nature of technology and adds, “It [technology] gets kids out of this box of a classroom, either through television or the World Wide Web, or letting them be interactive and go out and shoot video, capture sounds, or do a documentary” (Clayton, Interview, 4/24/02). For his comparison of American schools, Mr. Clayton
wanted his students, especially the visual learners in the class, to see “real kids” and “real people” (Clayton, Lesson Plan, 5/16/02) struggling with difficult conditions, and yet doing the best they could under the circumstances. He recognizes that watching a television documentary is not the same as visiting a school, but he realizes that it can help students encounter differing perspectives on key educational issues.

Second, he views technology as an important medium for facilitating communication. In several interviews, he mentioned the importance of e-mail and discussion groups for connecting to a broader range of people. He takes a global perspective toward communication and argues that the world is becoming increasingly more interconnected. He wants his students to have the skills and dispositions necessary to survive in the twenty-first century and encourages them to learn about places outside their community. He claims that as the world becomes more interconnected, “technology is going to play a bigger and bigger part in our lives … and we’re not going to escape it” (Clayton, Interview, 4/24/02). While this particular lesson did not have a significant communication component, it did serve as a catalyst for a final project based on an “essential question” from Savage Inequalities. As a result of Mr. Clayton’s recommendations, many of the students e-mailed local and state officials to obtain more information about their topics.

A third component of Mr. Clayton’s conception of technology is its ability to address multiple perspectives. He contends that technology touches on a wide variety of abilities among his students and adds that when he uses it, “I reach more kids, because it taps into a prior knowledge base of kids who know how to use these skills already” (Clayton, Interview, 4/24/02). He feels that even for students who are not as skilled with
technology as others, it can often bring out an interest that would have otherwise remained untouched. In this lesson, students are exposed to schools outside of their community and state, and while they could identify with some of the conditions, this video opened up a much broader perspective on schools across the country. In the interview that followed this lesson, Mr. Clayton argued that the multiple perspectives that students saw in the video made this use of technology not just appropriate, but also essential, for helping them get to the level of understanding that he desired. This sentiment clearly emerges in the following statement:

What I’m getting at is the way that they learn to do that [draw their own conclusions] is through lots of different ways: reading, seeing, speaking, and doing. And with the book that we are reading, Savage Inequalities, the kids reported that it was helpful, even though they knew the things that were reported in the video…. To be able to see them really solidified the objectives and conclusions and understandings. So to get the visual of a dilapidated school or to hear from a fourth grader with a lack of materials, or to hear a frustrated seventh grade teacher talk about it, … to be able to see it visually, to be able to look into people’s eyes in the video and hear their tale makes it a lot more real. (Clayton, Interview, 5/16/02)

Ultimately, Mr. Clayton does not want to dictate to his students what they should think about the condition of schools, but he believes that they should draw their own conclusions based on a variety of perspectives. While he says that he could have taught the same lesson without technology by using pictures of schools or testimonials from teachers and students in those places, it would not have been as significant as the video was for his students.

**Teacher Beliefs**

Another facet of Mr. Clayton’s teaching that can be examined from this vignette is the significance of his beliefs about instruction, about social studies, and about technology with regard to his instruction. While teacher beliefs are not always reflected
in classroom practice, in Mr. Clayton’s case, they are well-articulated in interviews and written communication and clearly evident in his instruction.

**Beliefs about Instruction**

Mr. Clayton’s personal philosophy about instruction stems from his belief that students learn best when educational experiences are hands-on, authentic, and connected with events from their own background. For his ninth graders, in particular, he has found that if the learning does not have any immediate connection or familiarity, they are not very likely to engage in it. In the five years that he has taught civics, he has continued to adapt his curriculum to make it more engaging for students and more connected to their daily lives.

One assignment that highlights this approach to teaching is the final assignment of the year that he gives to accompany *Savage Inequalities*. For this activity, students develop an “essential question” that flows from their reading and answer that question with research from the Internet, newspapers, or other community resources. Some of the topics that students explored in this assignment included school dropout rates, racism, class sizes, and the impact of standardized testing in their community. In explaining the reasoning and philosophy behind this assignment, Mr. Clayton emphasizes the importance of having students develop their own inquiry. He maintains, “In a way, I framed it, but I asked them to ask a big question so that they feel empowered by focusing on something that they have an interest in or can relate to so that they can use the research in answering it” (Clayton, Interview, 10/30/02). In addition to a written report answering their question, students also present their key findings to Mr. Clayton and their classmates on the last day of the semester.
Mr. Clayton’s application of classroom videos also exemplifies his philosophy of teaching. In one interview, he criticized the method that many teachers use when showing films in their classrooms, saying that too often teachers play a video, perhaps have students answer a few questions on a worksheet, but otherwise do not provide any feedback to assist students in what they are viewing. He expresses great concern about this approach and maintains that “just to show a video without any contextualization, without any introduction, without tying it in with their life, doesn’t do any good, especially long term” (Clayton, Interview, 5/16/02). He worries about social studies teachers, in particular, who often carry the reputation of showing videos without providing opportunities for student reaction or response.

In this lesson, frequent pauses in the video not only served to bring about some enlightened discussion, but also allowed students to make their own connections to the movie, and more importantly, to their own lives and school experiences as a whole. In a 40 to 50 minute section of video, he stopped the tape four times to correspond with significant events and statements, but rather than telling students what they should think about particular topics, he allowed students to express their own opinions and thus connect to personal experiences.

**Beliefs about Technology**

Mr. Clayton understands that technology can be a powerful motivator in the classroom, and he says that if there is a way that he can incorporate it into his teaching, he will. He advocates an application of technology that goes well beyond the methods that are often implemented at Granger. Increasingly, technology is used to prepare students for standardized testing, not for common instructional purposes. While he agrees that assessment is an important part of education, he contends that the “drill and practice”
or “drill and kill” (Clayton, Interview, 10/30/02) approach that many teachers use for test
preparation actually does more harm than good in getting students ready for testing. At
Granger, the computer lab is more often used for test preparation than for what Mr.
Clayton says should be the focus of integrating technology into the classroom—giving
students opportunities to “access data, manipulate data, and present data” (Clayton,
Interview, 10/30/02). Because school report card grades are significant for Florida’s
schools, he understands the pressure on Granger for its students to perform well on the
FCAT, but he still believes that good teaching is more important than test scores.

Mr. Clayton is grateful for the access he has available at Granger, but he also
recognizes that technology equipment is too often obtained only for the sake of having
technology and does not guarantee better instruction. He claims that adding televisions,
computers, or wireless networks may make schools seem more advanced, but that this
equipment does not necessarily lead to student learning. In an early interview, these
beliefs about technology were made abundantly clear in a conversation about the future
of schools:

I think technology has the potential to make the world an even smaller place, which
is a good thing. We’re no longer going to be able to think of other people as distant,
or disconnected, or uninvolved in our lives. People are more and more involved in
each other’s lives, potentially, through technology. And getting ways to get schools
“wired,” if you will, with one another, so they can communicate best practices and
kids can meet one another and compare one school’s way of learning with another
school’s way of learning, to share information, work on good communication skills
through technology, all have huge implications for learning. (Clayton, Interview,
4/24/02)

In an interview after the aforementioned observed lesson, Mr. Clayton emphasized the
impact that the video had in helping students see beyond schools in their own
community. He related that while it is important for them to read about significant topics
of study, “to be able to see it visually, to be able to look into people’s eyes in the video
and hear their tale makes it a lot more real” (Clayton, Interview, 5/16/02). It was apparent while the video was playing that the students were connected to the story and were attentive throughout the class. But without Mr. Clayton’s contextualization of the video and emphasis on student experiences, it would have been just another movie, and students would have remained passive observers in the process.

**Beliefs about Social Studies**

With a political science major in his undergraduate work and a concentration in social studies at the master’s level, Mr. Clayton has acquired a strong content area background. During his eight years in the classroom, he has developed a clear conception of the role of social studies teachers. He believes that, rather than being purveyors of information, social studies teachers serve their students better by framing key issues for them and equipping them with the skills and dispositions needed to make sense of “the immediate future” (Clayton, Interview, 4/24/02). In his initial interview, Mr. Clayton expressed his ultimate goal for students in his civics classes. He wants them to realize that they are not the center of the universe, but “a small part of a much larger world, and that we are interdependent on our fellow human beings and on different countries, on different ways of living, and it really is one world” (Clayton, Interview, 4/24/02). During the same interview, he mentioned September 11, 2001, as a “horrible yet potent” (Clayton, Interview, 4/24/02) example of how interconnected the world is, and how important it is for students to understand that their actions do have an impact on others.

In the class described above, Mr. Clayton is clearly shown as he typically is: not as the sole source of information, but as someone who cares deeply about public education and who wants his students to have a similar knowledge and passion. He does not dominate the discussion, but interrupts only to clarify a point or to facilitate the numerous
comments that his students want to make. It would have been easy for him to turn this conversation to a criticism of the system that allows attractive schools to exist side by side with those in terrible disrepair, but he allows students to arrive at these conclusions themselves, and the technology is simply a means by which he helps them reach such insights.

A final component that allows Mr. Clayton to reach his desired objectives is his understanding that social studies is best taught when it is integrative in nature. This attribute is one of the five characteristics of "powerful and authentic social studies" as proposed by the National Council for the Social Studies (1994). In the *Savage Inequalities* lesson, he brings in economics to explain how schools are funded and to analyze the impact of low teacher salaries. He also incorporates geography to explain the importance and significance of location for some of the featured schools and to explore what human characteristics make these schools and their communities unique. Finally, he relates this discussion to its historical basis in the U.S. Constitution, and he describes the nature of the ongoing debate over the role education should play in American society. These connections to other subject areas within the social studies are not contrived; indeed, they help his students to realize a primary goal: “for my kids to become better, and more cooperative, and more effective citizens” (Clayton, Interview, 4/24/02).

**Vignette Two**

While student motivation is usually at its lowest point at the end of the school year, Mr. Clayton’s students are on the edge of their seats eagerly waiting their visit to the computer lab to get started on *Sim City 2000*. About half of the thirty-two students in his second-period class have played some game from the *Sims* series, and most of the others are at least aware of the simulation. Before going to the computer lab, however, Mr.
Clayton takes ten to fifteen minutes of class time to introduce *Sim City 2000*, offer some game-playing suggestions, and explain the significance of this game for accomplishing objectives of the civics course. He distributes two handouts to help guide students through the simulation and spends a few minutes describing basic requirements. He explains some of the functions of the game, including the tool bar, which guides students in the formation of their cities. While some of the students are paying attention to directions, it is apparent that most students are anxious to move to the lab and begin the simulation.

Before leaving class, Mr. Clayton asks a fundamental question about the nature of the simulation: “Why include Sim City in our civics classroom?” Some student responses include the following:

- To see how government works and how things happen
- To see that we have to help out and cooperate to make a city work
- To understand different areas of town life and taxing
- To deal with making people happy

Mr. Clayton commends them for these thoughtful answers and adds, “Like a lot of things in this class, we are going to have a lot of different skill levels.” He requests that students put forth their best effort, given their experience with the game. Finally, he leaves the class with a final reminder: “This is the last thing I will say—the best way to learn how to play it is to play it.” With this statement, the students move to the computer lab and begin the simulation.

The computer lab is a large room with thirty relatively new, networked iMac computers arranged in a horseshoe around the back and sides of the large rectangular space. Thirty or so classroom desks are arranged in rows in the center of this horseshoe. The room is large enough that students can move back and forth from desks to computers without
causing a major disturbance. With some technical support and a site license, Mr. Clayton was able to install *Sim City 2000* on all of the computers and allow all of his students the opportunity to build their own communities.

![Class Seating Chart](image)

**Figure 4-2.** Mr. Clayton’s class in Granger’s computer lab

After all of the students are sitting at their computers, Mr. Clayton asks for anyone who needs to be taken through the beginning of the simulation to move to one side of the room. Normally, he would use the projection unit in the lab for demonstration purposes, but because the master computer and master unit are not synchronized, he allows students to congregate around a single computer to provide an introduction. Seven students watch him get started with this “mini-demonstration,” and while they tell him that they understand what to do, several puzzled expressions indicate otherwise. While Mr.
Clayton helps this group of students become acquainted with the game, most of the others are engaged in *Sim City 2000* and are actively attempting to create their cities.

After completing this initial demonstration, Mr. Clayton reminds students, “Don’t forget to check your budget menu bar and ordinances and also listen to your advisor.” At this point in the lesson he starts at the upper right corner of the horseshoe and talks to each student individually. He tells one student “good job” and reminds him that he should check brown areas on the tool bar; he affirms another who is doing “nice work,” and reminds her to check budget and ordinances. As he continues from computer to computer, one student asks, “Mr. Clayton, how do I get people to move in to my city?” After two to three minutes of consultation, Mr. Clayton encourages the student to work out the problem on her own, and she thanks him for his assistance. With the next student who solicits help, the problems are many, and he sits down for four to five minutes to improve her understanding of the game. While he is working with this student, four or five more students raise their hands with questions about playing the game, some of whom vociferously demand immediate attention. Rather than losing his patience at this barrage of concerns, he calmly reminds them again to look into all of the areas of the simulation before coming to him for assistance.

After a few minutes of attempting to answer all of his students’ questions, Mr. Clayton interrupts the class and says, “Good people, let me have your ear for a minute.” He repeats the goal for *Sim City 2000*, which is to create a large city, but also a livable city. He reminds students to check their budget and ordinances and to obtain advice from the department heads who are included in the simulation. While Mr. Clayton could have
been critical about student effort at this point, he commends the students overall and adds that they are “doing a nice job” in the simulation.

For the remainder of class, he continues to assist individual students, but at a slower pace than he set for himself earlier in the period. He helps students for three or four minutes at a time and walks around to check on a number of others with quicker assessments. The only evidence of off-task behavior is in a cluster of students who are playing the game by testing out what happens to their cities if a tornado or hurricane strikes. Realistic special effects make these disasters intriguing for ninth grade males, and this group thoroughly enjoys this feature of the simulation.

With only minutes left in the class, he attempts to summarize the day’s activity. Even though many students have not progressed very far into the simulation, he still tries to praise them for their effort. He concludes, “Good people, lend me your ears. Most of us have done a very good job…it’s not easy and there are lots of considerations to make” in playing the game. He then asks the class to shut down their computers and dismisses them for lunch.

Mr. Clayton’s dismissal usually initiates a chaotic rush out of the classroom, but on this day, students calmly turn off their computers and slowly exit over the course of the next few minutes. Ten minutes later, a handful of students are still playing Sim City 2000 and would have remained even longer if not for another class coming into the computer lab and Mr. Clayton’s request that they leave. (Clayton, Observation, 5/22/02)

Using the Simulation

As one of the major objectives for his civics course, Mr. Clayton lists that students will “understand the symbiotic relationship between individual citizens and the community in which they live” (Clayton, Lesson Plan, 5/22/02). This theme emerges at
numerous times during the year, and by the final nine weeks when this lesson takes place, students are beginning to appreciate the interconnectedness of citizen and community and to understand the importance of being productive members of society.

In the follow-up interview to this lesson, Mr. Clayton discussed the process that he undertook to acquire *Sim City 2000* for his classroom and the changes he has made with the simulation in the four years that he has used it. When he first brought the game into his classroom, he had several classroom copies (just *Sim City* at the time) on floppy disc and struggled to make it meaningful for his students. The game served as a stand-alone unit, and Mr. Clayton took two weeks of classroom time to complete it. He continued to modify the simulation in successive years and later integrated it into the “themes and units of the class” (Clayton, Interview, 5/24/02). As it is currently placed, he believes that it serves as an excellent activity to bring ideas together at the end of the year.

As mentioned earlier, Mr. Clayton views technology as a real motivator for students, and this game is distinctive in that capacity. This motivation is apparent as students are engaged with the simulation during class time, and even more evident as several students remain after dismissal time. When asked in a follow-up interview about student interest in *Sim City 2000*, Mr. Clayton related the following ideas:

You’re trying to build the most thriving city that you can, and kids understand that. And they get after it. There was some frustration … of not being able to build quite the city they wanted to, but I think it was a healthy frustration, in that they continued to make progress, but not as quickly as some of the kids wanted to…. I want them to do the same sort of reflection that I’ve done as a teacher about the value of the game and how does it tie in with the objectives of the course. I’m going to have to have them do a reflective writing piece—and you saw this—a checklist with minimal things that you ought to be able to do that you see play into a city and then at the end there are some related questions about some basic things that I want them to understand. So, we’ll see if their motivation to do a written assignment is increased because they were able to use technology to do it. (Clayton, Interview, 5/24/02)
Mr. Clayton has used a number of simulations and other computer programs in his classroom, but this one has remained. The interest that students showed both during and after class illustrates why he has returned to the simulation, and why it is important enough that the school acquired a site license for the computer lab. Without hesitation, he adds that, given the opportunity, he would continue to use Sim City 2000 in his classroom and would encourage other civics teachers to use it as well.

The success of this lesson goes well beyond simply putting a computer program in front of thirty students. Mr. Clayton had to put forth a great deal of effort ahead of time, and he enlisted the services of others in the school to help the simulation come to fruition. Two of the key concepts in the present study are essential to examine at this juncture to better understand how he was able to make this simulation work: teacher learning, and facilitators of and barriers to technology use.

**Teacher Learning about Technology**

**Learning through Professional Development and Collegial Activities**

According to Mr. Clayton, Granger has offered a number of opportunities for professional development in which teachers can improve their technology skills. He asserts that most of these opportunities are aimed at teachers new to technology and not really useful for those like him with a solid technological background. He mentions that the school occasionally offers workshops on computer applications such as PowerPoint or Excel or on setting up e-mail accounts. Although he is not certain in his recollections about all previous professional development opportunities, he recalls that Granger has not offered any systematic training to assist teachers desiring to use technology for instructional purposes. He adds that this problem is not unique to Granger, but characteristic of technology training as a whole. He contends, “School systems don’t do a
very good job with professional development, and they do an even crummier job as a whole with technology professional development” (Clayton, Interview, 4/24/02). A major problem with technology training, he states, is that it is usually in the form of a one-time-only workshop, and that teachers are provided little sustained support to use the technology in the classroom. As was prominently shown in the Apple Classroom of Tomorrow (1997) data, teachers need ongoing assistance if technology is to make a difference in their classrooms. Learning about technology through professional development has had little, if any, impact on Mr. Clayton’s use of technology with this simulation. He received no formal training on how to incorporate simulations in his civics instruction, but learned about Sim City 2000 through interactions with his colleagues and on his own time.

In terms of other professional development activities, Mr. Clayton finds that through conferences, connections with the local university, and interactions at Granger, he continues to grow as a teacher. He has been active in the American Educational Research Association, National Council for the Social Studies, Association for Supervision and Curriculum Development, and Coalition of Essential Schools, and he receives a number of these organizations' publications. While these journals provide some ideas for his teaching, he receives more inspiration from conferences sponsored by these organizations and tries to attend several each year. He finds that at these conferences he is able to talk with fellow educators about curricular issues and to take away many teaching ideas that he uses in his classroom.

Because of his outstanding reputation as a teacher, university social studies faculty have placed a number of preservice teachers with him over the past four years. One of the
major lessons that he tries to communicate to these future teachers is that the initial investment put into a unit, a lesson, or an activity has a great impact on how it will succeed in the classroom. He believes that this effort is especially significant in regard to technology. In the past his student teachers have created WebQuests, primary source evaluations, and other powerful activities using technology. He holds that “it really does pay dividends for students with that initial investment you have to make technology-wise, both by learning through technology and actually creating it, and it does pay off in the long run” (Clayton, Interview, 10/30/02). Mr. Clayton gains personal satisfaction from assisting interns in their use of technology and has been extremely pleased with their efforts. In addition, he acknowledges that observing the process by which student teachers create technology-rich lessons helps him to be more critical about his own uses of technology.

Mr. Clayton has also worked with the local university in a study conducted with a doctoral student in social studies education.¹ After supervising one of Mr. Clayton’s student teachers, this doctoral student approached him about collaborating in a classroom technology study. One of the goals of the civics course relates to an increased awareness of current issues, and Mr. Clayton was not completely satisfied with students’ fulfillment of this objective. The doctoral student had created a WebQuest designed to help students cooperatively examine a current topic of interest and to use the Internet to find related resources. This collaboration shows Mr. Clayton’s willingness to work with someone from the university to help his students and reveals his interest in learning more about technology and finding appropriate ways to integrate it into his teaching.

¹ For the purpose of this description, I am referring to myself in third person.
At Granger, Mr. Clayton has a number of colleagues with whom he consults about instructional matters on a regular basis. He is a team leader for the ninth grade and works with other teachers in math, language arts, and science to discuss students and curricular issues, but technology is rarely discussed. He shares office space with three other high school social studies teachers and often discusses subject-specific matters with them, but again, other than sharing videos or computer software, attention to technology is minimal. He indicates that he and his social studies colleagues talk “plenty about discipline, and this activity and that activity out of the classroom” (Clayton, Interview, 4/24/02), but technology rarely enters this dialogue. He did attempt to coordinate the Sim City 2000 lesson with two fellow civics teachers who also teach sections of the class, but because of varying circumstances, neither of these other teachers attempted the simulation.

Another colleague, however, did play a significant role in this lesson: Mr. Peters, the technical support person for Granger. Even though the school owned a site license for Sim City 2000, having the entire class playing it required that it be installed on all thirty-two computers in the lab. Mr. Peters was able to complete this installation before the classes came into the lab, and, in the process, saved Mr. Clayton a good deal of time. Mr. Clayton is grateful to have someone who can handle the technical aspects of the computers on hand, but is also realistic about Mr. Peters’ role. He reasons, “Now, he won’t be able to help you on your teaching methods, and he can’t suggest better ways of teaching, but he is excellent in terms of helping you with the technology itself” (Clayton, Interview, 5/24/02). Mr. Peters was not present during the implementation of the lesson,
but fortunately the game was accessible on most of the computers and technical assistance was not needed.

Learning Individually

Mr. Clayton has learned a great deal about technology on his own through experimentation outside of classroom time. He owns a computer at home and uses it for such purposes as e-mail communication, databases, and desktop publishing. In his role as a basketball coach, he has also developed skills in video editing and has helped players prepare tapes for college teams. He observes that most teachers he knows who are proficient with technology spend considerable time on it outside of the classroom. He adds that most teachers who are skilled with technology did not become competent through “formal training” (Clayton, Interview, 4/24/02) but learned necessary skills on their own.

Because this is the fifth year that Mr. Clayton has used Sim City in his classroom, he did not have to prepare ahead of time as much as he has in the past, but he still had to put in some individual effort to insure the activity's success. He reserved the lab in advance and checked with Mr. Peters on several occasions to guarantee that the game was loaded on all of the computers and operational. He also had to run off additional copies of the directions sheet for the students, and he prepared a checklist and question sheet for students to complete as they played the game. He also briefly reacquainted himself with the game to prepare for student questions. He acknowledges that individual preparation cannot make him ready for all of the eventualities that may result from Sim City 2000, but he feels that it is important for him to put in the additional time so that he can provide the guidance needed for students as they are playing the game.
Facilitators and Barriers to Using Technology

Facilitators

Mr. Clayton realizes that because of Granger’s affiliation with the university and an administration that has acquired classroom equipment, access to technology at Granger is generally better than at most public schools. Each classroom has its own television set and VCR, and programs can be broadcast from the media center to multiple classrooms around the school. The school media center has a large number of videos on hand, and teachers can also check out resources from any of the libraries in the university system. In addition to Granger’s computer lab, many of the high school classrooms, including the two rooms Mr. Clayton uses, have six to ten computers with access to the Internet. Every classroom at Granger also has wireless capabilities, and at the time of the study, several laptops were available for teachers and students.

Besides the ample access to technology at Granger, another factor that facilitates Mr. Clayton’s use of technology is guidance provided from his students. In his initial teaching assignment, he became one of the first teachers at his school to be connected to the Internet with the help of a twelfth grader who came in on a Saturday and wired his classroom (without school permission). While some teachers may be hesitant to ask students for assistance with technology because they are afraid it will make them look ignorant or ill-prepared, Mr. Clayton realizes that his students have grown up around technology and that he can learn from them. He encourages his more technology-savvy students to use it to complete class projects and has benefited from their expertise.

Mr. Clayton recognizes that the *Sim City 2000* simulation would have been impossible to implement without some unique circumstances. First, a fully equipped computer lab with a machine for each student allows students with different levels of
game expertise to proceed at their own pace and plan their own community decisions. The layout of the room itself also permits Mr. Clayton to have easy access to students who have questions during the simulation. As described earlier, the presence of a technical support person makes loading the game on the machine possible and frees up valuable time for Mr. Clayton to work on other projects. Although the site license for a class to play *Sim City 2000* is fairly expensive, grants and administrative support made this activity possible, and he appreciates the opportunity to use this type of technology.

**Barriers**

While technology may be more readily available at Granger than at other schools, the level of use among teachers there is fairly typical. Much of the technology—computers, a destinations unit with a DVD player, a telecollaborative lab, wireless, etc.—remains unused. The distribution of computers throughout the school has caused difficulties. According to Mr. Clayton, some teachers desiring to use technology have had to “seek that stuff out” (Clayton, Interview, 10/30/02), and others with a classroom full of computers only use them on rare occasions. Without a permanent classroom, Mr. Clayton has to coordinate his technology use with a number of teachers, and this process can sometimes be tedious. While Mr. Clayton cannot speak for all of his fellow teachers, he recognizes that with the various demands on his time and the institutional barriers in place, he cannot do nearly as much with technology as he would like.

A number of factors made it difficult for Mr. Clayton to prepare the *Sim City 2000* lesson and to carry it out in the computer lab. First, the logistics for securing the computer lab for his class were complex. During the second block, when Mr. Clayton’s civics course meets, an AP English class uses the classroom for its regular meetings. The lab is situated in a five-year-old technology wing that was built with the stipulation that it
would only be used for technology purposes. Changes in space and an additional emphasis on standardized testing now necessitate utilizing these areas for regular class meetings. Mr. Clayton assesses the difficulties of this situation:

Well, we’ve grown a little bit as a school in the last three years. Well, 100 kids is about three more classrooms and we took the video technology/production class out of the third room, and then the technology room that we’re in, we’ve scheduled some intervention classes for FCAT drill and practice to beef up basic skills on standardized tests. We’re no different from other schools in that respect. (Clayton, Interview, 5/24/02)

He also believes that Granger is grappling with a major philosophical difference among those who feel technology should be used to supplement existing teaching practices and those who believe that it is an efficient means to assess students and increase test scores. While some teachers in leadership roles want to make sure the lab can be protected for a variety of uses, space issues and the pressures of standardized testing make it more difficult for teachers like Mr. Clayton to use the computer lab for instructional purposes.

Another factor that made planning this activity difficult was negotiating the different levels of technological experience and expertise among students. While some students were confident with technology and had played Sim City 2000 before, others had never played the game and were not sure where to begin. Mr. Clayton acknowledges the difficulty in making the game meaningful for all of his students and says that “when you have kids at different levels, it makes it challenging for direct instruction, because while you want to keep it interesting to all kids and useful to all kids, it’s hard when you have kids that have never seen the game before to those who have spent hours playing it” (Clayton, Interview, 5/24/02).

During the implementation of this lesson, he tried to negotiate these differences in several ways. First, he provided all of the students with a fifteen-minute explanation...
preceding computer time, complete with overheads and an instruction worksheet. Once the activity began, he worked with students in small groups to assist them with individual skills, and at the same time, allowed others to move ahead. He also allowed a couple of students who were proficient with the game to help classmates when he was busy assisting others. But even with these supports, he was concerned that some students were too dependent on him for encouragement and did not advance enough individually to meet the objectives of the game.

Another barrier Mr. Clayton faced with this simulation was the malfunction of the master projection unit in the computer lab. This unit was attached to the same type of computer (an iMac) that students had in the lab and could be used to display information to the entire class. During Sim City 2000, he would have been able to freeze student computers to make a point to the entire class instead of trying to talk to students while they continued playing the game. While he felt that the students benefited from the individual instruction he was able to give them as he walked around the room, he recognized that he could do more. In exploring the possibilities of conducting this lesson with a master unit, he hypothesized:

> It would be good for kids to consult me through writing with questions and clarify those questions. I could shoot answers back to them, if they worked, which might be neat too. I could tell them that they were not allowed to address me verbally, but they would have to send me a note like that I was in a remote spot and needed help. That’s a good sort of communication tool too. (Clayton, Interview, 5/24/02)

But while he had these thoughts of how his ideal class could run, he was also very realistic about actually implementing this plan. He lamented:

> But due to time and my lack of expertise, I don’t do those sorts of things. I know that they are possible, or if you really wanted to get good at it, you could make an assignment where a kid built a city so big that it had certain problems, and they could solve their problems…. There are obvious ties to real, authentic learning
here, but it’s about having the time and the willingness to do all of that. (Clayton, Interview, 5/24/02)

A final barrier Mr. Clayton encountered was with technical difficulties in the lab. While the simulation loaded on all of the computers without any trouble, a number of students experienced problems as the game progressed. About thirty minutes into computer time, one student’s computer froze, and all of his work on the game was lost. While Mr. Clayton was more concerned about the process of creating and sustaining a community than looking at the final outcome of how many Sims (people) were living there, he recognized that it would be frustrating for students to lose all of their work. But it continued to happen, and by the end of the class, six students had to restart their games. Mr. Clayton attributed these freezes to “a quirk in the network” (Clayton, Interview, 4/24/02), but with Mr. Peters gone, no one remained on campus to assist with this type of difficulty. The option to save was part of Sim City 2000, but with limited server space, students were not able to take advantage of this function. Despite these barriers, Mr. Clayton still felt that he accomplished what he set out to do in the lesson, and students were able to play Sim City 2000 to the best of their abilities.

Model Citizen as Technology User

Mr. Clayton consistently presents himself in a professional way and wants his students to conduct themselves in an appropriate manner. He does not govern by absolute authority but makes students a part of the learning process and helps them to understand that education does matter. By the time students enter ninth grade, they are beginning to have a real interest in the world around them, and Mr. Clayton has a strong understanding of what issues most impact his students’ lives. In the five years that he has taught civics, he has shaped it to represent topics that are interesting to young adolescents, and at the
same time he provides them with the necessary content background to make sense of these issues. What is perhaps most impressive about this approach is that while students grapple with significant topics, Mr. Clayton models how students should consider such issues.

This modeling approach to teaching and learning has a major impact on how Mr. Clayton approaches technology. In all of the observations made in his classroom, both formal and informal, technology—whether computers, music, or video—was always used for presenting students with a real world application of what they were discussing. In the computer lab, students researched current issues of interest, examined evidence related to their community research project, and investigated an essential question about local schools that emerged from their discussion of *Savage Inequalities*. He does not have students explore websites just for the sake of using the technology, but he has a specific and practical purpose in using the computers. He also models this approach to his own Internet searching by sharing relevant websites that he has found from his own inquiries.

With video, Mr. Clayton shows clips that are not only visually appealing to students, but he also encourages them to examine critically the issues discussed in class. In another observation from this dissertation study, he presented *Merchants of Cool*, a PBS *Frontline* program that explores how marketers attempt to appeal to teenagers. After showing this video, he held a lively discussion on whether or not students felt exploited by MTV and other “authorities” on popular culture. Certainly, he is extremely concerned that his students engage with the material and not be passive recipients of whatever the media, usually television, presents to them. As he shows excerpts from the program, he does not tell students how to think about what they are watching but steers the discussion
towards critical issues that allow them to interact with each other in meaningful ways (Clayton, Observation, 4/29/02).

In one typical interchange in response to the Children in America’s Schools video, he asks students, given the difficult conditions shown on the video, how many of them want to teach as their chosen profession. Only one or two students raise their hands. He then proposes that teacher salaries be doubled and again inquires how many would be willing to teach. Another student raises her hand, but most of the class still shows no desire to teach. When Mr. Clayton asks why no one else wants to teach, students are more than willing to express their opinions of the profession. One student contends that he does not have the patience needed to become a teacher. Another student says, “I couldn’t teach the kinds of kids that we are” (Clayton, Observation, 5/16/02). The basic response from the class is “money” (Clayton, Interview, 5/16/02), and students argue that teachers are not paid nearly enough for the jobs that they do. Mr. Clayton then ties the conversation back to the video and asks what it would take for more teachers to work in inner city schools. Most of the students maintain that money and resources would help, but they acknowledge that even with more support, teaching in such environments would be a challenge. By providing students with opportunities for discussions like these throughout his civics course, Mr. Clayton has helped them become more knowledgeable about the world around them, and he hopes this translates into their competency as citizens.

Mr. Clayton’s innovative uses of technology and the overall structure of his civics class are in direct contrast to the typical criticism that social studies classes are boring and cover a range of trivial information not connected to students’ lives. By modeling
professional behavior and presenting material that connects to the lives of students, Mr. Clayton has demonstrated to his ninth grade students that they do have something positive to contribute to the class and can make a difference in their community. He believes that exposing students to a wide range of practical activities gives them the chance to “understand the larger world, nation, state, and community in which they live” (Clayton, Lesson Plan, 5/16/02), and technology is one of the areas in which his students need to be proficient. Because he knows that his own expertise with technology has room for improvement, he continues to look for ways to enhance his instruction and models this quest for additional knowledge to his students.
CHAPTER 5
THE CONNECTOR

History is never either a neutral force or a complete worldview; history is always someone’s history. All of us, then, start with our own diverse social histories—the story of who we are as interpreted through the experiences of daily living, family stories, pictures and artifacts. . . . If our students are to become visible—able to see themselves as participants in the ongoing drama of history—then we have to rethink the ways which we conceive of history.

Levstik and Barton, *Doing history: Investigating with children in elementary and middle schools* (2001)

**Vignette Three**

Everything in Ms. Hart’s classroom is organized. Desks are tightly arranged in coordinated rows with pairs of students facing the overhead screen and white board in front of the room. Milk crates are positioned strategically to hold student work, worksheets, and other materials Ms. Hart may use during the course of the day. Students have their own manila folders that are passed out at the beginning of every class period. The two corners of the room highlight the subjects Ms. Hart teaches, American History and World History, and posters of presidents, ancient civilizations, the Civil War, and great women in history adorn the walls of each area. Several bulletin boards around the room attest to the personal nature of the classroom with items such as “Hart’s Star Students” containing examples of outstanding student work and “I Like It” with relevant cartoons and pictures, many of them related to the local university’s sports teams. In the back of the room, containers hold markers, glue, scissors, and other materials for classroom projects. Even Ms. Hart’s office area adjacent to the room contains neatly stacked books, journals, and magazines related to history and social studies.
On this day, as has been the routine for the past three months, Ms. Hart is at the door to greet her eighth grade American history students. Upon entering the classroom, students receive their folders and copy the daily agenda from the board. While they are readying themselves for class, Ms. Hart announces, “All right, you guys, the first thing I want to do is check your haiku poems.” This statement indicates that class has officially started and lets the students know that it is time to get down to business. The pace of the class is steady, and students do not have any time to waste on extraneous activities. Ms. Hart feels strongly about using class time wisely and makes sure that instructional time is well spent. She lets students know precisely how long they will have to complete activities, whether it be five minutes or over an hour, in her eighty-minute teaching block.
After collecting student work, Ms. Hart explains that they will be moving from Japanese internment to the Holocaust. She pulls the screen down to begin a slide lecture and discussion that she has adapted from materials she received through the *History Alive* (2003) curriculum. This program advocates an approach to history based on the expectation that it can “excite students about social studies by engaging them in dynamic activities that tap into their multiple intelligences.” Through several grants, she has acquired a number of *History Alive* titles, including the one on World War II that she is using for this lesson. In preparation for her presentation, she has created a handout for students with rough pictures of the slides and a column entitled “Details about Slide” that students can add to during the presentation. Because many of her students are studying the Holocaust in their Language Arts classes, she encourages them to add relevant details that they have learned in their other class. Once students have their handouts ready, she dims the front lights and begins the presentation.

She introduces the slides with a review question: “Germany was devastated after World War I. Why?” Then she shows a picture of a man on the street with a lot of personal belongings around him. She asks students what this reminds them of, and they suggest such diverse ideas as “the homeless,” “a burnt house,” and “a yard sale.” After exploring these ideas for a short time, she inquires, “How do you think this guy feels?” Students ponder this question for a moment and answer that they sympathize with this man, but several wonder why he is not able to get a job.

From this exchange, one question emerges that Ms. Hart is compelled to answer: “Why can’t Germany just print up more money to help their people?” Ms. Hart’s economic background is essential here as she stresses that “this is something I think you
ought to write down, class; people paid for stuff at this time in Germany with wheelbarrows full of money.” This illustration of inflation seems to resonate with the class, although the idea of whether the United States would ever sink to this economic depth is quickly passed aside by the students as “impossible” under current federal regulations.

Another significant exchange takes place with a conversation about a Nazi Party propaganda poster advertising “The Day of the German Race.” The poster shows an eagle rising from a plume of smoke, drawn in the shape of Germany. Ms. Hart engages students in the cartoon’s meaning, and although they initially struggle to find significance, they eventually hit on the greater symbolism in the picture, that Germany is reemerging after being decimated by World War I. Rather than focusing too much on the eagle and the smoke, however, she moves to another image of propaganda in Nazi Germany. This picture features a Jewish man with the assertion, “He instigates war, he extends war.” She talks about how Hitler blamed the Jewish people for the German losses that followed World War I. After exploring German sentiment towards its Jewish citizens, she poses the following: “What is the mood of the poster?” Students point out the dark mood provoked by the curtain, the smoke, and the facial expression of the Jewish figure. Then she asks the students what might be the results of propaganda pieces like the ones shown. The overwhelming response is that people would now grow to distrust Jews and might even try to hurt them. She uses this opportunity to describe the April 1933 boycott of Jewish businesses and how this propaganda may have influenced average German citizens.
Several slides later, Ms. Hart focuses on a famous picture of malnourished men in the barracks at the concentration camp in Dachau. In this photograph, several prisoners, including one particular man in the front of the picture with a protruding ribcage, stare forward with empty expressions. The students are simultaneously interested in and horrified at this image, and one student in particular wonders, “Who takes a picture like this and does not do anything about it?” This question brings about a lengthy discussion on Dachau, which Ms. Hart describes as one of the worst concentration camps during the war.

The conversation then is diverted to some questions about camp life, such as “Did they separate genders in the barracks?” and “What did they get to eat, if anything?” Neither of these questions receives much attention, but one question that does is a comment about Taliban and al-Qaeda prisoners in Guantanamo Bay, Cuba. One student asks about the circumstances in which the military is keeping prisoners of war and whether or not it is that much different from conditions in concentration camps.

Ms. Hart is visibly excited by this observation and the connection made between what they are studying and current events, and she exclaims, “That’s an excellent question!” She takes this opportunity to highlight the relationship between past and present and brings up a larger question with the class: “We study history so that we can learn from our mistakes. But does this always happen?” A number of students immediately respond “No” to this significant question, but after a brief pause, another student inquires, “Well, if we are such a free country, why are we keeping the conditions of these prisoners such a secret anyway?” Ms. Hart then relates the importance of working through differences and tells a brief story about how prisoners in World War II
were told that they were going to take showers and instead were poisoned with pesticide gas. This anecdote seems to raise interest, and another student asks, “Why didn’t they tell anyone what was going on?” Ms. Hart immediately replies, “Well, who are they going to tell?” The concept that the Jewish people did not fight back seems hard for these students to fathom, but one of the major lessons that Ms. Hart has been trying to communicate to her class is that history is complex and that the explanations students desire are not often possible. For Ms. Hart, this is what makes history such a great subject to teach—there are no “easy answers” (Hart, Observation, 5/15/02).

**Defining Technology**

When asked in an initial interview about her conception of technology, Ms. Hart’s first instinct was to reply “definitely computers” (Hart, Interview, 5/9/02). With several courses during her doctoral program in educational technology and numerous trips to the computer lab with her classes, it is apparent why this was her first reaction. But after a short time, she broadened her definition to add “anything that requires the use of machinery such as the VCR, slide projector, overhead, and tape recorder” (Hart, Interview, 5/9/02). In her classroom, she has access to all of the above items and uses them on a regular basis. In fact, these items functioned more consistently than her classroom computer, which malfunctioned on a regular basis.

What attracts Ms. Hart to use technology of all sorts in her classroom is its ability to engage her students. In interviews, she often related the challenges of working with a diverse group of students and trying to make history appealing for them. Despite working with students of varying ability levels, she believes that all of her students can leave her class with a greater understanding and appreciation of history. She feels that technology
can be a way to accomplish this goal. But like Mr. Clayton, she sees technology as a tool for helping students, not as the primary means for learning.

In her lesson plan on the Holocaust, Ms. Hart provides three primary reasons for using technology: it is easy to get information to students in an engaging manner, it provides visual stimulation for interactive discussion, and it stimulates critical thinking and analysis. Even though some might find the slide projector to be too low-tech for the classroom, most of Ms. Hart’s students are interested in the slides and take an active role in the accompanying class discussion. She strongly embraces Gardner’s (1983) theory of multiple intelligences and maintains that these slides hold particular appeal for the visual learner who takes cues from images rather than words. While more static resources like textbooks and handouts may contain similar images, Ms. Hart recognizes the potential impact of these primary source slides.

Another perspective by which to examine this lesson is from the discussion that takes place with the slide presentation. While the vignette shows important sections of the dialogue, it is impossible to recreate the entirety of the powerful exchanges between teacher and students, and more importantly, between student and student. When asked in a later interview whether or not technology took away from the human aspect of history, Ms. Hart paused to think about the question and said that it depended on the instructor’s use of technology. In her case, she felt that it was important to give the students some freedom with the technology, but at the same time, to have an involved role as the teacher. In referring to the History Alive materials, she contended, “It’s about the inquiry, getting their opinions, soliciting their responses, helping them piece together what they think is going on. And they ask some interesting questions” (Hart, Interview #2, 5/15/02).
While the *History Alive* manual provides some guidelines for leading discussion, Ms. Hart prefers to infuse her own ideas and direction in order for her students to relate to these historical events and people.

As long as Ms. Hart is able to help her students make connections to history, she is not concerned about what types of technology to use in the classroom. Whether it is computers, videos, slides or digital video, the connections are what matters, and not the technology students use to get there. During this lesson on the Holocaust, it is the association the student makes between Dachau and Guantanamo Bay that shows the high degree of thought and analysis that Ms. Hart is able to bring out in her classes. Pictures of ordinary people combined with questions such as “How do you think this guy feels” (Hart, Observation, 5/15/02)? help her students to develop greater historical understanding. In the follow up interview to this lesson, she said that a teacher could look at World War II through key battles and statistics, but that it was much more meaningful for her students to study it from the stance: “What was the impact on individual lives” (Hart, Interview #2, 5/15/02)? Although the slide projector is the only technology Ms. Hart uses in this lesson, it still plays a significant role in enabling her students to engage with the material and to learn about Holocaust victims and survivors.

**Teacher Beliefs**

Throughout the numerous observations, interviews, and other communications with Ms. Hart during this study, she continually demonstrated passionate beliefs about diverse topics, ranging from working with at-risk students to inequities in school funding to the number of social studies teachers who do not understand the difference between a primary and secondary source. At the core of these passionate beliefs is a strong desire to help her students in any way that she can and, in her words, “go the extra mile” (Hart,
Interview, 5/9/02) so that all of her students can succeed in school. These beliefs, particularly those about instruction, about social studies, and about technology, help to shed light on the Holocaust lesson described above and her instruction as a whole.

**Beliefs about Instruction**

Ms. Hart’s approach to teaching her sixth and eighth grade history classes contains a mixture of traditional and non-traditional teaching methods. She occasionally uses lecture to cover essential material, and in some of her *History Alive* presentations, she has students complete fill-in-the-blank sentences as they watch relevant slides. She includes quizzes and tests as part of her formal assessment tools and believes that because her students’ social studies backgrounds are so weak, whole class instruction is appropriate for many topics. But she also uses a number of teaching strategies that would be considered non-traditional. During the course of this study, students engaged in hands-on explorations, developed a script for a class video, and conducted oral presentations as part of an individual project. The physical make-up of the classroom lends itself to working with partners or small groups, and Ms. Hart uses cooperative learning on a regular basis. She finds that this sort of arrangement improves students’ efficiency in completing assignments and also gives weaker students an outlet for expressing ideas, which they would be less likely to do in a large group situation. In addition, with an eighty-minute block of class time to negotiate, she finds that cooperative group work helps her students remain on task.

Ms. Hart believes that students learn in a number of different ways and tries to create activities and assignments that appeal to differing learning styles and abilities. For visual learners, she uses video, slides, and other images—most often primary source documents related to the current unit of study. She attracts auditory learners by reading
historical fiction aloud to her class and bringing in music from various historical periods. For artistic learners, she incorporates a number of projects that reward creative talent, including a collage of historical themes and a shield from a medieval civilization. To capture all of these learning styles, she requires a portfolio for each unit in which students showcase their work and reflect on their likes and dislikes. With this approach to instruction she is continually revising her curriculum from year to year, and even from class to class, but she has found that by using this array of approaches, “the product is amazing, and the kids learn more and retain it” (Hart, Interview, 5/6/02) better than they would through more traditional means.

This Holocaust lesson is a strong example of how Ms. Hart’s beliefs about instruction are manifested in her classroom. For most of the period, Ms. Hart engages in whole-class discussion and provides information about the historical relevance of each slide. She has an outline at her side to guide her through the presentation, and she circulates around the room to make sure that students are writing down the necessary information. In addition to the guided viewing questions, she uses several other means to evaluate student understanding. She makes a conscious effort to engage as many students as she can during the class period, and most of them contribute at some point in the lesson. At the end of this study on World War II, Ms. Hart was also able to assess student learning through a project that contained elements from throughout the unit. Students created a World War II newspaper with both articles and an editorial that tied together many of the topics covered during this unit. When asked about the merits of such an evaluation of student learning, she emphasized the individual effort needed to put together a well-crafted editorial and added, “Students have a chance to decide for
themselves if the U.S. reaction [to entering World War II] was appropriate and sufficient” (Hart, Reflection, 5/15/02). This variety of assessment was typical of other units Ms. Hart used in her classes, and student generally responded well to having multiple ways to demonstrate their understanding.

**Beliefs about Technology**

For Ms. Hart, technology is a powerful motivator for her students. She claims that her students are “excited” (Hart, Interview, 5/9/02) any time they experience technology, and because of this enthusiasm, she tries to incorporate technology into her units as much as possible. Because of the vast amount of information, especially primary sources available on the Internet, she tries to take her students to the computer lab at least twice every nine weeks. In addition to computer experience, she also tries to expose students to audio content with music and voices from the past. While she uses the slides from the *History Alive* material most frequently, she occasionally uses the cassette tapes or compact discs provided to play jazz from the 1920s or rock from the 1960s.

The World Wide Web also provides Ms. Hart with valuable resources that she uses to enhance her curriculum. Even though Chance Middle School is fairly new and has a wide variety of materials available for teachers, she finds Internet sources to be “multiple” and “interactive” (Hart, Interview #1, 5/15/02). One of the sites that she has used extensively in her classroom is the American Memory Collection of the Library of Congress. Both she and her students have found the collections available through the site to be valuable resources for documents, sound files, and photographs. Another benefit of technology for her students is the opportunity to interact with other students around the world. In her sixth grade class for the past several years, a university professor has come into her class and shown slides of schools in Japan. Because of this exposure, Ms. Hart
has had her students interact with a Japanese middle school through a telecollaborative exchange. Harris (1998) contends that these types of activities foster cultural awareness, communication skills, and technology awareness for students. Without these types of activities, Ms. Hart commented, studying the world would be “boring” (Hart, Interview #1, 5/15/02), and students would gain little appreciation of other cultures or ways of life.

In the Holocaust lesson, the slides consistently hold the students’ attention, even with lunch taking place in the middle of the presentation. But Ms. Hart also acknowledges that the slides themselves do not motivate the students—it is the questioning and discussion that really encourage their responses. By the end of the semester, students have had a good deal of practice in taking notes and formulating significant questions, and, as a result, they are able to engage in meaningful discussions. In Ms. Hart’s opinion, this discussion is successful because they are not only able to answer her questions, but they are also able to answer classmates’ questions. She acknowledges that the engaging visuals contribute to some of this productive dialogue, but she credits the students themselves for being able to make connections to what they see.

Ms. Hart also believes that students can use technology to enhance what they are learning in the classroom and encourages them to find responses to questions that she cannot answer. At several points during the lesson, students ask questions somewhat related to the Holocaust, but obscure enough that Ms. Hart does not know the answer. One student asks if “Stalin’s son was in a concentration camp?” and another inquires, “Who takes a picture of people in concentration camps” (Hart, Observation, 5/15/02)? Rather than bypassing these types of questions, she persuades students to inquire on their
own and perhaps find answers on the Internet that they can share with the class. She says that about sixty percent of her students do research at home, and the ones who ask such questions will usually be motivated to find the answers on their own. In regard to this type of outside investigation, she adds:

And to me, that’s making technology become a tool for learning. Because that makes them see, “Okay, I don’t just have to rely on the teacher for all of the answers. I can go and learn and find the information using the Internet, using the web sites that she has given me or what I know of.” (Hart, Interview #2, 5/15/02)

Beliefs about Social Studies

Levstik and Barton’s (2001) quotation at the beginning of this chapter is significant for a number of reasons, especially because Ms. Hart uses part of it on her syllabus to relate her beliefs about teaching history to students and parents at the beginning of each semester. She takes to heart the part of the passage that reads “the story of who we are as interpreted through the experiences of daily living, family stories, pictures and artifacts” (p. 2) with her “History of Me” project. In this introductory project, students are able to bring in artifacts and stories to share with classmates before creating personal narratives. Levstik and Barton argue that activities such as this are important if students are to understand that “they themselves have a history and that they are in history just as much as they are in the natural world” (p. 41). For Ms. Hart, this assignment provides her students with an immediate connection to history, and it allows her to understand the unique backgrounds of her students and to relate to them on a more personal level.

Ms. Hart uses a wide array of resources to teach history to her classes. While she occasionally uses the textbook for key information, she argues that history is more than “just what the book says” (Hart, Interview, 5/6/02) and tries to supplement her teaching with other student resources. She encourages students to check out books from Chance’s
media center and keeps a number of fiction and nonfiction books in her classroom. As mentioned earlier, *History Alive* is a major component of class content, and she has several of its curricular materials at her disposal. To keep up with current events, she subscribes to *Junior Scholastic* news magazine and tries to use it on a weekly basis.

In her lesson plan for the Holocaust presentation, Ms. Hart listed as one of her goals for student learning that students would “develop historical empathy” (Hart, Lesson Plan, 5/15/02). According to Foster and Yeager (1998), historical empathy is a process that introduces an historical event with appropriate context and chronology, incorporates the analysis of multiple perspectives, and encourages students to develop a narrative framework through which historical conclusions are reached to understand why something happened the way it did. In this lesson, Ms. Hart introduced the Holocaust to the class and provided sufficient context for the students to understand the event before delving into questions such as “What was it like in a camp?” or “Why do you think the German people were so drawn to the Nazis” (Hart, Observation, 5/15/02)? Ms. Hart believes that the approach to history in the *History Alive* materials motivates her students and helps them to engage in the historical empathy process. More importantly, this approach corresponds with Ms. Hart’s beliefs about history and helps her make the relationship between the past and present significant for her students.

*History Alive* provided most of the substance for this lesson, but other materials helped to strengthen what students learned about World War II. Ms. Hart gave students several handouts on the Holocaust, including accounts from the concentration camps at Auschwitz and the trials at Nuremberg. While these descriptions helped students understand some of the details of the war, the document that had the greatest impact on
students’ understanding of World War II was a diary kept by Ms. Hart’s father, a soldier and former prisoner of war in Europe. Students were fascinated by this personal account of the war, which included an escape from his captors, and it made the conflict more real for them.

For Ms. Hart, her father’s diary is not just another classroom resource; it is a key to understanding her interest and passion for teaching history. Because her father did not often talk about his experiences, his diary offered a unique glimpse not only into this era in history, but, more importantly, into her father’s character and priorities in life. Rather than focusing on a random assortment of dates and events, Ms. Hart prefers to take a personal approach to history and see what motivated people, both famous and ordinary, to do what they did given their circumstances. This approach to history can be frustrating for students when incentives are not easy to pinpoint—as with the question as to why the Jews in the concentration camps did not try to escape—but it is exactly these types of questions which Ms. Hart wants her students to ask to develop a more personal connection to history.

**Vignette Four**

Each grade level at Chance is located in an independent wing of the school building, and each area has its own computer lab. Since the school was opened in 1996, the labs have operated with a wide variety of computers. Today, the labs contain many different models of machines, ranging from 1990 IBM personal computers to brand new Dells. Local businesses have donated their older computers to the school, and each lab now has four or five distinct types of computers. All of the computers are supposed to have Internet access as well, but because of the age of some of the machines, these connections are unstable and often malfunction. Ms. Hart and other teachers at Chance
would rather see more computers in their classrooms than in these labs, but with an emphasis on standardized testing and improving the scores of lower-achieving students, the labs have stayed intact.

Figure 5-2. Ms. Hart’s class in Chance’s eighth-grade computer lab

It is now close to the end of the school year, and most of Ms. Hart’s eighth grade students are eagerly awaiting summer vacation and do not see completing schoolwork as a high priority. She knows that many of her students have a genuine interest in studying the more recent past, however, and continues to move through modern history. One of the topics that has captured her students’ attention at the close of this semester is a web-based exploration of Vietnam, much of which is done in the eighth grade computer lab.

It is the first day back after a three-day weekend, and students come into the computer lab overly excited. Many use the beginning of the class to socialize. Ms. Hart
tells students to sit down in front of a computer and reminds them, “Yes, you do have class today.” As is normal procedure, she goes over the agenda and passes out student folders. She then asks them to remove their Vietnam checklist from these folders. This checklist helps them navigate through the various activities in this assignment. Even with this direction, a few students continue to talk, and she firmly announces, “I guess you guys don’t want to be in the computer lab then.” The class becomes silent after this mild rebuke and proceeds with the activity.

Ms. Hart reminds students that they need to finish their reading selections and proceed to the quotation analysis section. These reading selections present secondary source accounts of the Vietnam War and provide students with some background information on the conflict. Once students answer questions from these selections, they are to move to the quotation analysis section, where they compare statements made by groups of Americans impacted by the war.

She then informs the class of the third assignment on the agenda, a letter to a Vietnam Veteran, and advises students that they should have it completed for homework. She gives students the option of sending the letter from home if they have e-mail accounts there, or if they do not have Internet access, they can compose a hand-written response as if they were interviewing a Vietnam veteran, nurse, or protester. She also recommends that they send questions to more than one person because, based on previous attempts with this assignment, a single e-mail does not guarantee a quick response. With this activity, she hopes that students will be able to hear first-hand from individuals who experienced some aspect of this conflict.
As soon as the students are settled at their computers, Ms. Hart requests “absolute attention for five minutes” and leads the class through the Vietnam student activities page. She surveys the room quickly to make sure that everyone is on the right site and then proceeds to review the assignment on one of the classroom computers. Once the instructions are clear, about half of the students move straight into the computer activity, while the rest finish working on handouts from the previous class period.

Ms. Hart does very little direct instruction for the rest of the class period and constantly moves from student to student or group to group to help them with the activities. Throughout the period, more students move to the computers and by the middle of class, nearly all of them are focused on the primary source analysis. Ms. Hart encourages students throughout this process and helps them with some of the difficult vocabulary they encounter. At the end of the period, she announces to the class, “We’ve got to shut down the computers, and then I want you to push your chairs in and go back to the room.” Because the students are so involved with this assignment at this point, it is almost as much trouble to get them to stop working as it was to get them started at the beginning (Hart, Observation, 5/28/02).

The Vietnam Activity

This web-based activity on the Vietnam conflict is extensive and involves six individual and group-based assignments. Among the activities she includes for students are a map search on Vietnam, a photographic analysis, a letter to a Vietnam Veteran, and an examination of songs and poems from the Vietnam era. Students also research and compose a position paper on whether or not the United States was justified in entering the Vietnam conflict. On a separate teacher page for this assignment, Ms. Hart lists student objectives, Florida Sunshine State Standards (2002), and characteristics related to
Howard Gardner’s (1983) theory of multiple intelligences. While she has revised a number of these activities from previous semesters, the bulk of the assignment has stayed the same. Since creating this activity two years earlier, she has received a number of positive comments from both parents and students on its overall impact, and it remains one of the students’ favorite units. While looking at the implementation of this web-based activity is important for analyzing Ms. Hart’s use of technology, examining how she developed this assignment is just as essential for understanding its implementation.

Teacher Learning about Technology

Learning through Professional Development and Collegial Activities

During her nine years of teaching, Ms. Hart has experienced very little professional development to help her with technology issues, particularly those that directly influence her teaching. The only sustained professional development with technology that she mentioned in interviews was a school-wide effort to train teachers to use Micrograde. This program was aimed at improving the efficiency of teachers’ grading practices and increasing communication with parents. Micrograde has an e-mail component that makes it easier for teachers to send grades to parents, assuming they have e-mail access at home.

Chance occasionally offers one-time workshops for teachers working with such programs as Microsoft Word or Excel, but because Ms. Hart already is comfortable with these applications, she does not feel the need to attend these sessions. She would appreciate more guidance on the creation of teacher web pages or productive uses of the Internet, but she does not foresee such training at her school or in the district. With budgets tight and an increasing emphasis on standardized testing, most of the professional development activities related to technology available at both the school and district level involve either basic computer skills or test preparation software. While she
appreciates the efforts of such organizations as the School Advisory Committee to acquire newer machines for the labs, this support does not carry over to teachers in any sustained manner. With the lack of professional development available, only a small degree of Ms. Hart’s learning about technology can be attributed to this factor. All of the skills that she acquired to create and implement the Vietnam lesson came from colleagues or through individual effort.

Because of Ms. Hart’s wide range of professional interests and activities, she has been able to gather technological advice from a number of different circles of educators through professional, university, and school contacts. Through her work as an assessor with the National Board for Professional Teaching Standards, she has exchanges with a number of fellow teachers. While most of these conversations involve general classroom practice, she does discuss such ideas as how to best use primary source websites with these other teachers. At both middle school and social studies conferences, she tries to make personal connections with teachers on issues pertaining to technology. She attempts to attend as many sessions as she can related to technology and tries to incorporate technology-related ideas in her own presentations, particularly those addressing the use of primary source documents and WebQuests in the classroom.

In her doctoral work at the local university, she has taken several courses related to technology and feels comfortable with Hyperstudio, web design, spreadsheets, and numerous other computer applications. Through this work, she has also developed several close working relationships with professors, including one from the Educational Technology department. The two have worked on bringing digital video to Ms. Hart’s classroom and conducted several class projects related to various technology
applications. Ms. Hart realizes that this association has been “a great collaborative relationship” (Hart, Personal Communication, 7/31/02), and she hopes to continue working with others from the university.

At Chance, however, Ms. Hart has found that many of her colleagues are reluctant to use technology and have not provided much support for extending what she has been able to accomplish. As a team leader, she attempts to present learning activities, such as the Holocaust lesson, to others on her team, but she has found little interest from her colleagues. She has also had conversations about technology with other social studies teachers at the school, but few have shown much interest in doing the type of activities that she incorporates into her teaching.

One colleague who has been extremely helpful with Ms. Hart’s use of technology, however, is the media specialist, Ms. Cameron. Ms. Hart describes her assistance with technology as “phenomenal” and “supportive,” and she adds, “I’m sure that I wouldn’t be able to do everything that I would like to do” (Hart, Interview #1, 5/15/02) without her. In addition to her responsibilities in the school library, Ms. Cameron is the technology coordinator for the school and spends a great deal of time trying to solve some of the technical difficulties in the three computer labs. Occasionally, she also gives Ms. Hart instructional advice and has taken the time to lead her eighth grade students through computer simulations such as Oregon Trail in the lab.

For the creation of this Vietnam activity, Ms. Hart credits a class in her doctoral studies as the primary impetus. In this course, she learned a great deal about designing web pages and using WebQuests and other web-based activities in the classroom. She employed her skills in importing pictures, linking to other web sites, and analyzing digital
resources to create an assignment that would be not only visually appealing, but also accessible and meaningful for her eighth grade students. Even more important than simply learning the design aspects of creating a web page, however, was her ability to infuse the technology into her classroom. For Ms. Hart, integrating technology into her teaching is more than simply taking her students to the computer lab several times a year. Instead, she believes that integration is using technology “on a regular basis” and argues that “the more exposure kids get to that sort of stimulus” (Hart, Interview, 5/28/02), the more they will benefit from a particular lesson. With the support she received from this class and its professor, she has continued to use this lesson and has made various revisions to strengthen its content and presentation.

**Learning Individually**

Ms. Hart finds herself working with technology for two primary purposes: to complete a number of administrative duties for her school, and to increase her knowledge about social studies and thus prepare more significant and engaging lessons for her students. As team leader, she must attend weekly meetings with other leaders from Chance and keep her four other team teachers updated on school business. She also uses e-mail to keep both fellow teachers and parents updated on the many activities going on at the school. She does much of this work on her home machine because of continual problems with her assigned school computer.

In addition to spending time at home focusing on administrative duties, she also surfs the Internet looking for relevant sites to use in her classes. As a means to encourage some of the more highly motivated students in her classes, she often provides them with one of the web sites she has found so that they can go into more depth on various class topics. She adds that she would give these students “anything that I think would be
engaging … to help them be interested in the social studies” (Hart, Interview, 5/9/02), and technology has proven to be a strong motivator for her students.

Her interest in working with technology is not limited to computers or the Internet. She has received several grants to use History Alive curricula, such as the one detailed earlier on the Holocaust, and she says she will continue to add more offerings to her classroom collection if the opportunity presents itself. She also searches for relevant videos and compact discs to find appropriate content for her classes.

For the Vietnam activity, the initial idea for the assignment came from her technology course, but she worked individually to collect the activities and make the web site operational. Ms. Hart first used ideas from History Alive and articles from Social Education to form a basic framework and then added material from Internet sites she found on her own to provide a more complete picture of the conflict for her students. With the web pages originally completed two years before this observation, she simply went back semester-to-semester to assure that the links were still operational and added sites she had acquired along the way. In the post-lesson interview, she said that she might limit some of the analysis required of students for some activities, but with its positive impact, she would continue to use this lesson with minimal modifications in the future.

**Vignette Five**

Here they are again. Two student aides are hard at work during Ms. Hart’s planning period trying to bring her computer back to life. This is the third or fourth time that something has been wrong with the machine this term, and it has happened so many times over the course of the year, she has lost track of the visits. Rather than purchasing her a newer model, or even an older one from the computer lab, the powers that be have decided that these students should keep trying to fix this machine. The computer was
donated by an insurance company three years ago and was already having problems when
Chance acquired it.

These students spend nearly two hours a day repairing teachers’ computers and
have gotten accustomed to seeing the same problems. On this call, something is wrong
with Ms. Hart’s disc drive, and she has not been able to save any of her documents at
school. After twenty or thirty minutes of tinkering, the disc drive is finally operational.
Unfortunately, when she tries to log onto the Internet at the beginning of class, the
computer gives her a system error, and the cycle begins again.

When I return two weeks later to Ms. Hart’s classroom, I discover that the
computer has crashed again and has been given permanent retirement by the school. Ms.
Hart says that she will make do until the end of the year and will probably get another
donated computer in the fall (Hart, Observation, 5/15/02).

Several months later during a new school year, I come back to see a new computer
in her planning room that looks as if it is functioning well. I comment that I am glad to
see that the school has finally bought her a new machine. She sarcastically replies,
“That’s *my* computer. I brought that one from home” (Hart, Interview, 10/31/02).

**Facilitators and Barriers to Using Technology**

**Facilitators**

Ms. Hart has made a conscious effort to use technology with both her
administrative responsibilities and her classroom preparation, and she recognizes the
factors that help make this utilization possible. Chance provides a number of
opportunities for its teachers to use technology both inside and outside of the classroom,
even though many teachers do not take advantage of these opportunities. Each room has a
TV/VCR combination, networked to broadcast student announcements across the school
each morning. Like Ms. Hart, most teachers also have at least one computer in their classroom, and the three grade-level computer labs are often available for student use. Chance also owns two projection units that can display information from the computer onto a large screen; but because they are on cumbersome carts with numerous cables, very few teachers take advantage of this resource. Each computer lab also has a master projection unit, but it was not functioning on the day of the Vietnam activity. On an individual level, a number of other factors help to facilitate her use of technology. She has applied for and received several grants that have enabled her to bring History Alive into the classroom and use it to strengthen student interest in social studies. Since each program costs several hundred dollars, she knows that she is fortunate to have these materials for instruction.

In addition to having access to technology, Ms. Hart recognizes that adequate support is also essential. As indicated earlier, Ms. Cameron provides both technical and instructional assistance in addition to her duties as a media specialist. When asked in an interview about facilitators to her technology use, Ms. Hart acknowledged that Chance was fortunate to have a number of students skilled in computer repair and available to address teachers’ problems. The students who came several times during the semester were not paid, but just did it because they liked working with computers. In listening to the conversation as they repaired Ms. Hart’s machine, it was apparent that these students understood the mechanics of computers and had thought about how they could best be used in the classroom. They argued that the new Dell computers in the labs should have been given to teachers where they could “keep an eye on them.” They complained that their fellow students “ripped up” (Hart, Observation, 5/15/02) the computers in the lab
and concluded that the machines would be better off with teachers like Ms. Hart, who would take better care of them and actually use them for instructional purposes. Even though Ms. Hart’s computer did not last until the end of the year, she still appreciated that these students were willing and able to help her when needed.

**Barriers**

Despite the benefits provided by the access and assistance available at Chance, a number of factors make it difficult for Ms. Hart to use technology in her classroom. In terms of repairing broken computers, the technical support given to the school by the district is minimal. One person is responsible for the thirty or so elementary and middle schools in the county and comes to Chance only in case of major network problems, not to deal with difficulties encountered by teachers. Ms. Cameron has been able to deal with a number of the teachers’ problems, but she cannot handle all of the crises along with her existing responsibilities. She would like to spend more time with teachers, leading them through activities like *Oregon Trail*, but troubleshooting takes the majority of her time. That leaves much of the responsibility to student volunteers who can provide support in many instances, but some teachers are reluctant to allow thirteen-year-olds to handle their machines.

In an early interview, Ms. Hart commented that someone with her responsibilities as team leader should get more than a second-hand computer that requires frequent repairs. She commented that if she didn’t have her own computer at home, she would not be able to provide students with the materials they needed or even fulfill her administrative responsibilities. She attributed most of Chance’s technology problems to a lack of proper funding. Even though many outsiders would look at the newness of the
school and assume that the technology was strong, she asserted that this was not the case. She pointed to the three computer labs, in particular, as characteristic of the problem:

So you can go into the computer lab and have ten computers that don’t have CD-Roms. So even if I did have the software, I wouldn’t be able to use it on those ten computers. Then, because we have three labs, one of which is just getting up to standard, the others get signed up for pretty regularly. So you’re sharing it with teachers across the school that want to use it. So you have to plan your curriculum around that, and it’s a scheduling thing. (Hart, Interview #1, 5/15/02)

During the Vietnam lesson, five of the twenty-five computers in the eighth grade computer lab were not working on the observation day, and several others were extremely slow in bringing up resources for students. Ms. Hart feels that student attitudes and treatment of computers make it difficult for teachers such as herself to use technology in the lab setting. Because additional staff is not available in these labs, teachers are often trying to keep an eye on as many as thirty students at a time. She recognizes that most of the students are responsible users of the equipment, but she criticizes the few who “pull out the letters and change them around and inject viruses into the computer. They don’t know how to respect the school property” (Hart, Interview #1, 5/15/02). One possible solution to this problem of malfunctioning machines, she believes, is for some of the lab computers to be moved to classrooms.

Part of Ms. Hart’s vision for technology is a situation in which all of her students would have an equal chance to use the computer. She would like five or six functioning computers in her classroom, all of them with Internet access. In this manner she could put students in small groups on the computers and keep an eye on them more easily than she could in the lab. But she recognizes that without additional funding, improved facilities are not likely, and she will continue to persevere with the technology available to her.
Connector as Technology User

As the quotation at the beginning of this chapter shows, Ms. Hart’s main objective in her classroom is to help her students see that they are part of history by making clear connections to people and events from the past. During the course of this dissertation study, she had her students take on the roles of citizens from medieval times, read personal narratives about life in concentration camps, and draft a script for a movie on Cro-Magnon man. In these, and other similar activities, she presented students with enough background information to give them a basic knowledge of the history content, but with an inquiry-based approach, she ultimately left it up to her students to ask questions that would lead to greater understanding.

Technology plays a critical role in helping her students make the connections she wants them to make in her history classes. In describing her philosophy for showing the *History Alive* slides to her students, she compares herself to a teacher who allows students to interpret a variety of assignments totally on their own. She says that this teacher’s approach takes away from the meaningful aspects of history and adds, “I would argue that it takes away from the human-interest side; that’s why I try to do a little bit of both. I try to use the slide as a tool and not the only thing that the kids rely on” (Hart, Interview #1, 5/15/02). Even though *History Alive* provides a script that teachers can use while showing the slides, she believes that the students learn best when they move away from the slides themselves and begin to question what is really happening.

Ms. Hart contends that technology can be of great benefit to her students, particularly if they have their own Internet access. She created the web-based Vietnam activity so that students would have a broad exposure to a number of people and events during class time. Then, after this exercise, if students wanted to go into depth on any
given topic, they would be able to put in the extra effort on their own time. She claims that this type of technology allows students to “direct where their learning is going to go” (Hart, Interview, 5/28/02), as they explore parts of the lesson such as writing the Vietnam veterans and studying various web sites that otherwise would receive limited investigation. Because many of her students do not have computers available to them, however, this additional exploration is not always possible, and, therefore, they are not able to make the connections that she desires. This lack of access at home is why Ms. Hart feels that she needs to supplement the technology with personal insights to help her students relate to the content.

Ultimately, Ms. Hart’s goal is for her students to engage with history so that they can feel a part of it and not just remain passive recipients of facts unrelated to their lives. Technology can play an important role in this process, she believes, through computers, video, slides, music, and other media. She emphasizes that the technology is just a tool to help students make the significant connections, and that without an accomplished teacher present to help the students interact with the historical content, these connections would not take shape.
A need to tell and hear stories is essential to the species Homo sapiens—second in necessity apparently after nourishment and before love and shelter. Millions survive without love or home, almost none in silence; the opposite of silence leads quickly to narrative, and the sound of the story is the dominant sound of our lives.

Price, “Notes on the Origin and Life of Narrative” (1978)

Vignette Six

It is the final period of the day, and twenty-four eighth grade students come quickly into Mr. Robbins’ American History classroom. The first thing that one notices entering this classroom is the collection of newspapers hanging from the ceiling. These newspapers, dating back to 1918, portray a wide range of famous headlines in history and have been laminated to last for years to come. In addition to the permanent displays of historical newspaper headlines, student work is evident all around. Students have been working on a “Travels in History” project, and brochures and posters are lying in front of the class in preparation for oral presentations. In a way the space seems unorganized with papers and projects strewn in seemingly random places, including Mr. Robbins’ desk, which is piled high with student papers and other classroom materials. But Mr. Robbins seems to know where everything is, and students are able to find what they need. One student who had been absent the previous day asks at the beginning of class where a worksheet might be. All it takes is a quick stare from Mr. Robbins, and the student moves to a crate in the back right corner of the class and picks up exactly what he needs.
From my vantage point in the back of the room, I see several items that catch my attention. On the computer table two disc drives, which seem to accompany the new computers, sit unattached surrounded by several blank floppy discs. In addition, a Microsoft Word 2001 book and a Mac OSX manual are on the floor underneath the table. Next to the books rests a CD box set of Robert Johnson’s “Complete Recordings.” I do not know if Mr. Robbins has let the students listen to this music or not, but as I wait for class to begin, I glance through some of the biography included with the discs. In addition to being a talented musician and bluesman, Johnson had a complicated personal life and died at age 27 under mysterious circumstances. With his background, I can see why Mr. Robbins is interested in the music, and more significantly, in the story surrounding the music.

On this warm spring afternoon, Mr. Robbins is dressed professionally in a blue long-sleeved dress shirt, red tie, khakis, and brown leather shoes. He has his Alexander ID badge on his belt buckle, and, as usual, his glasses are hanging off his neck in anticipation of reading to his class. By this point in the school day, his hair is slightly disheveled, but he is still energized as he enthusiastically greets his fourth-block class at the door.

Class truly begins when Mr. Robbins prompts the students to copy the daily agenda and adds the reminder that “if you haven’t done this, you have already fallen behind.” Most of the students quickly open their notebooks and copy down the agenda and the daily quotation. After a unit on Andrew Jackson and discussion about his personal character and presidency, the class has now moved on to the 1830s and 1840s and the Texas Revolution. Students had a brief introduction to Texas history in their last class
meeting, and as an introduction to today’s lesson, Mr. Robbins has students listen to “The Ballad of the Alamo” and follow along with printed lyrics. He asks students to listen to the song and attempt to pick up any “historical inaccuracies.” During the song most students follow along with their lyrics sheet, and a few of the bolder students attempt to sing along with the ballad.

When the song is over, one student immediately makes a comment about the total number of Texans at the battle. Mr. Robbins takes the opportunity to point out differences in history textbooks’ reporting of battle figures and follows with the question, “Why would textbooks want to exaggerate?” Another student remarks that it would make the Texans look better and more heroic in the process. After several more comments on the differences between the song and the actual battle, the class moves to a visual representation of the battle from the John Wayne (1960) movie *The Alamo*. Mr. Robbins knew that the 1960 cinematography would be humorous to his students, but he still felt that the video would capture their attention and assist him in telling the story of the Alamo.

In the previous class meeting, Mr. Robbins discussed with students some of the key players who fought at the Alamo. With larger-than-life figures such as Davy Crockett, William Barret Travis, Sam Houston, and Jim Bowie, the Alamo was an alluring subject for eighth grade students. Mr. Robbins provided them with both primary and secondary sources from the battle so that they would have some essential facts and insights from personal letters of those who fought there. In the class period before showing the video, he also presented students with the story of Davy Crockett and his controversial death. Rather than simply portraying him as the hero that most textbooks describe, Mr. Robbins
presented students with several conflicting theories about Crockett’s death, including one claim that he was captured and executed at the Alamo. Students had a lively debate about the authenticity of historical sources and were well prepared for watching *The Alamo.*

Before showing the clip, Mr. Robbins takes the opportunity to discuss one message that he wants students to get out of the film. He warns students not to “fall for everything you see, hook, line, and sinker.” He suggests that students take notes on all of the discrepancies they can find in the movie. Because he is showing a clip from the middle of the movie, he identifies the actors with their characters from the battle (Crockett, Travis, Houston, Bowie, etc.).

During the video, the students are mostly attentive. When the cannon fire and rifles explode from the screen, the students become even more focused. At one point when a building is hit with cannon fire and the actors jump off in unison, a number of students laugh out loud. One student even exclaims, “This is so fake!” The total clip takes about fifteen minutes; the discussion that ensues is much longer.

The discussion begins when a student poses the question, “Would a slave really throw himself in front of his master?” Opinions as to the wisdom of this gesture vary across the room, but Mr. Robbins assures them that this response did occur frequently in battle and apparently did happen at the Alamo. Then, he uses the overhead projector to list historical inaccuracies that students reveal from the movie. Among the key differences highlighted are:

- The attack on the Alamo took place at 5:30 a.m., but the movie had the battle taking place in broad daylight.
- The Mexicans are said to have surprised the Texans when they first attacked, but the clip showed a more overt assault.
• Davy Crockett kills himself by blowing up the fort in movie, but he probably did not die as heroic a death in real life.

• Santa Ana was portrayed in the movie as meek individual on a white horse, but many accounts present him as a much more imposing figure.

These inaccuracies are only a few of those listed by students, and Mr. Robbins concludes this part of class with the claims from some historical sources that the casualties were one Texan for every four to five Mexicans at the Alamo. He then asks, “What kind of warning flag does this send to you as a student?” One student says that the film has only “a hint of truth.” Mr. Robbins agrees, saying that the film industry exists primarily to make money and “won’t let the truth stand in the way of a great story” (Robbins, Observation, 5/13/02).

Defining Technology

Among the three exemplary teachers, Mr. Robbins has seen the greatest change in technology innovation from the beginning of his teaching career to the present day. When he started teaching thirty years ago, overhead projectors were luxuries in public schools, and the only computers around at that time were housed in basements of large corporations or government facilities. After over a decade away from the classroom, Mr. Robbins returned to find that computers had become much more common in schools; and institutions like Alexander had grown into magnet schools for technology use.

For Mr. Robbins the technology of thirty years ago and the technology of today fall into the same category. Like the other two teachers, he views technology broadly as a tool that assists the learning process and makes classroom life easier. More specifically, he describes technology as anything that goes “beyond paper and pencil, chalk and blackboard” (Robbins, Interview, 4/26/02). While he has been a computer owner since the first days of personal machines, he sees other media as having just as much impact on
what students learn in his classroom. He calls “low end” technology such as the VCR and CD player “key elements” (Robbins, Interview, 4/26/02) that encourage students to engage with the past and learn more about various periods of history. He worries that many teachers have abandoned these forms of technology for glitzier innovations such as computers or Personal Digital Assistants. He feels that technology has too often been branded as “the messiah” (Robbins, Interview, 5/2/02) that can save education from the depths of ignorance, and recognizes that it cannot live up to these expectations.

The lesson on the Alamo shows the breadth of Mr. Robbins’ characterization of technology. In this class period, he uses several elements that fit into his conception of technology. He uses the CD player to broadcast “The Battle of the Alamo,” the television and VCR to show the movie *The Alamo*, and the overhead projector to portray student discussion responses and later in this lesson to exhibit student notes. In describing why he chose to use these three forms of technology, Mr. Robbins indicated that they “enrich this lesson” and provide a “change of pace” (Robbins, Pre-Observation Questions, 5/13/02) for those students who benefit from different learning styles. By appealing to auditory learners with the music and visual learners with the movie and student notes, he feels that he is able to add to the “richness” (Robbins, Pre-Observation Questions, 5/13/02) of the class and impact a greater number of students.

**Teacher Beliefs**

What becomes apparent through observing Mr. Robbins’ classroom is not only his passion for his subject, but also the lengths to which he will go to ignite the same type of passion in his students. During one of the earliest classroom visits for the present study, Mr. Robbins had abandoned his traditionally formal attire for a plain white t-shirt bearing the phrase “I Am a Loser.” Earlier in the year, students participated in a stock market
simulation in which, after a period of investigating, small groups chose stocks to follow for several months. The simulation had recently ended, and since Mr. Robbins’ portfolio was valued at less than that of the neighboring science teacher, he had to wear the “Loser” t-shirt for the entire school day. Besides enjoying the fact that he looked silly, students appreciated his willingness to have a sense of humor about learning and were even more focused than usual for that particular lesson.

Beliefs about Instruction

During one of his interviews, Mr. Robbins quoted a statistic suggesting that teaching was “25% preparation and 75% presentation” (Robbins, Interview, 5/8/02). While it is impossible to quantify his teaching performance in this manner, his mention of this ratio is still useful for examining his approach to instruction. Even though he has been teaching at various levels for over fifteen years, he is not content to implement existing lessons in the same manner every time, and he continues to modify and refine his presentations to maximize student participation. As a self-described “precocious” (Robbins, Interview, 4/26/02) reader, he continues to expand his thinking about American history, and this enrichment helps him to craft lessons that will appeal to his middle school students. One of his greatest concerns about the current direction of education is the idea of teachers using prepackaged lessons. He argues that this type of preparation is extremely “inauthentic” and that the push for a standardized “teacher-proof curriculum” (Robbins, Interview, 4/26/02) removes too much of the creativity and originality from teaching.

He sees textbooks as a large contributor to this movement towards uniformity in the classroom. While he does use the American History text occasionally in his class, he has students consult it only when they “can identify with it, relate to it” (Robbins, Interview,
5/23/02). Too often, he feels, teachers base entire lessons solely on the textbook and rely on worksheets and other supplementary materials to motivate students. Mr. Robbins takes great pride and satisfaction in developing his own lessons, and adds that he “enjoys the challenge … of bringing in a variety of sources” (Robbins, Interview, 5/23/02) to appeal to different students.

While preparation is obviously important to Mr. Robbins, his presentation is what keeps students excited about coming to his class. Even though he may be slightly older than most of his colleagues, he still feels that he knows what “appeals to young people” (Robbins, Interview, 4/26/02) and tailors his lessons to match student interests. One of the primary methods he uses in his presentations to connect to students is humor. He describes his own sense of humor as “offbeat” (Robbins, Interview, 4/26/02), which often fits well with the mindset of young adolescents. Another belief that guides his classroom style is a multi-sensory approach to learning. While reading and writing are significant in the instructional process, he also wants students to learn by hearing, seeing, touching, and feeling to engage with the past.

What is probably most memorable about Mr. Robbins’ classroom approach to teaching is his ability to tell an engaging story. He started telling stories as a young summer camp counselor, and he continues to use this technique as part of nearly all of his lessons. He cannot explain exactly what makes him an effective storyteller, but he provides a number of possible insights. Having grown up in the Deep South, he was exposed to an oral tradition of storytelling from family and friends, and some of this art may have impacted his character. As a schoolboy, he had several teachers who were able to “take the driest events in history … and turn [them] into an interesting story” (Robbins,
Interview, 10/31/02) and some of them made a lasting impression. Finally, he surmises that because “stories worked on me” (Robbins, Interview, 10/31/02), he is able to use the same line of thinking to bring the subject matter to life for his students through narratives.

Preparation is a large ingredient in the success of Mr. Robbins’ lesson on the Alamo. With a particular interest in Texas history, he distributed a number of sources for his students before this class. Included in this packet were secondary accounts of various events in the revolution and push for independence, primary source letters from major participants in the battle, and lyrics to several songs about the Alamo. Because students were able to explore these sources on their own, they were able to listen to the song and view the video from a more critical perspective.

With a solid preparation for this lesson, Mr. Robbins was then able to provide an effective presentation for his students. Although he did not initiate the humor used in the lesson, both the song and the video provided some opportunities for laughter in the class. Part of the appeal of “The Battle of the Alamo” is that its style was so different from the music that most eighth graders listen to that students actually listened more closely to the lyrics than they might to a more modern song. Students could have simply read through the various articles in the packet, but Mr. Robbins chose to use music and movies to enhance the lesson. Adding sight and sound to student perceptions of this key historical event made the accompanying discussion more powerful.

Most significant for the presentation of this lesson was Mr. Robbins’ ability to bring out the facts of the Battle of the Alamo and turn them into a fascinating story for his students. Any account that shows Americans rising to the challenge presented by a stronger enemy has particular appeal for students of history, and the events surrounding
the Alamo make for an intriguing story. Mr. Robbins’ introduction of personal accounts, along with those from the song and the video, helped students form a more complete picture of the events at this famous battle. Along with the account of the battle itself, what made this lesson powerful was the exploration of historical inaccuracies in the song and in the movie. Students were able to cite a large number of differences among the facts given to them in their packets and the media sources and also to recognize the larger message—that the media will distort the facts to entertain a mass audience. At the end of this lesson, students not only were able to relate to the story of the Alamo, but they also came away with the notion that history is not just a collection of facts listed in a textbook, but a dynamic subject that deserves a critical examination.

**Beliefs about Technology**

One might examine Mr. Robbins’ résumé and assume that he is an avid supporter of technology in the classroom, particularly the use of computers. He has owned a personal computer since they were first released in the 1980s and has used them for various applications in his classroom. He is fairly proficient at using computers for both personal and professional purposes and has experience with word processing, Endnote™, WebQuests, Internet searching, and numerous other applications and activities. In addition, he has written articles and made conference presentations related to the role computers can play in the social studies classroom. He considers his competence with technology to be between average and savvy.

But interviews and observations reveal that he has a cautious, even disparaging, view of the way that technology is often used in the classroom. During his most recent teaching experiences at Alexander, he has seen a trend in teachers using technology “for technology’s sake” (Robbins, Interview, 5/2/02) rather than having a real instructional
purpose. He argues that much of what passes as good technology is really not beneficial for students, but teachers use it anyway because they feel compelled to bring computers and other media into their classrooms. He believes that some good technology tools are available for teachers, but as a whole “most classroom teachers are ignorant of what is available to them” (Robbins, Interview, 5/2/02).

One of the most disturbing trends that Mr. Robbins perceives in technology integration, particularly at Alexander, is the emphasis on anything that will enhance students’ test scores. With Florida’s emphasis on standardized testing and the rewards and punishments that result from the grading of schools, teachers at Alexander are extremely concerned with their students’ scores, and Mr. Robbins acknowledges that this concern is merited. Rather than addressing standards in classroom settings, a number of teachers at Alexander have used programs in the computer lab to help their students prepare for these tests. In Mr. Robbins’ opinion, these “drill and kill” programs and “electronic flashcards” (Robbins, Interview, 5/2/02) do little to improve student learning and take time in the lab away from teachers who would like to do more enrichment activities with their students. He has taken students to the computer lab on several occasions during the school year, but it has only been after careful consideration and planning.

Even with this critical attitude towards technology, he does believe it can have a place in the social studies classroom. Through projects such as researching national parks, awarding the “non-American of the century,” or creating journals of Civil War era citizens, his students have used technology to explore various topics in history. His frequent application of music in the classroom is one of the areas in which he sees
technology having a positive impact on his students. His classroom music collection contains selections from colonial times to the present, and he finds himself accessing music frequently. As he describes his thinking as non-linear, he also expresses his taste in music as eclectic, thus hard to characterize. In regard to his relationship to music, he contends that he can “see connections where maybe others don’t” (Robbins, Interview, 10/31/02), and that enables him to make history more meaningful for his students. He notes a deep personal connection to music throughout his lifetime and believes that his eighth grade students can relate to music in a similar way.

The lesson on the Alamo helps to show some of Mr. Robbins’ beliefs about technology in his classroom. He used computers to research information about the Texas Revolution and create handouts on the period for his students. But for teaching the lesson, he did not feel the need to go beyond the “low-level technology” (Robbins, Interview, 5/23/02) of the VCR and CD player to relate the story of the Alamo to his students. Through film and music, students were able to analyze different accounts of historical events and evaluate their accuracy. He maintains that the technology enhanced the students’ experiences with this event and adds that he did not have to force the technology just to fit the lesson. In relating the events of 1836, he believes that through the technology, “the kids are able to pick it up on their own” (Robbins, Interview, 5/23/02), and he does not have to prompt them to grasp the details of the story. If he were to teach this lesson on the Alamo again, he says, other than spending more time exploring historical inaccuracies, he would continue to use the same technology and allow students to construct their own meaning from the story.
Beliefs about Social Studies

From early in his schooling, Mr. Robbins showed a profound interest in social studies content, particularly American history. His parents took him to many historical sites as a boy, and these experiences helped to make history come alive for him. Once he started discovering more about history, he found that “the more I learned, the more I wanted to learn” (Robbins, Interview, 4/26/02), and he continues this quest for knowledge to the present. One of the major goals for his students is that they cultivate the same type of passion for history as he has developed throughout his life. This excitement is clearly shown in the makeup of his classroom, which is decorated with newspapers dating back to 1918. Early in the school year, he uses many of these papers in assignments that help to connect past events to current issues. He believes that this emphasis on current events makes his classroom an “interesting” (Robbins, Interview, 4/26/02) place and one where students enjoy spending time.

Another important factor in Mr. Robbins’ beliefs about social studies is his conception of history as a large story. While many social studies teachers may be sticklers for names and dates, he sees history as having greater meaning and purpose. He recognizes the importance of the names and dates in the big picture of history, but he has also been able to pull out the parts of history that appeal most to young adolescents. He attributes some of his ability to turn historical events into stories to his Southern heritage, and some of it he credits to his overall enthusiasm for the subject. An illuminating anecdote helps to show how storytelling has impacted his students:

In the late 1970s … there is a gubernatorial election in Louisiana. Edwin Edwards is on the ballot, but some guy named Luther D. Knox, Luther Devine Knox, legally changes his name to “None of the above” and runs for governor. It goes to the Louisiana State Supreme Court, and his name appears on the ballot as Luther D. Knox. They wouldn’t let him use his “None of the above.” For some reason, some
of the students that I taught, that particular story had some kind of resonance with them, because I saw a student almost 20 years later and he looked me dead in the eye and said “Luther Devine Knox.” It was something that he remembered and got a kick out of it. (Robbins, Interview, 5/23/02)

He argues that history does not have to be dull and boring, but can be an exciting subject that eighth grade students can appreciate, enjoy, and carry with them for life. He knows that this approach does not work for all teachers, but given his background and self-described “non-linear” (Robbins, Interview, 4/26/02) ways of thinking, he feels that his narrative style plays a large part in the success he has had in teaching.

In this lesson, Mr. Robbins’ depiction of the Alamo is indicative of his belief that social studies is much more than the static account one receives from a textbook. While many American history teachers would not choose to spend several days on the Texas Revolution, he is able to connect it to broader themes in American History such as conflict, expansion, and nationalism. With his extensive knowledge of the subject matter, he is able to relate information about key events and incorporate significant primary source material for his students. Rather than offering a linear account of the Battle of the Alamo and related events, he turns the incident into a story for his students. From the controversy over the hero status given to Davy Crockett to the details of the Mexican attack, Mr. Robbins engages his students in a dialogue that leads to several significant classroom exchanges.

Because he has been telling stories for much of his life, the narrative process has become almost second nature, and he thoroughly enjoys sharing his knowledge of history through narratives. He continues to value teaching history and feels that given the compelling nature of the subject, it is something that he cannot help but continue to do. Since it is difficult to fail at something that is so compelling and relevant to his students’
lives, Mr. Robbins rationalizes that teaching history is as easy as “shooting fish in a barrel” (Robbins, Interview, 4/26/02).

**Vignette Seven**

It is a new school year, and Mr. Robbins is still waiting for three of the five new computers promised him by the administration during the last school year. He has used the new iMacs on several occasions, but he feels that it is difficult to engage students in whole-class activities with only two computers. Even though he was supposed to get these new computers six months ago, he has received no confirmation that the other machines will be brought soon and continues to function with what is available. Scattered below a table with two new iMac computers are pieces of four older machines with monitors, keyboards, mice, and other assorted parts. These older computers are incompatible with current network operations, and Mr. Robbins is waiting for someone from the school to remove them.

Nine weeks into the school year, Mr. Robbins’ eighth graders have become accustomed to his classroom routines and immediately copy the agenda from the board, along with a quotation from his “Commonplace Book.” The passages in this book come from a wide variety of sources and usually are connected to the topics and themes that he is covering in class. On this day, the quotation is from John James Audubon, who noted, “A true conservationist is a man who knows that the world is not given to him by his fathers, but borrowed from his children.” Once students are settled, he calls attention to the Audubon quotation and asks, “What do you associate with him?” Several students mention the Audubon Society and his impact on wildlife and environmental issues. Mr. Robbins nods in agreement and states that students need to keep this quotation in mind as they complete the day’s activity.
He asks students to clear their desks of everything except a writing utensil. With the assistance of his two teaching interns, he passes each of the students a chocolate chip cookie and divides the class into two equal groups. For humor, he asks them if they know what a “gag reflex” is and explains that if they eat the cookies that he is passing out, he will ask one of the students to trigger the gag reflex to bring the cookie back. While this comment is made as a joke, it gets his students’ attention, and no one attempts to eat the cookie during the activity.

After this warning, he provides directions on how the different sides of the classroom will extract the chocolate chips from the cookies. Students on one side can smash up the cookie in any way that they want to obtain the chips, while the students on the other side try to remove the chips while keeping the cookie intact. He gives the students ten minutes to complete the activity, and, because “time is money,” he implores them to work at a brisk pace. During the ten-minute extraction period, the students are extremely involved with their cookies. Some students meticulously attempt to extract their chocolate chips from the cookie, and others smash their cookies with reckless abandon to reach their desired end. After this ten-minute period is complete, the interns collect the chocolate chips from the plates and measure them on a scale in the front of the room. The group that took the chips out forcibly has much more material overall, even though the cookies are reduced to crumbs.

After collecting the cookies, Mr. Robbins approaches the CD player and tells the class, “This is a song by someone you probably have never heard of” and passes out a song lyrics sheet for “Paradise” by John Prine, along with two questions for analysis. During the song, students are mostly listening and following along on their sheets and, as
was the case with “The Battle of the Alamo,” a couple of students sing aloud. After listening to the song, Mr. Robbins asks, “Why would anybody name something Paradise?” and “What must a place be like for people to call it Paradise?”

After receiving no initial response, Mr. Robbins relates the story of Paradise, Kentucky. He informs the students that it was a coal mining town from around 1850 until the 1950s or 1960s when a Mr. Peabody took over the mine. Mr. Peabody was not satisfied with current methods of mining and wanted to use strip mining as a means to find more coal. At this point in the narrative, he turns to the class and inquires, “If you were the president of Peabody coal, would you be meticulous, or just get as much as you can?” He focuses the class back to the scale in the front of the room and inquires, “If your goal was simply to get more chips, then what would you do?”

One student connects this situation to the cookie activity and argues, “I would do whatever it took!” Mr. Robbins nods in agreement and adds more to the story of Paradise by presenting pictures of the town both before and after strip mining was used. Students are surprised at his description of how the Tennessee Valley Authority took over the town and flooded it so that it lay under twenty feet of water. They immediately question why and how an entire town could be under water, and Mr. Robbins adds that in the name of money and progress, just about anything can happen.

After finishing the story, Mr. Robbins gives his students two questions from the lesson. One question asks them to interpret a key line from the song: “Then they wrote it all down as the progress of man.” A second question asks students, in a well-constructed paragraph, to connect the cookie activity, the song, and their own place in the world. These types of questions are similar to the writing responses students will give for the
FCAT test several months down the road. After a short time of collecting their thoughts and ideas, students eagerly craft their responses. Interestingly, Mr. Robbins is aware that at the time of this lesson, across the campus in Alexander’s computer lab students are using software purchased by the school to improve their test-taking techniques for the FCAT (Robbins, Observation, 10/31/02).

**Teacher Learning about Technology**

**Learning through Professional Development and Collegial Activities**

Even though Alexander has a strong technological focus as part of its program, teachers have not received much formal training in using technology. The school has offered assistance with various computer applications, but attendance has generally been on a volunteer basis. Because he is already familiar with most of the programs being taught, Mr. Robbins has not attended any of these technology sessions. The sole example of technology support that Mr. Robbins received was when the school moved to a block schedule two years ago. Social studies teachers were provided with support by university faculty in how to vary their instruction for longer class periods. In one of these sessions, the presenter focused on using technology in the social studies classroom. But since this session talked mostly about relevant Internet sites, simulations, and WebQuests, concepts with which Mr. Robbins was already familiar, this information was largely repetitive and not immediately useful. For the lesson on Paradise, Mr. Robbins did not receive any direct ideas about these activities from professional development experiences.

While Mr. Robbins has learned very little about technology from formal training provided by Alexander, he has benefited by working through larger professional networks, at the university and with colleagues at Alexander. In his professional experiences both inside and outside of the social studies, Mr. Robbins has continued to
stay current with technology issues. He tries to attend at least one national conference a year—usually either through the National Council for the Social Studies or the American Educational Research Association. At these larger meetings, he usually gains a few technology-related ideas that he can take back to his classroom, but generally he is more interested in history or social studies subject matter. He has also attended local and state meetings, usually related to social studies.

For several years, Mr. Robbins has had student interns from the local university for an early experience at the beginning of the school year and for a longer period of student teaching later in the year. In regard to their use of technology, he has mixed emotions. He finds that many of these future social studies teachers have strong technological backgrounds, but they do not always translate these skills into effective lessons. In Mr. Robbins’ opinion, these lessons often focus more on the “bells and whistles” than on the social studies objectives, and he argues, “It seems like it would be more trouble than it’s worth” (Robbins, Interview, 10/31/02). He feels, however, that most of his interns bring good ideas to his classroom, and he tries to give them direction in all aspects of instruction, not just technology.

Another experience Mr. Robbins has had with technology through the university is working on a study with a doctoral student in social studies education. This doctoral student was interested in investigating the role of technology in the history classroom and knew of Mr. Robbins’ reputation as an outstanding history teacher. With the goal of

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exploring eighth graders’ historical understanding, especially investigating the concept of historical empathy, Mr. Robbins’ classroom seemed a natural fit. In addition, Alexander’s computer lab provided an ideal location to complete this inquiry, primarily through the use of a WebQuest on the Civil War. With these factors in place, this study was conducted over the course of several weeks and resulted in a conference presentation and two related articles.

Mr. Robbins has worked with colleagues at Alexander for technology projects on many occasions. In previous years, he has collaborated with the technology teacher on a variety of learning activities. In one such activity, the two teachers developed an assignment on the “non-American of the 20th century,” which involved taking virtual field trips, examining data from foreign countries, and creating a student web page. Mr. Robbins also has worked closely with Mr. Knox, the science teacher on his team, to share technology views and teaching strategies. During one observation for this dissertation study, the two teachers arranged a class visit from the father of one of their students, who writes a technology column for the local newspaper. This technology expert presented students with ideas on the Internet, file sharing, copyright, and the future of technology. While these types of experiences with technology are not common in Mr. Robbins’ classroom, he will take advantage of situations if he feels that they will ultimately benefit his students.

Several colleagues played a role in the development and implementation of the Paradise lesson. Mr. Knox provided the scale used to weigh the two groups of extracted chocolate chips at the end of the cookie activity. The two student interns helped to monitor and encourage students during the extraction process. The most significant points
that Mr. Robbins learned about Paradise came from a friend who was a baseball coach at the University of Kentucky. This friend was actually from Paradise before it was flooded, and he provided Mr. Robbins with both pictures and information on the city. In his description of the town, Mr. Robbins was able to bring in personal accounts and make the portrayal much more real for his students.

**Learning Individually**

Individual motivations and interests play a large role in how Mr. Robbins learns about technology. He spends a good deal of time on his own searching for interesting information to supplement his curriculum, much of it at home on his own computer. Rather than looking for entire lesson ideas on the World Wide Web, he instead tries to uncover primary source photographs or musical selections that might enhance existing activities or presentations. He finds the amount of information available on the Internet overwhelming, but occasionally finds helpful pieces of information for his classroom. He also pays close attention to television programs and new music that he might be able to use in his classes. While he has a fairly sizable assortment of compact discs and videotapes, he continues to add to his collection.

In the Paradise lesson, several elements of Mr. Robbins’ interests in technology came together to enhance the overall presentation. He had taught about Paradise in previous years, but this was the first time that he had tied the song to the cookie activity and the quotation. While Mr. Robbins’ friend provided significant background knowledge on Paradise, individual research helped him to discover more about the origins of the Kentucky town and its eventual demise. A simple search on Google helped him to find many of the photographs that he used during the lesson, and he used a printer and overheads to make them accessible for the entire class.
Finally, the John Prine song, “Paradise,” that Mr. Robbins played to enhance the story came from his own music collection and was one that he has used in his classroom for a number of years. Since the song was released in 1971, well before most of his students were born, Mr. Robbins recognized that it would not be familiar to most of his 14-year-old pupils. Despite some concerns about student attention, he knew that the song would help deliver the message of the lesson, and with the provided lyrics, would bring students closer to the story.

**Facilitators and Barriers to Using Technology**

**Facilitators**

Mr. Robbins recognizes that because Alexander is a technology magnet school, it has some advantages over other schools in regard to available hardware and software. The school has a full-time technology teacher for its three computer labs, presumably to take care of the facilities and work with individual teachers and classes. According to Mr. Robbins, several other people around Alexander are also “peripherally available” (Robbins, Personal Conversation, 4/30/03) for lab support if needed. He considers the media center to be state-of-the-art with new hardware and software available for students. The PTA and other organizations have attempted to obtain more computers for teachers, including the five new iMacs promised to Mr. Robbins. Each classroom has a television and VCR combination, and these are used partially for student announcements that are displayed daily to the entire student body. Alexander has an administration that is committed to using technology in the school, and the principal, a former social studies teacher, does what he can to promote technology use among all of his teachers.

At Alexander many students are active with technology and have a number of avenues to explore various interests in this area. In the sixth grade, all of the students
must take a technology class in which they are exposed to a number of innovations. Some of the students in the eighth grade choose to take a class in television production and create the morning announcements for the school. In addition, students in Mr. Robbins’ program must complete a service project before leaving the eighth grade, and many choose to present their findings through a multimedia approach. The program’s website, also primarily designed by students, argues that these experiences with technology “will prepare students to take advantage of the technological tools, which will be an integral part of the society of the 21st century.” As a whole, Mr. Robbins’ students have a good background with technology by the time they reach his class and are comfortable using it for any classroom assignment.

Because Mr. Robbins acquired most of the materials for the Paradise lesson on his own, he did not need to use any of the other school facilities or equipment. He used his classroom computer and printer to create overheads and handouts for both song lyrics and information about Paradise, Kentucky. Internet access in the classroom also provided him with additional resources, including several primary source photographs of the town that he turned into overheads and displayed to the class. As mentioned earlier, he did have to borrow the scale from the science teacher to weigh chocolate chips, but the rest of the materials were his. He has owned the John Prine CD for a while and has used his personal CD player on numerous occasions for the class. Mr. Robbins contemplated using one of the computer labs or the media center for this lesson, but with the resources available at hand, he decided to keep his students in the classroom.

**Barriers**

Even with the facilitators listed above, Mr. Robbins has encountered a number of barriers that make it difficult for both him and his students to use technology on a regular
basis. While Mr. Robbins has used the computer labs on a number of occasions, he generally finds that signing up for them is complicated and not worth the trouble. He speculates that some teachers sign up for the labs well in advance of their assigned dates and use them not for any organized class projects, but for “electronic flashcards” and “drill and kill” (Robbins, Interview, 5/2/02) test preparation. While the computer labs have been useful for such projects as the stock simulation and the Civil War WebQuest, it has been difficult to obtain them when needed. Occasionally, he will send small groups of students to the media center for individual research, but although Alexander has a “wonderful facility” (Robbins, Interview, 5/2/02), the computers are often off limits for students. Because of previous experiences with students taking poor care of the machines, the media specialists have kept students away from the media center unless accompanied by a teacher. Even though the potential is there for the media center to be an inviting and stimulating work environment, Mr. Robbins claims that it is definitely not “kid friendly” (Robbins, Interview, 5/2/02), and, therefore, it is under-utilized.

Inside the classroom, several factors make using technology difficult for Mr. Robbins. Since the computer labs and media center are rarely available, classroom computers would provide the best alternative for student engagement. While some students have taken advantage of the computers already in Mr. Robbins’ room, having only two machines makes whole-class computer investigation impossible, and these two computers receive minimal use. The layout of the room also makes any visual or musical presentation challenging. With a small television mounted in the front left corner of the classroom, videos are hard for most students to see. According to Mr. Robbins, it takes a lot of preparation to use the television for class, and lights have to be adjusted to avoid
glare. Similarly with the CD player in the back of the room, it is difficult to adjust the volume properly, and many students complain about their inability to hear the music. During several of the spring observations, the air conditioner in the room constantly turned on and off, adding to student difficulties. While Mr. Robbins appreciates having a large classroom where he can display current event newspapers and student work, he also understands the difficulties of using audio and video in this environment.

Figure 6-1. Mr. Robbins’ fourth-block classroom

Because the Paradise lesson was contained inside his classroom, the other barriers around Alexander did not play a significant role in the execution of this lesson. He considered having students go to the machines in the room to find information to supplement what they heard in class. But because only two computers were easily available for student research, he decided against having them pursue this method of
investigation. It is unclear what impact, if any, the room arrangement had on the students’ ability to hear the song “Paradise” as Mr. Robbins played it on his CD player, but it is likely that a number at the front or far side of the room did not hear the song very well. Since all of the students had a copy of the lyrics, it was still possible for them to discern the central meaning of the song. By confining this lesson to the classroom, Mr. Robbins was able to avoid many of the barriers that would have faced him had he ventured to other parts of the school to conduct this lesson.

**Storyteller as Technology User**

Narrative permeates many aspects of Mr. Robbins’ classroom instruction, and nearly every classroom observation for the present study contained some sort of story related to that day’s lesson. Sometimes the story is as simple as a brief anecdote about the origins of his “Commonplace Book” quotation, or it can be as complex as an analysis of the character of Andrew Jackson in the years before he was president. Even the newspapers that hang from the ceiling portray the notion that history is an ongoing story that has many fascinating and interconnected components. No matter the historical topic, a story is always at the center of instruction, and students are actively engaged in the subject matter. From Sam Houston to Sequoyah to Peggy Eaton to Andrew Jackson, Mr. Robbins finds a way to bring historical figures alive for his eighth grade students.

Technology does play a role in Mr. Robbins’ storytelling approach. When he spends 30 to 45 minutes in a class talking about a given historical figure, he uses the overhead projector to provide a biographical outline of the person in question, as he fills in the most significant parts of the story himself. One example of this approach comes from a lesson on Sequoyah, the Cherokee leader probably best known for creating his own unique alphabet. In the case of someone like Sequoyah, he uses the overhead to list
facts such as “12 years spent working on the alphabet” or “86 symbols needed to
duplicate the Cherokee language” (Robbins, Observation, 5/2/02), but what is most
interesting to eighth graders is not these isolated facts, but the anecdote that Mr. Robbins
tells about Sequoyah’s wife. Tiring of his lack of attention, Sequoyah’s wife became
extremely angry with him and burned much of his work so that he had to recreate most of
what he had worked on. Textbooks rarely present these types of stories to students, but in
Mr. Robbins’ opinion, they are what make history real. With a strong content
understanding, and a conception of what young adolescents find appealing, he is able to
make these stories of history come alive for his students.

Video also provides a useful supplement to the narratives that Mr. Robbins shares
with his classes. He relies on biographies, documentaries, and other films to supplement
the stories he is telling in the classroom. In one observation, Mr. Robbins devoted much
of the class period to a video on Andrew Jackson and his enigmatic character. Even
though the video would not be considered engaging by most students’ standards, this
visual representation showed a side of Jackson that would have been difficult to portray
with handouts or notes. In discussing his use of The Alamo, he noted the ability of film to
provide students with something more than they could get through a written description.
He adds:

I would say that a lot of the stuff about the visual, being able to see John Wayne’s
interpretation of the Battle of the Alamo and relating it to previously learned
material, is powerful for students. I think that technology certainly enhances it…. I
don’t have to prompt them. I don’t need to tell them before we start: “Look at this,
look at that, look at this, look at that.” (Robbins, Interview, 5/23/02)

The discussion that followed the clip from the movie showed that students paid close
attention to the film and were able to pick out which elements of the story were accurate
and which ones the filmmakers added for dramatic effect. While many students of history
likely take what they see on the screen as fact, Mr. Robbins’ class was able to take this
discussion to a much higher level. The technology played an important part in this
process, although it was only one factor among many in the success of this lesson.

Interestingly, while music and film played a large role in Mr. Robbins’ classroom
narratives, computer technology had a much smaller influence. He used the Internet to
find some facts about Paradise, Kentucky, and the battle of the Alamo, but he found most
of the information about these places from other sources. When asked in an interview
whether or not technology enhanced or detracted from the narrative part of history, Mr.
Robbins claimed that the visual elements, such as photographs or film, helped his
students relate better to previously learned material. In regard to computers, however, he
returned to the fact that he only had a limited number of machines in his classroom, and
that students would not able to spend enough time examining sources to make using the
machines worthwhile. His previous work on the Civil War WebQuest supports his belief
that computers have a supporting role in helping students make a personal connection
with history, but with limited classroom access to them, he believes that the best story is
the one that he tells himself.
CHAPTER 7
CROSS-CASE ANALYSIS

This chapter compares and contrasts how the three exemplary social studies teachers use technology in their classrooms. More specifically, it examines their technology use through the major constructs described throughout the study and the teacher descriptions in Chapters 4, 5, and 6. The five guiding research questions direct the analysis of this chapter. Evidence from interviews, observations, lesson plans, and other documents is cited to develop generalizations regarding how well these questions were answered.

As a whole, the findings show that these exemplary social studies teachers used technology in significant ways to engage students in learning. While there are some strong similarities in such areas as the lack of professional development opportunities and the emphasis of each school on using computer labs for standardized test preparation, significant differences emerge in such areas as beliefs about instruction and specific implementations of technology. The metaphors developed in Chapters 4, 5, and 6—Mr. Clayton the model citizen, Ms. Hart the connector, and Mr. Robbins the storyteller—highlight the unique ways that these teachers approached technology integration in their social studies classrooms.

**How Do Exemplary Social Studies Teachers View Technology?**

The exemplary teachers in the present study have similar opinions of what classroom equipment can be considered technology. Mr. Clayton specifically mentioned low-tech items such as the television and VCR as technology that played a large role in
his classroom. In addition to these devices, he relied heavily on computers and took his
class to the lab several times during the present study. While Ms. Hart stated “definitely
technology” (Hart, Interview, 5/9/02) as her first reaction to the question of what
constituted technology, she later added the VCR, slide projector, and CD player, all of
which were available in her classroom. During the course of the present study, she used
computers, the VCR, slides, and music in her teaching. Mr. Robbins listed the VCR and
CD player as “key elements” (Robbins, Interview, 4/26/02) of his classroom teaching. He
used both of these machines during several classroom observations to supplement his
American history instruction.

Chapter 2 of this dissertation presented three different conceptions of technology as
it applies to classroom use. The first definition, from the National Educational
Technology Standards for Students (1998), referred to technology exclusively as
computers and related technologies. A second viewpoint, from Mehlinger and Powers
(2002), expanded the definition somewhat to include video, but still concentrated
primarily on computers. A final definition presented in Chapter 2 was from the Office of
Technology Assessment (1995), which listed the following items as part of classroom
technology: computers, VCRs, televisions, telephones, video and still cameras, audio
devices, calculators and other hand-held devices, microcomputer-based lab equipment
(such as sensor probes and measurement devices), videodiscs, CD-Rom, satellites,
multimedia, and telecommunications networks. The views of the teachers in the present
study are best represented by the final definition from the Office of Technology
Assessment. Computers, VCRs, televisions, video cameras, audio devices (CD and
cassette players), and CD-Rom technology all were used in significant ways during
classroom observations. By using a broad lens to view their own use of technology, these teachers were able to reach the learning styles of many of their students and take advantage of the wide range of resources available to them.

Even though these teachers used a number of different elements of technology, there were similarities in how they felt it should be implemented most effectively in the classroom. These teachers shared the belief that technology should not dominate the classroom environment but should only be used when it can enhance student learning. In Mr. Clayton’s final interview, he was asked to describe the impact that the Internet was having on his classroom and on society as a whole. While he acknowledged its significance for providing information, he was critical of those who saw it as a solution to all problems in education. He clearly expressed this position:

Again, it [technology] is only a tool. If you can’t read, if you can’t think critically, if you can’t ask yourself key questions, then the Internet really does you no good anyway. It’s an access tool, but it’s not an automatic gateway to improving the quality of life for people. (Clayton, Interview, 10/30/02)

All of these teachers saw technology, in whatever form or expression, as a significant factor in their social studies instruction, but they also realized that it is just one component of many that they could use to supplement their curriculum.

**What Do Exemplary Social Studies Teachers Believe about Instruction, about Social Studies, and about Technology?**

Previous chapters have shed light on the beliefs of exemplary social studies teachers and how these beliefs impact technology integration. The first series of interviews in the present study helped to confirm these teachers’ beliefs about instruction, about social studies, and about technology. Observations and other written documents helped to confirm how these beliefs emerged in each of their classrooms. While understanding teacher beliefs is a complex endeavor and never can be done with
complete accuracy, this section attempts to compare and contrast the impact of these beliefs on classroom uses of technology.

**Beliefs about Instruction**

While beliefs about instruction are difficult to characterize in absolute terms, one way to differentiate among various instructional techniques is through the categories of traditional and non-traditional instruction. Traditional instruction is viewed as the more conventional in its placing of the instructor in a position of authority and control over the classroom. Lecture and whole-class instruction are frequently utilized methods in this approach, and still dominant in many schools across the country, particularly at the high school level. Lortie (1975), Cuban (1993), and others have observed the tendency of many teachers to adhere to traditional instruction, and these practices have remained firmly in place in American classrooms. Non-traditional instruction emphasizes student engagement with subject matter and active learning methods. In this approach, students have the opportunity to guide their own learning and as a result, are able to go into depth with matters of personal interest. Many studies (Bray, Kramer, & LePage, 2000; Brophy & VanSledright, 1993; Onosko, 1992) have found that many teachers prefer a non-traditional approach, but that traditional methods still are the most widely utilized, especially in social studies classrooms. While it is difficult to characterize the beliefs of these three teachers in absolute terms, it is instructive to place them along a continuum, with Mr. Clayton being the most non-traditional, Mr. Robbins the most traditional, and Ms. Hart somewhere in between.

**Differences**

While Mr. Clayton occasionally engaged in lecture or whole-class discussion, most of his classroom activities were centered on student actions. He allowed students to
Mr. Clayton
- student actions
- integration
- depth over breadth

All Three
- Student Engagement in Learning

Ms. Hart
- variety of activities
- exposure for students
- reflective of instructional methods

Mr. Robbins
- presentation
- pedagogical content
- knowledge
- critical consumers

Figure 7-1. Beliefs about instruction
pursue individual interests in his civics course and helped them to discover their role in the greater community. He stated his philosophy of teaching most directly with the comment that “kids learn best when learning is connected to their immediate lives or the life they can see right in front of them” (Clayton, Interview, 4/24/02). He believed that at the high school level, learning is often separated into different subject areas, but that it does not have to be that way. Mr. Clayton applied this principle to his own subject area, adding, “Social studies by itself is not that interesting” (Clayton, Interview, 4/24/02) to many students, but connecting it to other subject areas can lead to greater understanding and real world application. Rather than overwhelming students with an abundance of
details, he concentrated on a few relevant issues in depth. A number of researchers (Brophy, 1992; Onosko, 1992; VanSledright, 1997) have studied expert teachers and found that they tend to emphasize depth over breadth in their instruction. Similarly, Mr. Clayton was able to focus on major goals and objectives and to keep his students interested by limiting his content to key topics.

Ms. Hart’s beliefs about instruction were the most eclectic among the three teachers. On one hand, she believed that students should be allowed to explore on their own and investigate subjects that are of particular personal interest; but she also felt that because many of her students did not have enough background knowledge to understand historical topics, she needed to expose them to content through whole-class instruction. The exemplary elementary social studies teachers interviewed by Brophy and VanSledright (1993) expressed an attitude similar to that of Ms. Hart, in that they embraced a wide variety of rich learning activities. To give her students the understanding of social studies that she thought was necessary, she tried to expose them to an assortment of activities and to provide them with a variety of assessments so that she could ascertain more accurately what learning had taken place. She saw herself as much more than a “paper and pen assessment person” (Hart, Interview, 5/6/02) and encouraged her students to demonstrate what they had learned through such methods as presentations, demonstrations, and portfolios. In this manner, she was like the expert teacher presented by Bray, Kramer, and LePage (2000), who was constantly reflective and mindful of new strategies to meet her students’ needs. Ms. Hart argued that with this mixed approach to instruction, all of her students felt that they had a chance to succeed and to enjoy social studies.
Mr. Robbins’ approach to instruction was the most traditional among the three. His classroom organization with desks arranged in ordered rows lent itself to lecture and whole-class discussion. He prided himself on his presentation techniques, and with his vast content knowledge, he was able to skillfully impart important details of American history to his students. Mr. Robbins’ ability to transform content knowledge to “pedagogical representations that connect prior knowledge and dispositions of the learner” (p. 409) clearly demonstrated the attribute that Shulman and Quinlan (1996) argued was indicative of exemplary teachers. Rather than seeing himself purely as a dispenser of information that his students would mindlessly absorb, he attempted to help his students become more critical consumers of the information that they were receiving. Because of all of the information that bombards young people on a daily basis, he wanted his students to be able to “discriminate between what is of value and what is worthless” (Robbins, Interview, 5/8/02).

**Similarities**

While these exemplary teachers used a variety of instructional approaches in their classrooms, what makes them similar is their ability to engage students using whatever method or activity they have deemed to be most appropriate. In the observed lessons using technology, in particular, students were actively involved in the learning process and

In the technology used in Mr. Clayton’s two key observations, the *Children in America’s Schools* video and the *Sim City 2000* simulation, students had an active role and, through careful examination, were able to relate to the subject matter on a personal level. In the follow-up interview to the video lesson, Mr. Clayton described the role that students had in his classroom for guiding where their learning should go. He said that
rather than standing up in front of the students and telling them, “You will learn this and that and I’m going to show you how to learn it,” he believed that students should be able to draw their own conclusions. Ultimately, he added, “the objectives come out through them” (Clayton, Interview, 5/16/02). Similarly, in the Sim City 2000 simulation, he allowed students to play the game on their own computers and come to individual conclusions about how they should develop their community. In other technology-related activities, including videos, WebQuests, and Internet research, Mr. Clayton encouraged students to become intimately connected to the topics in question and to direct their own learning about civics.

The two key observations in Ms. Hart’s classroom illuminate her range of thinking about instruction. In one of the key observations, she used slides and a student handout to present information on the Holocaust and America’s role in World War II. The technology, while low-tech in some regards, served to focus students’ attention on primary source photographs from the Holocaust. Ms. Hart used a mixture of traditional and non-traditional teaching strategies to lead them through these pictures. As she went through the slides, she told the students to write down the key points from her presentation, sometimes instructing them word-for-word what to copy. On the other hand, she strayed from this script to guide students through an inquiry process to help them grapple with some of the more complex issues and themes associated with the Holocaust. In the second key observation, Ms. Hart directed her students through a web-based activity to expose them to both domestic and international issues on the Vietnam War. Some of the required elements in this activity were straightforward and traditional, such as asking students to fill out a map and answer basic questions about reading selections.
But other activities, such as a letter to a Vietnam veteran and an interpretation of poetry and song, were student-centered and allowed numerous opportunities for exploration and creativity. In describing the varied approaches to this lesson, Ms. Hart claimed that “this kind of lesson is like peaks and valleys,” (Hart, Interview, 5/28/02) with a wide range of opportunities for student engagement. She suggested that some of the assignments associated with this lesson were more difficult than others, but that as a whole, all of her students were excited about the activity and often exceeded her performance expectations.

In his key observations with technology, Mr. Robbins primarily chose applications that were low-tech, and in them, he also provided his students with opportunities for participation. He used video extensively to show students significant people and events from nineteenth-century American history. Before the Alamo lesson, he gave students a packet with song lyrics, news articles, secondary accounts, and letters to provide background information for them. With this background information in place, he incorporated the movie *The Alamo* into his narrative and provided students with a visual representation of the battle. Based on the discussion that ensued from the video, he argued in his reflection from this lesson that students were able to identify these discrepancies and to “rationalize why these inconsistencies exist” (Robbins, Reflection, 5/16/02). Without the background necessary to understand this event, Mr. Robbins’ students would not have been able to investigate the contradictions between the movie and the prevailing historical beliefs about the conflict. Mr. Robbins also used musical selections to help his students connect to class content. With wide-ranging topics from the Alamo to environmental destruction, he often found a way to bring music into his
lessons. In the “Paradise” observation lesson, music provided students with a link to an actual place and way of life. Mr. Robbins’ classroom narrative of the destruction of this Kentucky mining town was obviously teacher-directed in focus, and the music served to increase student interest in the subject matter. In the follow-up interview to this lesson, Mr. Robbins described how his personal interest in music enabled him to use it effectively in his instruction. He asserted that music is “part of who we are” (Robbins, Interview, 10/31/02), and that he would use it to supplement his instruction whenever possible.

Beliefs about Technology

A number of studies (Hadley & Sheingold, 1993; Ravitz, Becker, & Wong, 2000; Sandholtz, Ringstaff, & Dwyer, 1997) have claimed that technology pushes teachers to become more constructivist in their instructional beliefs and practices. Findings from these studies stressed that the very nature of technology, computers in particular, encouraged more student engagement and allowed teachers to relinquish some of their control over the classroom. Despite assertions such as these, Cuban, Kirkpatrick, and Peck (2001) contended that even if teachers claimed to be using more constructivist strategies, classrooms were often not as described.

All of the teachers in the present study said that technology brought additional resources and strategies to their classrooms, but none of the three attributed major changes in their pedagogy to technology. Cuban (1986) expressed a similar sentiment when he argued that technology may allow teachers to make slight changes in existing practices, but that fundamental changes were unlikely. In describing technology, the exemplary teachers in this study referred to technology as a tool on numerous occasions, but the ways in which they viewed this term varied in some key regards. Even though
there were a number of differences in the manner in which these exemplary social studies teachers approached technology use in their classrooms, they were united in their criticism of technology as the primary means to prepare students for standardized tests.

Figure 7-2. Beliefs about technology

**Differences**

Another view of technology shared by all three of the teachers is that it is a “tool” that can be used in the classroom, along with many other teaching strategies and resources. Grabe and Grabe (2004) defined a tool as “an object that allows the user to perform tasks with greater efficiency or quality” (p. 84). The authors argued that computers, in particular, have enabled students to manipulate large quantities of data and...
create graphics and images that would have otherwise required enormous time commitments. Many of the technology decisions made in schools today likely are more concerned with efficiency than with focusing on improvements that can be made in classroom learning.

As described by these teachers, however, their conception of technology as a classroom tool goes well beyond its ability to save time and effort. They viewed technology as one method, among many, through which students can engage with social studies content in meaningful ways. In various interviews, Mr. Clayton used the metaphor of technology as a “tool” twelve times, with a variety of different connotations. At various points in the interview process, he referred to technology as a tool for each of the following areas: transmission, access, communication, creativity, simulation, and education. The first two descriptors (transmission and access) are more representative of technology as an efficiency tool to help students find large amounts of information rapidly. Subsequent references, however, show that technology can be used in a variety of ways to enhance learning and help students to reflect critically. Mr. Clayton’s desire for his students to think in global terms represents this higher-order belief about technology, and he stated, “I see technology as a tool or a vehicle by which to bring things to the classroom or to send things out of the classroom, to develop the skills and knowledge and dispositions that kids need to be successful in this world” (Clayton, Interview, 4/24/02). He acknowledged that technology can be misused or overused, but he believed that if it is used effectively, it can help students become informed and active citizens.
Ms. Hart viewed technology as a tool that can help her students go beyond what they experience in the classroom and discover more on their own. During the Holocaust lesson several students had questions that Ms. Hart could not answer, and she encouraged them to “go find out” (Hart, Observation, 5/15/02). In the interview after this lesson, she discussed the World Wide Web as an important tool for enhancing what she could do in her classroom. She said that by the end of the course, students realized that they didn’t have to rely on her for all of their information, but could “go and learn and find the information using the Internet, using the web sites” (Hart, Interview #2, 5/15/02) provided during class. Even though she recognized that not all of her students would (or could) follow up on these web sites, those who did would find technology to be an important “tool for learning” (Hart, Interview #2, 5/15/02) that would allow them to connect to many of the ideas they were studying in class.

While Mr. Clayton and Ms. Hart used the tool metaphor to describe some of the positive attributes that technology could bring to their classrooms, Mr. Robbins qualified the term, noting that technology is only a tool. In an early interview, he criticized those “technophiles” (Robbins, Interview, 5/2/02) who believed that technology would radically transform education and make the teacher’s role in the classroom less significant. In response to these ideas, Mr. Robbins described technology as “a tool to make our lives easier” and asserted, “Give me a picnic table and students any day” (Robbins, Interview, 5/2/02), compared to a high-tech classroom. He felt that too often technology is infused into lessons without a true instructional purpose, and he wanted to guarantee that when he does bring technology into a lesson, it would truly enhance student learning.
Before the observation on Paradise, Mr. Robbins was asked to respond to the following question: “What do you hope that students get out of this lesson (in regard to technology and as a whole)?” He first addressed the role of technology in the lesson, saying that its integration into this lesson should be “seamless” (Robbins, Pre-Observation Questions, 10/31/02), and he hoped that his use of transparencies, music, and a measuring scale would accomplish that objective. But he went further to address its use and added, “Technology is a tool. It should enhance lessons. Use of technology solely for the sake of using technology places emphasis on the wrong things in the classroom” (Robbins, Pre-Observation Questions, 10/31/02). This particular belief seemed to govern the actions of all three of these exemplary teachers in their use of technology and allowed them to integrate it into their instruction only after careful consideration of its meaning.

Similarities

At Granger, Chance, and Alexander, as with most Florida schools, state-issued report cards are very important on a number of levels, and administrators are concerned that their schools rate at the highest possible level. In order for the school to perform well, all students must receive high scores on the FCAT, the test in reading and mathematics that contributes heavily to an institution’s grade. Each of these teachers understood the necessity of assisting all students in the assessment process, but all believed that true learning should take place in the classroom, not just in a computer lab.

One of the interventions that Granger has implemented is a remediation class for students who need basic help on the FCAT. Mr. Clayton argued that this class really was more about efficiency in assessment than about improving reading, writing, or mathematical skills. He contended, “I don’t think that technology should be used in a way where kids come to know computers as things that don’t enhance their learning”
(Clayton, Interview, 5/24/02), but simply as test-taking devices. With the intervention classes firmly in place, it was difficult for Mr. Clayton to use the computer lab for civics instruction, and even if advanced preparations were made, a move to the lab could not always be smoothly conducted.

During one of the observations early in the study, Mr. Clayton wanted half of a class period (approximately forty-five minutes) in the computer lab for his students to begin research on their “essential question” from *Savage Inequalities*. Unfortunately, when the class moved to the computer room, the reading teacher had forgotten about this transition and needed additional time to complete computerized testing with students. After ten minutes waiting outside, Mr. Clayton’s class was finally able to go in the computer lab, but had only twenty-five or thirty minutes to work once everyone was settled. Even though Mr. Clayton had taken steps ahead of time to notify the teacher of his need for the lab, the teacher responded, “Oh, I didn’t know exactly what time you were going to be coming” (Clayton, Interview, 5/24/02). Mr. Clayton remarked that episodes like this one were “discouraging” but to be expected, as long as the computer lab was being used for remediation purposes.

Ms. Hart perceived that the computer labs at Chance, too, were being excessively used for test preparation. In an early interview she noted one disadvantage for social studies teachers in particular, in that only language arts and mathematics are tested subjects on the FCAT. Because of the weight put on this standardized test, teachers in these areas tend to use the labs more for test preparation purposes than for instructional objectives. In describing her use of the eighth grade computer lab, Ms. Hart affirmed, “I never use it for FCAT preparation. I use it to enhance my lessons” (Hart, Interview,
If social studies were to become a tested subject, she asserted, more standardized test preparation software might become available, but she emphasized that she would stay away from such applications if at all possible.

Even though Alexander is a magnet school for technology use, Mr. Robbins perceived an inequity in the types of activities students encountered at the school. He believed that lower level students received a higher percentage of practice in basic skills in reading and writing, while upper level students, like the ones that he teaches, are challenged with projects, problem solving, and critical thinking activities. A recent report from the CEO Forum on Education and Technology (2001) acknowledged that major inequities still exist with the experiences students are having with technology, particularly with computers. The authors of this report contended that teachers in many schools “rely on technology to reinforce basic skills, rather than to support higher-order thinking and the full range of 21st century skills” (p. 29).

With technology, in particular, Mr. Robbins felt that students in his program are exposed to a number of activities that encourage higher-order thinking and engagement. He believed that many other students in the school do not have the same type of support. He argued that what the “mainstream” students experience at Alexander is “electronic flashcards” and “drill and kill” (Robbins, Interview, 5/2/02) software, rather than more meaningful forms of technology use. As mentioned in Chapter 6, teachers signed up well in advance to use the computer labs, and for teachers like Mr. Robbins, who would like to use the facilities for enhancing social studies instruction, it is extremely difficult to do so. In addition, he noted that before the FCAT, which took place during the middle of this dissertation study, the computer labs were “pretty much off limits” (Robbins, Interview,
As a result of these circumstances, Mr. Robbins did not use the lab facilities for the duration of the present study.

**Beliefs about Social Studies**

One of the most significant areas of examination in the beliefs of Mr. Clayton, Ms. Hart, and Mr. Robbins is their perception of the nature of the social studies. These expressed beliefs were apparent in their classroom instruction, in particular through those activities using technology. Although studies examining the beliefs of practicing social studies teachers are limited, the exemplary teachers in the present study provide some useful information in this area and help to fill the gap that Armento (1986) and others have criticized in the social studies literature.

**Differences**

Mr. Clayton believed that, compared to teachers in other subject areas, social studies teachers have one of the easiest jobs in making content relevant for their students. He felt that social studies teachers have ample opportunity to show students how what they are learning connects to their daily lives. He mentioned specific activities in his classroom, such as a local action unit, a mentor program with elementary students, and the development of a classroom grading system, as examples of how his students have the chance to become “more cooperative and more effective citizens” (Clayton, Interview, 4/24/02). He believed that by framing a few key issues for his students, he could equip them with the necessary knowledge and skills to help them become vital community members.

The technology that Mr. Clayton used in his classroom clearly showed his desire to engage students in activities that have an immediate connection to the world around
Figure 7-3. Beliefs about social studies

them. He found that video was one of the most powerful methods he could use to illustrate key points of his classroom civics curriculum. Its effectiveness was clearly evident in the *Children in America’s Schools* video that he used to supplement his investigation of the state of education across the United States. In his lesson plan for comparing American schools, he discussed his choice of video as a means of supplementing what students are reading in *Savage Inequalities*, pointing out the video’s ability to “provide the chance to see real kids and real people who live with the issues and try to address them” (Clayton, Lesson Plan, 5/16/02).
Similarly, in his use of simulations, such as *Sim City 2000*, he tried to help his students experience relevant subject matter. He believed that this game was the most “authentic learning experience” (Clayton, Interview, 5/24/02) he had found to introduce his students to the association between citizens and the community. In his lesson plan for carrying out this simulation, he again emphasized his goal of helping students see the interconnectedness of the community and the larger world. In this plan, he stated as one of his primary student objectives “the understanding of the symbiotic relationship between individuals and the community in which they live” (Clayton, Lesson Plan, 5/22/02). In his reflection on these goals, he indicated that students generally met his objectives, but that without the video, this understanding would not have been possible.

In contrast to the global view of social studies that Mr. Clayton supported, Ms. Hart preferred to take a more personal approach in her instruction. Her beliefs were similar to those of teacher John Price in Wineburg and Wilson’s (1991) study of the subject matter knowledge of history teachers. Price used an inquiry-based approach to help his students relate better to the “characters” of the past and take an active role in the learning process. Moreover, Ms. Hart wanted her students to see beyond “their own little world” (Hart, Interview, 5/6/02) and to explore the connections between past and present. She relied heavily on primary source documents, particularly letters and diaries, to bring the words and actions of people in the past to her students and help them to see that they are part of history and not just passive observers. She believed that this awareness of the past would help her students become “better prepared for the future” (Hart, Interview, 5/6/02) and to realize that their actions, no matter how small, will have an impact on the lives of others.
Furthermore, in the Holocaust lesson, and in other classes in which she used *History Alive* materials, she intentionally raised questions that would provoke certain feelings and reactions in her students. When asked in an interview about this emotional approach to showing historical slides, she acknowledged that it was her desire to stress the human-interest side of history that brought about this emphasis in her instruction. While she still thought it was important to mention “battles and statistics,” she recognized that it was more essential for her students to be able to ask, “What was the impact on individual lives” (Hart, Interview #2, 5/15/02)?

Similarly, in her Vietnam lesson, Ms. Hart directed her students to carefully examine comments from various groups who had differing perspectives on the conflict. She realized that this assignment would be difficult for some of her students and allowed them to work with a partner to discuss some of the more challenging passages. In describing this arrangement in the follow-up interview, she hoped that her students would “really talk with a partner … to understand first what the group felt about the war and how they were affected by it” (Hart, Interview, 5/28/02). While the technology in this case provided students with the access to primary source documents, it was secondary to the comparisons that students were able to make in working with their partners.

Mr. Robbins evidenced a passion for his subject that grew out of personal experiences visiting historical sites and the wisdom of several influential social studies teachers. This interest has intensified during his teaching career, and he consistently attempted to share his enthusiasm with students. His unique ability to shape historical events into engaging stories also enabled him to capture the attention of his eighth grade students. Similar to Mary Lake, the fifth grade teacher Brophy (1992) profiled in his
year-long study, Mr. Robbins was an accomplished storyteller who viewed social education as crucial for his students. He provided students with a steady supply of both primary and secondary source material to help them interpret the history they were experiencing. He felt that students should view history as more than just a collection of dates and tried to “elevate [his teaching] beyond typical middle school U.S. History lessons” (Robbins, Interview, 4/26/02).

This passion for history was evident in his lesson on the Alamo. Time spent in Texas allowed him to relate personal experiences to his classroom presentation and provided him with a unique perspective on the battle’s role in the movement for Texas independence. He told the class about key figures including Davy Crockett, Sam Houston, and Santa Anna and used the song “The Battle of the Alamo” to attract even more students to this story. After playing this music and analyzing the song’s lyrics, he brought *The Alamo* into his presentation. He allowed his students to see the inaccuracies in the story and discuss why the film version of the story is exaggerated. While some might criticize his use of such a biased film to teach about the Alamo, the ensuing discussion helped to show Mr. Robbins’ belief that students can develop significant historical understandings if given the opportunity.

Mr. Robbins’ wide-ranging and complex understanding of American history enabled him to present subject matter to his students in an interesting way. Other studies of social studies teachers’ pedagogical content knowledge (Gudmundsdottir & Shulman, 1987; VanSledright, 1997; Wineburg & Wilson, 1991) have similarly described the ability of experienced teachers to relate their content in meaningful ways for their students. Mr. Robbins’ ability to grasp the larger picture of history allowed him to engage
his students on higher levels of historical thinking and to connect seemingly divergent content. After the Paradise lesson, he presented students with an article and map of a “redesigned” United States, and he concluded the class with a student investigation of the Northern colonies in the early 18th century. On the surface, these three assignments seemed unrelated, but looking at them with a broader lens, Mr. Robbins wove the theme of progress throughout these activities.

In the follow-up interview for this lesson, he was asked about his students’ capacity to comprehend these different activities and grasp “the big picture” of history. Based on his years of experience and understanding of adolescents, Mr. Robbins claimed that his students were able to follow his approach and were able to make some extraordinary connections on their own. Even though the Paradise lesson took place towards the beginning of the school year, students were already able to see the theme of progress in history, critiquing both the advantages and disadvantages associated with it. Mr. Robbins argued that his understanding of themes allowed students to see that “social studies is more than just U.S. history” (Robbins, Interview, 10/31/02) and to make it more applicable to their daily lives. While video and music facilitated this study of themes, Mr. Robbins argued that they were merely instruments by which to further student interest in history.

**Similarities**

While these teachers’ beliefs about social studies were distinct from each other in some ways, they were more similar in their attitudes towards textbooks. Critics of the social studies have noted that teacher-directed instruction and responding to textbook passages continue to dominate the subject, and in this process, many students have been turned off by the subject. Thornton (1991) contended that many social studies teachers
have allowed the textbook to control all aspects of instruction, but that in their role as “gatekeepers,” teachers actually have a great deal of freedom over how to best present subject matter in their classrooms. Schug, Western and Enochs (1997) also noted the tendency of social studies teachers to allow textbooks to dictate their instruction. The authors referred to class meetings as “recitation sessions” in which teachers go over long textbook passages and use the supplementary worksheets, quizzes and tests to assess student learning. They emphasized that even with numerous alternatives to textbooks, the “possibilities for technologically enhanced instruction are more various and accessible than ever before” (p. 97).

While textbooks were available at all three schools and often visible in the classroom, they only emerged in one observation in Mr. Robbins’ classroom, and that was only for a ten to fifteen minute period at the end of a class. Each of these teachers believed that textbooks, like other supplementary materials available to them, can provide useful information for their students, but should not drive their instruction. Since Mr. Clayton’s civics course is a program unique to Granger, it does not have a state-adopted text from which to draw information. Instead of a textbook, Mr. Clayton used books such as Jonathan Kozol’s *Savage Inequalities* and Patricia Hersch’s *A Tribe Apart*, along with numerous readings, videos, and other materials to guide classroom content.

Ms. Hart had textbooks for both her sixth grade World History and eighth grade American History classes, but students did not use them during any of the classroom observations in the present study. In any early interview on her use of technology, she described some of the ways that technology had changed her teaching. She detailed activities that her sixth grade class had done on a Japan unit that included slides, a
WebQuest, and a classroom exchange with a Japanese middle school. She argued that these kinds of experiences would not have been possible with a textbook approach, which would have turned out to be “very flat” and “very boring” (Hart, Interview #1, 5/15/02).

In her new sixth grade position, which she assumed in the second year of the present study, she taught an integrated social studies and science class with no textbook available. She relied on the Internet and *National Geographic* and *Time* magazines for student readings and curricular materials.

The topic of textbooks emerged in several of Mr. Robbins’ interviews. He placed a classroom set of the 1992 edition of *The Story of America* under student desks and kept several older sets of American history texts on a bookshelf at the front of the class for various class projects. When asked in an interview towards the end of the study why he had not used the textbooks available to him, he listed a number of difficulties that they created for his students, other teachers, and his own instruction. He remarked:

This particular textbook makes a number of assumptions. Number one, it assumes that students have a stronger background in U.S. History than they do and can build upon what they have already learned. The feeder schools [for Alexander], so many of them totally ignore social studies and science because of the pressure they feel on the FCAT.... Plus I enjoy the challenge of developing my own lessons and bringing in a variety of sources.... I am appalled waiting in line to use the copy machine, [to see] how many teachers find everything they do right out of the supplementary workbook from the textbook. And it seems so mind-numbing to me. Part of the joy of teaching is developing lessons that will somehow engage the students in the material, that there will be some aspect of it that they will remember. (Robbins, Interview, 5/23/02)

He recognized that teachers must “compete” with the various interests that students have outside the classroom, and argued that textbook-driven instruction does not go very far to maintain student interest or encourage them to develop an excitement for social studies.

The other issue with social studies textbooks that concerned Mr. Robbins is the assumptions that many students, including his own, have about the information presented
in them. Many students presume that whatever the textbook says must be factual and accept that information without any critical examination. While Mr. Robbins found some of the primary source materials and maps in the textbook to be useful, he worried that some of his students were too easily manipulated by the material presented in the textbook. He argued that in regard to student understanding, the textbook “doesn’t make them think. They read it and treat it as an absolute” (Robbins, Interview, 10/31/02).

Because of this concern, Mr. Robbins presented students with multiple perspectives on historical figures and events and did not rely on the textbook. By presenting history with a narrative approach and using the textbook on a limited basis, Mr. Robbins wanted to provide his students with a much deeper appreciation and understanding of history than could be gleaned from a traditional textbook account.

**How Do Exemplary Social Studies Teachers Learn to Integrate Technology into their Instruction?**

Because these exemplary teachers all taught in the same district and had been exposed to many of the same opportunities to learn about technology, one might assume that they had similar training experiences and used comparable technology applications in their classrooms. While parallels did exist in their learning experiences, these similarities are the most evident in the areas to which they had not been exposed, especially in regard to formal professional development.

**Learning through Professional Development and Collegial Activities**

Mr. Clayton’s comment that “school systems don’t do a very good job with professional development, and they do an even crummier job as a whole with technology professional development” (Clayton, Interview, 4/24/02) described the training opportunities he believed had been provided for these teachers at the district level. The
few available offerings seemed much closer to the one-time “dissemination activities”
described by Feiman-Nemser (2001) than to the sustained efforts based in teachers’
classrooms advocated by Darling-Hammond (1997). While there were a few offerings in
basic computer applications, e-mail communication, and other technical skills, none
focused on instructional uses of technology. At the school level, a similar situation
existed; there were no real opportunities for learning about technology in a classroom
setting, particularly in relation to social studies. Results from the Apple Classrooms of
Tomorrow project (Dwyer, 1994; Ringstaff, Yocam, & Marsh, 1996; Sandholtz et al.,
1997) determined that for technology training to be effective, it needs to be carried out in
actual classroom settings and extend beyond the duration of the workshop.
For the three exemplary teachers, the professional development opportunities with technology offered to them were not in classroom settings, nor were they sustained. Mr. Clayton remarked that at Granger a few workshops for beginning teachers were available, but these opportunities concentrated on isolated technology skills and had little connection to his teaching. At Chance, Ms. Hart attended training sessions on Micrograde, a software program to facilitate the grading process, but again, despite a desire to have training that could assist her instruction, none was available at either the school or the district level. Mr. Robbins had a brief overview of technology at Alexander in a workshop focused on teaching in a block schedule, but like the other teachers, he did not see any value in attending workshops on skills with which he was already familiar. In all three cases, these teachers conveyed an interest in receiving training for instructional purposes, but they did not see an emphasis on this area at their schools or at the district level. Unless spending in technology support increased significantly, as suggested by the President’s Commission of Advisors on Science and Technology (1997), they did not foresee any significant changes in opportunities for technology training within the school district. Without formal training opportunities available, colleagues become a more valuable resource for learning about technology.

One of the greatest similarities among these exemplary teachers was evident in the wide range of contacts that each had, both within the school and outside of the school environment. These were highly connected individuals who were receptive to gleaning instructional ideas from as many different outlets as possible. Since they taught in the same district, they were familiar with each other’s reputations and often asked in interviews and observations about how the others were doing. In relation to learning
about technology, however, it is difficult to describe the nature of these interactions. While these teachers were part of social networks of people who discussed teaching ideas, it was hard to determine if these networks were as formal as those described by Willis (1993) and Becker (1994) in regard to technology. Some of their experiences were peripherally related to technology use, while other connections had a direct influence on the incorporation of technology into their classes.

Participation in conferences and professional organizations was significant in these teachers’ efforts to learn about technology. Each of the three teachers belonged to a number of professional organizations, including the National Council for the Social Studies, the largest organization in the country for social studies educators. But other than one reference by Ms. Hart to an article she had used from *Social Education*, the primary journal of NCSS, these organizations played only a small role in their understanding of technology. They all had gone to workshops with a technology theme at professional conferences, but none could think of a session that had a profound impact on their instruction.

Another area of learning about technology that surprisingly had only a limited influence was the importance of colleagues at the schools. Duck (2000) found that such support groups in individual schools helped to promote teacher growth and heighten a sense of community. Each teacher had been at his or her respective school for at least five years and had developed some close relationships with other teachers there. For Ms. Hart and Mr. Robbins, these associations were closest at the team level, while for Mr. Clayton they were most significant with fellow social studies teachers. All three described discussions about curriculum, discipline, school affairs, and individual students but
nothing substantial about technology integration in the classroom. Even though other technology-using teachers were in place at each school, the opportunities for exploring related issues seemed limited.

Both Mr. Clayton and Mr. Robbins demonstrated their willingness to learn about technology through collaborations with a university doctoral student. In these collaborations, one examining historical understanding and the other knowledge of current issues, a WebQuest was used to guide student inquiry and allowed the teachers to delve more deeply into subjects that had previously received limited attention. For Ms. Hart, a class in her doctoral program resulted in a close relationship with a technology professor, who not only provided guidance on the Vietnam web activity, but also worked closely with Ms. Hart to film and edit a digital video project undertaken by her sixth grade students. Each teacher recognized that the technology available at the university was more advanced than at any of the schools and sought to take advantage of university connections when possible. These types of collaborations are often difficult to negotiate with competing agendas and time demands, but Christenson, Johnston, and Norris (2001) argued that these differences can be overcome. The authors contended that such relationships offered “a richer experience for participants and students alike” (p. 6) and provided new ideas for social studies educators at all levels.

A final similarity in the experiences of these teachers was the availability of another person at the school to supply assistance with technology, although the nature of these associations was different for each teacher. At Granger, Mr. Clayton often consulted Mr. Peters, the technical support person, for assistance with technology activities. In the *Sim City 2000* lesson, Mr. Peters’ support in installing the simulation on
all of the lab computers saved Mr. Clayton a great deal of time and effort. As Mr. Clayton acknowledged, however, this support was primarily technical and did not extend to teaching ideas. For Ms. Hart, the assistance from Ms. Cameron was for both technical support and classroom advice. Ms. Hart realized that this type of cooperation was unusual in many respects, but because so few teachers at Chance made an effort to use technology in their classrooms, Ms. Cameron was more than willing to help those teachers who were trying to integrate it into their instruction. Mr. Robbins’ association with Mr. Knox provided some important enhancements for his students. As a minor example, the scale used to weigh cookies at the beginning of the Paradise lesson was a direct result of this collaboration. To a much larger extent, the collaboration was evident through the guest presentation given by the father of one of the students on such issues as file sharing, copyright law, and communication. Both Mr. Robbins and Mr. Knox realized that students would be interested in learning more about the future of technology, and that having a parent as a resource in this area would be useful. While these school collaborations were limited, ranging from basic technical advice to dedicated assistance with guiding students through simulations, each of these teachers appreciated the opportunity to share technology ideas with people at their school.

Learning Individually

Understanding the nature of collaborative relationships with technology is a difficult endeavor, but understanding how these exemplary teachers came to experience technology on their own is an even more challenging enterprise. As shown in a recent report issued by the National Center for Education Statistics (Smerdon et al., 2000), independent learning plays a large role in how teachers learn about technology. This report found that, more than learning from colleagues or through professional
development activities, independent learning had the greatest influence on preparing teachers to use computers or the Internet in the classroom. What this report did not detail, however, was the nature of this learning and where it takes place.

Mr. Clayton, Ms. Hart, and Mr. Robbins all indicated that much of their preparation with technology resulted from individual efforts. All three had a large number of administrative duties, which Mr. Robbins referred to as “administrivia” (Robbins, Interview, 4/26/02), that required using the computer for word processing, filling out spreadsheets, and other tedious functions. None of the teachers was particularly positive about these responsibilities, but all understood that it was part of their obligation as teachers. Even though much of these teachers’ time with technology was spent on administrative efforts, however, they still attempted to look for opportunities to incorporate it into their classroom for instructional purposes. In terms of non-computer technologies, Mr. Clayton tried to watch television to look for programs relevant to his students and to listen to music that could connect to his classroom curriculum. Ms. Hart relied on History Alive resources, such as slides and cassette tapes, for much of her history instruction, but she also moved to more video content to present history to her students. Mr. Robbins often relied on his own music collection to add to his American history curriculum and scanned bargain movies to find clips that might fit into his teaching. In all three of these cases, the acquisition of new materials was not always intentional, but if given the opportunity, these teachers would typically gather whatever resources they could to improve their instruction.

While these teachers’ use of non-computer technologies was not always planned, they were more deliberate when it came to computers, particularly in their use of the
Internet. Each teacher searched specific websites for resources to supplement classroom lessons, mostly looking for primary source materials. During the course of the present study, Mr. Clayton used the Internet to assist students with their “essential question” related to *Savage Inequalities*, Ms. Hart found resources for students to examine about the Vietnam War, and Mr. Robbins investigated Paradise, Kentucky, and presented photographs to his class from the now-extinct town.

In attempting to understand how these exemplary teachers have learned to use technology, Rogers’ (1995) *Diffusion of Innovations* provides a useful framework. Rogers contended that individuals adopt innovations at different rates, with innovators the fastest and laggards the slowest. The teachers in the present study would not be considered innovators in classroom technology use, but they could not be seen as laggards either. Each teacher critically examined available technology and carefully determined if these social studies resources met their curricular needs. While some critics may argue that these social studies teachers are to receive “individual blame” (p. 114) for not adapting more readily to classroom innovations, Rogers and others would contend that they are simply finding strategies that match their instructional style and using what will significantly improve their classroom.

**What Factors Facilitate or Restrict Exemplary Social Studies Teachers’ Use of Technology?**

**Facilitators**

These three teachers all worked in schools where conditions were somewhat favorable to technology use in the social studies classroom. Among the secondary factors mentioned by these teachers as facilitating technology use were administrative support, the presence of student aides, grant money, parental influence, and access to community
resources. While these factors played a moderate role in permitting technology use, the
two most powerful facilitators revealed by the three exemplary teachers are access and
support. These facilitators are also the ones most frequently mentioned in the research
literature from this area (e.g. Johnson, Schwab, & Foa, 1999; Ronnkvist, Dexter, &

In terms of access, these teachers were clearly aware of the equipment available to
them at their individual schools. At Granger, a technology building, wireless network,
and other telecommunications tools made the school one of the best in the area for
modern equipment. Three computer labs, two LCD projection units, and a TV/VCR
combination for each classroom provided teachers at Chance with a wide range of
possibilities for technology use. Similarly, at Alexander three computer labs and a state-
of-the-art media center offered several avenues for student exploration outside of the
classroom. These teachers also had technology available to them in their own classrooms.
Each of the two rooms Mr. Clayton taught in had at least eight networked computers and
a television and VCR available. Ms. Hart had a slide projector and CD player in her room
and a computer available (when it was operational). In addition to a TV/ VCR
combination, Mr. Robbins had a CD player and three new iMac computers. Each of these
schools continued to try to improve access for its students, and new technology purchases
were made throughout the study.

A second area that facilitated the technology use among these three exemplary
teachers was the support provided for these teachers at the individual schools. As already
described in the section on professional development and collegial activities, these
teachers had particular individuals who encouraged them in their technology integration.
For Mr. Clayton, this support was primarily technical; Mr. Peters assisted him on several classroom activities in the computer lab and installed *Sim City 2000* on all of the computers there. In Ms. Hart’s case, the support was both technical and instructional, and she looked to Ms. Cameron for assistance in lab difficulties and with support in teaching. Mr. Robbins relied on a team member, Mr. Knox, to discuss various technological issues, and together they brought the guest speaker to the school. Obviously, the depth of this support varied from situation to situation, but each of the teachers indicated that planning and implementing lessons using technology would have been much more difficult without this sort of assistance.

**Barriers**

While Mr. Clayton, Ms. Hart, and Mr. Robbins had similar responses to factors that facilitated their use of technology, they listed many more distinct factors that restricted their use of technology. This situation is also reflected in the research literature in this area (Hadley & Sheingold, 1993; Smerdon et al., 2000; Zammit, 1992), where much more data characterizes barriers facing teachers attempting to use technology, rather than facilitators. Among the barriers listed by these teachers were a lack of funding, space issues at the school, a general distrust of students’ computer use, and technical difficulties with individual programs. The three types of barriers that these teachers agreed were the most significant were time, access, and support.

Mr. Clayton, Ms. Hart and Mr. Robbins were all involved in numerous activities both within and outside of their respective schools, and finding additional time to work with technology was challenging. Mr. Clayton mockingly noted in his initial interview that no one had approached him during his career and told him, “I’d like to train you today” (Clayton, Interview, 4/24/02). He indicated that he would like to learn more about
a number of application programs, but time kept him from becoming more involved. Ms. Hart mentioned time as an issue more with her numerous administrative duties than with planning for individual lessons. She suggested that she would like to have more time to work with technology, particularly with the Internet. When asked about his vision for technology use, Mr. Robbins considered time to be an issue for all teachers, and believed that to see modeling of effective technology integration, they needed to be provided with
adequate release time. But he argued that as long as schools are strapped for money and teachers have limited planning time, this vision was not likely to become a reality.

However, even though time was listed as the greatest perceived barrier for teachers in several studies (Hadley & Sheingold, 1993; Smerdon et al., 2000), in this dissertation study, it did not receive as much attention as other obstacles. As described in the previous section on facilitators of technology use, Granger, Chance, and Alexander had an adequate number of machines available for teachers and students, but in these locales, access did not always guarantee utilization. Many supporters of technology have simply focused on new machinery and low student-to-computer ratios to determine sufficient access, but other studies (e.g. Milman, 2000; Zammit, 1992) have emphasized differences between access in a lab setting and that in the classroom. Mr. Clayton faced a number of problems trying to incorporate technology into his classes at Granger. He had several computers in both of the classrooms in which he taught, but because of their location, tightly squeezed into one corner of the room, he was not able to use them regularly. Even with a large computer lab and enough machines for all of his students, negotiating time in the lab was difficult because other classes held their regular class meetings there. At Chance, separate computer labs for each grade level were generally accessible, but with a wide variety of models in them, it was often problematic to bring an entire class to these facilities. According to Ms. Hart, the age of some of the computers, along with some of the damage that middle school students can inflict, made using these labs difficult at best. Mr. Robbins’ school’s constant use of computer labs for test preparation confined his technology use to his individual classroom, but with the delivery of only three of the six
new computers promised to him months earlier, trying to conduct whole-class activities in the classroom was problematic for him.

The final barrier faced by these teachers was a general lack of technology support structures. While previous sections of this dissertation have highlighted the teachers’ positive relationships with technology support staff, this assistance was often limited in both time and scope. Ronnkivist, Dexter, and Anderson (2000) described the importance of schools having in place a technology coordinator who can aid teachers in instructional matters and not just support them with technical problems. In describing the lack of support for technology at Granger, Mr. Clayton noted that the school used to have a teacher with a lighter workload who could help fellow faculty members with their technology integration. Since Mr. Peters started working at the school, no other teachers had taken up that position, and support remained of a technical nature. At Chance, Ms. Hart realized that she was fortunate to have someone like Ms. Cameron available to her, but she wanted even more support for instructional strategies with technology and more advice on “building web pages” or “finding sources on the Internet” (Hart, Interview, 5/9/02). However, with budgets tight at Chance and across the district and state, she did not foresee this additional assistance arriving any time soon. As a technology magnet, Alexander focused a great deal on acquiring more technology, particularly computers, but assistance was still limited for most teachers. One support person worked full time, but Mr. Robbins noted that most of his energy was spent keeping the labs operational or helping teachers troubleshoot problems with classroom computers. Without support available at their schools or at the district level, all three teachers have had to look to
others around the school for encouragement or, in many cases, simply to manage technology issues on their own.

In What Compelling Ways Are Exemplary Social Studies Teachers Using Technology?

Researchers in the area of social studies and technology (e.g., Berson, 1996; Ehman & Glenn, 1991) have recognized some positive contributions to the field, but as a whole, little evidence has been found that legitimizes technology’s classroom implementation. More recently, Whitworth and Berson (2003) noted a “slight emergence of new and innovative uses of technology in the social studies” (p. 10), but they also concluded that more studies were needed to justify its use. Diem (2000) argued that providing more technology for social studies classrooms is fairly simple, but that getting teachers to use it in meaningful ways is a much greater challenge. He added, “The promise of technology is not so much its cutting-edge advances as its innovative and imaginative applications” (p. 494). Without adequate training and support, Diem contended, social studies teachers will continue to lag behind those in other subject areas who are already integrating technology into their instruction in significant ways.

In the limited time in which the present study took place, and despite the many barriers placed in front of them, Mr. Clayton, Ms. Hart, and Mr. Robbins were able to integrate technology into their instruction in many compelling ways. The vignettes described in Chapters 4, 5, and 6 detail of many of these activities and show that these teachers were able to use technology to enhance their instruction. While individual teachers integrated such divergent elements as music, digital video, and CD-Roms into their teaching, they all used many of the same four areas: photographs, video, simulations, and web-based activities. Even though the level of technological depth
Figure 7-6. Compelling ways to use technology differed from activity to activity, the common thread that linked all of these activities, no matter the level of technology involved, was that the teachers and students were the focus of these classrooms, not the technology itself. Using photographs, video, simulations, and web-based activities, in their view, helped their students learn to ask the “important questions” (Hart, Interview #2, 5/15/02) and come to a deeper understanding of the historical content. Also, their application of film and video went far beyond the image that many critics have of social studies teachers who simply put in a movie and let it play without any feedback or contextual interpretation. The students’ “critical analysis”
(Robbins, Reflection, 5/13/02) of the media and their messages would not have been possible without the use of technology.

In describing the use of simulations in the social studies classroom, Ehman and Glenn (1991) found that this was one of the few activities where computers seemed to be having a positive impact on the classroom. They noted that even though many of these studies were “impressionistic” (p. 517), students were generally interested in simulations and enjoyed having a “sense of control” during the activities. In their desire to connect student learning to the real world, all three of the exemplary teachers used simulations in their classroom. Outside the parameters of the present study, both Ms. Hart and Mr. Robbins used simulations in their history classes. Ms. Hart undertook Oregon Trail in her American history class with the help of Ms. Cameron. Mr. Robbins participated in a stock market simulation in which his students did research on selected companies and followed their companies’ stocks over several months. During the parameters of the present study, Mr. Clayton used Sim City 2000 to show students the different levels at which decisions are made and the wide-ranging impact these decisions have on citizens. Mr. Clayton also argued that the game is a “strong motivator” (Clayton, Lesson Plan, 5/22/02) for students of all ability levels and engaged them in a way that traditional classroom methods could not.

The final compelling way that these teachers used technology was through web-based activities. Keiper, Harwood and Larson (2000) surveyed preservice social studies teachers and found that data collection was the greatest perceived benefit they found from computer technology. Most of the future teachers in their study commented on the ability of the Internet to provide large amounts of information and facilitate student research.
This idea of the Internet as a vast clearinghouse for social studies resources has carried over to more experienced teachers as well, and, as Whitworth and Berson (2003) noted, much of the content in social studies journals has been dedicated to highlighting significant web sites and general lesson ideas. The authors contended, however, that teachers needed to go beyond simply accessing the Internet for content if significant changes were to transform the social studies classroom.

Many educators have taken advantage of online resources to engage in inquiry-based technology activities, including Mr. Clayton, Ms. Hart and Mr. Robbins. Whitworth and Berson (2003) saw a growing trend in such inquiry-based activities, primarily through the use of WebQuests in the social studies classroom. As supporters of this approach (Dodge, 1995; Milson, 2002; Milson & Downey, 2001; Molebash & Dodge, 2003) have argued, WebQuests engage students in collaborative activities and motivate them with challenging tasks. Both Mr. Clayton and Mr. Robbins used WebQuests in their classrooms before this dissertation study and were interested in incorporating similar activities in the future. During the course of study, the clearest example of this approach was in Ms. Hart’s Vietnam web-based activity that incorporated interview, song analysis, position paper, video interpretation, and other activities to appeal to a wide range of student interests and abilities.

What Is It about the Social Studies that Calls for a Unique Approach to Integrating Technology into the Discipline?

In his seminal article in the twenty-fifth anniversary edition of Theory and Research in Social Education, Martorella (1997) noted the tremendous changes that had taken place in the technology available to social studies educators. In the early 1970s, such technology included “television, films, textbooks, records, and overhead and slide
projectors” (p. 511). By the late 1990s, Martorella said, CD-ROMs, DVDs, and other computer-based applications were “rapidly displacing” earlier forms of technology in many classrooms. But even though these more recent technologies were available to teachers, he argued that “by all reports, technology issues appear to have a low priority for social studies educators” (p. 512). He concluded this brief article by urging social studies educators to focus more on the consequences that technology is having for all levels of society rather than to be caught up in issues of hardware and software.

Figure 7-7. Uniqueness (tied to metaphors)
Mr. Clayton, Ms. Hart, and Mr. Robbins struggled with the concerns that most social studies educators encounter on a daily basis, particularly with their decisions about whether or not to use technology in their classrooms. On one level, these decisions are no different from those made by language arts, mathematics, or science teachers. Each discipline has a unique set of standards to cover in a fairly tight time frame, and since most technology applications are time consuming to master and implement, teachers may stick to established methods of instruction. Furthermore, with little technical or instructional support and limited access, teachers may be unable to apply technology, even if they find it to be beneficial for student learning.

On another level, however, teachers in other disciplines are finding ways to use technology, and social studies educators are often seen, as Mr. Robbins noted, as “dinosaurs” (Robbins, Interview, 5/8/02) by those who have jumped on the technology bandwagon. A number of researchers (Becker & Ravitz, 2001; Berson, 1996; Diem, 2000) have highlighted this state of affairs and have advocated taking a critical perspective on the use of technology in the social studies classroom. The teachers in the present study all applied technology to their instruction, but to different degrees and for different purposes. While it is difficult to characterize exactly what makes these social studies teachers’ approaches to technology unique, one useful way to analyze them is by examining the metaphors for each teacher developed in the previous three chapters—Mr. Clayton the model citizen, Ms. Hart the connector, and Mr. Robbins the storyteller.

Mr. Clayton viewed his task in his civics course as providing his students with authentic experiences that help them to understand the community in which they live and realize their role within it. Along the way, Mr. Clayton served as a guide, modeling for
his students the importance of such ideas as civic knowledge, volunteerism, tolerance, and environmental activism. Technology did play a role in this process, but as he repeated throughout several interviews and observations, it was only one tool.

During an early classroom observation in which he was showing a video to his class, he led the discussion to the use of technology in the public schools. In this dialogue, he made a profound statement that characterized his approach to technology, and to teaching in general. He claimed, “Using the technology is not going to do us any good unless we have had time to think about it” (Clayton, Observation, 5/2/02). In his numerous applications of technology including video, Internet research, and simulation, Mr. Clayton had his students engage in authentic experiences that gave them the opportunity to reflect on their learning and then present it in a formal manner to their classmates. Mr. Clayton noted in an early interview that teachers in other subject areas do not often have the same opportunity to engage students that social studies teachers do, and that the chance to “model all of the things I believe in” (Clayton, Interview, 4/24/02) made him an effective teacher. The desire to create more effective citizens is an espoused goal of many social studies teachers; Mr. Clayton’s example powerfully illustrates this goal in practice.

Ms. Hart saw her responsibility as a social studies educator to foster in her students an understanding of history and to show them that they have a significant place in it. Because she used a variety of instructional strategies in the classroom, it does not seem appropriate to over-generalize about her teaching style, but no matter the topic, she was able to make it relevant for her eighth grade students. Whether it was the study of ancient civilizations in world history or modern culture in American history, Ms. Hart effectively
connected the content to the lives of her students. Technology, particularly computers, played a significant role in her diverse classroom setting. Ms. Hart had integrated technology into her curriculum to the point that it was seamlessly positioned in all of her daily activities. Whether slides from the *History Alive* program, digital video for a classroom dramatization, or the Internet for a web-based activity, she used technology that would appeal to a variety of learners and help students connect on a personal level to the content. When asked to describe her goals for integrating technology into her classroom, she asserted that “be it visual, audio, or computer” (Hart, Interview, 5/28/02) applications, she would incorporate technology into her classes as frequently as possible. In describing the impact of these experiences, she added that “the more exposure that kids can get to this sort of stimulus” (Hart, Interview, 5/28/02), the more ways they would have to relate to the subject matter. Ms. Hart recognized that she was not always successful in making history meaningful for her eighth graders, but with a tireless work ethic, she continued to look for methods that would be successful.

Mr. Robbins’ view of social studies, and history in particular, is the most difficult to characterize of the three exemplary teachers. On one hand, he focused on the enormous amount of information that social studies teachers and students encounter and pushed his own students to be critical consumers of this information. But rather than presenting an enormous amount of content to students in a flat, informational format, he used stories and an overall narrative approach to make the material accessible to young adolescents. Mr. Robbins engaged his students with stories of fascinating figures in American history and used a variety of resources to help them critically examine subject matter. Even though he had a solid background with technology and reasonable access in his
classroom and school as a whole, he used it only if he felt it would strongly enhance his instruction.

Among the three teachers, Mr. Robbins used the most low-tech of the available technologies. Even though he searched the Internet on his own to provide students with information, the primary elements of technology he used directly with students were music and video. Yet even with these less advanced technologies, he was able to hold his students’ attention and help them to critically examine a variety of subjects in history. For Mr. Robbins, the focus should not be on the technology itself, but should be about the ability of the teacher to make the content meaningful for students, and he emphasized that technology integration should be “as seamless as possible so that students don’t lose their focus” on what is really important about the content (Robbins, Interview, 5/23/02).

Clearly, the key characteristics shared by all three teachers are their focus on rich and engaging content, the importance of meaning and significance in the content, and their conception of technology as more than simply the equipment involved in teaching. While they described the importance of having access to televisions, computers, and other machinery, they were more concerned about how these accessories could be used to improve instruction and engage their students in the learning process. They remarked that it is easy to be swayed by the latest technological innovations for the classroom, but that it is much harder to examine this technology critically to see how it fits into one’s philosophy of education and beliefs about teaching. In the social studies, some teachers have either accepted or rejected technology unconditionally, but far fewer likely have critically reflected on its impact beyond application in the classroom. Mr. Clayton, Ms. Hart, and Mr. Robbins have taken this important look at their own use of technology, and
thus have adapted the technology to fit their own instructional styles and their goals for
their students’ meaningful engagement in social studies.
CHAPTER 8
CONCLUSIONS AND RECOMMENDATIONS

The primary purpose of the present study was to examine the technology use of exemplary social studies teachers in typical classroom settings. These teachers were chosen not for their expertise with technological applications, but for their ability as outstanding social studies teachers. This chapter summarizes the major findings from the study and suggests recommendations for both research and practice.

Summary

The three exemplary teachers generally had a similar understanding of technology as it pertained to classroom instruction. This conception was most closely matched to that proposed by the Office of Technology Assessment (1995), which included such elements as computers, video and audio devices, CD-Roms, televisions, and VCRs as aspects of technology that could be used in the classroom. While the teachers used these components to varying degrees and for different purposes, they still found technology to be an important factor in their instruction and a powerful motivator for their students. This conceptual understanding is significant in examining how these teachers used technology in their classrooms and provides insight into the five guiding questions posed in this dissertation study:

What Do Exemplary Social Studies Teachers Believe about Instruction, about Social Studies, and about Technology?

Beliefs about instruction, about technology, and about social studies, while different in a number of significant ways, played an important role in determining how
the teachers in the present study used technology in their classrooms. Mr. Clayton was the most non-traditional of the three teachers in his beliefs about instruction, and his uses of technology, such as simulations or student-directed Internet searches, reflected these ideas. Ms. Hart, who had the most eclectic set of beliefs about instruction, used a mixture of instructional strategies. Technology applications such as slide presentations and WebQuests demonstrated the wide range of methods she used to connect with students. Mr. Robbins viewed his role as a teacher primarily as a presenter of information, and he often used narrative to make history more engaging for his students. Technological aspects of his teaching, such as video clips and musical selections, complemented this narrative approach to history instruction and allowed students to wrestle with significant historical questions.

While these exemplary teachers’ attitudes about instruction were somewhat diverse, their beliefs about technology were more consistent. One observation shared by all three teachers was that technology was being used at their schools as a means to practice for standardized testing and not for instructional goals or objectives. While the teachers recognized the need to assess student learning, they argued that excessive test preparation was not the most productive use of technology at their schools. The teachers also argued, Mr. Robbins most forcefully, that technology was just a tool to supplement learning and should not be regarded as a substitute for the presence of an effective teacher. In their application of technology, these teachers went well beyond using it for efficiency or management purposes and took great care to integrate it meaningfully into their curriculum.
Perhaps the most significant differences in teacher beliefs emerged in discussions about the nature of the social studies. As a civics instructor, Mr. Clayton viewed his responsibility in terms of the development of effective citizens. This belief came across in his attention to technology that would help his students see connections to their community and the world around them. Ms. Hart focused on making history more personal for her students and allowing them to see the links between past and present. In technology-related activities, she was able to portray individuals and groups from history, whether through photographs, letters, or other primary sources, in a manner to which students could relate. Mr. Robbins had a complex view of social studies, particularly American history, and was able to facilitate his students’ understanding of the subject by presenting it in a unique manner, often through a narrative approach. His uses of technology, while not as advanced as those of the other teachers in the study, enabled him to complement his curricular content and engage students in a narrative of American history. Most important, the common threads that connected these teachers in their beliefs about social studies were their disdain for textbook-driven instruction and their reliance on supplementary materials, including technology resources, to enhance their teaching.

**How Do Exemplary Social Studies Teachers Learn to Integrate Technology into their Instruction?**

While the participants in the present study taught in the same school district and were exposed to many of the same opportunities for technology training, these teachers’ exposure to and engagement in such opportunities were different in many respects. One area in which these teachers had comparable experiences was in their formal professional development activities. Each teacher had occasion to learn about basic technology applications. However, opportunities to acquire skills that would enhance their instruction
were typically unavailable at the school or district level. Without such training opportunities, the role of professional development in the preparation of the observed lessons with technology was minimal.

Of greater significance in the learning process was the presence of colleagues or concerned individuals who assisted these teachers in their classroom application of technology. Connections with professional organizations allowed for a limited degree of collegiality and provided opportunities for presenting research and teaching ideas. All three teachers took advantage of their connections to the local university for materials, classroom ideas, and research collaborations related to technology. Most importantly, colleagues at the individual schools supplied assistance in a number of technology ventures. For Mr. Clayton, the assistance was of a technical nature, for Ms. Hart it was support for classroom activities, and for Mr. Robbins it was the connection needed to bring a technology expert to speak to his students. While the level and extent of these relationships differed, each played an important role in the ability of these teachers to use various technologies in their classrooms.

A final, and more complex, area of teacher learning is individual effort with technology. As a report from the National Center for Education Statistics (Smerdon et al., 2000) indicated, independent learning plays a large role in how teachers come to experience technology, and the actions of these three teachers substantiate this assertion. All three of them spent a large amount of time performing administrative duties, but still managed to find opportunities to search for other resources that would enhance their classroom instruction. They all looked for relevant music, tapes, and videos that could engage students in the subject matter, particularly Ms. Hart and Mr. Robbins. While the
present study did not specifically ask teachers to log all of the time they spent on individual efforts with technology, they indicated that searching the World Wide Web for relevant sources was their most significant time commitment with regard to technology. All mentioned acquiring primary source photographs and documents online, and while they also indicated that the staggering amount of information available made finding resources highly time-consuming, they all seemed willing to invest their time in this endeavor.

**What Factors Facilitate or Restrict Exemplary Social Studies Teachers’ Use of Technology?**

The major factors that supported these exemplary teachers in their use of technology were access and support. Each teacher had a personal computer for administrative responsibilities, and a television and VCR combination. In addition, Mr. Clayton and Mr. Robbins had several computers available to students in their classrooms for individual student research. All three schools had computer labs with enough networked machines for entire classes to use. Technical support was available at the district level, and full-time staff technology coordinators dealt with teachers’ needs at the individual schools. The assistance Mr. Clayton and Mr. Robbins required was usually of a technical nature to provide help in the computer labs and troubleshooting problems with classroom machines. Ms. Hart’s support from the media specialist was multifaceted; she not only provided technical support, but she also offered advice on instructional strategies.

While access and support would seem sufficient for technology implementation, a number of barriers made using this technology difficult for all three of the exemplary teachers. With a multitude of outside interests and obligations, these teachers faced a lack
of time to learn about the technology available to them and to explore classroom innovations. Time was also a factor within the classrooms themselves, as the teachers faced difficulties covering their curriculum in the time allotted them. While access was adequate in their schools, they found it difficult to actually use the technology, particularly outside of the classroom. Computer labs were often monopolized for test preparation, and the coordination of classroom changes was challenging. While support was available at each school, it was usually of a technical nature and did not facilitate any meaningful connection to classroom instruction. All three teachers struggled to negotiate many of these barriers in the course of the present study and, in several instances, they were not able to use technology that they would have preferred.

**In What Compelling Ways Are Exemplary Social Studies Teachers Using Technology?**

The vignettes in Chapters 4, 5, and 6 of this dissertation described some of the compelling ways in which these exemplary teachers used technology in their social studies classrooms. For Mr. Clayton, a powerful discussion of a video on America’s schools and a simulation of building a community helped to stimulate interest in the world outside the classroom. In Ms. Hart’s classroom, an examination of photographs from the Holocaust and a web-based activity on the Vietnam War allowed her students to relate personally to people who lived through difficult conditions. Mr. Robbins incorporated video and music into his narratives to explore historical inaccuracies in *The Alamo* and to debate the merits of progress in Paradise, Kentucky. In each of these cases, the technology played an integral role in helping the teachers to accomplish their objectives, but it did not control or dominate the classroom settings.
What Is It about the Social Studies that Calls for a Unique Approach to Integrating Technology into the Discipline?

To distinguish social studies teachers’ use of technology from that of educators in other subject areas, metaphors were employed to embody the unique approaches that each of these teachers took toward classroom instruction: Mr. Clayton the model citizen, Ms. Hart the connector, and Mr. Robbins the storyteller. These metaphors are closely connected to these teachers’ beliefs about social studies and overall objectives for their classrooms. Mr. Clayton used technology when it helped him to provide more authentic experiences for his students. He constructed technology applications that would help his students see their role in the community and modeled the skills and values they needed to become effective citizens. Ms. Hart attempted to connect past and present through a wide variety of technology applications. She wanted her students to feel a part of history and, thus, she designed a wide range of activities that would appeal to a diverse group of learners. Mr. Robbins’ narrative approach made history understandable for his students, and technology often played a key role in helping to bring the stories to life. Even though these metaphors are limited to the teachers in question, in them one can grasp the intricate nature of social studies instruction and the significant role that technology can have in the process of teaching and learning.

Implications and Recommendations for Practice

This dissertation study has examined a number of ways that exemplary social studies teachers use technology in their classroom teaching. While the literature has provided numerous examples of how preservice social studies teachers come to learn about technology or subject matter, equal attention has not been paid to practicing classroom teachers, particularly those with significant experience in the classroom. Based
on the findings from the present study, this section provides suggestions that may be beneficial for all who are interested in the integration of technology into the social studies classroom. Because of the integrated nature of many of the concepts addressed in this dissertation, these implications are discussed holistically rather than in a particular order.

**Broaden the Definition of What Is Considered to Be Technology**

Each of these three exemplary social studies teachers took a broad view of what elements could be considered within the realm of technology. Most of the literature that currently exists on technology refers primarily to computers, along with emerging technologies such personal digital assistants or telecommunications equipment. What has been forgotten in this research, however, is the impact that such items as televisions, slide projectors, CD players, and other low-tech elements can have in the classroom. While these items were included in the definition put forth by the Office of Technology Assessment (1995), they are rarely included in any current discussions of technology improvement or implementation, including how to train teachers in technology use.

Social studies teachers, particularly those just starting out in the field, would benefit from some general training and experience using such technologies in their classrooms. It is relatively simple to put a movie into a VCR and play it for an entire social studies class, but it is much more difficult to use it in the engaging, active ways that Mr. Clayton and Mr. Robbins did in their instruction. Both of these teachers interspersed short video clips with in-depth questioning to pique student interest and then to help them access prior knowledge to answer significant questions about the topic in question. Similarly, it is possible for a teacher to incorporate music and slides into a classroom without pause, but in order for students to better understand and engage with the content, the material must be placed in its proper context. Furthermore, the most
effective way that novice teachers can learn how to integrate such technologies into their teaching is through seeing them modeled by talented practitioners. The powerful ways in which Mr. Clayton, Ms. Hart, and Mr. Robbins integrated technology into their teaching provide an excellent example for novice teachers to follow.

**Avoid the Bells and Whistles**

One of the major pitfalls of technology use, no matter the type or level of sophistication, is that both teachers and students too often judge technology based on its appearance rather than its substance. As the latest innovations become available for the classroom, companies specializing in such technologies claim that their products will transform the classroom environment or even raise test scores. For social studies teachers, the opportunity to acquire the latest innovation may be tempting, but these types of items are often obtained for the wrong reasons. Preservice teachers are perhaps even more susceptible to these enticements and often spend more time on the sound effects and animations involved with a PowerPoint presentation than on the content behind it.

All three of these teachers were adamant that technology should be used to improve or enhance instruction, not to overwhelm students with “bells and whistles.” Because all of these teachers have worked with student interns, they have repeatedly observed this attraction to style over substance and have tried to steer their interns away from such attitudes toward technology. In one of his interviews, Mr. Robbins described the responsibility he felt to help future social studies teachers examine their use of technology. He acknowledged that many of them “came in with a far greater technological background” than he did, but added that they are so “enamored of the bells and whistles that the goals and objectives of the lesson are lost on students” (Robbins Interview, 10/31/02). In addition, because of the time involved to plan such lessons and
the uncertainty involved if the technology malfunctions, all three of these teachers tried to help their interns develop alternative means to cover the material.

**Redesign Professional Development**

Much of the professional development that has been designed to support technology integration has not been successful in helping teachers to implement it in their instruction. Numerous reports (e.g. Becker, Ravitz, & Wong, 1999; Hasselbring et al., 2000; Smerdon et al., 2000) have indicated that teachers are apprehensive about using technology in their classroom and ill prepared to employ it for instructional purposes. As technology training currently exists in most schools and school districts, teachers participate in one-time workshops to hear about new programs to facilitate administrative responsibilities or to master basic word processing or spreadsheet applications. Once this training is complete, teachers are left on their own to master these programs and put them to use in their classrooms.

The primary reason that none of the three teachers had attended any professional development sessions on technology was that nothing was offered to directly support them in their social studies classrooms. Social studies teachers have content- and pedagogy-specific needs with regard to technology, such as learning how to evaluate primary sources or how to best incorporate simulations in the classroom; thus, professional development opportunities should be designed to better match their classroom needs. These opportunities could be provided by university personnel or by teachers experienced with technology, but the main objective of this training should be to meet the unique needs of the social studies classroom.

Such a professional development opportunities for the social studies classroom would benefit from a three-tiered approach. The first step would be for districts to
identify skilled teachers using technology in compelling ways, such as those described in the present study, and provide necessary resources for these teachers to meet their instructional goals. This support could be with high-tech equipment such as computers or digital cameras or low-tech devices such as the television set or slide projector. The second stage in this process would be for interested teachers to receive release time to visit the skilled teachers’ classrooms and observe some of the ways that teachers are using technology to engage their students. Finally, these skilled teachers would also be released to assist the interested teachers attempting to use technology in their own classrooms. Once this process became more refined, interested teachers could be matched with skilled teachers with similar levels of technology use and methods of instruction. This type of professional development would benefit both experienced and novice social studies teachers and could easily be adapted to meet the needs of those in other subject areas as well. But as Cooper and Bull (1997) noted, integrating technology into individual subject areas “will require patience” (p. 101), and it will take time to see significant changes in social studies classrooms.

Provide Adequate Support for Teachers

For teacher training in the use of technology to be successful, it must be grounded in the daily practices of teachers and must be accompanied by adequate support. Ronnkvist, Dexter, and Anderson (2000) concluded that if teachers were to receive the instructional support that they needed, a well-trained technology coordinator would be in place in every school. Such a coordinator would be able to assist not only with technical help, but also with issues of integrating technology into the classroom. The authors argue that teachers must have “access to educational technology resources and unfailing support for their use” (p. 26). Without professional development opportunities and a
coordinator unencumbered by other responsibilities, the authors assert, teachers will continue to struggle with technology integration.

For the teachers in the present study, instructional support for technology use was lacking in many regards. Ms. Cameron provided Ms. Hart with both technical and instructional support, but her primary duties in Chance’s media center made sustained assistance difficult. Both Mr. Clayton and Mr. Robbins had full-time technical aid available to them, but neither had assistance with classroom technology integration. As stated above, for technology implementation to be successful, teachers must be offered professional development opportunities that have direct relevance to the classrooms in which they are teaching. Social studies teachers, in particular, have unique needs, and training in the integration of video, music, simulations, WebQuests, or the Internet into instruction would be useful, even for experienced teachers. In addition, positioning a support person at the school for instructional, and technical, assistance would allow teachers to expand on what they have learned through professional development and give them the opportunity to apply new technologies in the classroom setting. This type of training and support would obviously be costly for schools and school districts, but if efforts to use technology effectively are sincere and substantial, the investment would be worthwhile for all involved.

Rethink the Distribution of Equipment

While the exemplary teachers all had computer labs available at their schools, none was particularly satisfied with the arrangements. The labs were constantly in use, and planning a time to take classes there was a complicated process. At all of the schools, language arts and mathematics teachers were the primary occupants of these labs, with test preparation activities receiving a majority of attention. At Granger, space limitations
forced regular classes to meet in the lab, and Mr. Clayton’s efforts to coordinate classroom exchanges were not always realized. Even if these teachers were able to get into the computer lab, the equipment there sometimes malfunctioned. At both Granger and Chance, the master projection units did not work, and Mr. Clayton and Ms. Hart had to huddle students around a single computer to give directions for lab activities. In addition, some of the computers were not operational when these teachers entered the lab, and other machines malfunctioned during the course of various activities.

All three of these teachers suggested that computers should be taken from the computer labs and put back into classrooms. They noted that with so many classes going in and out of the labs, it is difficult for one person to observe students’ actions and to keep track of what has been loaded onto machines. With seven or eight machines spread out around a classroom, students could rotate through computers throughout a class period working in small. Assignments such as web-based activities or simulations can just as easily be undertaken in a social studies classroom as they can in a computer lab. These teachers indicated that if computers were available in their classrooms, and not crammed into a corner, as they were in Mr. Clayton’s room, they would be much more likely to use technology in their daily instruction.

**Implications and Recommendations for Research**

As a number of prominent social studies educators (Berson, 1996; Diem, 2000; Martorella, 1997; Mason et al., 2000) have stressed, much still needs to be learned about the ways that technology can be best integrated in the social studies classroom. This dissertation study provides insight into a number of issues related to social studies and technology, but other areas of interest deserve further study.
Examine More Typical Situations

One of the major goals of the present study was to examine teachers in settings that would be considered less than ideal for technology implementation. While the technology available at Granger, Chance, and Alexander was better than in many schools around Florida and the nation as a whole, the three exemplary teachers still had to negotiate a numbers of barriers to use it in their classrooms. Studies of classrooms using laptops, graphic calculators, and personal digital assistants can be instructive for social studies teachers, but at this point, most schools do not have these types of technologies available. As the President’s Committee of Advisors on Science and Technology (1997) recommended, more research needs to be conducted in “real schools” (p. 95) that lack the support of large grants or outside assistance. Studies of teachers in one-computer classrooms or of those with no technology support available may be more applicable to practicing social studies teachers.

Investigate the Role of Independent Learning with Technology

While the research contains numerous examples of systematic efforts to train teachers with technology, very little exists to describe the ways that they come to experience technology on their own. Data from the National Center for Educational Statistics (Smerdon et al., 2000) reported that independent learning had the biggest impact on teachers’ technology implementation, but researchers have yet to investigate how this learning takes place. With the growth of the Internet, teachers now have access to a plethora of classroom resources, and many teachers claim to spend significant amounts of time online for a variety of reasons. The three teachers in the present study used the Internet for information to supplement classroom instruction, but the nature of these investigations was not within the scope of the present study.
If researchers were able to characterize the ways that social studies teachers learn individually about technology, educators at all levels could have guidance to support them in similar endeavors. The Internet, in particular, would provide a fertile ground for potential research. Investigating how social studies teachers access information would be useful to a point, but investigating how the Internet is actually being used in the classroom would provide even more significant findings. In addition to computer technologies, it would also be instructive to explore how teachers learn about lower end technologies such as video, music, and primary source photographs. The examples presented in the present study by these exemplary teachers provide excellent models for beginning to investigate individual efforts with technology, but continued exploration of this area would be beneficial for social studies educators.

**Continue to Emphasize Wise Practice**

Studies of exemplary social studies teachers (Brophy, 1992; VanSledright, 1997; Wineburg & Wilson, 1991) have presented outstanding models of instruction from the elementary to high school levels. Research has shown the importance of characteristics such as passion for subject matter, emphasis on in-depth content coverage, and subject matter knowledge in outstanding social studies teachers, and all of these characteristics could be discerned in the teachers over the course of this dissertation study. While all educators, particularly those just starting out in their teaching careers, would benefit from the examples presented in the present study, more portrayals of exemplary social studies teachers would enrich the knowledge base for the field. In this research, it is important to note that there is not one correct way to teach or to integrate technology into the social studies classroom, but that different approaches are better suited for different teaching and learning styles. Since technology use in the social studies is a relatively new area of
research, much remains to be discovered about how teachers learn what they know about technology and how they use it in their classrooms.

**Study the Impact on Student Learning**

Too often in studies involving technology, researchers assume that technology is inherently beneficial for students. While motivation is an important factor for students’ interest and engagement in technology, other factors should also be examined when analyzing technology integration. Whitworth and Berson (2003) contend that while the Internet and other related technologies have had a strong influence on social studies classrooms, more studies needed to be undertaken to understand the impact of computers on academic achievement and learning outcomes. Most of the research to this point has focused on individual learning applications, but little evidence exists that computers or other technologies actually improve student learning in the social studies.

In the present study, all of the evidence that claims that technology enhances student learning in the social studies is anecdotal and comes from the exemplary teachers in interviews and reflections from observed lessons. The teachers describe technology as a strong motivator, a means to reach more students through different learning styles, and a vital source of information. But other than informal classroom assessment from discussion or student reflections, these teachers have little evidence of the difference that technology has made with their students. While this type of anecdotal evidence provides some insight into student learning, more quantitative and qualitative evidence is needed to support these ideas.

**Conclusion**

In his conclusion to *Oversold and Underused: Computers in the Classroom*, Cuban (2001) reflects on the lack of change that technology has actually brought to the
classroom. Despite the enormous investment that school districts and individual schools have made in technology, particularly computers, he finds that most teachers have maintained traditional practices. He argues that much of the consideration given to technology integration has been too narrowly focused and warns, “Without attention to the workplace conditions in which teachers labor, and without respect for the expertise they bring to the task, there is little hope that new technologies will have more than a minimal impact on teaching and learning” (p. 197). The present study has attempted to bring these issues into focus by showing how exemplary teachers use technology in their classrooms. The context in which these teachers attempt to use technology is shaped by a multitude of factors—individual beliefs, learning opportunities, prior knowledge, access, support, time, student population, etc.—and any attempt to characterize how they use computers, video, audio, and other technologies is challenging. Nonetheless, this type of inquiry is essential if social studies teachers are to use technology to make a substantive impact on student learning and engagement with subject matter. As more technology continues to enter the social studies classroom, attention must be given to the context in which teachers are attempting to implement learning activities, and exemplary teachers can provide an excellent example of how such a process should take place.
APPENDIX A
INFORMED CONSENT FORM

(Please read this document carefully before you decide to participate in this study)

Protocol Title
Exemplary Social Studies Teachers’ Use of Technology in the Classroom

Purpose of the Research Study
The purpose of this research project is to investigate exemplary social studies teachers’ experiences using technology in their classrooms. I hope that by studying these outstanding teachers, I can provide insight that will assist others interested in integrating technology in the social studies.

What You Will Be Asked to Do in the Study
I will ask you to participate in several interviews during the course of this study. I will also be sitting in on some of your classes, particularly those in which you will be using technology. When feasible, I would also like to examine lesson plans and other materials relevant to your instruction.

Time Required
Two to three months at the end of the school year (April- May) with possible follow up interviews in the fall.

Risks and Benefits
I do not anticipate that you will benefit directly by participating in this study other than having the opportunity to reflect further on your teaching practices. There are no known risks for participating in this study.
Compensation

There will be no compensation for participating in this study.

Confidentiality

Your identity will be kept confidential to the extent provided by law. All of your work will be coded and a list connecting names with code numbers will be kept in a locked file in my office. When the study is completed, the list will be discarded. Your names will not appear anywhere in the final report.

Voluntary Participation

Your participation in the study is completely voluntary. There is no penalty for not participating.

Right to Withdraw from the Study

You may withdraw from the study at any time.

Whom to Contact If You Have Questions about the study

George Lipscomb, Doctoral Student
School of Teaching and Learning
343-A Norman Hall
Gainesville, FL 32611
(352)392-9191 (ext. 297)
Email: glipscom@ufl.edu
Fax: 392-9193
Or

Dr. Elizabeth Yeager, Associate Professor
School of Teaching and Learning
2403 Norman Hall
Gainesville, FL 32611
(352) 392-9191 (ext. 242)
Email: eyeager@coe.ufl.edu
Fax: 392-9193
Whom to Contact about Your Rights as a Research Participant in the Study

UFIRB Office,
P. O. Box 112250
Gainesville, FL 32611-2250
Telephone: (352) 392-0433
Email: IRB2@ufl.edu

Agreement

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant ________________________  Date________________________

Principal Investigator ___________________  Date ________________________
APPENDIX B
IMPORTANT DATES FOR DISSERTATION

2002

January- Initial inquiries with teachers about participation in the study
February- received permission from university IRB to conduct the study
March- received authorization from schools to conduct research
April 15- Arranged initial visits with Ms. Hart, Mr. Robbins, Mr. Clayton
April 24- General interview with Mr. Clayton
April 25- Observation with Ms. Hart
April 26- General interview with Mr. Robbins/ Observation with Mr. Robbins
April 29- Observation with Mr. Clayton
May 2- Interview with Mr. Robbins/ Observation with Mr. Clayton/ Observation with Mr. Robbins
May 6- General interview with Ms. Hart/ Observation with Ms. Hart
May 7- Observation with Mr. Robbins
May 8- Interview with Mr. Robbins/ Observation with Mr. Robbins
May 9- Interview with Ms. Hart/ Observation with Mr. Clayton/ Observation with Ms. Hart
May 13- Key observation #1 with Mr. Robbins
May 14- Observation with Ms. Hart
May 15- Key observation #1 with Ms. Hart/ Interviews with Ms. Hart (background and key observation)/ Observation with Mr. Clayton
May 16- Key observation #1 with Mr. Clayton / Interview with Mr. Clayton (k.o.) / Observation with Mr. Robbins

May 22- Key observation #2 with Mr. Clayton

May 23- Interview with Mr. Robbins (k.o.)

May 24- Interview with Mr. Clayton (k.o.) / Observation with Ms. Hart

May 28- Key observation #2 with Ms. Hart / Interview with Ms. Hart (k.o.)

May 29- Observation with Mr. Clayton

Oct. 30- Interview with Mr. Clayton, Interview with Ms. Hart

Oct. 31- Key observation #2 with Mr. Robbins; Interview with Mr. Robbins

2003

April- Sent e-mail to three teachers with questions from chapter (member checks)

April 21- Received feedback from Ms. Hart on her chapter

April 29- Talked to Mr. Clayton about chapter

April 30- Talked to Mr. Robbins about chapter
Teacher:

Grade:

Subject:

Learning Objectives:

• What are your objectives for student learning in this lesson? That is, what do you intend students to learn?
• Why have you chosen these objectives?

Student Grouping:

• How will you group students for instruction?
• Why have you chosen this grouping?

Methods:

• What teaching method(s) will you use for this lesson?
• Why have you chosen this method or these methods?

Activities:

What activities have you planned?

<table>
<thead>
<tr>
<th>Activities</th>
<th>Time Allowed</th>
</tr>
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<tbody>
<tr>
<td>• Opening:</td>
<td></td>
</tr>
<tr>
<td>• Main activity or activities:</td>
<td></td>
</tr>
<tr>
<td>• Closing:</td>
<td></td>
</tr>
<tr>
<td>• Important questions to ask:</td>
<td></td>
</tr>
</tbody>
</table>

Materials:

• What instructional materials will you use, if any?
• Why have you chosen these materials?
Evaluation:

- How and when do you plan to evaluate student learning on the content of this lesson?
- Why have you chosen this approach to evaluation?

Adapted for University of Florida Pathwise Instruction and Reflection Form by Vicki Wilson for Salt Fork (Region 10) RPDC and Muskingum Valley Educational Service Center/Muskingum College Goals 2000
APPENDIX D
SAMPLE NARRATIVE FROM FIELD NOTES

Mr. Robbins/ Key Observation—5/13/02

(o.c.)= observer’s comments

The next part of class moved to a discussion of the song “The Yellow Rose of Texas,” which came out of the Battle of San Jacinto. Mr. Robbins told the story of Emily Morgan and Santa Ana. Santa Ana brought his girlfriend to the battle and “fell in lust” with Morgan. He said that Morgan was a mulatto and “technically a slave.” Santa Ana and Morgan were “getting it on” when the battle was going on and Sam Houston won. Santa Ana was recognized by his privates (officers) and struck a deal to go back home. Mr. Robbins then talked about Santa Ana’s political career in which (like Lazarus from the Bible) kept coming up from the dead. Texas won independence and today the battle monument at San Jacinto is larger than the Washington Monument.

(o.c.)- The phrase “everything is bigger in Texas” keeps coming to mind here and this perspective is shared at a number of points in this lesson. The main reason I included all of the aspects of the above description is to show the narrative (story-telling) aspects of Mr. Robbins’ teaching As in his interview, he sees social studies as a big story and attempts to make the people who lived 150 years ago come alive. I guess that’s why he talks about these people’s sexual urges, physical features, etc. I think video goes along with this story-telling mentality and allows him to add visuals to what he is talking about.

He then reads some of the original lyrics from “The Yellow Rose of Texas.” Students have a copy of the lyrics and follow along. He said that in the 1840s that it was
okay to use the word “darkie” to refer to a person of color. He then makes a comparison (and some students pipe in too) to Stephen Foster’s “Old Folks at Home” in which Foster wrote the song to be in a slave dialect and sound like a slave was singing.

(o.c.) It seems like at least a few of these students have been to the Stephen Foster Cultural Center and know about the song. They seem to be on the same wavelength as the teacher.

He then goes back to the “Yellow Rose of Texas” and puts it in personal context saying that it came out when he was in first grade.

(o.c.) Again, a personal story to make it more realistic for the students It was the 2nd #1 song of the rock era after Bill Haley’s “Rock Around the Clock.”

He then said he would show a clip from the movie Giant with Rock Hudson, Liz Taylor, James Dean, and others, which contained his “favorite fight scene.” He said he remembered seeing this as a 6 year old at the drive-in theater in his pajamas. He showed this five – seven minute clip while standing in the back of the room this time.

During this scene Rock Hudson comes into a greasy spoon kind of restaurant with a Hispanic family and is given service, but not real willingly by the owner. When the owner refuses to serve another Hispanic family, Hudson confronts the owner and eventually this huge fight breaks out. During the clip, “The Yellow Rose of Texas” is playing in the background. Mr. Robbins ends the clip with the sign “We reserve the right to refuse service to anyone,” which the owner put on Rock Hudson’s chest.

(o.c.) Compared to the last clip in which historical inaccuracies were discussed, there was not a whole lot of discussion of this clip. On the agenda, it said something
about a group activity, but I don’t know if he was heading in that direction with the clip or not.
APPENDIX E
INTERVIEW QUESTIONS

Interview Questions—General

1. Please tell me a little bit about each of the following parts of your personal and professional background:
   - School experiences
   - Subject Matter Preparation
   - Years teaching
   - Interest in Social Studies/ what is it?
   - Interest in Teaching/ Students
   - Outside Interests
   - Motivation for Entering/ Staying in Teaching
   - Future Plans

2. What do you think makes you a good teacher?

3. What do you think makes you a good social studies teacher?

Interview Questions—Technology

4. Please tell me a little bit about any background information about your use of technology:
   - Training
   - First use in classroom
   - Use at home
   - How would you rate your overall proficiency with technology?
   - Current use in the classroom

5. How would you define technology?

6. How important do you think it is for social studies teachers to use technology?

7. How do you keep updated (learn) about ways to use technology in your classroom? On your own? With colleagues? In staff development

8. How has technology impacted the way that you teach? (if at all)

9. What (or who) makes your use of technology in the classroom easier?
10. What (or who) makes your use of technology in the classroom more difficult?

11. What is your vision for technology use in your classroom?
APPENDIX F
INTERVIEW QUESTIONS—OBSERVATIONS

Pre Observation

1. Why have you chosen to use technology in this lesson?
2. Could you do the same lesson without technology?
3. What modifications for students do you need to make because of this technology?
4. What about the classroom environment facilitates technology use for this lesson?
5. What about the classroom environment detracts from technology use for this lesson?
6. What do you hope students will get out of this lesson in regard to technology use?

Post Observation

7. What worked well in this lesson with technology?
8. What did not work well in this lesson with technology?
9. What about the classroom environment impacted the way this lesson was carried out?
10. What do you think students got out of this lesson in regard to technology use?
11. How could you have done the same lesson without technology?
12. How do you think the knowledge/skills gained from this lesson will carry over to future learning activities?
APPENDIX G
SAMPLE JOURNAL ENTRY (AUDIT TRAIL)

8/14/02- Return to the big picture

In reality, I’ve done very little written work this week on the dissertation as I am preparing for the upcoming school year. I did get a chance, however, to glance over the Apple Classrooms of Tomorrow book that I just bought, *Teaching with Technology: Creating Student-Centered Classrooms*. While I know that my study will not mesh exactly with the results of the ACOT study, one thing in the foreword caught my attention. In this introduction written by Larry Cuban, he wrote that too often with technology we can get caught up in the hardware and software issues, and we need to reframe the problem in the point of view of the teacher looking at such things as beliefs, criterion for judging technology, and other basic questions. I know a lot of the groundwork for this study was done a while back, but I do think, especially as I get into the minds of these three teachers, to keep some of these fundamental questions in mind. Here are three “big picture items that I need to focus on as I continue with this study.

First of all, these are social studies teachers, not technology teachers. I can’t expect them, nor do I want them to, use technology all of the time. I hope that they take advantage of what is available to them, but I don’t necessarily want them to do something just for the sake of doing it. I am trying to figure out a day when I can come in late September or early October to interview/ observe these folks again, and I hope that I can see some technology in action. But I also think that I have a lot to learn from why they don’t use technology as well as why they do use it.
Second, technology is just a tool. While I have mentioned before my belief that technology can enhance the classroom, I also have to recognize that it is a tool for learning. It needs to be more like some of the other tools that these teachers use such as the textbook, cooperative learning, worksheet, etc. In the interviews I transcribed, they used this analogy a great deal.

Finally, these teachers are busy. I also recognized this in the spring as I tried to schedule my interviews and observations, but the beginning of the year is often not much better. I hope that I can get into my data soon so that I can unearth some things that need to come out later in follow-ups. I also must be aware that technology fundamentally takes a lot of time to learn and master and that these teachers still have a lot on their plate and can’t be expected to devote all of their free time to technology.
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

George B. Lipscomb was born in Abingdon, Virginia and spent most of his early life in Lynchburg, Virginia. He attended Davidson College and was an Honors graduate in History in 1990. He received his master’s in education from Wake Forest University in 1992 with a concentration in social studies education. He spent 7 years as a public school teacher in Winston-Salem, North Carolina and Lake City, Florida where he taught at both the middle and high school level. In 1999 he began full-time doctoral study at the University of Florida and specialized in social studies education and technology. Currently, he is living in Greenville, South Carolina where he is a member of the Education Department at Furman University. He teaches elementary and secondary social studies methods, introduction to education, and geography among other courses.