EXEMPLARY SOCIAL STUDIES TEACHERS USE OF COMPUTER-SUPPORTED INSTRUCTION IN THE CLASSROOM

Mehmet AÇIKALIN
Istanbul University, TURKEY
acikalin@istanbul.edu.tr

ABSTRACT
Educators increasingly support the use of computer-supported instruction in social studies education. However, few studies have been conducted to study teacher use of computer-supported instruction in social studies education. This study was therefore designed to examine the use of exemplary social studies teachers’ computer-supported instruction in the classroom. Case study methodological approach was used for this study. Four exemplary social studies teachers who use computer-supported instruction in their teaching practices were selected as participants. The data were collected from interviews and classroom observations. The data analysis indicated that all of the participants agreed that the computer is a powerful research tool which facilitates students’ work and makes the work faster and easier for the students. The participants used various types of computer-supported instruction in their classrooms. The use of the Internet and software programs such as Microsoft Power Point, Word, and Excel were the most common use of computer-supported instruction in the classrooms observed.

Keywords: Computer-supported instruction, Social studies, In-service teachers

INTRODUCTION
Major developments in computer and Internet technologies have increased the availability of computer and Internet access in schools. According to data from the National Center for Education Statistics (NCES, 2003), computers have been widely introduced into schools in recent years. In 2002, the average public school contained 131 instructional computers, and 99% of schools had access to the Internet in the United States. Like other disciplines, these developments in computer hardware and software in the last decades have increased computer integration in social studies education (Açıkalin & Duru, 2005; Berson & Balyta, 2004; Nickell, Field, & Roach, 2001; Rose & Fernlund, 1997; VanHove, Berson, Mason-Bolick, & Owings-Swan, 2004; White, 1997; Whitworth & Berson, 2003).

These substantial developments in computer and Internet technologies and the growing availability of computer and Internet access in schools have brought such terms as “Computer-Based Training” (CBT), “Computer-Based Instruction” (CBI), and Computer-Assisted/Aided Instruction” (CAI) (see Kausar, Choudhry, & Gujjar, 2008;Yusuf & Afolabi, 2010) into the field of education. These terms are frequently used interchangeably to refer to virtually any kind of computer use for training and instruction (see Freedman, 2001, p. 116, 171; Margolis, 1999, p. 77-78). Nevertheless, there are important differences between these terms that should be maintained. The phrase “Computer-Based” refers to the computer as a central part of instruction, which I believe is far beyond the utility of the computer in education. On the other hand, “Computer-Assisted/Aided Instruction (CAI)” is almost exclusively associated with computer programs such as drills and practice, tutorials, and simulations (see Jonassen, 2000, p. 4; Kleinedler et al., 2001, p. 39; Plaffenberger, 2001, p. 86) that limit the scope of computer utilization in education. I therefore have preferred to use the term “Computer-Supported Instruction (CSI)” as a reference to all aspects of computer use in the instructional context in order to help teach any kind of knowledge and skills to individuals. This includes the uses of any types of software (i.e. MS Word, Excel, PowerPoint), games, simulations, Internet searches, any sorts of online communications (i.e. e-mail exchanges, blogs, forums), virtual field trips and Webpage developments for instructional purposes.

LITERATURE REVIEW / PURPOSE OF THE STUDY
Social studies is the integrated study of the social sciences such as history, geography, economy, sociology, anthropology, psychology, philosophy, political science, law, and civic education (Milli Eğitim Bakanlığı Talim Terbiye Kurulu Başkanlığı [TTKB] 2009a, 2009b; National Council for Social Studies [NCSS], 1994). Many scholars point out that the disciplines of social studies are intended to develop effective citizens who possess critical thinking, problem-solving, and decision-making skills (Berson, 1996; Engle & Ochoa, 1988; Newmann, 1991; VanSickle & Hoge, 1991).

Likewise, many researchers in the field of social studies education highlight the role of computers in engaging students in critical thinking, problem-solving, and decision-making (see Açıkalin & Duru, 2005; Bennett & Pye, 1999; Berson, 1996; Berson & Balyta, 2004; Casutto, 2000; Dils, 2000; Fontana, 1997; Hicks, Tiou, Lee, Parry, & Doolittle, 2002; Larson, 1999; Rice & Wilson, 1999; Rose & Fernlund, 1997; Saye & Brush, 1999; Whitworth
& Berson, 2003; Zukas, 2000). According to Berson (1996), “Computer-based learning has the potential to facilitate development of students’ decision-making and problem-solving skills, data-processing skills, and communication capabilities. By using the computer, students can gain access to expansive knowledge links and broaden their exposure to diverse people and perspectives” (p. 486). Likewise, educational organizations such as the National Council for Social Studies, the College and University Faculty Assembly (CUFA), and the International Society for Technology Information (ISTE) recognize the potential of computer integration to transform learning in social studies (Hicks, Doolittle, & Lee, 2004; NCSS, 1994; Mason et al., 2000; VanHover et al., 2004).

While the computer integration in social studies education has been increasing, not much research has been done about the level of use of computer-supported instruction in the social studies classroom. Prior studies indicated that word processing, simulation, drill and practice and tutorials were listed as the most common computer applications used by social studies teachers (Northup & Rooze, 1990; Pye & Sullivan, 2001). On the other hand, database, problem-solving were less common strategies compared to the previous four categories (Northup & Rooze, 1990; Pye & Sullivan, 2001).

Nevertheless, a number of studies showed that “Internet use” and “accessing information from the Web” have become the most common use of computers in social studies education (Whitworth & Berson, 2003; see also Pye & Sullivan, 2001; Vanfossen, 2000, 2001). This change might be explained by the rapid new developments and innovations in computer and Internet technologies. However, the common findings of these studies were that social studies teachers use the Internet for personal purposes, and to gather background information for planning rather than for teaching and learning activities in the classroom (Gibson & Nocente, 1999; Keiper, Harwood, & Larson, 2000; Sunal, Smith, Sunal, & Britt, 1998; Vanfossen, 2000, 2001).

On the other hand, there are increasing body of research emphasize the crucial role of the Internet in providing information to students about multiple perspectives, cultures, and real-world issues (see Bennett & Pye, 1999; Cassutto, 2000; Dils, 2000; Hicks et al., 2002; Hicks & Ewing, 2003; Larson, 1999; Risinger, 1996, 1998, 2000, 2001, 2003; Shiveley & VanFossen, 1999; Zukas, 2000).

Despite the increasing availability of the computer and Internet access in schools (NCES, 2003), there are still common barriers keeping social studies teachers from employing computer-supported instruction more frequently. The most extensively cited barriers are (a) lack of availability of computers and problems with Internet access (Gibson & Nocente, 1999; Keiper et al., 2000; Sunal et al., 1998; VanFossen, 2000, 2001); (b) lack of training in how to apply the computer- and Internet-supported instruction in the classroom (Rice, Wilson, & Bagley, 2001; VanFossen, 2000, 2001); (c) lack of time (Sunal et al., 1998; Rice et al., 2001); and (d) lack of funding (Rice et al., 2001).

In summary, the review of the literature reveals, few studies have been conducted to study teacher use of computer-supported instruction in the social studies classroom. However, despite the extensive support for integrating computers into the social studies curriculum, further research regarding the effectiveness of computer integration and its impact on student learning and classroom environment in social studies education is still needed (Berson & Balyta, 2004; Diem, 2000; Martorella, 1999; Nickell et al., 2001; Shaver, 1999; Whitworth & Berson, 2003). Therefore, there is a need to examine the use of computer-supported instruction in the social studies classroom. Nevertheless, it is also important to investigate the exemplary use of computer-supported instruction in the social studies classroom in order to reveal the current and good examples of the uses of computer-supported instruction. Thus, this study may provide valuable views and ideas for social studies teachers and educators about the use of computer-supported instruction and may inspire them to apply this sort of instruction in their classrooms. In order to investigate the exemplary teachers use of computer-supported instruction in the social studies classroom, the following research questions were generated for this research:

1. How do exemplary social studies teachers view the computer as an instructional tool?
2. What are the current computer-supported instructional applications used by the exemplary teachers in their classrooms?
3. How do exemplary social studies teachers use computer-supported instruction in their classrooms?

This study was designed with the intention of analyzing the exemplary use of computer-supported instruction in social studies education so that the findings from the study may be helpful for the discussion and new directions about the more effective computer use in social studies education.
METHODOLOGY
Design of the Study: Qualitative Case Studies
Case study design (Bogdan & Biklen, 1998; Merriam, 1998) is employed for this study to gain an in-depth description, understanding and interpretation of a situation. Moreover, in order to collect data from different perspectives and be able to compare the findings from different settings, I preferred to use a “Multi-case studies” approach that involved more than one subject and setting in the research process (Bogdan & Biklen, 1998; Merriam, 1998; Yin, 2003).

Settings and Participants
Participants and sites were selected based on a “purposeful sampling” approach in which “researchers intentionally select individuals and sites to learn or understand the central phenomenon” (Creswell, 2005, p. 204; see also Ritchie, Lewis, & Elam, 2003). In this approach, samples are chosen based on a set of criteria because they have particular features or characteristics that enable detailed exploration and understanding of a central phenomenon or puzzle which the researcher wishes to study (Ritchie et al., 2003). Thus, the following criteria were developed for the selection of the participant teachers. The participant teachers should be (a) experienced secondary social studies teachers; (b) knowledgeable in computer-supported instruction; (c) using computer-supported instruction frequently.

Along with these criteria, “heterogeneous samples” (Ritchie et al., 2003) or “maximum variation sampling” (Patton, 2002) method was taken under consideration for this study to ensure diversity among the participants and the settings so that participants’ perspectives, ideas, and classroom practices can be compared within the various contexts.

According to these criteria, four participants were located by means of a nomination process. Two of the participants (Mike: Pseudonym, David: Pseudonym) were nominated by the social studies education faculty from a Midwestern University in the U. S. Initially I had planned to work with four participants so that I continued to search for social studies teachers who met my selection criteria. As result of this search process, I was able to locate two more social studies teachers. One of them was nominated by a parent who was a doctoral students in the field education at that time (Bill: Pseudonym) and the other participant (Kate: Pseudonym) was nominated by one of the district administrators in her school district. Therefore, the nomination process was completed by means of three different sources for the study: the social studies education faculty, one school administrator, and one parent.

As can be seen from Table 1, two of the selected participant teachers were White males, one of them was an African American male, and the other was a White female. This variety in the teacher’s gender and race provided different perspectives and ideas about the use of computer-supported instruction in the social studies classroom. Also, one of the teachers was teaching in a private school whereas the other three were teaching in public schools which contributed to heterogeneous sampling and provided diverse data about private and public school settings. In addition to that, as Table 1 shows all participant teachers were very experienced. Most of them had more than 20 years of experience. Another important factor about the participant was their academic backgrounds. As can be seen from Table 1, the variety in academic background of the participants was also a contributing factor to the heterogeneity of the sample.

Table 1: Demographic information of the participants.

<table>
<thead>
<tr>
<th>Name (Pseudonym)</th>
<th>Age</th>
<th>Race</th>
<th>Gender</th>
<th>Years of Teaching</th>
<th>Educational Background</th>
<th>Major</th>
<th>School Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>47</td>
<td>White</td>
<td>Male</td>
<td>25</td>
<td>B.S., M.A. and Ph.D.</td>
<td>Social Studies</td>
<td>Public Middle</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>work B.A., M.A. and Ph.D. work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill</td>
<td>52</td>
<td>White</td>
<td>Male</td>
<td>22</td>
<td>Social Studies</td>
<td>Private Middle</td>
<td></td>
</tr>
<tr>
<td>Mike</td>
<td>43</td>
<td>African American</td>
<td>Male</td>
<td>19</td>
<td>B.A.</td>
<td>Social Studies</td>
<td></td>
</tr>
<tr>
<td>Kate</td>
<td>46</td>
<td>White</td>
<td>Female</td>
<td>24</td>
<td>B.A., M.Ed.</td>
<td>Public Middle</td>
<td></td>
</tr>
</tbody>
</table>

Data Collection
Interviews
The four participants were interviewed twice during the data collection period. The first interviews were done in one-on-one and in-depth (unstructured) form (Creswell, 2005). The first set of interviews served exploratory purposes to understand the participants computer use in the classroom. The second set of interviews was...
conducted in a structured format and the interview questions were developed by the researcher after analyzing
the transcriptions of the first interviews. All interview sessions were audio taped and transcribed.

Table 2: Interview chart.

<table>
<thead>
<tr>
<th>Name (Pseudonym)</th>
<th>Interview Date−Time</th>
<th>Duration</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>Nov. 10, 05–3:45 pm</td>
<td>46 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Bill</td>
<td>Dec. 06, 05–12:30 pm</td>
<td>33 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Mike</td>
<td>Dec. 14, 05–11:25 am</td>
<td>20 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Bill</td>
<td>Jan. 12, 06–12:45 pm</td>
<td>26 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Mike</td>
<td>Jan. 19, 06–9:30 am</td>
<td>10 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>David</td>
<td>Jan. 24, 06–3:10 pm</td>
<td>39 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Kate</td>
<td>Jan. 30, 06–8:00 am</td>
<td>13 minutes</td>
<td>In school</td>
</tr>
<tr>
<td>Kate</td>
<td>Feb. 15, 06–10:30 am</td>
<td>24 minutes</td>
<td>In school</td>
</tr>
</tbody>
</table>

Classroom Observations
The purpose of observation sessions was to monitor the way the participant teachers employ computer-supported
instruction and to explore some hints and evidences about the influence of computer-supported instruction on
student learning. Therefore, field notes were taken during the classroom observations. Many things were
recorded during classroom observations such as the time of students worked on the computers; the names of
computer-supported instructional applications or software were used; and even sometimes the Web sites visited
by the students. The notes of informal discussions with teachers during these visits were also taken. These
conversations were not audio taped rather the summary of them were written after the classroom observations.

Although initially it had been planned to observe each classroom at least for five sessions, the total number of
actual classroom observations was around one hundred. As Charmaz (2000) pointed out, the researcher should
keep collecting data until the saturation point is reached. Therefore, I increased the number of classroom
observation until finding the same data pattern in each individual case. The numbers of classroom observations
ranged from 7 to 31 based on the participant’s frequency of computer use and the length of instructional units in
which the computer was integrated.

Data Analysis
All audio taped interview sessions were transcribed and classroom observation notes typed as word documents.
Using NVivo (QSR International, 2002) software program, the data were coded and the codes were grouped
similar codes to construct general themes that represent the pattern of the data.

As multi-case studies approach (Bogdan & Biklen, 1998; Merriam, 1998; Yin, 2003) was used for this study,
every single case was comprehensively analyzed independently. Once within-case analysis is complete, cross-
case analysis begins. In a cross-case analysis, the researcher attempts “to build a general explanation that fits
each of the individual cases, even though the cases will vary in their details” (Yin, 2003, p. 121). Therefore, after
the contextual variables and data findings for each single case are individually described, I will apply the
technique of cross-case analysis and compare all cases to find some patterns and build abstractions that apply
across all the cases (Merriam, 1998).

FINDINGS
Case # 1: David (Pseudonym)
Background Information about David and the School Setting
David is a 47 year old White male social studies teacher with 25 years of teaching experience. He completed his
bachelor’s degree at a Midwestern University in the field of secondary social studies education. He also earned a
Master of Arts degree in the field of social studies from a large Midwestern University, and at the time of the
study he was a doctoral candidate in the social studies program at the same institution.

The school was a suburban middle school in a Midwestern state. The class was a seventh grade social studies
with 12 boys and 8 girls all of whom were White. There were three desktop computers in the classroom for
instructional purposes. There was one computer lab in the school building consisting of 30 Macintosh desktop
computers and a laser printer. Also there was one mobile lab station with 25 Macintosh laptop computers and
one printer. The class was observed by the researcher for 31 class periods. David complained about computer
availability and inadequacy of the software programs in his school.
David's Use of Computer-supported Instruction

David believed that the computer was a great instructional tool which enabled easier and faster access to different perspectives and provided opportunities for students to improve their work. While David acknowledged the great benefits of computer technologies, he did not differentiate the computer from any other instructional tools in the classroom. He used the computer when it provided “a faster and deeper connection” (Nov. 10, 05) to information and points of views could not be found in traditional library or text materials. This next excerpt summarized David’s view about the computer “… Is it [computer] a panacea to everything? ‘No’. Is it another helpful tool? ‘Yeah’” (Nov. 10, 05). According to David, there were three main ways to use computer technology in the classroom: (a) information gathering; (b) use in the classroom (presentation tool); and (c) manipulated by students (use of students) (Informal discussion: Nov 28, 05).

The interviews and classroom observations indicated that David integrated the computer in his teaching or “… have the kids working directly on a computer as a part of the class … five or six times a month” (Nov. 10, 05). David used a wide range of computer-supported instruction in his teaching. When he was asked about the most commonly used instructional applications in his classroom he replied “The most common use for me would be the Internet, word processing. It would be for research. It is the vast majority how I use the computer” (Nov. 10, 05). Furthermore, he cited Database development, Web Page development and use of software programs such as Microsoft Excel and Power Point, and Hyperstudio as other sorts of computer-supported instructions in his classroom. In addition, he mentioned a tele-collaboration activity he had been involved in which his students got connected with their counterparts in Ukraine, Poland, and Russia. Although David had experiences with a broad range of computer-supported instructional strategies, only some of them were observed during the classroom observations within “The Historical Figure” project. In the next section, the project and the observed computer-supported instructional activities will be discussed.

The historical figure project

In this project students were to do research on a historical figure and discover three positive character traits they have in common. The requirements were to have at least two Internet sources and one print source to complete the research. Another source of information was the personal interviews. In order to complete the assignment, the students were supposed to write an essay in which they compared themselves to the historical figures. Another part of the assignment was to present their findings in a secondary way beyond the essay. For this part, students created projects in which they compared themselves to the historical figures. The type of project was optional. Students were given a choice of doing either a computer-supported project or other traditional types of project.

The students used the computer lab for Internet search and the school library for print resources in order to find information for their essays and projects. Students used the computer lab for 8 class periods and spent a total of 12 class periods to complete the project.

Internet search

The interviews and classroom observations showed that Internet search was the most common use of the computer in David’s classroom. He used the Internet mostly for its reference materials as presenting students with different points of view and ideas. The following excerpt shows how David viewed the role of the Internet in terms of having students involved with diverse perspectives.

It’s [Internet] nice reference area and a good way to look at different points of view and to look at different ideas and I want them to have enough sources that messes their whole idea up because they’re going to find sources disagree with one another. (Jan. 24, 06)

During the classroom observations students used the Internet for a minimum of eight class periods for this project. The Google search engine was the most common search engine used among the students. Students found text resources about historical figures that they had chosen. They used that information to write their essay as well as create their project. Many of the students searched on the Internet for pictures of their historical figure. As David pointed out during the Internet search, students encountered many resources that provided different points of view about the historical figures they had chosen.

Word processing

During the classroom observation Microsoft Word was used extensively among the students. Many students used the program during Internet searches. The Word program was used by students as a notebook for note taking. Most of students used copy and paste features of the program when they got information from Internet resources. Even URL’s were copied on Word documents by some students. They used those documents like a “scratch
Students also typed their reference lists for this project using Microsoft Word. They were supposed to create a reference list for the project and David was very strict about the format they were using. He gave them a sheet that showed how references were supposed to be written on the reference list and cited in papers. Students had to use the editing features of the program many times as they corrected their reference lists.

**Computer as a presentation tool**

David rarely used the computer for presentation purposes during the classroom observations. He usually preferred to use the overhead projector with transparencies for that purpose. However, one time he used the computer for a presentation for this project. He used the computer in order to show the students how to write a reference list based on the format he had given them. He used one of the student’s reference list as an example and projected it onto the wall. It was a Microsoft Word document and he corrected the mistakes on the paper using the computer and this software program so that students could see the proper format for the references. Although in the interview he mentioned that he used “it [computer] for instruction through PowerPoint presentations” (Nov. 10, 05) he did not use it with PowerPoint during the classroom observations.

**PowerPoint**

PowerPoint was another software program used in David’s classroom. Almost half of the students preferred to do PowerPoint presentation for this project. The presentations were mostly 4 to 6 slides. The first slide was the title page. The second and third slide were about the historical figures they studied and the following slide was about themselves. The next slide was a comparison of themselves with the historical figures, and the final slide was the bibliography which had been created based on the format given them by David. When students created the slides they used the information they had gathered through Internet searches, print sources, and the personal interviews. Most of them used the notes they took on Microsoft Word documents from Internet searches.

**Case # 2: Bill (Pseudonym)**

**Background Information about Bill and the School Setting**

Bill is a 52 years old White male social studies teacher with 22 years teaching experience. He completed his Bachelor’s and Master of Arts degrees at a large Midwestern University in the field of social studies education. The school was a private school located in a large city in a Midwestern state. The class was a seventh grade American History class with a population of 10 boys and 9 girls. There were 12 White and seven African American students.

There were four desktops computers in the classroom for the use of the students. Also there was one laptop computer connected to the Smart Board for the instructional purposes. There was one DVD player which connected to the Smart Board. Also, there were 20 PC desktop computers in the computer lab. This class was observed by the researcher for 28 class periods. According to Bill, computers and software programs are sufficient in his school. But it would be better if they are improved.

**Bill’s Use of Computer-supported Instruction**

Bill considered the computer as one of the instructional tools that could be used in the classroom. In both interviews he pointed out this view a number of times. Yet, he acknowledged the great benefits of using computer in the classroom in terms of gathering information and reviewing different resources. He stated that

> I use the computer as a tool. A tool that enables to the students … okay … to become more responsible for gathering information for themselves … rather than, myself, being the sole source of information for the students and rather than the textbook being the sole source of information …okay? the computer opens up whole new world of resources. (Dec. 06, 05)

He also highlighted the advantages of using computers as contributing to the students’ project and helping them to work more effectively and easily to accomplish their tasks. He stated that “… projects are made okay much more effective or are … frankly made much easier by using the computer” (Dec. 06, 05). According to Bill, “the computer allows to kids to do so much” and create more opportunities for them through the information accessed to be able construct knowledge.

Although Bill recognized the effectiveness of computer use in the classroom in terms of helping students to create and construct, he clearly drew a line between computer use and the purpose of tasks or projects that
students were assigned to do. On the one hand, he acknowledged the extreme importance of computer use in the classroom; on the other hand, he definitely did not put the computer in the center of his instruction. This statement from the first interview showed his view about the computer as an instructional tool.

… the computer is not the center of what I do. The computer is just a means … for accomplishing the task. So, the role of the computers … again it’s extremely important because it allows so much … to be done. But, the other side of it is I would do the same thing, if I did not have a computer. (Dec. 06, 05)

The classroom observations and the interview sessions indicated that Bill used computers very frequently in his teaching. He stated that

In one from or another I use the computer everyday. So… whether it is in a from of project such as the kids have just completed or whether simply to put … notes on…the Smart Board, the computer is used everyday in my class. (Dec. 06, 05)

As he reported, the most commonly used instructional applications in Bill’s classroom were the Smart Board, Internet search, and use of software programs such as Microsoft Word and PowerPoint. However, during the classroom observation periods, there was not an assignment that required a PowerPoint presentation. Yet, the other computer-supported instructional applications were observed in Bill’s classroom through “The Colonial Newspaper Project.”

The colonial newspaper project
In this project, students were supposed to produce a newspaper that was set in the colonial period just prior to the American Revolution. The newspaper had to have following sections: an editorial page, classified section, international news section, entertainment section, and at least one cartoon. Students were given a handout that explained the project through the whole process. In this handout, it was highlighted that students were supposed to give “clear expression of the viewpoints of both Patriots and Loyalist”. The second handout about the project was the list of events that had to be covered in the newspaper. Another handout given by Bill was a list of some Internet sources about the Colonial Era. The project was a set up as a group project and students were assigned to the groups by Bill.

Smart Board as a presentation tool
As Bill pointed out, using the Smart Board as a presentation tool was the most common use of the computer in his classroom. The next excerpt shows how Bill utilized the Smart Board in his classroom. “Using the computer as a means of activating the Smart Board, placing… information notes onto the Smart Board which are then saved … and are downloaded to a Web site that the students can access later” (Dec. 06, 05).

The classroom observations also showed that Bill used the Smart Board in a variety of ways such as introducing students to the project, and showing them some useful Web sites and sources from the Internet. During the classroom observations, another use of the Smart Board was to use its screen to show students some documentary films. Bill showed the students a set of documentary films about the American Revolution for 10 class periods. The film set was in DVD format and therefore sound and visual effects of the films were at a very high quality.

Internet search
The interviews and the classroom observations indicated that Internet search was one of the most common computer-supported instruction were used in Bill’s classroom. During the classroom observations, students were sent to the computer lab to do Internet searches at least for 10 class periods to find resources and information for their newspapers.

While Bill considered the Internet as another important source of information, he did not completely rely on it, and wanted his students to seek other sources of information as well such as textbooks or other print materials. Bill also underlined the validity of the information gathered through the Internet sources. He stated that “…we constantly have to remind them [students] … that simply because it is there, it doesn’t mean that it is valid in itself” (Dec. 06, 05). In order to make sure his students check the validity of the information that they gathered from the Internet, Bill suggested that using multiple sources of information. Bill stated that

What we need to do though is to constantly remind them that they need to be able to find multiple sources. They have to confirm information from more than one source before they can begin to consider whether or not is valid. (Jan. 12, 06)
During the colonial newspaper project Bill reminded students several times to check the validity of the information. He asked them to confirm what they have with other sources on the Internet as well as print sources such as their textbooks.

Word processing
Some of the conventional software programs such as Microsoft Word were also among the frequently used programs in Bill’s classroom. In the first interview Bill pointed out that writing papers was another common use of the computer in his classroom. He stated that “… Actually the students would write papers … as a part of it as well. … But I have my students… Sixth and seventh grade type most of the formal papers that they do for me” (Dec. 06, 05).

Also the classroom observation notes showed that students used the computer extensively to type their articles and other sections for the newspaper project. Students used several features of the program such as copying and pasting information from the Internet to the Word documents. In the documents students were able to edit the information, rewrite their sections, and use various types of fonts and colors that resembled an authentic Colonial Era newspaper.

Case # 3: Mike (Pseudonym)

Background Information about Mike and the School Setting
Mike is a 43 year old African American male social studies teacher with 19 years of teaching experience. He completed his bachelor’s degree in a Midwestern University in the field of social studies education. The school was a suburban high school in a Midwestern state. Mike’s two different classes were observed in the same classroom. The first class was 12th grade American Government and the second one was 10th grade American History. There were 12 boys and 12 girls (21 White and three African American) in the American Government class. This class was observed for by the researcher for 19 class periods. There were 12 boys and 11 girls (18 White, four African American, and one Hispanic) in the American History class and it was observed for 11 class periods.

There were 6 desktop and 12 laptop computers in the classroom for Mike and students to use. During the classroom observations either of the classes did not use the computer lab in the school. Although the number of computers seemed to be adequate, students complained about the availability of computers during the classroom observation on a couple occasions. When each student wanted to work individually on the computer, some of the students could not find an available computer to them because the number of computers is less than the number of the students in both classes. Likewise, Mike complained about the inadequacy of the computers and lack of software programs.

Mike’s Use of Computer-supported Instruction
Mike believed that “the computer just another tool that allows students to go in depth with their learning; allowing students to be in charge of their own learning; allowing them to experiment and to be more creative” (Dec. 14, 05). While Mike believed that the computer use in the classroom promoted the creativity of the students, he also mentioned that sometimes the computer makes it easier to “… reach students … especially students who are … visual learners” (Dec. 14, 05).

Mike also mentioned another great advantage of computer technology over traditional methods. According to Mike, computer technology provided students with the ability to edit and read not only textual information but also visual and audio features of their projects. However, it would not be possible for them to edit and read their work if they used traditional types of materials. According to Mike, this feature of computer technology allowed students to do a better job on their projects.

Mike integrated the computer in his teaching frequently. He pointed out that he used the computer on average three times a week. His most common uses of computer-supported instructional applications can be listed as Internet search, Web Page development and use of software programs such as Microsoft Word, PowerPoint and Movie Maker (Microsoft Corporation, 2004). During the classroom observation most of these software programs were used extensively by the students, especially, PowerPoint presentation and Movie Maker which allowed students to create their own videos through the student projects in the both classes. As Mike’s two different classes were observed, there were two different projects in which computer-supported instruction had been used.

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The projects
The first project was “The City Planning” project (12th grade America Government). This was a group project. Each group consisted of three to five students and students were free to select their group members. Every group was supposed to create a city on their own. One part of the project was to submit a written report about the city including history, landmarks, maps, zoning (laws), economics, schools, and other public buildings. The second part was creating a ten-minute video that introduced the city. Students were allowed to use Internet sources not only to gather information for the written part, but also to find appropriate sound and visual effects for their videos.

The second project was “The World War I Project” (10th grade American History). There were three options for this project: writing a diary, creating a newspaper, or creating a PowerPoint presentation. Except for the newspaper projects, students worked individually. Students or groups were assigned to topics related to WWI by Mike. Students were allowed to use the Internet sources not only to gather information, but also to find appropriate sound and visual effects and even historical videos for their projects.

Internet search
The Internet was being used in Mike’s classroom primarily for finding information. While he used the Internet to find primary sources and Web sites for students, he also had the students search on the Internet to find text and visual materials such as images and videos for their projects. Mike gave special attention to the visual and audio materials on the Internet as he believed, “the American public are mostly visual learners” (Jan. 19, 06). Therefore, he would like to have his students use more visual materials in the classroom. All projects in this class were created based on the information acquired from the Internet.

Computer as a presentation tool
The interviews and classroom observation indicated that Mike used the computer as a presentation tool. He usually used Web sites and reflected them on the wall to support his lectures. He stated that

… Not only can students listen to what I am saying but also they can actually see an example of what I am talking about. If I were talking about a general in World War I, then I’d try to find a visual of that person. (Dec. 14, 05)

During the classroom observations, Mike used the computer as a presentation tool for a number of times especially in the 12th grade American Government class. He reflected on the wall the official Web site of the county, city, and their school districts to show students how the local government works and to introduce the city and county officials such as mayors, governors, or other official figures such as board members of their school districts.

Software—multimedia
Utilizing multimedia types of software was one of the most common instructional strategies used in Mike’s classroom. He cited a number of times that his major focus was on multimedia related software programs. He stated that

I think right now, my most common use of multimedia is bringing video in the classroom and integrating it with a lesson enhancing a lecture. This type of presentation is working because kids today are more visual learners because they’re of the TV generation. (Dec. 14, 05)

As indicated in the quotation, the reason why Mike used multimedia types of software in his teaching was his belief that the contemporary American students were mostly visual learners. Movie Maker program was used for the “The City Planning Project” in the American Government class during the classroom observations. Students used Movie Maker software program to edit, add sounds, and other visual effects to their introductory movies about their cities after they had filmed them around town.

Word processing—excel
Microsoft Word and Excel were the most common software programs were used in Mike’s classroom. The Word program mostly was used for note taking purposes during Internet searches. In both classes Internet searches were a big part of the projects. Students did Internet searches in both classes and while they found sources, they copied and pasted information on Microsoft Word documents. Then, they processed the information and used it for their projects. In both classes, students typed necessary parts of the projects on the Word documents.
In the American Government class, along with the Word program, Microsoft Excel was also commonly used for projects. In order to complete the written part of the “City Planning” project students were supposed to come up with some statistics about the city such as population, religions, and economics for the city. Therefore, this program was used frequently among the groups in order to create bar charts or pie charts that represented the city statistics.

**PowerPoint**

PowerPoint was another frequently used software program in Mike’s classroom. In the American History class, eight students did PowerPoint projects as they had an option to choose the format of the project. There were a wide variety of topics such as “WWI Tanks”, “WWI Weapons”, “WWI Personalities” and “Battles of WWI”. Students used information and images they had found from Internet resources. There were many images in the presentations such as tanks, weapons and aircraft that had been used in the war. The student added sound and texts to the video which made it stand up for itself. Most of the PowerPoint projects were high quality and met Mike’s expectation.

**Case 4: Kate (Pseudonym)**

**Background Information about Kate and the School Setting**

Kate is a 46 year old, White, female social studies teacher with 24 years of teaching experience. She completed her bachelor’s degree in a Midwestern University in K-8 teacher education program. She received a Master of Education degree in field of Curriculum & Instruction with emphasis on social studies education from another Midwestern University.

The school was a suburban middle school in a Midwestern state. The class was the eighth grade American History class with 10 boys and 11 girls (19 White and two African American). There were four desktop computers in the classroom for the use of the students and one for the use of Kate. There were three laptop stations in the school for classroom use. Each station consisted of 25 laptop computers and one printer. Kate complained about unavailability of these stations. The class was observed by the researcher for seven class periods. Fewer classroom observations were conducted in Kate’s classroom due to limited computer availability in her school. She was only allowed to use computers in her classroom five days a month.

**Kate’s Use of Computer-supported Instruction**

Kate considered the computer as an aid for instruction. Kate thought that the computer was a powerful tool that helped gain access to a lot of information. According to her, text materials cannot cover entire topics thoroughly and provide information on many issues related to course of study. She stated that “I just think it is the only way to really get a lot of information. … the Internet is important on getting some expanded knowledge for the students. So, you have to have that” (Feb. 15, 06). She believed that computer technologies gave students alternative “opportunities to go as wide as and as deep as they want to go” (Feb. 15, 06). Along with that, Kate pointed out the importance of computer technologies in providing more advanced presentation tools for students.

Kate’s computer integration was less frequent compared to other participants due to the computer unavailability. She stated that “I try to use them [computers] once a nine week in terms of some sort of research” (Jan. 30, 06). Her main computer use with the students was to utilize the computer as a research tool. She also used the computer herself to update school WebPage with student homework and grades. Internet searches and PowerPoint presentations were the most common uses among the students in her classroom. Likewise, students used these two software programs when they created their projects which are explained in the next section.

**The “War of 1812” project**

During the classroom observation periods, students were working on the “War of 1812 Project”. The project was designed as a group project and each group consisted of two-three students. There were 12 topics—usually individual battles—about the War of 1812 stated by Kate in the project handout. Students were assigned to the topics based on their choices. Students were supposed to do Internet searches to find information for their projects and create a project either computer-supported such as PowerPoint or traditional type of project such as poster presentation.

**Internet search**

Internet search was the most common use of computer in Kate’s classroom. The following excerpt was a summary of how she used the Internet in the classroom. “… like “the war 1812” each had a topic. They would go in detail about their topic and find not only just information but pictures that would represent that time period any primary sources…” (Jan. 30, 06).
As Kate pointed out during the “the War of 1812” project, students searched the Internet to find information about their projects. They were looking for not only textual information but also for pictures and images that could be used for their projects. Student used search engines—mostly Goggle search engine—and type keywords related to their project to find relevant sources of information. So, the Internet was used by students to create a base of information for their projects.

Kate preferred to use primary resources from the Internet rather than go and spend time on opinion resources. Therefore, she usually limited students with specific Web sites which consisted of primary sources such as, The Smithsonian or The National Archives. She stated that “…I try to keep with those more than getting into an opinion kind of thing” (Feb. 15, 06).

**Word processing**  
The Microsoft Word program was the second most common computer use in Kate’s classroom. During the project, students used this program every day. Most of the students were using the copy and paste features of the program in order to take notes for their project. They were copying and pasting some texts they had found from the Internet and also some pictures and images of the people that they were searching about.

Students who did PowerPoint projects usually used the Word program to edit and adjust the textual information on the documents before transferring their work to a PowerPoint file. Yet, students who did not have computer-supported projects also used the program for note taking, and print functions in order to put them on poster board.

**Computer as a presentation tool**  
Kate used the computer as a presentation tool in the classroom. She used a number of features of the presentation system such as connecting it to the Internet and showed the whole class Web sites rather than have them search information by themselves. Another feature she used was presenting information through this device such as handouts or other type of documents concerning the instructional unit. She highlighted that it was a great feature of computer technology to allow all students to follow lessons. She stated that “It’s kind of a nice way to for everybody to be on the same page, so to speak. You know which is pretty big in the middle school because they don’t always want to be on the same page” (Feb. 15, 06).

**PowerPoint**  
Although PowerPoint software program was not Kate’s favorite program, it was used a lot by her students. According to Kate, mostly students cut textual information from the Internet and tended to put long text on the PowerPoint presentation without editing the information (Informal discussion: Feb. 16, 06). Yet, PowerPoint seemed to be students’ favorite software. Kate stated that

> … They [students] love doing PowerPoint. I think it’s because it is easy. ‘Cut and paste; next screen; cut paste; put a figure in.’ … I don’t think they utilize much … creativity. I mean you can pick the slide you want; you type your title; you type you know. (Feb. 15, 06)

As Kate pointed out many students used PowerPoint for their projects during the class classroom observations. The problem she indicated was visible on most PowerPoint presentations. Students usually used long textual information on the slides. Even some of the text was not legible. It was clear that they did not do much editing on the information they had retrieved from the Internet. On the other hand, there were a couple of projects that were designed very well. One of them was a recreation of a battle, and the students who did the project added sound and animated images to simulate the battle strategy.

### CROSS-CASE ANALYSIS AND DISCUSSIONS OF RESEARCH QUESTIONS

**R.Q. 1: How do exemplary social studies teachers view the computer as an instructional tool?**  
The data analysis indicated that all participants viewed the computer as an instructional tool that facilitates teaching and learning in multiple ways. David mentioned that the computer was a great instructional tool which enabled easier and faster access to different perspectives and provided opportunities for students to improve their work. Bill considered the computer as one of the instructional tools that could be used in the classroom. Mike stressed that the computer just another tool that can promote the creativity of the students. Kate considered the computer as an aid for instruction. Kate thought that the computer was a powerful tool that helped gain access to a lot of information.

While all participants saw computer as another instructional tool and acknowledged its great benefits, especially David and Bill were specifically cited that they do not put the computer in the center of their instruction. They
were aware that it is only another tool and they only used when it is necessary for their instructional design. David stated that he only used the computer when he “could not teach a unit in any other way” (Nov. 10, 05).

As the computer is seen any other instructional tool by the participants, all of them agreed that it is a valuable research tool can provide wide variety of sources and information for the students to help them improve their works. The classroom observations also indicated that students used the computer as a research tool extensively to complete their projects. The students searched on the Internet for visual and textual sources to build various parts of their projects.

R.Q. 2: What are the current computer-supported instructional activities used by the exemplary teachers in their classrooms?

The interviews and classroom observations showed that the participant teachers used a number of computer-supported instructional applications in their classrooms. As table 3 shows, use of the Internet and of software programs such as Microsoft Power Point, Word, and Excel were the most common type of computer-supported instruction in the classrooms observed. In addition, computers were used as presentation tools frequently in these classrooms. Multimedia software was used by only one teacher during the classroom observations. Other strategies listed in the table were not observed during the data collection period, although the participant teachers reported they had had experiences with these applications.

### Table 3: Self-reported use of computer-supported instruction by the participants in their classrooms.

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<thead>
<tr>
<th></th>
<th>David</th>
<th>Bill</th>
<th>Mike</th>
<th>Kate</th>
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</thead>
<tbody>
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<td>Internet</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Presentation Tool</td>
<td>X</td>
<td>X</td>
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<tr>
<td>PowerPoint</td>
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<tr>
<td>MS Word Excel</td>
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<tr>
<td>Multimedia Software</td>
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<tr>
<td>Games Simulations</td>
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<tr>
<td>Databases</td>
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<td>Web Quest</td>
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<td>Web Page Development</td>
<td>X</td>
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<tr>
<td>Tele-collaboration</td>
<td>X</td>
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<tr>
<td>Virtual Field Trip</td>
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<td>X</td>
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</tbody>
</table>

The Internet was the most common computer use in the observed classrooms. All participants used the Internet because it provided fast and easy access to a vast amount of resources and information. Along with its fast and easy access to information, most of the participant teachers valued the Internet for its ability to provide global and multiple perspectives to students.

The computer was also frequently used as a presentation tool in the observed classrooms, either by students or by the teachers. All participant teachers used the computer to show Web sites and handouts related to student’s projects during the classroom observations. Another form of computer use was to present students’ projects. All participant teachers stated that computers were frequently used in their classes for student presentations. There were many PowerPoint projects presented during the classroom observations in all classrooms observed.

Although computers were used as presentation tools frequently by both teachers and students, not much has been written in the literature on this subject. Nevertheless, it seems that there are a number of benefits of using computers as presentation tools. The data showed that when a computer was used as a presentation tool, it not only improved the quality of the presentation’s visuals and sound, it also gave the teachers flexibility to use other types of tools with the computer, such as connecting to the Internet or to a DVD player. Clearly, it is not possible to have such flexibility and ease in transferring to another presentation tool with a traditional overhead projector.

Another common type of computer use by the participant teachers was the use of software programs. Only conventional software programs such as Microsoft Word, Excel, and PowerPoint were commonly used in the observed classrooms. However, the data in this study showed that newly developed software programs were rarely used in the observed classrooms. There are a number of reasons for that situation.

The data indicated that a number of factors influenced social studies teachers’ computer use in their classrooms. The first factor was the lack of computer and software availability in the schools. The data showed that in the three of the observed schools, computer availability was a factor that kept the teachers from integrating computers more with their teaching, even though the data from the National Center for Education Statistics
(NCES, 2003) showed a rapid increase in the number of instructional computers (an average of 131 instructional computers per school) in American schools.

In addition, the lack of software was a problem in some of the observed classrooms, and it kept at least one participant from using computer-supported instruction more frequently. Nevertheless, most of the participant teachers were not seeking new computer software programs that could be used in the social studies classroom. In fact, due to administrative processes, the teachers did not have much responsibility for choosing software programs or even much effect on which programs were chosen. Another factor influencing social studies teachers’ use of computers in their classrooms could be related to lack of time due to curriculum requirements. Two of the participant teachers complained about the time limit and curriculum requirements.

In conclusion, the lack of computers and software, and time issues related to the curriculum seem to be the major problems that prevent the participant teachers from using computer-supported instruction more frequently.

R. Q. 3: How do exemplary social studies teachers use computer-supported instruction in their classrooms?

The study revealed that all four participants cited Internet search among the most common strategies they used in their classrooms. In the interviews all participants stated a number of times how frequently they used the Internet as a research tool. The classroom observations also showed that using the Internet for research was the most common strategy in the classrooms observed. Generally, the teachers had students use the Internet as a research tool to find textual and visual information for their projects.

Teachers’ focuses within the strategy of using the Internet for research varied to some degree, yet most of them acknowledged the crucial role of the Internet in terms of providing information to students about multiple perspectives, cultures, and real-world issues. Only, Kate wanted to keep her students from sources that represented opinions; rather, she preferred to use sources that represent “facts and events.”

All participant teachers used computers as presentation tools in their classrooms, although how and how often they used them varied. Among all participants, Bill used the computer for presentation purposes most frequently. He cited the Smart Board as the most common use of computers in his classroom. On the other hand, David rarely used the computer for presentation purposes. He generally preferred to use an overhead projector.

Computers were also used to present students’ projects. All participant teachers stated that computers were used frequently in their classes for student presentations. Most of these presentations were made with Microsoft PowerPoint. It was one of the most frequently used programs in the classrooms observed. There were not many differences between classrooms in how this software program was used. Students did Internet searches and copied information from the Internet to Word documents so that they could evaluate information, analyze it, and edit it before creating their final PowerPoint projects. Many PowerPoint projects were presented during the classroom observations in all classrooms observed.

In addition, Microsoft Word was one of the most common software programs used in all classrooms. In all classrooms, students used Word documents to type their papers and also as “scratch paper” to take notes, evaluate and analyze information, and edit the information before they created their final projects. The editing feature of the software program was cited by all participant teachers as a great advantage for the students as it prevented them from needing to retype, consequently saving time and thereby helping to improve students’ work. According to Mike, this feature of the computer technology allowed students to do better work on their projects. He stated that “The computer allows students to correct … those mistakes; to retype a paragraph; to go back and look at their work … so what is you get is better work from students.” (Jan. 19, 06)

In addition, Microsoft Excel was also used by the students in the classrooms observed. Although it was not used as frequently as Microsoft Word or PowerPoint, students used Excel to create databases, tables, and charts for their projects. The data indicated that other software programs were rarely used in the classroom. Mike was the only teacher who used a software program different from those just mentioned. He had students create videos using Windows Movie Maker.

CONCLUSION AND DISCUSSION

The analysis of the data indicated that all participants had similar views about the computer as they did not differentiate it from any other instructional tool. Nevertheless, all of them agreed that the computer is a powerful research tool that facilitates students work and make the work faster and easier for the students.
The participants used the computer in their classroom in many ways and integrated the computer-supported instruction to the units they taught. The use of the Internet for research purposes was the most common type of computer-supported instruction in the classrooms observed. This finding is consistent with the recent literature. A number of studies showed that “Internet use” and “accessing information from the Web” were the most common use of computers in social studies education (Whitworth & Berson, 2003; see also Pye & Sullivan, 2001; Vanfossen, 2000, 2001). Most of the participant teachers valued the Internet for its ability to provide global and multiple perspectives to students. This finding also is consistent with the current literature in the field. A number of studies emphasize the crucial role of the Internet in providing information to students about multiple perspectives, cultures, and real-world issues (see Bennett & Pye, 1999; Cassutto, 2000; Dils, 2000; Hicks et al., 2002; Hicks & Ewing, 2003; Larson, 1999; Risinger, 1996, 1998, 2000, 2001, 2003; Shiveley & VanFossen, 1999, Zukas, 2000).

The computer was also frequently used as a presentation tool in the observed classrooms, either by students or by the teachers. All participant teachers used the computer to show Web sites and handouts related to student’s projects during the classroom observations. Another form of computer use was to present students’ projects. All participant teachers stated that computers were frequently used in their classes for student presentations. There were many PowerPoint projects presented during the classroom observations in all classrooms observed. Although computers were used as presentation tools frequently by both teachers and students, not much has been written in the literature on this subject. The research focuses on the effectiveness of PowerPoint presentations in undergraduate courses (DenBeste, 2003; see also Bartsch & Cobern, 2003; Frey & Birnbaum, 2002; Susskind, 2005) rather than in K-12 educational settings. Therefore, it is clear that there is a need for more empirical research to investigate the role and effectiveness of computer as a presentation tool and the use of PowerPoint in the social studies classroom.

The use of software programs such as Microsoft Word, and Excel were the other common type of computer-supported instruction in the classrooms observed. In all classrooms, students used Word documents to type their papers and also as “scratch paper” to take notes, evaluate and analyze information, and edit the information before creating their final projects. In addition, Microsoft Excel was also used by the students in the classrooms observed. Although it was not used as frequently as Microsoft Word or PowerPoint, students used Excel to create databases, tables, and charts for their projects. However, there is not much research in the literature about the use of these applications in the classroom. There are few studies on the effectiveness of computer-supported writing activities in social studies (see Berson, 1996). Therefore, it is clear that there is a need for more empirical research to investigate the role of Microsoft Word in preparing student projects in the social studies classroom.

Multimedia software was used by only one teacher during the classroom observations. The data in this study showed that software programs other than Microsoft Word, Excel, and Power Point were rarely used in the observed classrooms. As the data showed there are a number of reasons for that including the lack of computer and software programs, curriculum requirements, and administrative issues. Likewise, the current literature indicated the following barriers which are keeping teachers from not using computer-supported instruction: (a) lack of availability of computers and problems with Internet access; (b) lack of training in how to apply the computer- and Internet-supported instruction in the classroom; (c) lack of time; and (d) lack of funding (Gibson & Nocente, 1999; Keiper et al., 2000; Sunal et al., 1998; VanFossen, 2000, 2001).

It is also important to investigate the influences of outside classroom aspects on computer integration in the social studies classroom. Administrative issues regarding computer and software use in schools can have significant influences on teachers’ use of computer-supported instruction. It is very crucial whether school and district administrators support the use of computer-supported instruction in the classroom. Thus, further studies could be done to investigate the school and district administrators’ views and attitudes toward computer integration in the classroom.

Finally, both qualitative and quantitative studies could be done to examine effectiveness of a particular computer-supported instructional application such as Web Quest, PowerPoint, or the use of another type of software. I believe that focusing on a particular computer-supported instructional application would provide more in-depth findings to help to examine the effectiveness of these strategies individually. Of course, the findings from that type of research would be more valuable if students were active participants in those studies.
REFERENCES


