THE INTEGRATION OF COMPUTER TECHNOLOGY IN AN EIGHTH-GRADE
MALE SOCIAL STUDIES CLASSROOM IN THE UNITED ARAB EMIRATES

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This dissertation entitled
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Abstract

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THE INTEGRATION OF COMPUTER TECHNOLOGY IN AN EIGHTH-GRADE MALE SOCIAL STUDIES CLASSROOM IN THE UNITED ARAB EMIRATES

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This study described an eighth-grade classroom environment in the United Arab Emirates where computers were used as a tool in teaching social studies. It was conducted in a naturalistic setting where different activities and interactions were observed and explained. The study investigated both the teacher’s perceptions and students’ attitudes toward using computer technology for a social studies class. Both quantitative and qualitative data were gathered to describe and explain what happened in the eighth-grade social studies classroom which consisted of 28 male students between 13 and 14 years of age.

In the quantitative segment of the study a 20-item Computer Attitude Questionnaire was administered to determine any significant differences in students’ attitudes towards computer importance, computer enjoyment, and computer anxiety through the use of computer-enhanced instruction in their classroom. A two-tailed paired sample t-test at the .05 significance level was conducted to examine students’ change in attitudes regarding each item.
The results of the two-tailed t-test showed that the students’ perceptions towards computer importance were not significant; in contrast, when it came to the students’ perceptions of computer enjoyment and computer anxiety, the results of the two-tailed t-test showed positive improvement.

In the qualitative part of the study, three different sources of data were employed to understand and describe the cooperative computer-based learning environment: student interviews, students’ written reflections, and the teacher’s personal observation notes. The three main themes that emerged during data analysis were students’ sense of empowerment through presentations, rapport and support among students, and cooperation among students.

Approved:

Sandra V. Turner

Professor of Educational Studies
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CHAPTER ONE

Introduction

Integrating computer technology in classrooms has become a recognized and a significant strategy for preparing the new generation for the 21st century (ISTE, 2006). One hallmark of a modern school is that it is considered to be a place where students are taught to interact positively with the information era and successfully meet its demands. Using computer technology in classrooms can reshape traditional ways of teaching, encourage students to be more active and responsible for what they learn in their schools, and enhance student performance (Abu-Rmaileh & Hamdan, 2006). Drenoyianni and Selwood (1998) stated that integrating computers in classrooms can move practices of rote-memorization, rigid curricula, and teacher-centered instruction into a more student-centered environment where learners are able to manage their own learning.

In schools in the United Arab Emirates (UAE), social studies as well as other disciplines are presented to students in a traditional manner which relies on the lecture method, in which the teacher does all or most of the activities. In the last five years, many UAE’s officials and decision makers in the field of education have called for innovative methods of teaching. Computer-enhanced instruction is considered among the new
methods that can facilitate more interaction between teachers and students and thus positively impact students’ learning.

*Educational System in the United Arab Emirates*

In 1971 federal legislation was passed in the UAE to make education free at all levels; free higher education is available for nationals and sometimes under assistance programs for nationals of other Arab countries. The Ministry of Education is the central authority that holds responsibility for supervising education in all the Emirates. Thus, the educational system is a highly centralized one, with a hierarchy starting from the minister of education down to the school administration (Hokal & Shaw, 1999).

The curriculum taught in UAE schools was adopted during the 1970s from other Arab regions, mainly from Kuwait. In the late 70s, officials in the Ministry of Education started to think of a local curriculum that would meet specific demands of UAE society, and gradually replace the old curriculum. As a result, the early 80s witnessed a movement of developing new curricula, starting from the lower stages and continuing up to the secondary stage. The new curriculum has now been successfully implemented and taught in all the schools throughout the United Arab Emirates.

In most UAE schools, the classroom environment itself does not promote much interaction either among the students themselves or between the teachers and students.
Lecturing is the most popular teaching method and it takes the lion’s share of the classroom time. Most of the classroom work is exam-oriented, not focused on problem-solving which prepares students for life-related issues. The seating arrangements in most schools (i.e., row after row) do not encourage collaborative work among students.

Organizationally, the governmental schooling system in the United Arab Emirates is divided into five stages: kindergarten, elementary, middle, secondary, and higher education. At the kindergarten stage, students under the age of four are provided with nursery care and from four to six are given two years of preschool education. At the elementary school, children spend six years of education learning basic skills and knowledge that cover subject matters such as religion, mathematics, science, social studies, languages, fine arts, and athletics (Australian Education International, 2006).

Middle school consists of three years that cover the same subject matter taught in the elementary school, with a great emphasis on the English language. After completion of the three middle school years, students may enroll either at secondary public schools or vocational schools.

Students’ achievement is measured twice during each academic year: at the middle and end. Fifty-percent mastery is required in each subject matter to gain success in that area. A student who fails to attain 50% mastery in any subject matter is required to
retake the test before the beginning of the next academic year. If the student fails to pass
the test, s/he must repeat the same grade.

Secondary schooling consists of three years. All students during the first year of
secondary school are given the same curriculum. Once they finish the first year,
secondary students are offered the opportunity to major either in science or arts for the
last two years in secondary school. At the end of the third year, secondary school students
must pass the National Secondary Examination in order to be awarded a general
secondary education certificate.

Two universities, five higher colleges of technology for men, and six higher
colleges of technology for women currently represent higher education in the UAE. The
Ministry of Higher Education monitors all universities and colleges that offer bachelor
degrees; some offer master’s degrees as well.

*The Theoretical Framework of the Study*

Traditional schooling - with its voiceless and solitary seatwork, tracking by ability
level, and competitive grading - is highly individualistic. It champions students over each
other. Classmates can become competitors. As a result, the concept of the classroom as a
learning community rarely exists in schools in the United Arab Emirates.
Since this study aimed to offer an environment of engaged learning in a social studies classroom in the United Arab Emirates, I utilized the cooperative learning theory to guide my practices throughout the eight-week teaching project. The adoption of the cooperative learning theory in the social studies classroom enabled the students to become actively engaged in the learning process and work in collaboration with other students to accomplish a shared goal. Fosnot (1996) asserts “the failure to create a cooperative sociomoral atmosphere for learning academics not only undermines children’s sociomoral development, but it also undermines children’s construction of knowledge related to academics” (p. 119). The use of cooperative computer-based instruction in classrooms can serve as a catalyst for changing traditional teaching practices and developing knowledge-building communities (Dexter, Anderson, & Becker, 2000). Resta, Christal, Ferneding and Puthoff (1999) declared that innovative technologies to support collaborative knowledge building, joined with training and support, can serve as a catalyst to change teacher practices.

Working cooperatively in a technology-rich environment promotes interaction and allows access to various information resources and support. Through wide discussion with peers this information is clarified, allowing a greater understanding of the subjects under study. Ewing and Miller (2002) asserted that beneficial features of learner
interaction within computer-cooperative learning environment include good communication skills, increased learners’ ability to identify their role in the learning task, and shared as well as individual responsibility and accountability.

*Purpose of the Study*

This study described an eighth-grade classroom environment in the UAE where computers were used as a tool in teaching social studies. The researcher as teacher used a cooperative learning approach when using the computer in the eighth-grade social studies classroom. Students interacted with an educational CD-ROM called the Islamic Civilization Encyclopedia (RDI, 1997). They worked in small groups to study and understand the content, as described in Chapter 3.

The study was conducted in a naturalistic setting in which the software was integrated into the regular social studies curriculum. The study investigated both the teacher’s perceptions and students’ attitudes toward using computer technology in teaching social studies.

The researcher used both qualitative and quantitative approaches to describe and explain what happened in the eighth grade social studies classroom. The study’s data collection techniques included a computer attitudinal questionnaire administered to
students before and after the eight-week unit, interviews with students, students’ reflections, and the teacher’s journals.

Research Questions

The research attempted to determine and describe specific activities and interactions of eighth-grade students and their social studies teacher who was willing to integrate computer technology in teaching social studies. It attempted to ascertain both the learners’ attitudes and the instructor’s perceptions towards using computers in the classroom. The study focused on the following research questions:

1. Is there a difference in students’ attitudes towards technology before and after using computer technology in a middle school social studies classroom?

2. What are the perceptions of the teacher-researcher towards using computer technology in a middle school social studies classroom?
   a. Does computer-based instruction aid student comprehension of the social studies?
   b. Does computer-based instruction foster an atmosphere of teamwork and cooperative learning?
   c. What are the barriers to integrating computer technology in a social studies classroom?
Operational Definitions

Foster an atmosphere of cooperative learning: Students assigned to use computers in groups of four have been observed to collaborate to accomplish the task.

Aid students’ comprehension: The use of computer software makes it easy and enjoyable for students to search, organize, and present information related to the subject content.

Statement of the Problem

The computer is an innovative tool, which has been introduced in some middle schools in the UAE during the last ten years. However, the computer has been employed solely to facilitate administrative tasks and as yet there has not been sufficient evidence for its use as an instructional aid in the classroom. The proposed study was an effort to examine the use of computer technology as a new tool in teaching social studies in the United Arab Emirates middle schools.

The major objective of the present study was to describe the learning environment where cooperative computer-based instruction was implemented to teach social studies for eighth graders. The study also investigated both students’ attitudes and their teacher’s perceptions towards using computers in learning history.
Background of the Study

In the United Arab Emirates, integrating computer technology in schools has become a demand among some politicians, decision-makers, and educators. Politicians and decision-makers are aware that computer and information technologies have the power to revitalize emerging and developing economies. As a result, the UAE government has announced special projects designed to attract information technology investment. The establishment of the Dubai Internet City in October 2000 was an ambitious investment project in the field of information technology (Shalhoub & Al-Qasimi, 2003).

The Dubai Internet City (DIC) is a free trade zone that has been established to attract information technology (IT) and Internet industries. The UAE government through the DIC is planning to launch the Emirates into the new global economy. Mohammad Al-Gergawi, chairman of the Dubai Internet City, stated that “the Dubai Internet City creates a cluster economy where all the software developers, multimedia businesses, telecom firms, Internet start-ups, service companies, remote service providers and venture capitalists are in one place” (Sethi, 2001). Its three-square-kilometer area has already been occupied by more than 210 companies from around the world. Companies within the DIC can build their own offices with a renewable lease of up to 50 years. Other
incentives such as world-class housing and medical and educational facilities are also
being provided for clients of the Dubai Internet City. The DIC allows 100% foreign
ownership and sales; company earnings and private income are completely tax-free.
Government officials hope that Dubai Internet City will advance both the economics and
the education of the United Arab Emirates (Johnsrud, Theis & Bezerra, 2003).

In the meantime, educators in the Ministry of Education through Vision 2020
have emphasized the crucial role of computer technology in enhancing school
performance (Ministry of Education, n. d.). One of the fundamental aims of Vision 2020
includes systematic procedures for gradual implementation of computer technology
within the nation’s schools. Contracts have been assigned to computer and networking
companies such as IBM and Cisco to establish the infrastructure of the computer
environment in the UAE schools. This ambitious movement heavily emphasizes the
mastery of computer skills, yet integration of computers in the curriculum has not been
addressed.

Based on what had been said, this study had two rationales, the pedagogical and
the social. The pedagogical rationale (Hawkridge, 1990) emphasized the idea of
improving teaching and learning, either through the use of sophisticated computer-
assisted learning software in the classroom, or by using the computer as a tool that could
expand and enrich existing teaching practices by opening up new ways of presenting information. Computer use can shift the balance from “rigid curricula, rote-learning and teacher-centered lessons” (Hawkridge, 1990, p. 32) to more open-ended and child-centered approaches to teaching and learning by enabling learners to take control over their own learning.

The underlying assumption behind the social rationale (Hawkridge, 1990) was that computers have become a part of everyday life and because education should equip children for tomorrow's world, schools should prepare them to cope with computers through both the provision of computer awareness courses and computer integration across the curriculum. Soine (1996) declared that if educational institutions are to prepare students for employment, and employers are looking for employees who are able to use computers to access information, integrating computers into conventional non-computer classrooms is essential for the success of students and future employees. In order for people to function in the new lifestyle of the future, they should have information about computers and computer programs, and master computer skills.
Significance of the Study

As we entered the 21st century, computer technology has become an essential aspect of the modern school. It is highly recommended as a tool to shift traditional pedagogical practices to become more engaging and interacting. Means (1997) asserted,

The use of technology creates a shift in a classroom’s control structure. In conventional classes, teacher-led activities consume the majority of the time. When students do work independently, they are likely to be completing brief exercises assigned by the teacher. The teacher has authority not only for assigning work but also for giving value by assigning a grade to it. Computers, of course, can be used in exactly the same way, with the technology presenting preset exercises and giving scores and congratulations for the number of correct responses. But use of technologies to explore, to be learning tools, or to develop new patterns of communication leads to a different model of student-teacher interaction. Students take on a more active role; the teacher becomes an advisor and a resource rather than the source of all classroom structure and fount of all knowledge (p. 17).

In the developed countries computer technology is widely used in many schools; however, the integration of computers in the curriculum is still below the expectations. Trotter (1997) cited a study done by Becker, which found that only 5% of U.S. teachers using computers were “exemplary” in their use.

During the last ten years school administrators in the United Arab Emirates have been adopted computer technology to facilitate their administrative tasks. Nevertheless,
there has not been sufficient evidence to confirm its use as instructional tool in the classrooms. As a result, this study represented a new initiative in the United Arab Emirates since no previous attempts have been made to integrate computers in teaching social studies.

Also, the study has proposed a dynamic shift from traditional definitions of learning to models of engaged learning that involve more student interaction, more collaboration between the teacher and the learners, and a shift in the role of the teacher from lecturer to facilitator (Mehlinger, 1996; Morton, 1996; Turner & Dipinto, 1997). The study also has identified the impact of computer technology in changing the structure and instruction of the social studies classroom. As Means (1997) claimed, computer technology holds great promise to reform schools and their instructional programs. The study was a valuable and unique experience in applying computer technology in UAE’s social studies classrooms. The experience was an attempt to transform a traditional social studies classroom into an engaging learning environment.

Limitations of the Study

The following were limitations to the study:

1. Since this was a naturalistic study, students involved in this study were not selected at random. They represented an existing eighth-grade classroom.
2. Students varied in their ability to express and reflect upon their thoughts since self-reflection was not an established practice in the UAE schools. For this reason more encouragement by the instructor was required to obtain their insights towards the project.

3. As the study aimed to implement a new approach in teaching social studies, the findings might be attributable to the Hawthorne effect. That is, the students recognized that they were participating in an innovative project and this knowledge may have affected the results.

4. The researcher’s role as both a teacher and interviewer might have limited the students’ responses to interview questions.

5. The study lasted for 8 weeks and was thus limited in duration.

Outline of the Study

This chapter presented an introduction to the study, consisting of a profile of the educational system in the United Arab Emirates, the study’s theoretical framework, purpose of the study, research questions, statement of problem, background of the study, significance of the study, and limitations of the study.

Chapter 2 provides a review of related literature. It includes five main sections: the use of computer technology in education, the role of computer technology in learning, teachers and computer technology, cooperative learning by collaborating through
computers, and students’ attitudes toward implementing computer technology in the classroom. Chapter 3 describes the methodology of the research, including gaining access to the research site, site description, research questions, participants, description of instruction, data collection methods, data recording and data analysis.

Chapter 4 discusses the results of the study, including the findings and data analysis. Discussion and recommendations are included in chapter 5.
A review of the related literature pertinent to this study covers five distinct areas of inquiry: (1) computer use in education; (2) the role of computer technology in learning; (3) teachers and computer technology; (4) cooperative learning by collaborating through computers; and (5) student attitudes toward computer technology.

Computer Use in Education

Barker (1994) indicates that few innovations have impacted society as greatly as computing technologies. Society’s emphasis has moved from a concentration of information transmission via books, chalk, or people, to a society with a focus on information processing through computer and video storage systems, with people as mediators (Barker, 1994).

Simic and Smith (1990) claim that computers in education have rapidly passed through three phases. The first phase centered on the need for “computer literacy,” generally defined as computer awareness and computer programming. At the height of the computer literacy debate, emphasis shifted to the computer as a tool, and as a method for teaching problem solving. The third phase addresses issues related to computer applications in support of curriculum.
As a result of the third phase, a collective effort has ensued to show the potential of the computers in improving classroom teaching and learning. A cadre of teachers, software developers, and hardware manufacturers has engaged in such effort. Since then, educational technology has evolved from the obsession of a few techno-enthusiasts into a priority for teachers (Mageau, 1991).

Computers have now become an everyday part of our lives. Deaton (1990) stated that “whether or not we touch a computer, it is almost impossible to escape its daily influence on us; from speedy information transmittal, printouts, and receipts, to control of lights and temperature of our workplaces” (p. 1). Computer literacy is no longer an option in today’s job market. The roles of computers in the workplace have expanded in recent years. Skillful use of the computer is a critical factor in achieving success in many fields (Furst-Bowe, Boger, Franklin, McIntyre, Polansky, & Schlough, 1996).

If educational institutions are to prepare students for employment, and employers are looking for employees who are able to use computers to access information, integrating computers into conventional non-computer classrooms is essential for the success of students and future employees (Soine, 1996). Schools that can teach the skills necessary to interpret the mass of information available through computer technology
will help improve overall student learning and provide students with skills that prepare them for life after school and a future of change (Wilmore, 2001).

To enhance the “high tech” world of students, teachers are feeling the pressure to integrate more computer technology into the curriculum. As a result, teachers are constantly advised by officials and decision makers to connect the classroom to the outside world. However, if teachers are not using computer technology, they are ignoring an important portion of their students’ environment (Cummings, 1998).

*The Role of Computer Technology in Learning*

Educators are increasingly considering the computer as a powerful tool for improving the productivity of students, one capable of creating a revolution in the learning process (Becker, 1991; Miller & Olson, 1994). Ely (1995) acknowledges that computers and technology will assist learners to raise the right questions, learn how to find information, and apply it. As a result, the student becomes responsible for his or her learning. His research also shows that computers stimulate students, young people like to use them, and computers lessen boredom and misbehavior.

Mehlinger (1996) investigated the effects of computer use and found that learners showed more evidence of cooperative learning. They were not bored and their desire to use computers improved. Standardized test scores did not fall. Learners became
responsible for their own learning. Inquiry, collaboration, and technological problem solving were evident. As Mehlinger looked at software studies, he recognized that computer technology affected a student’s overall achievement, encouraged positive learning attitudes, and promoted more student-centered instruction. These studies also showed cooperative learning as a benefit of computer technology.

Morten (1996) claimed that when computers are used, the following learning processes are engaged:

1. gather information,
2. teacher as facilitator,
3. involvement in experiential learning,
4. face-to-face communication,
5. expanded creativity,
6. testing of new knowledge.

Murphy (1995) also summarizes the following learning outcomes that result from the use of computers in classroom:

1. social growth,
2. problem solving,
3. peer teaching,
4. independent work,

5. exploration.

As a result of using computers in their classroom to make choices and initiate their own activities, students viewed computer technology as part of their active learning. This rich environment was meaningful for them and viewed as a “celebration of learning” (Murphy, 1995).

Bennett (1987) collected important data about the use of computer technology in a Native American classroom. She claimed that the computer was a visual tool and that it provided the “concreteness” that is needed for many students, especially those in special education. Students learned more quickly when they had both visual and verbal cues; picturing a concept helped the learner actually to see and to remember it. Bennett pointed out that promoting communication skills was another advantage of using computers in the classroom. Working on computers in pairs and groups encouraged learners to talk with each other and contributed to the “team spirit” approach. Bennett (1987) also concluded that computers motivated students’ willingness to finish given tasks, even when the process required long periods of time.
There is little question that computer technology plays an essential role in our schools (Jones, 2001). It is considered to be the wave of the future; thus, naturally, teachers are encouraged to embrace it. They are encouraged to integrate computer technology into their lesson plans. According to a recent survey, most teachers believe that computer technology has improved student learning (Jones, 2001).

In the Apple Classroom Of Tomorrow (ACOT) research project Dwyer, Ringstaff, and Sandholtz (1991) observed five general phases of implementing computer technology in classrooms.

1. Entry phase. In this initial phase teachers “struggled valiantly to establish order in a radically transformed physical environment” (Dwyer et al., 1991, p. 47). In this phase, some teachers were reluctant to use computers in their classrooms.

2. Adoption phase. Once teachers had recovered from the initial shock, the technology began to be integrated into the traditional classroom. The arrangement was very different physically, though traditional teaching methods such as text orientation and lecturing predominated. There were positive student attitudes, but overall student achievement was unchanged.
3. Adaptation phase. At this phase, traditional instruction was consistently supported with computer activities such as word processing, database, and computer-based instruction. Productivity and efficiency were the significant changes reported by teachers. For instance, a computer-based math curriculum allowed sixth graders to finish in 60% of the time normally required.

4. Appropriation phase. Teachers at this phase became more confident with computer technology and their time spent using computers increased. As a result, teachers used more innovative instructional strategies in their classrooms and they learned to be facilitators rather than the sole distributor of knowledge.

5. Invention phase. The use of computer technology plays the role of change agent in the classroom environment, supporting and stimulating reflection, redesign and change. Brent, Hamilton, Teslow and Cyr (1993) indicated “this phase is less an actual phase than a mindset, implying a willingness to experiment and change” (p. 8). Learning through this stage has been viewed as an active, creative, and socially interactive process.

Beside the phases of implementing computer technology in classrooms, Moersch (1995) developed a strategy for teachers to assess their own level of computer use in the classroom. He called it the levels of technology implementation (LoTi) Framework. This strategy has the following seven levels:
Level 0 – Non-use – The teacher uses dittos, chalkboard, overhead projector, and textbook.

Level 1 – Awareness – Computers are not relevant to the teacher.

Level 2 – Exploration – The teacher is capable of using computers to complement existing instruction as an extension or enrichment.

Level 3 – Infusion – Computer technology enhances isolated instructional events (e.g., a science-kit experiment using spreadsheets/graphs to analyze results or a telecommunications activity involving data-sharing among schools).

Level 4 – Integration – The computer as a tool is used to solve authentic problems.

Level 5 – Expansion – Teacher’s access to computer technology is extended beyond the classroom, through businesses, universities, and research.

Level 6 – Refinement – Computer technology is a process to develop a product, an invention, or more software.

Moersch (1995) realized that these levels change the classroom’s focus from being teacher-centered to learner-centered. He also indicated that moving up in this scale relies on the teacher’s comfort level with technology.
Collins (1991), a noted cognitive psychologist, cited eight trends in changing teaching methods. He declared that each of these shifts in teaching method can be facilitated by computer technology.

1. A shift from whole-class to small-group instruction. With the use of computers, the teacher-led activities dramatically decreased from 70% to less than 10%.

2. A shift from lecture and recitation to coaching. The presence of a third party, the computer, in the learning environment promotes the teacher to play the role of a coach. He or she serves as a facilitator rather than a director of behavior.

3. A shift from working with better students to working with weaker students. In a traditional classroom, teachers often converse with brighter students who raise their hands; teachers often ignore disadvantaged students to avoid embarrassing them. With technology, that pattern is reversed.

4. A shift toward more engaged students. Several studies have verified that students who work with computers show greater task engagement, often to the point of fighting over the computer between classes and after school.

5. A shift from assessment based on achievement test to assessment based on product, progress and effort. Teachers have traditionally depended on end-of-unit tests for assessment. Technology shifts assessment efforts from tests to effort and progress on
projects, and on the final product. This, of course, “poses new problems for teachers as they search for meaningful and reliable ways of evaluating work products” (Wilson et al., 1993, p. 6).

6. A shift from a competitive to a cooperative social structure. Numerous studies have shown that the use of computer technology encouraged more cooperative work among students. For instance, Klein and Cavalier (1999) studied fifth and sixth graders who cooperatively learned science through computer-based instruction. The researchers found students naturally sharing ideas and helping each other solve problems.

7. A shift from all students learning the same things to different students learning different things. A number of studies have indicated how computer technology can support students as they tackle various parts of a complex project, each contributing to a larger final project.

8. A shift from the supremacy of verbal thinking to the integration of visual and verbal thinking. Visual media have begun to gain equality with abstract text as a primary means of learning in our day. Lectures, multiple-choice tests, and recitation of knowledge become less relevant methods when encountered with advanced multimedia of computer technology.
It is clear from what has been said that computer technology can lead teachers to discover more effective and valued instructional practices to enrich the learning process in their classrooms. Despite the potential of computers in enhancing instruction, they still remain untouched in many schools around the nation and many teachers do not feel prepared to use them. According to a survey conducted by the National Center for Education Statistics (NCES), only one-third of teachers who participated in the survey felt well-prepared to use computers and the Internet in classroom instruction (NCES, 2000).

When Wiburg (1994) compared two different schools that integrated computers in their classrooms, she identified the following five factors that kept computers from “gathering dust”:

1. Support and leadership by administrators. Coley, Cardler, and Engle (1997) also found that administrators are key to the successful implementation of technology in the classroom and the adoption of technology innovations in school.

2. Instructional orientation of teachers.

3. A high quality of professional training.

4. Partnership with outside organizations and business.

5. An overall plan of integration.
Mehlinger (1996) claims that teachers must adjust their own style of teaching to the computer-rich environment. This may involve changing the teacher’s role from knowledge dispenser to mentor. Teachers must overcome the feeling of frustration while learning a new tool. Experiencing this change requires sufficient teacher training and sufficient technical support from a coordinator. These changes develop over time and do not happen quickly.

Communication with staff members is important to improve the use of computers in schools. If teachers start with simple small ideas of integrating computers, they will confidently venture forward for more sophisticated enterprises. Guthrie and Richardson (1995) agree that teachers who work with computer technology need support from other faculty members. Working on teams is best. “Too often teachers work in isolation, grappling on their own with issues on how to integrate technology” (Guthrie & Richardson, 1995, p. 16).

D’Ignazio (1995) admits many educators are locked inside the computer technology dream. They fantasize that technology has the power to eliminate all deficiencies of the classroom. This idealistic belief can mislead teachers and hinder them in setting realistic pedagogical goals. “Technology creates as many problems as it solves. Technology is a problem,” writes D’Ignazio (1995, p. 45). Computers jam, printers are
down, and students trash files, which creates irritable teachers. Everyone is disappointed when technology costs keep rising, computers break down, and continuous training is required to keep up with the changes. Keeping current in the never-ending circle of technology is difficult and costly for many practitioners in the field of education.

Cooperative Learning by Collaborating Through Computers

Dewey’s research recommended that schools should be a “miniature community” where students practice what it is like to be part of a city or neighborhood (Dewey, 2001). Separating students from each other while doing their school tasks does not give the learners the cooperative skills they need to function in a real world. Dewey believed that students who always work alone develop a sense of vicious competition. If the learner perceives the learning process as a fight to get ahead of others, he/she fails to see the merit of working with others to accomplish a common goal.

Brush (1998) defined cooperative learning as “a learning situation in which students working in groups can achieve the goals of an instructional activity only if the other students with whom they are working achieve the goals as well” (p. 8). Johnson and Johnson (1993) indicated that cooperative learning has six major characteristics. These characteristics are as follow:
1. Positive goal interdependence of group members. Students perceive that they can achieve their goals only if all members of the group achieve their goals also.

2. Individual accountability. It means that each member of the cooperative group should master the information for which the group is responsible (Aronson & Patnoe, 1997). Each group member is responsible for his or her own learning as well as helping others learn.

3. Heterogeneous groups. Cooperative learning groups have members with different abilities, culture, gender and race; everyone has unique contributions.

4. Instruction and collaboration skills such as role-playing and active listening.

5. Group processing or debriefing at the conclusion of a lesson; looking at how well the group functioned.

Hendrix (1999) identified four cooperative learning strategies that can be used as positive alternatives to traditional pedagogical methods. It should be noted that because the following particular techniques vary in their degree of effectiveness for different grade levels, careful choice must be exercised regarding which method to use (Hendrix, 1999).

1. Group Investigation: It is a classroom organization plan in which students work in small groups to inquire, question, and plan projects. After each group selects a topic to
study, the group members each research one aspect of the topic and then combine their information into a group presentation to the entire class.

2. Learning Together: It is considered one of the simplest of all cooperative learning methods. In learning together, students work on worksheets in groups of four or five. At the end of their work, each group submits its worksheet to the teacher and receives praise and rewards based on the group’s work.

3. Student Team-Achievement Divisions (STAD): This strategy combines a group-study structure with a cooperative incentive structure in which student teams earn rewards based on individual learning. The main idea behinds the STAD method is that students should motivate and help each other master the content presented in the classroom. In STAD, the instructor assigns students to four-member teams that are mixed by performance level, gender, and ethnicity. After the teacher presents a lesson, the teams work together to make sure all members of the team have mastered the materials. After learners take individual tests on the studied material, the teacher computes group and individual scores and awards points based on the students’ performance.

4. Teams-Games-Tournament (TGT): This cooperative technique is similar to STAD. The difference between the two methods is that TGT implies the use of weekly tournaments to show individual student learning. TGT groups are homogeneously
grouped by past performance. The execution of the TGT strategy starts with instruction by the teacher to the whole class. Students then are divided in three-member groups, called “tournament tables” (Hendrix, 1999). Each week, students show their individual capability in the tournaments by competing as representative of their group with students at their own ability level. As in the STAD method, high performing groups receive team rewards.

The noticeable advantages of cooperative learning have persuaded many teachers to integrate its strategies in their classrooms. A number of studies acknowledged the positive effects of cooperative learning groups on the academic achievement of the group members (Brush, 1998; & Al-Halal, 2001). These studies compared the achievement of students engaging in cooperative learning with students learning individually. Slavin (1993) examined over 100 studies in which cooperative learning groups were compared with individual instruction and found that a vast majority (nearly 75%) reported a significant increase in achievement levels for students participating in cooperative learning groups.

Besides improving academic achievement, research has found that cooperative learning also has an influence on other aspects directly related to academic achievement. Cooperative learning activities have been shown to produce increased time on task,
increased motivation for learning activities, increased school attendance, and improved self-esteem (Brush, 1998). A study conducted by Lee, Chew, Ng, and Hing (1999) concluded other positive effects of cooperative learning on the students’ academic and social development. Regarding academic gains, students have benefited in four ways:

1. Developed a deeper understanding of the content of the subject.
2. Better memory of the content of the subject.
3. Enhanced quality of group projects.
4. Generated more and better ideas in group discussion.

In term of social gains, Lee et al. (1999) declared that the students were perceived by their teachers to have:

1. Learned to be more patient.
2. Improved relationships among group members, including the development of cross-ethnic friendship.
3. Developed helping behaviors.
4. Developed greater responsibility for themselves.
5. Developed greater willingness to represent their group.
6. Developed better self-esteem.
7. Improve leadership skills.
8. Learned to take turns.

9. Become more confident.

10. Participated more actively in class.

While much of the research regarding cooperative learning deals with its effectiveness in a classroom setting, there is a growing research base focusing on the benefit of using cooperative learning strategies to help students complete computer-based instructional activities (Hooper, Temiyakarn, & Williams, 1993; Neuwirth & Wojahn, 1996). The following research studies have been conducted to include cooperative learning within computer-based instruction.

For example, Klein and Cavalier (1999) conducted a study to investigate the effect of implementing cooperative learning with computer-based instruction (CBI) on 125 fifth- and sixth-grade students in a science classroom. They found that cooperative groups using CBI performed significantly better on an individual posttest and demonstrated more helping behaviors than students who worked individually on their computer-based tasks.

In a second example, Marr (2000) described a three-week project in an English classroom in which students in small, mixed-ability groups used PowerPoint to enhance a unit on British literature. At the end of the project, the researcher found that 95% of the
students in senior English class, compared with a prior 36%, claimed to be comfortable with the use of PowerPoint. Students were motivated to understand themes in poetry when it was studied with the help of technology. Learners perceived group work at the computer to be effective and promoted positive socialization and communication.

Okolo and Ferretti (1998) researched a sixth-grade inclusive classroom where students worked in heterogeneous cooperative-learning groups to develop a multimedia presentation that demonstrated what they had learned in social studies. The study exhibited evidence of positive learning, social skill improvement and positive attitudes toward computer-supported collaborative learning.

Turner and Dipinto (1997) conducted a qualitative study to describe a seventh-grade classroom where students collaborated to use computer technology in learning science. The researchers concluded that peer collaboration in a hypermedia learning environment was effective in enhancing students’ social skills. High self-esteem, sense of community, help-giving behaviors and self-appointed peer teachers were clearly identified among seventh-grade students.

All previously mentioned studies highlighted positive effects of cooperative learning on improving students’ academic and social abilities. Cooperative learning can increase participants’ involvement and elaboration on the studied materials in the
classroom. Elaboration can include adding details, clarifying ideas, making inferences and explaining relationships (King, 1992). These learning techniques make the content of a subject matter more meaningful and consequently more memorable.

Integrating computer technology in cooperative learning classrooms has been shown to promote students’ academic achievement, motivation for learning activities, self-esteem and school attendance. Also, cooperative learning generates an environment for the learner to be a more patient, supportive, sociable, responsible and active contributor.

Student Attitudes Toward Computer Technology

Numerous studies summarized by Kachala and Bialo (2000) reported benefits enjoyed by students who use computer technology. These benefits involve attitudes toward self and toward learning. The studies revealed that students are more motivated to learn and have increased self confidence and self esteem when using computer-assisted instruction (CAI). This is particularly true when the technology allows the students to control their own learning. Ferretti and Okolo (as cited in Kachala & Bialo, 2000) conducted a study on sixth grade students who created multimedia presentations on the Spanish colonization. Students scored significantly higher in self-efficacy (i.e., self-confidence in their ability to achieve in “social studies in general and the particular topic
that they were studying” (p. 29) and academic intrinsic motivation than those who completed a traditional textbook-based unit on the same topic. The difference between pretest and posttest scores on an attitude scale showed that both self-efficacy and academic intrinsic motivation increased for students who created multimedia presentations. On the contrary, both self-efficacy and academic intrinsic motivation actually decreased for students who completed the textbook-based unit.

Waring (2003) conducted a study to investigate fourth-grade students’ experience in the construction of a community’s history in a computer-enhanced learning environment. The researcher employed a qualitative approach using observation and interviews to examine the students’ experiences with computer technology and its effectiveness to construct a history of the students’ local community. The results revealed that teachers’ perception toward technology, pedagogy, and students affected the use of computer technology in the classroom. The findings also indicated that computer enhanced-learning environment encouraged students to take charge of their own learning, to work cooperatively with their peers, and to be creative.

Acevedo (2001) developed a bilingual authoring program called *Listen to the Land* to improve the learning of concepts and vocabulary addressed in third-grade social studies curriculum. The program was developed in both Spanish and English in order to
minimize English reading difficulties encountered by some native Spanish speakers. It took the student on an adventure through nature where he or she was asked thought-provoking questions to promote a deeper understanding of information presented in the classroom. Pre-test and post-test measures were employed to examine the effectiveness of the computer-assisted instruction on students’ performance. The results indicated that the CAI program "Listen to the Land" was successful in improving test score and increasing the knowledge base for each student.

To investigate the impact of laptop integration on students’ attitudes in two classes of third and fourth-grades, Mouza (2006) employed both quantitative and qualitative sources of data. The data set included classroom observations, teacher interviews, students’ survey and student focus groups. Findings from focus groups demonstrated that most students perceived the computer as an important tool for four main reasons: a) Computers were considered as information supplier; b) they were useful for future careers; c) they enhanced the learning process; d) they executed numerous tasks quicker, easier and neater. Findings from focus groups also revealed that students had positive attitudes towards computer enjoyment. They showed an enthusiasm in using computers to play games, navigate different websites, and use educational software such as PowerPoint and TimeLiner to learn social studies and science.
Xin (1999) investigated the attitudes of 118 third grade elementary students towards computer-assisted cooperative learning in mathematics. The interview findings indicated that students showed positive attitudes towards computer-assisted cooperative learning as a result of the atmosphere of support and help where they learned to accept different views from their team members, understand, and learn from each other.

Knezek and Christensen (1997) conducted a study to determine if attitudes toward information technology were changed over two sequent years. In 1996 and 1997, Knezek and Christensen selected a group of ninth-grade students in a high school in north Texas to assess their attitudes toward information technology by using a Computer Attitude Questionnaire. The results indicated that students’ attitudes towards computer enjoyment at the Dallas school were similar for May 1996 and May 1997. The results also showed that the ninth grade students at the Dallas school had less positive perceptions of computer importance in May 1997 than they did one year earlier.

Dobosensk (2001) administered a survey to assess the attitudes of fifth-grade girls who were engaged in science club activities using technology. The survey results showed that the girls had more positive attitudes towards computer technology at the end of the sessions compared to their results at the first meetings. Also, it was found that the girls who participated in the club activities showed strengthened confidence and attitude
toward life-long learning of computer technology. The girls discovered that computer technology could be a social activity that effectively supported their needs and interests.

Yang and Liu (2005) conducted a study to explore the interactive quality, processes, behavior and attitude of children learning about computer technology via a cooperative approach. The analysis of qualitative data indicated that third-grade children’s attitudes and the interactive quality of their group learning were improved and most learners were capable of mastering computer skills.

To analyze the attitudes of 49 students in two middle-school mathematics classrooms towards the use of computers in mathematics, Vale and Leder (2004) used both qualitative and quantitative methods. The results revealed that the eighth and ninth-grade students were positive about the use of computers in mathematics. They were generally comfortable and relaxed in these classrooms and considered it a natural learning environment.

Summary

Computer technology has impacted society and become an everyday part of people’s lives. It is considered an essential requirement in today’s job market. Schools officials recognize the influence of computers on learners’ daily lives, thus they constantly advise teachers to integrate more computer technology into the curriculum.
Educators acknowledge the influential role of computer technology in the learning environment and its empowerment to make students more engaged and productive in their classrooms. As a result of computer technology, learners become responsible for their learning and show cooperative learning. Since the advantages of integrating computer technology in classroom are very obvious, teachers are encouraged to integrate computer technology into their curriculum. The phases of integrating computer technology in classroom vary from a teacher to another. They start as novice implementers till they reach the professional phase of infusing computing technologies into their subject matters.

Cooperative learning in computer-enhanced teaching environment can promote interaction between the teacher and students as well as interaction among students themselves. Students depend on each other, under the guidance of the instructor, to make learning more meaningful and enjoyable. Through cooperative learning, they learn to be sociable, responsible and caring individuals.
CHAPTER THREE
Methodology

Introduction

The primary purpose of this naturalistic study was to describe a social studies classroom environment where computer technology was integrated as a tool in teaching social studies. Ponterotto (2002) asserted that naturalistic studies place the researcher in close proximity and contact with the participants she or he is observing and interviewing. “The researcher enters the world (e.g., community) of culturally diverse participants and expresses interest in understanding and learning about their experiences as they perceive and describe them” (Ponterotto, 2002, p. 398). Heath (1997) stated that “generally speaking, naturalistic research attempts to describe and interpret some human phenomenon, often in the words of selected individuals” (p.147). He also declared that naturalistic researchers try to be clear about their biases and interpretations so that others can decide what they think about it all (Heath, 1997). Based on the previous viewpoints the current study employed a naturalistic approach to investigate both the attitudes of eighth-grade students and their teacher’s perceptions towards using computer-based instruction. Both qualitative and quantitative research methods were utilized to conduct this study, but primarily the methodology was qualitative.
Gaining Access to the Research Site

In June 2000, the researcher discussed his research idea about integrating computer technology in a social studies classroom with the supervisor of computer education in Ras Al-Khaimah school district, United Arab Emirates. Since the supervisor knew that I was interested in a middle school setting, he recommended an urban middle school that already had a computer lab. The informal meeting was fruitful and the supervisor scheduled a day for me to visit the suggested school with him.

The visit was a valuable, a useful opportunity to introduce my proposed project to both the school’s principal and social studies teachers. The dialogue with them was encouraging; by the end of the visit the school principal had granted me access to conduct my research. He supplied me with an official written document which confirmed his decision (see Appendix A). The principal was very encouraging and expressed the desire to try a new enterprise in his school. Conducting research in a school would have been difficult without approval from its principal. Although the principal was not the ultimate authority, he had an important say in research matters within the school. In discussing access to a research site, Bogan and Biklen (2002) stated, “If there are some forms to be filled out for a district committee that approves all research, the principal’s support carries a great deal of weight” (p. 75). The cooperation of the principal assisted me in
getting permission from those higher in the hierarchy in Ras Al-Khaimah (RAK) school district.

Site Description

RAK Middle School is a modern, concrete, open-space building adjacent to Al-Rawdah Elementary Private School, located in a residential area in the city of Ras Al-Khaimah. The school was established in June 1998 and serves the seventh-grade through ninth-grade population of the southern Ras Al-Khaimah community, which is home to over 20000 people. Students live nearby the school within a driving distance of ten minutes. Generally, students come from middle socio-economic families.

At the time of the study, RAK Middle housed 24 graded classrooms, eight classes for each grade. Each class had between 27 and 30 students seated in rows. The school had an enrollment of approximately 700 male students. Most students were considered average in their academic achievement, coming from middle-class two-parent families.

All staff members at RAK have Bachelor degrees and teaching experience between 4 and 25 years. Subject matters taught in the school are Religion, Arabic Language Arts, English, History and National Education, Geography, Science, Math, Computer Skills, Art, and Sport. These classes are required by all; there are no electives. In addition to the 33 classroom teachers, other support personnel included the principal,
two vice principals, secretary, art and physical education teachers, three social workers, two laboratory technicians, two cafeteria (canteen) aides, and three custodians.

Over the years the administration of RAK Middle School has initiated many educational projects, making it one of the distinguished schools in Ras Al-Khaimah School District. For example, one unique project that was established in the school served a group of students who were trained by the National Army to acquire the basics of military life. For this project, the school was granted the Annual Prize of Distinguished Performance. The prize is a highly coveted governmental award for UAE schools with unusual and unique initiatives.

Research Questions

The following research questions guided the dissertation research:

1. Is there a difference in students’ attitudes towards technology before and after using computer technology in a middle school social studies classroom?

2. What are the perceptions of the teacher-researcher towards using computer technology in a middle school social studies classroom?

   a. Does computer-based instruction aid student comprehension of the social studies?
b. Does computer-based instruction foster an atmosphere of teamwork and cooperative learning?

c. What are the barriers of integrating computer technology in a social studies classroom?

Participants

Creswell (1998) states that a purposeful selection of participants represents a key decision point in a qualitative study. Purposeful sampling involves identifying participants or cases of interest from people who know what cases are information-rich and are good examples for study (Merriam, 1998). As a result, the existing eighth-grade class involved in the study was selected at the recommendation of the eighth-grade social studies teacher. Students of this class, as described by the teacher, were open to the project and willing to try something new compared to other classes in the school. The eighth-grade class consisted of 28 male students between 13 and 14 years of age. The majority of students lived nearby the school and they came from middle class families. Some of them had their own computer at home. Most students in the class learned basic computer skills in their seventh-grade. They had access to computers once a week for 35 minutes. They were taught to operate computers, to locate programs, and to create very basic presentations in PowerPoint.
The Researcher

As a teacher I taught eighth-and ninth-grade social studies in the UAE for four years. The strategies I used during the four years of my teaching career were based on what I had experienced in my own education and childhood in the UAE, a structured and very traditional home, elementary school, and high school. My previous belief was that successful teaching was done through lecture with no noise and desks in straight rows. This was the way I used in my own teaching.

As I have pursued my graduate studies in the field of curriculum and instruction in the US during the last six years, many of my personal thoughts have changed regarding teaching and learning. Topics such as cooperative learning, learning styles, authentic learning, action research, and use of computers for instruction and learning have sparked a change of attitude from what I believed at the beginning of my teaching career. My dual perspective both as a teacher and a researcher through this project allowed me to present a model of change that other teachers could adapt to bring more positive changes to the learning environment in the UAE schools. As I proceeded through my project, I was accepted as a teacher by the principal and other teachers and committed to the school regulations even though I was not a regular staff member.
Description of Instruction

An eighth-grade social studies class recommended by the eighth-grade social studies teacher was selected as the setting for the study. The class of 28 male students met with the researcher two times a week for 45 minutes over an 8-week period. Those meetings were in the computer lab located on the first floor of the school. The 9 meter by 6 meter lab contained 22 Gateway Pentium III PCs with 14” monitors, arrayed in a horseshoe shape; five of the machines did not function. All computers had drives for both floppy diskette and CD-ROM. Most of them operated by Windows 98 and included Office 2000. No networking or projecting facilities were available.

I negotiated the availability of the computer lab with both school administration and the computer teacher to avoid time conflicts and inconvenience. Due to the small number of working computers, I divided students of the social studies class into groups of four. Students in each team varied in their academic abilities. My aim for heterogeneous grouping as recommended by Johnson and Johnson (1993) was to allow students to work constructively with varied individuals who would bring different strengths and approaches to academic tasks.

To make each individual accountable within his group, I assigned each one a different responsibility. Each group had a leader, a secretary, a computer technician, and
a mouse controller. Brush (1998) asserted, “In cooperative learning situations each group member believes he or she has a key role or responsibility within the group and that the success of the group depends upon each member succeeding in that role” (p. 9). These roles were rotated each class session among the students. In each group, the leader’s task was to organize the group work and to initiate contacts with the teacher and other groups in the classroom. The secretary received handouts and worksheets and stored them. The safety of the computer machine was the responsibility of the computer technician. The mouse controller was in charge when it was time to navigate through the software.

After forming the teams, each group received a copy of the *Islamic Civilization Encyclopedia* software in Arabic. As a teacher researcher, I assigned students to groups and demonstrated the software to the whole class during the first two class periods. This served as a means of orientation to the students, thus making them aware of the software interface. During the first week, I informed students about the nature of my eight-week teaching project and the cooperative approach that would be followed to teach social studies. Group members were encouraged to explore the software components by themselves, and my intent as a teacher was to spend the same amount of time with each group to provide further explanation or assistance.
The history content taught for eighth grade in the United Arab Emirates middle schools deals with Islamic civilization during the caliphate (state) of Umayyad and Abbasid. Those two states ruled the Islamic world between year 661 and 1258. The Arabic software, the *Islamic Civilization Encyclopedia*, includes the history of this period. The interface of the CD-ROM encyclopedia consists of a menu page which contains seven major categories: figures, cities, battles, morals, sciences, archaeology and governmental organizations (see Appendix B). The categories contain information about different topics in the form of text, sounds, graphics, and animations. In addition, they include highlighted words linked to further information. The encyclopedia also provides a search tool for finding specific information on the CD-ROM, including an index search with an alphabetical list of key words.

The encyclopedia, a recently published software program with interactive multimedia, was revised and validated by Prof. Abdulhaleem Owees, a well-known Egyptian scholar of Islamic history and civilization. After a long and intense search, I found this software very valuable to use in my project. At the time of this study the *Islamic Civilization Encyclopedia* software was the only well-designed commercial product available in UAE computer markets that was aligned with the eighth-grade middle school history curriculum.
The implementation of computer-enhanced instruction in my social studies classroom stressed a collaborative work approach where students actively engaged in learning the subject matter. To stress such a concept, as a teacher I chose three key words as a theme for the project: “Gathering-Interpreting-Communicating.” It was a serendipitous coincidence that the combination of the first letters of each word in Arabic forms the word *efte*, meaning “Deliver an advisory opinion.” My desire throughout this study was to make learners active contributors to their learning instead of passive recipients.

For each social studies lesson, I handed out a worksheet containing questions about the studied content. Each group concentrated on one question, a strategy which made the groups dependent on each other in understanding the content. The students then gathered in groups and interacted with the CD-ROM in order to find answers for the assigned questions. After discussing their findings in their small groups, each team presented and communicated its findings to the others, using the overhead projector. All the previously mentioned activities were supposed to be accomplished during a 45-minutes class.
Data Collection Methods

In order for me to investigate both the students’ attitudes toward using computer technology in social studies, and my own perceptions as the teacher, I used four sources of data: a computer attitude questionnaire, interviews of students, students’ written reflections, and my journal.

The Computer Attitude Questionnaire

I used the Computer Attitude Questionnaire (CAQ) developed by Knezek and Christensen (1996). This instrument was suitable for my research for two reasons: 1) it was intended for use in the middle school, grades 6-8, which was the target of my study, and 2) its validity and reliability have been measured. The CAQ is a Likert-type self-report instrument that contains 62 items covering eight psychological constructs: computer importance, computer enjoyment, computer anxiety, computer seclusion, study habits, empathy, motivation/persistence, and creative tendencies. I chose only 20 items from the CAQ that were most closely related to my research. These 20 items (see Appendix C) addressed computer importance (Items 3, 6, 8, 10, 11 and 12), computer enjoyment (Items 1, 2, 4, 5, 9, 13, 14, 15, 16 and 20), and computer anxiety (Items 7, 14, 15, 16, 17, 18, 19 and 20). I made this choice based on consultation with a professor who is a research expert in computer attitudes and anxiety and a faculty member in the field of
instructional technology in the College of Education at Ohio University. After analyzing all the items in the CAQ, we both agreed that all constructs except computer importance, computer enjoyment, and computer anxiety were irrelevant and would not serve the purpose of the study.

To measure the validity of the Computer Attitude Questionnaire, Knezek and Christensen (1996) used data from 588 junior high school students in a Texas public school. The junior high school providing data for the validation of the CAQ requested that the researchers make a preliminary comparison of possible effects of thematic integration (group 2) versus a computer literacy course (group 1) versus a combined approach (group 3), as alternative methods of teaching information technology applications to students. The researchers noted that “significant ($p = .05$) differences were found to be attributable to type of computer curriculum and/or gender on five of the six Likert-type scales on the Computer Attitude Questionnaire. These results were deemed sufficient to demonstrate the discriminating power of the CAQ and provide evidence of its construct criterion-related validity” (Knezek & Christensen, 1996, p. 6).

Regarding the reliability of the CAQ, Cronbach’s Alpha indices for the subscales ranged from a low of 0.80 to a high of 0.87 (Knezek & Christensen, 1996). All of these indices are in the “very good” range according to the guidelines provided by DeVellis.
(2003, p. 85) regarding acceptable reliabilities for research instrument scales. After translating the abbreviated CAQ to Arabic, a pilot study was conducted to measure the reliability of the 20-item Computer Attitude Questionnaire. The pilot study consisted of 60 male students between 11 and 13 years of age who were selected randomly from a summer school camp in the Ras Al-Khaimah area. The pilot study indicated a moderate reliability coefficient of 0.77 for the CAQ which was slightly lower than the original questionnaire (see Appendix D). The change of reliability estimates resulted from the decrease of the number of items. Kaplan and Saccuzzo (2000) suggested that reliability estimates in the range of 0.70 to .80 are relevant for most purposes in basic research in social sciences. Thus, the pilot study indicated that the 20-item Computer Attitude Questionnaire can be considered a sufficiently reliable instrument to measure the attitudes of eighth-grade male students toward computer-enhanced instruction in a history classroom in the United Arab Emirates.

Since the questionnaire was to be used with Arabic speakers, the 20-item questionnaire (see Appendix C) was translated from English to Arabic by a certified translator who worked as an English teacher in the UAE (see Appendix C). The instrument was then submitted to three middle school English teachers in Ras Al-Khaimah school district, who were TESL majors, to rate the translation. Two teachers
rated the translation as excellent. The third rated it as good, mentioning that some grammatical adjustments were necessary before administering the questionnaire. These grammatical adjustments were made in the final translation version. Backward translation was not employed for the CAQ.

Fifteen eighth-grade female students in the UAE were then selected to go over the questionnaire items after they were translated into the Arabic language. The following questions were posed to them:

1. Did you understand what you should do in the questionnaire?
2. Did you have any difficulty answering the questionnaire?
3. Are the questionnaire statements clear?
4. Are there any ambiguous statements in the questionnaire?

All female students gave their responses, indicating the questionnaire statements were easy to read. Also, they stated that the instructions for the questionnaire items were clear and understandable.

In the actual study the questionnaire was given to the male students twice: once before starting the project and eight weeks later at the end of the project. Comparison of the pre- and post-treatment questionnaire enabled me to determine any significant differences in students’ attitudes towards the use of computer-based instruction in their
classroom. In order to examine any differences in students’ attitudes toward using computer-enhanced instruction in their social studies classroom, a two-tailed paired sample \( t \)-test at the .05 significance level was used. Fraenkel and Wallen (1999) stated that the \( t \)-test for paired sample is used to compare the mean scores of the same group before and after a treatment of some sort to see if any observed gain is significant.

*Student Interviews*

Semi-structured interviews were another source for acquiring data for the study. Fraenkel and Wallen (1999) described a semi-structured interview as a verbal questionnaire that consists of a series of questions designed to obtain specific answers by the respondents.

A purposeful sampling method was used to select the interviewees for this study. According to Merriam (1998), purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned. According to McMillan and Schumacher (1997), there are three types of purposeful sampling: (a) site-selecting sampling, (b) a combination of typical-case and reputational-case sampling, and (c) maximum-variation sampling. This study employed the maximum variation sampling. McMillan and
Schumacher (1997) stated that maximum variation sampling is a strategy for inclusion of perceptions about a topic among the participants.

The selection of the interviewees was based on their academic level. The researcher chose three students with the highest grade point average in the class, three whose grade point average fell in the middle of the class, and three with the lowest grade point average. Those students were interviewed in order to determine their perceptions about including computer-enhanced instruction as a regular part of their classroom activity. The semi-structured interviews were based on open-ended questions (see Appendix E), with some additional questions to encourage participants to expound upon their thoughts.

The interviews were conducted at pre-arranged times a week after the completion of the study. They were held inside the school buildings and the selected students were interviewed individually. The student interviews were open-ended, lasting from 20-35 minutes, during which they were asked to describe their own experiences (i.e., in regards to cooperative work and using the computer), their beliefs towards incorporating computers in their classroom, and perspectives about the computer-based learning environment (see Appendix F). All of the interviews were tape recorded with the student’s permission and transcribed to maintain the data for the time of analysis.
Hopkins (1993) recognized four forms of interviewing in classroom research: it can occur between teacher/pupil, observer/pupil, pupil/pupil and teacher/observer. As a teacher I was responsible for interviewing my students at the end of the project. Hopkins (1993) acknowledged that this form of teacher/pupil interviewing has many advantages. It enables the teacher to be in direct contact with the pupil, the teacher is able to seek information s/he wants directly and not through a ream of irrelevant information, and problems can be followed up immediately when they arise and additional information obtained while minds are still fresh. The interviews were conducted in such a manner that the students did not appear to feel shy, embarrassed, or afraid of giving their honest opinions. Students openly expressed their thoughts because they knew that I did not have any influence on their grades.

Student Reflections

As a teacher researcher I asked students to write essays reflecting their learning and experiences inside the classroom (see Appendix G). They were asked to write their reflections at the end of weeks 4 and 8. Although those reflections were an excellent way of obtaining honest feedback and gaining indications of the general class climate, some students could not give responses as expected by the teacher. Each time, 22 students of 28 gave usable reflective thoughts about the project.
Journal keeping was also a valuable technique to collect data. As a teacher, I kept an ongoing daily journal account of my actions inside the classroom and my thoughts and reflections about those actions (see Appendix H). The journal addressed classroom activities, behaviors, student work, and student interactions with the software and with each other.

**Data Recording**

Bogdan and Biklen (2002) assert that a successful outcome of qualitative studies relies on detailed, accurate, and extensive field notes which consist of two types of materials, namely descriptive and reflective. The descriptive field notes include detailed description of subjects, setting, activities, events, and so on, that are going on around the researcher, while the reflective type captures the researcher’s frame of mind, ideas, and concerns. Based on these suggestions, I took extensive notes in the course of my daily activities as a teacher.

For the sake of the organization of the data, I used the left side of the notebook to record notes, and reserved the right side for interpretation of notes. To further reinforce the quality of the data, I kept a separate notebook, which was used to record my personal feelings, thoughts, and experiences for each classroom meeting. Regarding the issue of
subjectivity, Bogdan and Biklen (2002) note that the goal in collecting data is to help the individual (researcher) and his/her reflection on the data enrich the task at hand. It serves the purpose of keeping the field notes as objective as possible; the personal reflection of the researcher also serves an important and enriching purpose when it comes to analyzing the data.

Data Analysis

Data analysis is the researcher’s attempt to originate meaning or information from the data collected (Cashman & McCraw, 1993). One of the approaches of data analysis in qualitative studies is by conducting data analysis alongside data collection (Creswell, 2002; Goodwin & Goodwin, 1996). In this study, data collection and data analysis were performed simultaneously to enable the researcher to re-focus and re-direct his study.

As data collection continued, I examined in-depth both the incoming and the old data to look for emergent themes or conceptual categories that emerged from the data. After the data collection and organization as described above were completed, I proceeded to write the dissertation, which was organized around five chapters. The first three chapters were based on the information given in my proposal, namely, the introduction, literature review, and methodology, while chapter four presented the
findings, and chapter five included the discussion of the findings, conclusions, and recommendations.

Summary

The purpose of this study was to investigate the attitudes of the students and the perceptions of their teacher (the researcher) towards using computer technology in a social studies classroom through in-depth interviews, a computer attitude questionnaire, students’ reflections, and the teacher’s journals. Qualitative and quantitative methods were employed for the design of this study, the data collection, analysis, and interpretation of the data. The qualitative data were analyzed through the methods of generating categories, themes, and patterns, giving interpretation, and offering possible explanation.
CHAPTER FOUR

Results

Introduction

The primary purpose of this naturalistic study was to describe an eighth-grade classroom environment where computer technology was integrated as a tool in teaching social studies. The study sought to ascertain both the attitudes of 28 eighth-grade male students and their teacher’s perceptions towards using computer-based instruction. This chapter addresses the research questions based on the findings from both quantitative and qualitative data. Also, in this section a list of themes is presented based on the qualitative data collected from the research site. These themes reflect different interactions, activities, and interrelations among the participants inside the social studies classroom.

Research Questions

1. Is there a difference in students’ attitudes towards technology before and after using computer technology in a middle school social studies classroom?

In order to examine any differences in students’ attitudes toward using computer-enhanced instruction in their social studies classroom, a Computer Attitude Questionnaire was administered before and after the computer-based unit. To analyze the question, a two-tailed paired sample t-test at the .05 significance level was used. The Computer
Attitude Questionnaire consisted of 20 items in three categories, and the t-test was conducted to examine students’ perceptions toward each category. Those categories were computer importance (Items 3, 6, 8, 9, 10, 11 and 12), computer enjoyment (Items 1, 2, 4, 5, 9, 13, 14, 15, 16 and 20) and computer anxiety (Items 7, 14, 15, 16, 17, 18, 19 and 20).

Table 4.1

*T-Test for Students’ Perceptions towards Computer Importance*

<table>
<thead>
<tr>
<th>Computer Importance</th>
<th>N</th>
<th>M</th>
<th>Std. Dev.</th>
<th>t</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>28</td>
<td>23.75</td>
<td>2.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>28</td>
<td>23.64</td>
<td>3.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Pre</td>
<td>28</td>
<td>-.11</td>
<td>3.94</td>
<td>-.14</td>
<td>.887</td>
</tr>
</tbody>
</table>

*: Two-tailed significance

Table 4.1 shows that the two-tailed t-test results to measure the difference in students’ perceptions towards computer importance were not significant ($p = 0.887$), indicating that there was no significant difference in students’ perceptions toward computer importance before and after the use of computer assisted instruction.
Table 4.2

*T-Test for Students’ Perceptions towards Computer Enjoyment*

<table>
<thead>
<tr>
<th>Computer Enjoyment</th>
<th>$N$</th>
<th>$M$</th>
<th>Std. Dev.</th>
<th>$T$</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>28</td>
<td>29.46</td>
<td>2.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>28</td>
<td>34.35</td>
<td>3.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Pre</td>
<td>28</td>
<td>4.89</td>
<td>3.09</td>
<td>8.36</td>
<td>.000</td>
</tr>
</tbody>
</table>

*: Two-tailed significance

Interpreting the results in Table 4.2, the results showed that the pre-and post-measures were significantly different with regard to students’ perceptions toward computer enjoyment. The two-tailed $t$-test showed significant differences, $p < .001$, which was strong evidence that the use of computer technology in the social studies classroom did lead to improvement in students’ perceptions towards computer enjoyment.

Table 4.3

*T-Test for Students’ Perceptions towards Computer Anxiety*

<table>
<thead>
<tr>
<th>Computer Anxiety</th>
<th>$N$</th>
<th>$M$</th>
<th>Std. Dev.</th>
<th>$T$</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>28</td>
<td>26.14</td>
<td>2.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>28</td>
<td>30.71</td>
<td>3.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Pre</td>
<td>28</td>
<td>4.57</td>
<td>3.50</td>
<td>6.9</td>
<td>.000</td>
</tr>
</tbody>
</table>

*: Two-tailed significance
The two-tailed t-test results shown in Table 4.3 indicated that the students’ perceptions toward computer anxiety on the pre- and post-measures were significantly different, \( p < .001 \), which strongly confirmed that the use of computer technology in a social studies classroom had a positive effect and tapered students’ anxiety toward computer technology.

2. What are the perceptions of the teacher towards using computer technology in a middle school social studies classroom?

   a. Does computer-based instruction aid student comprehension of social studies?

   In my eighth grade social studies classroom, students were assigned to work in small groups. The objective of the students’ daily work in their groups in the educational computer environment was to search the encyclopedia CD-ROM in order to answer the questions on the worksheets. The answers which the groups wrote down consisted of words, sentences, numbers, facts, and dates. After that, each group presented the findings to the rest of the class, using an overhead projector. As a teacher I used some techniques of indirect assessment to ensure that students in their small groups knew the subject matter. For example, I often stopped by each group and randomly selected a student to talk briefly about the information gathered from the software to cover the group assignment. If he failed to offer an adequate answer, the whole group was held
responsible for his shortcoming and the group needed to help him obtain the right answer.

I also asked each group to raise questions for the whole class at the end of the presentation to ensure that other groups comprehended the presented topic. As a result, the two strategies of informal assessment provided evidence that students comprehended the content.

Most students’ responses were positive about how the presence of computer technology in the classroom promoted their comprehending of social studies. One of the students commented, “Using the software makes the learning more exciting; as a group member I am focused and on task to search the encyclopedia CD-ROM. It shows me new stuff, and it tells about what I don’t know.” Another student expressed how he was motivated to learn with computer technology: “I like using the Islamic Encyclopedia software because it is easy to find much information about things we discuss in class.” A third student reported, “Learning with computers allows me to look for the needed information by myself and when I do that, the content becomes easy to master and I will not forget it.” Also, he added, “During the present experience, I scored much better in social studies class than I did before.”

On the other hand, a few students expressed their dissatisfaction with computer technology when it came to the learning of social studies. One of the students
complained, “When you need to find things, sometimes you can not find it on the software… and when you do, it does not give you enough detail on things. For instance, it doesn’t tell you if you got the right answer… it just goes on… I’m used to hearing if I’m right.” Another student’s statement explained why computer technology had little influence on improving his understanding of social studies, “The social studies classes which I attend in the computer lab are of no use to me. I used to depend on the teacher’s explanations to comprehend the content, but the current teacher doesn’t do that. He relies on us to understand; I wonder what his duty as a class teacher is supposed to be!!”

Some students explained how the cooperative work within the computer-based educational environment assisted them in acquiring information presented in the social studies classroom. One student reported, “It is not only the software that helps me in comprehending social studies lessons, but also the process which we have pursued in acquiring the content. The cooperative work, the search activity, the collection of information, and the organization of our thoughts are essential components of the process which makes the content more comprehensible.” He concluded: “I like the way the teacher runs this class; it is great. Throughout the search activity, we perform certain thinking processes such gathering information, examining it, and making the best
selections to complete the task at hand.” And he continued, “These tactics enhance comprehension of the studied topics.”

b. Does computer-based instruction foster an atmosphere of teamwork and cooperative learning?

This study was an effort to improve the learning environment in a social studies classroom in a UAE school. It was designed to motivate students to be more active and responsible for their learning by engaging them in hands-on activities. As a teacher, I believe that my social studies classroom resembles a small community of people - namely the students – who gather to achieve noble goals. Like in real life, the students in the classroom, despite their differences, should be trained to be cooperative instead of competing with each other. From my point of view, creating an atmosphere of teamwork in the classroom acts as a vehicle for the learner to seek and construct knowledge that positively enriches his whole personality.

Guided by the above perspective, cooperative work was inevitable in my class. In order for the students to learn social studies with the aid of computer technology, the adherence to teamwork was highly recommended. Since cooperative learning is not a regular practice in most classes in the school, the priority was to ensure that my students were capable of practicing cooperative work techniques inside the classroom. Conversing
with students in the first meeting revealed students’ lack of exposure to cooperative work. One student commented, “It seems to me that learning social studies with computers will be fun because I’m good with computers, yet I am not sure if I can handle the cooperative work since I have not practiced it before.” Another student expressed his uncertainty toward the quality of the new learning setting: “We are going to learn social studies from each other!! I doubt that such a thing can happen.”

Reflecting on students’ concerns, I found it a necessity to teach the students basic skills of cooperative work to guarantee a smooth adaptation to the new learning environment. As a result, I scheduled the first two class periods to train students on how to work cooperatively with each other. The mini-training session was held inside the classroom since the computer lab was not yet ready for us. The first period was an introductory session where I addressed general topics of cooperative learning with an emphasis on the learner’s characteristics and duties towards other members in the team. In the next period students were assigned into groups to rehearse what they had been taught in the introductory session.

As a teacher I found it chaotic when it came to the formation of the groups. Students took too much time to organize themselves into the assigned team and the class turned into a bazaar. Although I viewed such chaos as a normal phenomenon for students
who were novices in a cooperative learning environment, I concluded that students were in need of more guidelines to make their moves around the room more peaceful, especially in the computer lab where computers had to be secured and protected. As a result, a list of guidelines was generated to direct students’ attention to proper behavior inside the computer lab. Each group got a copy of the guidelines and was encouraged to revisit them from time to time. Also, I placed on the wall some slogans and expressions reflecting the merit of the cooperative work. As we proceeded through the project, group members showed their commitment to following those guidelines inside the computer lab.

I was pleased with the high level of involvement of my students during group work. I noted that students really enjoyed and looked forward to the opportunity to discuss learning tasks instead of working individually. In fact they eagerly anticipated social studies lessons because they knew that was the time when they could really have a chance to communicate, with more discussion and talking, and this was what they liked.

I also noticed that students were less guarded because there was accountability in their teamwork. The four members in each group felt comfortable since none of them would be targeted or singled out for the group’s poor productivity. Each one of them contributed to the benefit of his group and showed his product.
c. What are the barriers to integrating computer technology in a social studies classroom?

My role as a teacher researcher in this study offered an opportunity to shed light on some obstacles to the use of computer technology in my social studies classroom. From what I had observed and experienced throughout the project, the following obstacles were identified:

Technical problems

Technical problems were among the barriers which frequently occurred inside the lab/classroom. On more than one occasion, I recorded the negative impact of the technical problems on students’ productivity in their small teams. For instance, dealing with slow startup computers was an unpleasant incident which we all encountered in the social studies classroom. I observed a group become restless when they found that their machine took a long time to boot up and then ended up crashing. Other groups around them launched the software and started working on their assignment, yet they got stuck and they realized that it was time for help. They raised their hands and I walked toward them to discover how much they were disappointed with their computer.

Also, as a teacher I recognized that the Islamic Encyclopedia software in one of the machines got jammed every ten minutes or so, which made students irritated and sad.
Their feelings were legitimate since they were in the midst of their task and they were forced to start all over again. As the computer software crash continued, the group was not able to focus on the task at hand. To avoid more frustration among the group members, I moved them to another computer where they resumed their work.

Those two events were just a few examples of the technical problems which caused distractions not only for the students but for me as well. Some students went through numerous dislocations to find a proper computer in order to resume their work. Moving from one station to another interrupted the concentration of other groups as well, causing disturbances in the classroom. As a teacher, I had to quit monitoring other groups in the lab to give my attention to the group facing technical difficulties.

*Time constraints*

Throughout the project it was clear that time was always a factor which hindered a complete implementation of computer technology in the social studies classroom. For instance, moving students from the classroom to the computer lab consumed a significant portion of the class period, and if the computer lab was occupied more delay was inevitable. It was the only computer lab in the school and the computer classes scheduled for that room often ran late, causing our class to lose 10 minutes of the period.
Also, I noticed that some groups consumed too much time when students navigated through the Islamic Encyclopedia software in order to find answers to the questions on the worksheet. I observed them going through a huge mass of electronic pages to locate the appropriate piece of information needed to complete their task. Despite the search tool embedded in the software, students were skeptical of its usefulness to speed up the search process for the required information. For most of them it was not powerful enough to provide quick and accurate results. It was evident that most groups experienced time problems in the search phase; they exceeded the permitted time to locate the information in the software. However, there was one group of students who was comparatively quicker than others and they located the needed information in time. I realized later that two students in that group had purchased the software and practiced it at home.

Despite the commitment of that group to cope with time pressure, the excessive amount of time required to navigate the software was an issue which negatively affected other phases of my classroom. Students in their small groups were required to write down and present their findings to the rest of the class; this final phase of the class period was not accomplished as optimally as intended since not enough time remained. To cope with this dilemma, I either postponed some groups’ presentations to the next meeting or held
the students in the computer lab for extra time to finish up their presentations. I knew that both procedures could carry negative consequences, yet they remained the only options to deal with the shortage of time.

*Lack of infrastructure*

In the early stage of the study, my priority as a teacher researcher was to find a middle school with a computer lab in which to conduct my study. Although I was granted access to conduct my study in RAK Middle School, my initial visit to the research site was not encouraging. I noticed that the computer lab lacked presentation systems such as an overhead projector which would be used by students to deliver their group presentations. With only a week left before the project began, I needed to act quickly to obtain an overhead projector, an essential piece of equipment which students would use to present transparencies by hand. Although the host school had two projectors in the science labs, it was not easy to persuade the science teachers to allow me to use one of the projectors. Their polite rejections were understandable since they were responsible for the safety of the equipment. Finally, I decided to purchase a new overhead projector and made it ready for the following week.

In addition, in certain stages of my teaching project I sensed the need to expose my students to other forms of learning with technology. For instance, I thought of using
the Internet to help students expand their knowledge about some topics in the Islamic Encyclopedia. Unfortunately, access to the Internet was impossible since the computer lab lacked networking connectivity.

In addition to the previously mentioned barriers, the small size monitors, the dim lighting and uncomfortable wooden chairs also reflected the poor infrastructure of the computer lab. From my perspective as a teacher researcher, those limitations of the physical learning environment negatively influenced the teaching learning process in my social studies classroom.

**Themes**

Throughout the analysis of the qualitative data, including personal observation notes, student interviews, and student reflection journals, certain Arabic words repeatedly occurred and helped me in constructing the following themes:

**Students’ Sense of Empowerment through Presentations**

The students’ sense of empowerment through presentations was one of the themes that emerged from the interviews of students, their written reflections, and my observations, and journals. These sources of data provided evidence that my eighth grade students experienced excellent opportunities for interactive engagement and participation. Breaking from the constraints of the traditional method of teaching, student-led
presentations were a remarkable example of how students positively contributed to their social studies classroom. On more than one occasion, students reported in their interviews and journals the advantages of becoming active contributors through their group presentations. Zayed commented, “The most amazing thing about the experience was the technique of presenting the content by learners themselves. We as students became major contributors to the classroom.” Adam agreed with his classmate’s statement when he described his own experience, “By taking the task of reporting my group’s findings to the rest of the classroom, I became to some extent an active member in the social studies classroom.” Hamad expressed a similar thought, “The use of computers in social studies lessons allowed for more participation. We explained the subject matter to our classmates, a merit which does not exist in other classrooms.” Reda shared the same views, stating, “Having the chance to be an active participant in presenting the subject matter was a remarkable feature of using computers in our history classes; I never did it before.”

Additionally, students reported that student-led presentations developed a sense of pride among learners. A student commented in his journal: “I liked the marvelous moments when I performed the role of the teacher who teaches and explains. I was very proud of myself.”
As a teacher I observed how technology empowered learners when my eighth graders were, for the most part, fully engaged in the learning process. I experienced how students were eager to search for information about social studies using computer technology. They got lost sometimes because of the massive amount of information in the encyclopedia, yet they usually succeeded in collecting the required answers to their problems. I saw signs of struggle and discomfort in my students’ faces when they started the search phase of their tasks, but as time passed they became bolder and more confident.

From the early stages of my teaching experience, I have believed it is counterproductive for a student to feel inferior and left behind; therefore, one of my goals in this study was to provide each student with equal opportunity to participate and to share in the classroom activities. In my personal journals I recorded many incidents where participating through the presentations empowered my students and made them major contributors to the learning process in the classroom. One student who stuttered and who was shy and introverted performed his first presentation in front of his classmates. I could not believe that such a quiet youngster would break the ice and amaze the entire class with his well-organized presentation. He deserved the warm applause he
received from classmates for his excellent job. Such reinforcement drew a smile on his face, reflecting his pride and enhanced self-esteem.

Also, most students were excited about group presentations in the computer-based learning environment because they facilitated a sense of the classroom as a community of learning. These feelings were captured in Omar’s statement: “Whether you were a bright, average or disadvantaged student, you got the chance to contribute to the success of your group and other groups as well.”

One final point made by students was that the opportunity of being a presenter awakened an awareness of the responsibility. Hamad commented, “Presentations made us responsible and independent. We struggled to make our transparencies neat, clear and readable so that every individual in the other groups would benefit from our share in the social studies classroom.” Students knew that each group, besides being an expert in a certain topic in each class period, would also be responsible for knowing all the topics at the end of each lesson. Salem said, “Sharing our expertise with other groups promoted a sense of responsibility to deliver fine and beneficial presentations. Since we relied on group presentations for information related to the subject matter, we as a group were held responsible for our learning and others’ as well.”
It can therefore be seen from student interviews that a sense of pride and accomplishment, an eagerness to search for information, a strong feeling of the classroom as a community of learning, and awareness of responsibility permeated the youths involved in the social studies class. From my experience as a teacher, I can state that such qualities are often missing in middle school social studies classes in the United Arab Emirates.

**Rapport and Support Among Students**

Most students reported enjoyment in their tasks because computer-based instruction enhanced their friendship and compassion for their classmates. Clear responses and insights from the student interviews and reflections supported their claims of constructing solid and close relationships with each other. Malik reported how the use of computer technology in social studies lessons affected his relation with other students:

“I have been labeled as an outstanding student, a label which sometimes made me selfish and cruel to other students. However, being a group leader in the social studies classroom taught me to be gentle and kindhearted; I was always willing to assist my group mates as needed or requested.”

Malik further described a classroom incident which made him a more compassionate and caring individual,
“On one occasion while we navigated through the encyclopedia software, the mouse controller rushed through pages to find answers for the assigned questions in the worksheet, a move he and I thought wise to speed the search process, but in the meantime it was troubling for another student in the group who felt lost by those transitions.”

That boy’s feeling was legitimately expressed as follows, ‘Being a student with humble academic abilities does not necessary mean I am incapable of using the software to learn new things; it simply means that I need both more time and more directions to do so.’ As a group leader I know such privileges might slow our group’s progress, yet they tie us together.”

The same proposition was clearly stated in Saif’s comments, “The presence of computer technology in our social studies classroom promoted better relations and more friendship.” Adel stated that “relationships among us became better and closer as a result of the presence of computer technology and the cooperative learning approach in the classroom.”

In contrast, one of the students wrote that it took him too much time to adjust to his group and to appreciate its unity. He justified such a shortcoming through the following explanation, “I used to get the content from the teacher without making any effort and without interacting with other students, but in this classroom it was required to
go through processes of interacting, searching, collecting, evaluating and presenting information to the whole class, a first-time experience which was hard to accommodate.”

The previous boy’s comment reflected his reluctance for the new method of teaching, in which, in his view, interactions with classmates were an unnecessary and time-consuming substitute for direct instruction from the teacher. But as he became immersed in group learning activities, he recognized how important it was to be kind and cooperative with his group mates in order for the group to be productive. The tactic was proven effective as he reported later on in his reflection sheet, “The more I comprehended the nature of this class, the relations with my group members became warmer and stronger.”

Saif expressed how computer-based instruction was unique when compared with the traditional teaching method in the matter of making friends, “The interaction with the software in small groups generated rapport and support among the group members; such an advantage was not identifiable in the traditional classroom.” The same feeling was captured in Zayed’s statement where he referred to the cooperative work in the computer lab as a key element in initiating good relations with other students: “The relationship with my group’s members became better and closer as a result of cooperation. I really liked this class because of its nature which emphasized cooperative learning rather than
an individualistic way of approaching the subject matter. Within that warm environment I felt that my group mates’ success depended on mine, a feeling which encouraged me to be more supportive and available.”

In summary, although a few of the students had difficulty adjusting to the new instructional method, the overwhelming majority reported that they enjoyed group learning and relationships which deepened as a result of teamwork.

**Cooperation Among Students**

Cooperation among students was the dominant theme which emerged from the data collected in this study. The cooperation among students was vividly evident throughout both the students’ interviews and my direct observation in the classroom. In the first meeting with my eighth grade students, I announced that a cooperative method would be used to facilitate their learning of social studies with the aid of computer technology. Since the cooperative approach was rarely used in the host school, I spent the first two class periods introducing my students to some principles and techniques of cooperative learning. The first period was an introductory session where I addressed general topics of cooperative learning with an emphasis on the learner’s characteristics and his/her duties towards other members of the team. In the next period students were assigned to groups to rehearse what they had been taught in the introductory session.
As a teacher I was not sure that such a minimal preparation would enable my students to function well in the class, yet their actions and comments indicated great interest and enthusiasm for the cooperative work. Through cooperation the students demonstrated acquisition and command of different strategies for communication and interaction, as well as an increasing capacity to express information, opinions and feelings as they participated in the class activities. Reda commented, “I cherished everyone in my group. They were supportive and caring. I felt that through their facial and verbal expressions.” Adam expressed, “This class was different from other classes that I have taken. Its activities put more emphasis on systematically enhancing my communication skills. For instance, I was capable of expressing my opinions and respecting others as well.” Salem stated a similar thought: “We participated and expressed ideas in our own words; we work on computers and the work is distributed.”

While working in front of their computers, students showed a growing ability to work in teams and to share information, activities and materials, as well as to take and respect turns, and to listen to others and participate actively in group work with useful contributions. Adel expressed, “This class was a place where we came to bring out our own words, where we came to participate.” Similarly, Omar said, “I liked the idea of sharing our group findings with the rest of the class. My group mates and I were so
excited by our contributions.” A student wrote,” The main thing about this class was that it allowed us to read, view and discuss materials in our group and with the whole class.”

Also, students reported that cooperative learning strategies gave them an ability to deal with and solve conflicts among themselves. For example, Malik said, “Teamwork is working together with your group mates. I deal with them as friends despite the disagreement which may occur sometimes, but then you are no longer angry with them.” Another student commented, “Since we all aim to contribute to the success of our team, there was no place for confrontations among us.” Reda expressed how students’ roles within each group harmonized their relations, “Role distribution helped in solving confrontations and overcoming disagreements. We treated each one’s responsibility with respect and dignity.”

In summary, these three themes of students’ sense of empowerment through presentations, rapport and support among students, and cooperation emerged from my analysis of the data, including personal observation notes, student interviews, and student reflection journals. In carefully analyzing these sources, certain Arabic words repeatedly occurred and helped me in selecting the themes. For example, fakhur (“proud”) was used by many of the boys to refer to their feeling about being a presenter instead of being a passive learner, their normal role in school. In addition, students frequently used the term
astiqah, meaning (“friends”) and ihtimam (“caring concern”) as benefits they perceived from the class. Finally, the word ta’owin (“cooperation”) appeared numerous times in the interviews and reflection journals. These words from the students strongly impacted me because I was not accustomed to hearing them in the context of a social studies classroom in the United Arab Emirates.

Summary

Chapter 4 analyzed the data that were gathered by the researcher from the eighth grade social studies classroom in Ras Al-Khaimah School District, UAE. Computer-enhanced instruction was implemented in the eighth grade social studies classroom for 8 weeks in order for the researcher to determine any significant differences in students’ attitudes towards the use of computer-enhanced instruction in their classroom and to report his insights as a teacher researcher towards using computer technology in a middle school social studies classroom. The researcher used four sources of data, which were a Computer Attitude Questionnaire, student interviews, student reflection journals, and a personal journal to provide evidence to answer the main two main questions of the study: 1) Is there a difference in students’ attitudes towards technology before and after using computer technology in a middle school social studies classroom? and 2) What are the
perceptions of the teacher-researcher towards using computer technology in a middle school social studies classroom?
CHAPTER FIVE

Summary, Discussion and Conclusion, and Recommendations

Summary

Experts in the educational field in the United Arab Emirates call for the necessity of reforming both teaching and learning processes inside the classrooms (Hokal & Shaw, 1999). The traditional method of teaching which labels the learner as a passive and unengaged individual is no longer accepted as a practice in most schools around the nation. As a result, most education colleges in the United Arab Emirates have raised the standards of teacher preparation programs to meet the requirements needed for hiring new teachers. Also, the Ministry of Education periodically rebuilds and reexamines curricula to permit more student involvement in the learning process. The social studies curriculum is among these curricula which have been redesigned to provide students with opportunities for optimal engagement in the teaching-learning process inside the classroom.

In this study, my aim as a teacher researcher was to integrate computer technology as a new approach to teach social studies in an eighth-grade classroom in one middle school in the UAE. The outcomes of the study could be supportive of the movement to change teaching instruction to utilize more effective methods in teaching
social studies to promote students’ active participation inside the classroom. Also, the results of this study may be helpful to educators and researchers who want to understand the social interactions and reactions among all the participants involved in a technology-enriched teaching-learning environment.

The study described an eighth-grade classroom environment in the UAE where computers were used as a tool in teaching social studies. The existing eighth-grade class involved in the study consisted of 28 male students between 13 and 14 years of age. Most students in the class had learned basic computer skills in the seventh grade, where they had access to computers once a week for 35 minutes.

As a teacher researcher I used a cooperative learning approach when using the computer in the eighth-grade social studies classroom. Students interacted with an educational CD-ROM called the *Islamic Civilization Encyclopedia*. They worked in small groups to study and comprehend the content, as previously described in Chapter 3.

The study was conducted in a naturalistic classroom setting. It investigated both the teacher’s perceptions and students’ attitudes toward using computer technology for a social studies class. Both quantitative and qualitative data were gathered to describe and explain what happened in the eighth-grade social studies classroom.
In the quantitative segment of the study a 20-item Computer Attitude Questionnaire was administered to students before and after the eight-week unit to determine any significant differences in students’ attitudes towards the use of computer-enhanced instruction in their classroom. The Computer Attitude Questionnaire consisted of three subscales, namely computer importance, computer enjoyment, and computer anxiety. A two-tailed paired sample *t*-test at the .05 significance level was conducted to examine students’ change in attitudes regarding each subscale.

The results of the two-tailed *t*-test showed that there was no significant difference in students’ attitudes toward computer importance before and after the use of computer-assisted instruction. In contrast, when it came to the students’ attitudes towards computer enjoyment and computer anxiety, the results of the two-tailed *t*-test were significant. For computer enjoyment, the two-tailed *t*-test provided strong evidence (*p* < .001) that the use of computer technology in the social studies classroom did lead to improvement in students’ computer enjoyment. Regarding computer anxiety, the results indicated that the students’ computer anxiety before and after the treatment was significantly different (*p*<.001), which strongly confirmed that the use of computer technology in a social studies classroom tapered students’ anxiety toward computer technology.
In the qualitative part of the study, I employed three different sources of data to understand and describe the learning environment where cooperative computer-based instruction was implemented to teach social studies for eighth graders. Those sources were student interviews, students’ written reflections, and my personal observation notes as the teacher. The data were analyzed across the three sources to identify the common themes and answer the second research question.

As a teacher I perceived the impact of computer-based instruction in aiding student comprehension of social studies. Although assessing students’ comprehension was not a primary objective of the study, most students’ responses were positive about how the presence of computer technology in the classroom promoted their understanding of social studies. They reported learning with computers allowed them to look for the needed information by themselves which made the content easy to master and hard to forget as well. As a teacher researcher I used some techniques of indirect assessment to ensure that students in their small groups were mastering the subject matter. For instance, I usually stopped by each group and randomly selected a student to talk briefly about the information gathered from the software to cover the group assignment. I also asked each group to raise questions at the end of the presentation to ensure that other groups comprehended the presented topic.
The analysis of qualitative data showed that the computer-based instruction fostered an atmosphere of teamwork and cooperative learning. My emphasis through this study as a teacher researcher was to improve the learning environment in a social studies classroom in a UAE school by making students more active and responsible for their learning through engaging them in hands-on computer-based activities. Guided by the above perspective, cooperative work was important and expected in my class. As a result, my students showed enthusiasm for group work despite their novice experience with cooperative learning. As a teacher researcher I was pleased with the high level of involvement of my students during group work. They really seemed to enjoy and look forward to discussing learning tasks as a group instead of working individually. Also, my field notes indicate that students told me they eagerly anticipated social studies lessons because they knew that was the time when they could have a chance to communicate, and this was what they liked. In addition, students were less guarded because there was accountability in their teamwork. The four members in each group felt comfortable since none of them would be targeted or singled out for the group’s poor productivity.

My role as a teacher researcher in this study offered an opportunity to shed light on some obstacles to the use of computer technology in my social studies classroom. Technical problems were among the barriers which frequently occurred inside the
Technical problems, which included crashing machines and jammed software, had a negative impact on students’ productivity in their small groups. Also, the time constraint was another obstacle which hindered a complete implementation of computer technology in the social studies classroom. The lack of infrastructure, including the absence of presentation and networking facilities, small monitors, uncomfortable chairs and dim lighting, was also a barrier impeding an optimal integration of computer-enhanced instruction in my social studies class.

In analyzing the qualitative data across the three data sources, certain Arabic words repeatedly occurred. For example, *fakhur* (“proud”) was used by many of the boys to refer to their feeling about being a presenter instead of just a passive learner, their normal role in school. In addition, students frequently used the term *astiqah*, meaning (“friends”), and *ihitimam* (“caring concern”) as benefits they perceived from the class. Finally, the word *ta’owin* (“cooperation”) appeared numerous times in the interviews and reflection journals. As a result of the coding and analysis of the qualitative data, the three themes of students’ sense of empowerment through presentations; rapport and support among students; and cooperation emerged from the data analysis.

Students’ sense of empowerment through presentations was one of the themes that emerged from the qualitative data. It showed how my eighth-grade students
experienced excellent opportunities for interactive engagement and participation. Breaking from the constraints of the traditional method of teaching, student-led presentations were a remarkable example of how students engaged positively in managing their social studies classroom. Students reported the advantages of becoming active contributors through their group presentations by searching for information on the software, organizing the results, and reporting them to the rest of the class. They were very proud of their roles as knowledge seekers and dispensers. Also, most students were excited about group presentations in the computer-based learning environment because it contributed to a sense of community among the students. It helped students to develop a feeling of membership in and responsibility for the group. Despite minor disagreements, students showed a commitment to each other and pressed forward to accomplish their tasks. Finally, the opportunity of being a presenter awakened awareness in the students of their responsibility to their fellow students.

Rapport and support among students was another theme that emerged from the data analysis. Students reported enjoyment in their tasks because computer-based instruction enhanced their friendship and compassion for their peers. Clear responses and insights from the student interviews and reflections supported their claims of constructing solid and intimate relationships with each other. Those positive views particularly were
mentioned by students who were in favor of the new method of teaching because they felt it promoted a more caring atmosphere among learners than the conventional instruction. They stated that the activities employed within the computer-enhanced instruction made them closer and kinder to each other; such kindness advanced their productivity in the classroom. In contrast, some students who were reluctant to accept the new method of teaching faced difficulty in showing their compassion to other members in their groups. They considered themselves as self-directed learners who were very competent to learn without any support from their teammates. Fortunately, the more those students understood the cooperative nature of the class, the warmer and stronger the relations with teammates became.

Cooperation was another remarkable theme which emerged from the data collected in this study. Through cooperation the students demonstrated acquisition and command of different strategies for communication and interaction, as well as an increasing capacity to express information, opinions and feelings as they participated in the class activities. In addition, students in front of their computers showed a growing ability to work in teams and to share information, activities, and materials. They were able to take and respect turns, to listen to others, and to participate actively in group work
with useful contributions. Furthermore, students through cooperative work evidenced an increasing ability to deal with and solve conflicts among themselves.

Discussion and Conclusion

The aim of this study was to describe a middle school classroom environment where the teacher researcher integrated computer-enhanced instruction with a cooperative learning approach to teach social studies. The actual study was to investigate both students’ attitudes toward computer enhanced instruction and the teacher’s perceptions towards the implementation of computer technology in the social studies curriculum. The students’ attitudes and the teacher’s perception towards the integration of computer technology in classroom were investigated by using two-tailed $t$-test as well as qualitative techniques (student interviews, students’ written reflections, and the teacher personal observation notes) to answer the major two research questions of this study: 1) Is there a difference in students’ attitudes towards technology before and after using computer technology in a middle school social studies classroom? and 2) What are the perceptions of the teacher-researcher towards using computer technology in a middle school social studies classroom?

The first purpose of the study was to determine whether students’ attitudes towards computer technology were different in eighth grade social studies before and
after the use of computer-enhanced instruction. The results of this study showed that there was no significant difference in students’ attitudes towards computer importance. However, the current study does not corroborate the findings of Knezek and Christensen (1997), who reported that the ninth grade students at the Dallas school “inexplicably” had less positive perceptions of computer importance than they did one year earlier. On the other hand, the results of the current study in the meantime illustrated that eighth-grade students had positive attitudes towards both computer enjoyment and computer anxiety. These results support the findings of Mouza (2006), who indicated based on the results of focus groups that all students enjoyed working on the computer. They reported an enthusiasm in using computers and described TimeLiner software as their favorite program because they can create timelines with all the things they did in the past and the things they would do in the future.

The second purpose of the present study was to investigate the teacher’s perceptions of using computer-enhanced instruction in social studies classroom. The result of the current study reported that the teacher perceived computer technology as an influential tool that may change the conventional teaching practices in the classroom. For instance, the image of the teacher as a dominant figure inside the classroom was rarely presented throughout the eight-week teaching project. Students were included in the
teaching learning process and they had influential roles in the classroom. The results of
this study support the work of other researchers who have reported that the computer is
highly recommended as a tool to shift traditional pedagogical practices to become more
ingaging and interacting (Collins, 1991; Hatfield, 1996; Means, 1997). Hence, the
findings of this study may assist educators, especially in UAE, to integrate computer
technology in their classrooms to improve their pedagogical practices in order to establish
a learning environment where learners are held responsible for their learning.

Recommendations

The study was an attempt of using computer technology as a tool in teaching
social studies in the United Arab Emirates. It offered a description of the learning
environment where the presence of computer technology changed the roles of both the
teacher and the students. Learning social studies with computers offered me the
opportunity to become a facilitator instead of a content dispenser and enabled my eighth
graders to be co-teachers instead of passive receivers of information. The results of the
study should deliver a message of optimism to those teachers who are willing to
incorporate computer technology to improve the field of social studies in the United Arab
Emirates and to researchers who are interested in investigating the effectiveness of
integrating computer technology in schools.
For teachers:

1. Social studies teachers in the United Arab Emirates need to observe models of integrated computer technology use where they can exchange ideas with their colleagues and reflect upon different aspects of such implementations. Then they can either adapt those models of computer integration or generate their own models to improve students’ involvement in the learning process.

2. Calling upon social studies teachers to infuse computer-enhanced instruction in their classrooms will not be justified unless teachers feel satisfied with the professional development programs. Professional development programs which only offer teachers basic computer skills are insufficient to carry out a successful integration of computer technology in social studies education. Professional development training should go beyond acquisition of basic computer skills to engage social studies teachers in more pedagogical issues related to planning, executing, and evaluating strategies for incorporating computer technology in the classroom curriculum.

3. Since computer labs are not always available for use by social studies teachers, school administrators need to consider other alternatives where teachers and students can have access to computer technology. For instance, establishing media centers loaded with
computing facilities will help teachers of social studies as well as other disciplines to integrate computer-enhanced instruction.

4. Social studies teachers should have more classroom time to use technology with their students. The traditional 40 or 45-minute periods may not afford teachers the necessary time to effectively integrate computer technology in the curriculum.

5. Practitioners in the field of social studies should work collaboratively to guarantee optimal integration of computer technology in schools. One teacher with enthusiasm and expertise in computer applications may succeed in offering a model for using computer-enhanced instruction in his classroom, yet the model will be more influential when carried by a group of teachers with the same potential. Collective efforts to integrate instructional technology are necessary for social studies teachers in order to refine their pedagogical practices in the computer-based learning environment.

For researchers:

1. Further studies should address teachers’ attitudes and perceptions regarding the use of computer technology for instruction in the United Arab Emirates. Studies should include the gender variable to determine if the use and effectiveness of computer technology differs between female and male instructors and/or students.
2. Further research is needed to study the impact of computer technology on other social studies classes at various educational levels, such as elementary and secondary schools, in order to compare and contrast their findings with the middle school social studies classroom.

3. Research should be conducted to investigate existing models of computer technology use in social studies classroom in the United Arab Emirates and evaluate their effectiveness on the teaching-learning process.

4. Considerably more research is required to identify the barriers that social studies teachers in the United Arab Emirates would experience in trying to integrate computer technology into their teaching. Lack of professional development and the rigid curriculum are among other factors which may limit the integration of instructional technology in the UAE social studies classroom.

5. The project mentioned in this dissertation was conducted in a school in a privileged area where the teacher was enthusiastic in helping his students to learn with the aid of computers. But this help is not reaching many schools that are in lower socioeconomic neighborhoods. Further research should be done to study the requirements needed to allow teachers in such schools to benefit from computer technology in their classrooms.
6. Although researchers have praised the revolutionary effects of computer-based instruction on learning (Kumpulainen & Mutanen, 1998), further research is needed to address the impact of computer technology on students’ social studies test scores in the United Arab Emirates.
References


Islamic Civilization Encyclopedia [Computer software]. Cairo, Egypt: RDI.


Appendices
Appendix A: The Authorization Letter

United Arab Emirates
Ministry Of Education and Youth
R.A.K. Educational Zone
Omar bin Al-Khattab Prep. School

TO WHOM IT MAY CONCERN

This is to certify that the school administration has no objection to offer "Ibrahim Yousif Al-Mejaine" the chance to practise and teach computer as tools in teaching social subjects from the first of September 2000 until the end of the first semester on January 2001.

The school is willingly ready to consider him as one of the staff. This certificate is issued to him upon his request to be submitted to whom it may concern.

Ahmad Rashid Al-Teper
School Principal
Appendix B: The Islamic Encyclopedia Software Interface

The screen describes the Umayyad dynasty.

The screen describes the geographical location of Alfostat.
Appendix C: Computer Attitude Questionnaire

Instructions

Think about your social studies classes for the past few weeks and respond to the following statements as honestly as possible. Read carefully each numbered statement below and, using the scale provided below, record your answer by placing an (x) in the category that best expresses your attitude.

SA= Strongly Agree
A= Agree
D= Disagree
SD= Strongly Disagree

<table>
<thead>
<tr>
<th>Item</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I enjoy doing things on a computer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am tired of using a computer.</td>
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<tr>
<td>3. I will be able to get a good job if I learn how to use a computer.</td>
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<tr>
<td>4. I concentrate on a computer when I use one.</td>
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<td></td>
<td></td>
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<tr>
<td>5. I enjoy the Islamic Civilization Encyclopedia software very much.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. I would work harder if I could use computers more often.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I think that it takes a long time to finish when I use a computer</td>
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</tbody>
</table>
8. I know that computers give me opportunities to learn many new things.


10. I can learn many things when I use a computer.

11. I believe that the more often teachers use computers, the more I will enjoy school.

12. I believe that it is very important for me to learn how to use a computer.

13. I think that computers are very easy to use.


15. I get a sinking feeling when I think of trying to use a computer.

16. Working with a computer makes me nervous.

17. Using a computer is very frustrating.

18. I will do as little work with computers as possible.

19. Computers do not scare me at all.

20. Computers are difficult to use.
Computer Attitude Questionnaire

Arabic Version
عزيزي الطالب:

الاستبيان الأتي يهدف إلى معرفة ميول المتعلمين نحو استخدام الحاسوب في حصة المواد الاجتماعية والتحديد مادة التاريخ، الرجاء قراءة كل فقرة ووضع إشارة (x) في الخانة التي تراها مناسبة.

<table>
<thead>
<tr>
<th>الأوافق</th>
<th>الأوافق</th>
</tr>
</thead>
<tbody>
<tr>
<td>بشده</td>
<td>بشده</td>
</tr>
</tbody>
</table>

1) سأحظى بوظيفة جيدة في حالة اجتيازى للكمبيوتر.
2) سأعمل بعد أكثر إذا استخدمت الكمبيوتر بكثرة.
3) استخدام الكمبيوتر سيمنعني فرص جيدة لتعلم أشياء جديدة.
4) استخدام الكمبيوتر يعلمني الكثير.
5) إذا استمتع بالدروس عن طريق الكمبيوتر.
6) في اعتقادى أنه كلما زاد استخدام المعلمين للكمبيوتر كلما استمتعت وأحببت المدرسة أكثر.
7) اعتقاد أنه من الضروري تعلم كيفية استخدام الكمبيوتر.
8) استمتع بالعمل على الكمبيوتر.
9) أنا متحب من استخدام الكمبيوتر.
10) أركز على الكمبيوتر عندما استخدمه.
11) استمتع كثيرا ببرنامج موسوعة الحضاره الإسلامية الذى بالكمبيوتر.
12) أشعر بالراحة عند الاستغلال بالكمبيوتر.
13) أحس بالرهبة بمجرد تفكيري باستخدام الكمبيوتر.
عزيزي الطالب:

الاستبيان الآتي يهدف إلى معرفة ميول المتعلم نحو استخدام الحاسوب في حصة المواد الاجتماعية والتحديد مادة التاريخ. الراجعا قراءة كل فقرة ووضع اشارة (x) في الخانة التي تراها مناسبة.

<table>
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<tr>
<th>الأوافق بشده</th>
<th>الأوافق بشده</th>
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</thead>
<tbody>
<tr>
<td>14) العمل على الكمبيوتر يجعلني عصبي المزاج.</td>
<td></td>
</tr>
<tr>
<td>15) الحاسوب صعب الاستخدام.</td>
<td></td>
</tr>
<tr>
<td>16) اعتقد بأنني استغرق وقتا طويلا لانهاء العمل عند استخدام الكمبيوتر.</td>
<td></td>
</tr>
<tr>
<td>17) اعتقد أن الحاسوب سهل الاستخدام</td>
<td></td>
</tr>
<tr>
<td>18) استخدام الكمبيوتر يجعلني اشعر بالاحباط.</td>
<td></td>
</tr>
<tr>
<td>19) سوف انجز أقل عمل ممكن بواسطة الكمبيوتر.</td>
<td></td>
</tr>
<tr>
<td>20) الكمبيوتر لا يخفيفي أبدا.</td>
<td></td>
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</table>
Appendix D: Reliability Analysis for the CAQ (Pilot Study)

<table>
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<tr>
<th>Item</th>
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<th>Variance if Item Deleted</th>
<th>Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Alpha if Item Deleted</th>
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<td>.4902</td>
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<td>.7600</td>
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<td>.7637</td>
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<td>.5198</td>
<td>.7605</td>
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<tr>
<td>ITM14</td>
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<td>48.1184</td>
<td>.2472</td>
<td>.4186</td>
<td>.7677</td>
</tr>
</tbody>
</table>

Reliability Coefficients

20 items

Alpha = .7712

Standardized item alpha = .7791
Appendix E: Student Interview Guide

1. Do you consider using a computer to learn history a successful experience?

2. What are the differences between learning history through traditional instruction and by using computer technology?

3. What are the difficulties or barriers of using computer-technology in your history class?

4. How does the presence of computer-technology affect your relationship with your teacher and your classmates?

5. Would you recommend using computer-technology in learning other disciplines in your classes?
Appendix F: Samples of Student Interviews

**Interviewee # 2**

Q. Please, if you can give me a summary of what you did in social studies class in the first term?

A- We used the computer in our history lessons in cooperative way. The experience helped us to understand better and we enjoyed our lessons. It was a good procedure.

Q. What was the difference between the use of computers in teaching history and the traditional teaching method?

A- In the traditional method the teacher did all explanations and we were only listeners. However, in the computer environment we were groups and we looked for the information by ourselves; it helped us to depend on ourselves in learning the content.

Q. Were there any difficulties in the group work?

A- Yes, more time was needed to finish our group’s tasks.

Q. What do you think of roles distribution?

A- It was fair. It helped in working more quickly and in solving confrontations.

Q. What did you think of the software which we used?

A- Good, it was easy to use and it contained tremendous amount of historical data.

Q. Was there any effect in using computer in history lessons on your relations with your classmates?

A- It helped us to cooperate and worked together. The relations between our group’s members became stronger.

Q. How was the relation with the classroom’s teacher?

A. It was OK. He tried to pay equal attention to all of us. He was more supportive for those who had learning problems. They were always encouraged to actively participate in the classroom. I admired him for such effort.

*: Translated from Arabic
Q. Was the computer lab suitable for group work?
A- I think more space was needed to enhance groups’ work.

Q. What did you benefit from the experiment of integrating computers in history classroom?
A- I depended on myself; I cooperated with others to solve problems and I got needed knowledge by myself.

Q. Did the experiment of incorporating computers in history classroom increase your desire to use computers?
A- Yes, I learned how to make software installations into computer machine and locate different programs in it. I am now more interested in knowing more about computers and more interested in the subject itself.

Q. Has the computer increased your enjoyment of the history class?
A- Yes of course, cooperation with other students and the presentation of the lesson was very enjoyable.

Q. Did using computer in learning history help you in understanding the subject?
A- It was not the computer in itself that helped me in comprehending history lessons, but rather the process which we pursued in acquiring needed knowledge. The cooperative work, the search activity, the collection of information, the organization of ideas and the presentation of our thoughts were essential components of a process which aided our understanding of the history content.

**Interviewee # 3**

Q. Tell me about the experiment of teaching social studies lessons in the computer lab?
A- We used the computer in the history’s classes where you asked us to find answers for major questions related to each lesson by searching the Islamic civilization Encyclopedia. We worked in small group to fulfill such task.

Q. What do you think of the experiment?
A- It was very good. It made the history’s lessons more enjoyable and understandable. I hope if it could be repeated.
Q. What the difference between the traditional method and using computers in teaching history lessons?
A- Great difference. In the traditional classroom, the teacher explains and we just listen. However, in a history classes where we used computers we had the chance to teach ourselves. Self-taught was a significant feature of the computer learning environment which I have not realized in ordinary classrooms.

Q. What difficulties have you faced in the computer learning environment?
A- To me, I did not face any.

Q. Was there any effect in using computers in history lessons on your relations with your classmates?
A- Better relations and more friends.

Q. What was your relation with the teacher?
A- We asked his advice whenever we faced any difficulties concerning our group’s work

Q. What do you think of dividing the class into groups?
A- It was a great idea and it generated competitions among classroom’s students. The great thing about being in a group was the rewarding system which gave each member the same grade which represented the group’s productivity. When I felt that the case I didn’t only enhance my performance but I also encouraged my group mates to enhance theirs as well

Q. What is your opinion regarding the group’s presentation?
A- It was a dare action for most of us. I was very reluctant when my group chose me to present our findings. Mainly because I am an average student and that was the first time for me to talk in public. Despite of my humble academic level I did well at that day. My self-esteem was very high.

Q. Have you talked to anyone about your experience with computers inside history classrooms? If so what was the talking about?
A- Yes, I talked to my elder and younger brothers. I explained to them the way we used computers in learning history and performed activities in groups.

Q. Mention things that you wished to see in the learning environment but you didn’t?
A- Longer time and more CDs.
Interviewee #5

Q. Please, can you give a summary about our experience with computers in social studies classroom.
A - We made ourselves groups, you gave us worksheets contained questions related to the studied topics, and we look for the answers in the computer program. Then we explained the subject for other students in the class.
Q. What do you think of this idea?
A - It’s great, but we couldn’t use the computer freely.
Q. Why do you think that it was a good idea?
A - Because it was used for the first time in the history. Besides, you made us look for the answers by ourselves and then explain the subject.
Q. What’s the difference between teaching in traditional way and by using the computer?
A - In the traditional way we only have to listen to the teacher, but the use of computer in history’s lessons allowed for more participations. As learners we were actively searched for knowledge and distributed it among us.
Q. Do you agree that the teacher was everything in the class where computer used as a tool in teaching history?
A - Not exactly, he encouraged his students to take the lead in managing their class and presenting the content. It means that we as students had an active role to play in the learning environment. The teacher indirectly wanted us to express self-independence, which proofed that he was not dominating the class.
Q. What are the difficulties you have faced in the class as a group?
A - In the beginning we faced a difficulty in locating the information in the software. It took a long time to search and find particular piece of information. Time passed too fast and in many occasions we were left behind.
Q. Did you like your role in the group?
A - I liked my role, but I wanted to participate and search myself for the answers. That was not always the case. I only did it three times during the experience.
Q. Were there problems in the group you have been in?
A- No, but the problem is that everyone in each session has a certain role that he can’t change. So, sometimes one must play the role of someone else but that is not allowed.
Q. Is there any problem concerning the computer lab?
A- Yes, some computers got broken so we have to change our places to another machine which needed a new installation of the software and consequently it wasted part of the time which was needed to finish our group’s tasks. Also, seats were not convenient and there was no enough space for groups’ activities,
Q. How was your relationship with other students in the history class?
A- The relationship became better and closer as a result of cooperation.
Q. How was your relationship with the teacher?
A- It was like the relationship between a father and his son. The father works and spends on his sons as well as the teacher who takes care of us and motivates us to be independent and responsible.
Q. What’s the difference between the traditional way of teaching and the computer one?
A- There’s no difference except in the computer sitting the teacher let us teach and this made us confident and independent.
Q. What do you think of teaching all subject matters by computer?
A- Some classes are very difficult to be taught by computer like English and Geography and some of them need to be understood and memorized like Arabic language. I think that the computer invaded major aspects of the society; therefore, schools must implement it in teaching some subjects.
Q. Mentions things you liked in the history class where you used computer.
1- I liked marvelous minutes when I performed the role of the teacher who teaches and explains. I was very proud of myself.
2- The groups were cooperative in work to achieve their objectives.
Q. Mention things you didn’t like in that sitting.
A– I didn’t like students who were irresponsible because they thought that coming to computer lab in history lessons was kind of fun and entertainment; therefore, they lacked the motivation to learn and participate.
Q. Mention things you wished they would have been in the computer lab.
A- I wished if we had bigger monitors and faster machines.

Q. What’s your opinion towards making the students taught and presented the subject for the rest of the class?
A- It was a positive strategy. It showed the great effort that teachers did for their pupils, and it made us responsible and independent.

Q. Have you ever get the chance to perform a class presentation?
A- Yes, Once only. It’s amazing when a pupil plays the role of a teacher. It developed my social skill of facing others and talked in front of them.

Q. What do you think of the idea of using transparencies in presenting groups’ findings?
A -They were like summaries which helped us in comprehending the subject matter.

**Interviewee #8**

Q. XX, in the beginning I would like you to tell me in brief about your experience in using computers in learning history.

A-We were working in groups by using a computer software to comprehend historical topics in the history textbook. Each member of the group helped one another to accomplish a satisfied level of understanding.

Q. What do you think of using computer in teaching history?
A- It was a good idea.

Q. Why was it a good idea?
A- Because it was a unique experience for us to use the computer technology in learning a subject matter. None of our teachers tried it before.

Q. What are the differences you have seen between teaching history by using the computer and teaching it in a traditional way?
A- Throughout teaching history by using the computer we got more information and if any pupil could not understand, the group would help him to catch up. Here we learned as a group net individually. Also working in groups encouraged all pupils to participate in class not only those who were sitting in the front as the case in a traditional classroom.

Q. Are there other differences?
A- Sometimes the text book had information which is not available in the CD and vice versa, and sometimes there was a contrast in presented knowledge between the two resources.

Q. Did the presence of such contrast confuse you?
A- Yes temporarily, but in the same time it was very beneficial for us as a group. It gave us the chance to seek a third opinion to examine the validity of those contrary notions.

Q. As a pupil, have you noticed any difference in using both of the two methods?
A- Yes. As a group’s leader I got the chance to assist my groupmates who did not know the answer. While in the ordinary class I couldn’t do that; I was only responsible of my own learning. Also, if a pupil made a mistake or disturbed others, the group’s leader was responsible for maintaining order within the group. That was not the case in the traditional classroom where the teacher is the only person who responsible of class discipline.

Q. Have you felt positive of being a leader?
A- I liked my role, yet I had mixed feelings towards being a leader. I always blamed myself for my group’s shortcoming; however, when we successfully accomplished our tasks I felt proud of my leadership.

Q. XX. Have you faced difficulties throughout teaching history by the computer concerning the lab or anything else?
A- The only thing I noticed that the time was not enough to cover topics assigned for each class period. For instance, our friends in other history classes studied particular topic in one class period, we needed at least tow periods to cover it. Searching the software took most of the time.

Q. Do you mean that there was no need to search information due to the lack of time?
A- No, the search was one of the classroom’s significant features, my suggestion was not to exclude it but to set more illustrations or charts to make the search more easier and faster.
Interviewer’s commentary: Yes, I'd noticed that there was not enough time and I agreed with you. Even sometimes we’d been forced to take time of other teachers to finish required syllabus

Q. Was there another difficulty except time?
A. Sometimes a confrontation occurred among the group’s members which affected negatively our group’s progress.

Q. How did you solve such conflict?
A- I used to calm them down and encouraged them to concentrate on fulfilling our group assignment. If the conflict got worse, I asked the teacher to intervene.

Q. Were there any problems except the disagreement among the group’s members?
A- There was a problem concerning the preparation for the class that followed the class of history. Teachers of those classes got annoyed because we came late to their classes, yet they were very understanding of our situation.

Q. Within the environment in which history was taught by the computer, how was your relationship with your classmates?
A- We were very close, cooperative and interactive with each other.

Q. How?
A- For example, my relation with both the mouse controller and the technician was not strong enough. Being a group made our relation stronger and we became very close friends who helped each other.

Q. How was your relationship with the teacher?
A- It was good and he was keen on making us understand.

Q. How was the teacher's role in the classroom?
A- We felt that he's playing two roles; both a teacher and a director just like in scout camp when someone got lost he not only urged others to look for him but also followed them up to assure the success of their mission. I felt that he was very close to us.

Q. Have you noticed a difference between the teacher who uses the computer and the one who does not?
A- I think that the teacher who uses computers in teaching a certain subject is in favor with making modern technologies a crucial component of learning environment. Also, I think he has much more knowledge compared to the one who doesn't use the computer.

Q. Throughout the class who spoke more, you or your teacher?
A- We talked more than him.

Q. What's your proof?
A- He let us explain the content by ourselves via groups’ presentations. He just addressed very brief comments on what had been said.

Q. Did the presentations improve your understanding of the content?
A- Definitely, when we prepared and presented the content, the understanding became easier and our minds retrieved information quickly.

Q. What did you think of explaining and teaching the content by yourselves?
A- It was a great idea.

Q. What do you think of using the transparencies?
A- For the two first classes we used to write our findings on posters; the font was too small and was hardly to read. However, presenting transparencies on overhead projector made the font more clear and readable. Although transparencies took time, they were much better than posters.

Q. What do you think if the school decides to teach all subject matters by computers?
A- Not all classes need to be taught by the computer.

Q. Like what?
A- Like English, Math and Science which don’t need to be taught by using the computer because they need to be understood. But other subjects which need to be memorized might be taught by using computers.

Q. But don't you think that of we used the computer in the class would be more interesting?
A- It would be more interesting but pupils would not understand and comprehend besides a class like the science needs experiments.

Q. Why do you think that computer technology can just be used in classes that need to be memorized?
A- Because the computer helps us to memorize by repeating information several times; on the contrary of other classes that basically need to be understand.

Q. What is more useful in your opinion; a pupil has a CD and operates the program by himself or to be with a group and all work together?

A- Of course the work of the groups is better. It is more organized, cohesive and superior.

Q. If we suppose that every pupil has a computer at home, takes the CD with him; do you think that they can work on it at home?

A- For me I might use it occasionally to gain more knowledge about some topics which I like.

Q. What do you think of the software?

A- It was suitable but it would be better if it was launched before we came to the lab.

Q. But don't you think that when you operate the software by yourselves it would be more useful especially for the pupils who are not good in using the computer?

A- That can be handled in the computer class, in history class we wouldn’t suppose to learn computer skills although we might gain new things about this technology which we were not familiar with. As a history teacher, you taught history by using computer as a tool to make the lessons more enjoyable, and we didn’t expect from you to teach us computer skills. Three periods every two weeks definitely wouldn’t be sufficient to do that.

Q. XX. Tell me, what are the best two things you have learned in your experience about using the computer in the History class.

A- Firstly: The information was stuck in our minds.

Secondly: The collective work and its multiple benefits. We learned how to organize our efforts to meet our goals besides we as group took care of each other.

Q. Mention something you wished that it would be available in the class of History by using the computer with which the class would be better.

A- More time was required, 45 minutes are not enough for the class, and the lab wasn’t suitable for cooperative work. It was very crowded there!
Appendix G: Samples of Student Reflections

**Student # 1**
Yes, I got advantages from studying History by computer because I could find the historical topics in details by myself. What I did not like was the small number of computers besides the difficulty in finding answers for proposed questions. I preferred that every student had his own computer in order to search and concentrate effectively. Four people worked on one computer caused some hostility among them; I experience such unpleasant behavior when two of our group insisted on controlling the mouse, it took a long time to persuade one of them to gave up. In addition, the chairs must be replaced because they were small and uncomfortable. Also, machines were repeatedly broken down which forced some groups to change locations. By doing that, other groups got disturbed.

**Student # 3**
I benefit a lot from what we did during the last weeks inside the lab where we were taught history by using computer technology. This was the first time that someone encouraged the use of computer in teaching.

This method of teaching allowed me to comprehend the content of the subject matter and assisted me in grasping historical events, concepts, and facts. The way that I had been taught with in history classes helped me in studying the content at home.

The most amazing thing about the experience was the technique of presenting the content by the learners themselves. We never did this thing before. It was a unique procedure. The use of transparencies was very helpful in presenting the fruitful efforts of our group. We tried to make our transparencies neat, clear and readable, so that every individual in other groups would benefit from our share in the history class.

*: Translated from Arabic
I liked the way that each person in our group had a role, yet I thought modifying some roles would make them more practical and effective. For example, changing the title of “Group’s Mouse Controller” to “Group’s Speaker”. The speaker would carry on group’s presentations and the duty of the Mouse Controller would be added to the technician besides his other duties of protecting the machine and launching the software. Finally, I hope this experience will be integrated in teaching our classroom other subject matters.

_Student # 4_

The social studies classes, which I attended in the computer lab, were of no use to me. I got more benefit of the previous teacher’s explanations and commentaries. In addition, the time was not enough for us to learn particular topic in just one class period. The new teacher didn’t explain the lessons for us, he let students to carry that mission, and therefore, we couldn’t understand or comprehend the presented content. We can comprehend better without the computer.

_Student # 5_

I liked the computer lab as a new place to study in as an alternative for the regular classroom. However, I didn’t like the group’s way in using the computer. My suggestion is that every pupil must use a computer by himself to get a real benefit.

We appreciated the new teacher’s way of teaching but we are used to the traditional method of teaching. Please, bring back Mr. A because we like his way of teaching and we are got used to it. With my respect.

_Student # 6_

I got a great benefit when I used the computer in learning History. I got benefit about how can I express my opinions. I liked the way of learning where we explained and commented on studied subject by ourselves. The teacher’s role of managing the class made us responsible and self-regulated. He divided us into groups of fours and we had the choice to distribute different roles among ourselves. Our group had a leader, a secretary, a technician and a reader. Then he gave us worksheets on which questions were
written and encouraged us to find solutions for them by searching the software and then wrote them down on transparencies. After that each group presented their findings to the rest of the class.

**Student # 7**

I got no benefit because I didn’t understand anything said in History classes. I studied History by using the computer which, in fact, I didn’t know how to use it. so learning History in the ordinary classroom was better. There’s no need that we go to the lab. In the first month of school year, learning for us was much better than the learning in the lab because we had the same teachers.

I didn’t like the idea of using the computer because I don’t know how to use it. The experience was entirely a waste of time besides I didn’t understand anything. Why we didn’t stick to the history’s textbook and avoid such complexity of inviting computer technology into our classroom!! In the finals I’ll be asked about what in the textbook, not of my navigation through the encyclopedia software or my participating in group’s cooperative activities. I didn’t like anything in that class.

**Student # 8**

I got benefit of how to use the computer and to share things with others because of the activity in which we participated under the guidance of our teacher. I liked the instructive behavior of our teacher; he was keen to make us understand and to recognize the needs of our group.

I didn’t like the broken computers, which we used in the computer lab and I hope that these computers will be fixed. I hope that more attentions will be paid to the computer lab; lots of shortages needed to be supplied to make computer lab more effective learning environment.

**Student # 9**

Yes, I got benefit. I learned that if anyone wants to succeed, he must search for the answers. What I liked was that teaching history by the use of computer was easier than
the traditional method, and that our teacher paid attention to everyone in the class despite his academic status. Whether you were bright, average or disadvantaged student you got the chance to contribute to the classroom. What bothered me most in that experience was the lack of time; two periods a week were not enough to cover the long History syllabus.

**Student # 10**

I got not much benefit from integrating computers in learning social studies; the explanation of the previous teacher on the board was better in comprehending the content than the use of computers. However, I liked the idea of using groups to search for answers related to History. Working in groups generated rapport and support among groups’ members; that was not identifiable in the traditional classroom.

**Student # 15**

I got benefit a little from the project, yet I liked the presentation part. If we were taught by our previous teacher (Mr. XX) we would finish the textbook and would have a time to review it again for the final exam. Our teacher (Mr. XX) used to explain the lesson to us that we all understood well, while the new teacher always takes the classes time from the other teachers to complete the lesson. So if he is not capable of being responsible for teaching properly, there will be many teachers who are capable of teaching in an appropriate way.
Appendix H: Samples of Teacher’s Journal

Journal #1

Two weeks since the school started. Today was Wednesday Oct, 23, and it was 7:55 when I entered the 8th grade-2 accompanied by Mr. A, the history teacher, who already started teaching the class. After Mr. A permitted the class to sit, he started with welcoming statements and then presented me to the students who were sitting in rows. He announced, “Mr. X will be your teacher till the end of the semester, and I hope that all of you will be cooperative and gentle.” Ten minutes of the period’s time passed when Mr. A with a kind smile walked out of the class.

I continued the remaining time with the class, which consisted of 26 students in addition to two absentees. I started with the request that each student presented himself, and then I distributed handouts. The handouts represented both outlines of the project and illustrated figures to refresh their mind about cooperative work inside the classroom. I started my speech with the new method that we were going to try in the history class. “The use of computer and cooperative work will dominate our work within next coming history classes,” I said. A student from front raised his hand and said, “But, Mr. How can we do that and we don’t have computers in the classroom!” “Good point, what’s your name again” I replied. “M”, he responded. “Let’s open the ground for your friends to find a hint for your concern,” I said. A few hands were been raised to participate. I chose a student from the middle of the class who suggested the use of the computer lab to overcome the absence of computers in the classroom. “Right, this is the only place in the school where can we learn history with the assistance of computers,” I smiley responded.

“Now let’s tell how we will use computers in learning history”, I proceeded talking to the class while I took out the CD-ROM of Islamic Civilization Encyclopedia from my bag and showed it to them. I stated that we were going to depend on the software in learning history. A student from the right side of the classroom surprisingly

*: Translated from Arabic
asked, “What about the textbook! Are we going to use it? I paused for a moment and then I said, “We might keep it as a reference.”

Another student posted an important concern regarding the exams and whether the software information would be included in them. I couldn’t give him a clear answer since I knew the rigid evaluation procedures that dominated the school. 70 percent of student’s grade determined based on what he/she would score in achievement tests. My belief when I tended to conduct this study was to evaluate learners not only for what they scored in their tests, but also for other skills that they would acquire through the learning process. “Cooperative works and groups’ presentations should be parts of my kids evaluation process” this what I believed. I was not sure if that personal perspective would be possible to be implemented with the common philosophy that heavily emphasized “learning for earning scores” which has been adopted by great numbers of both teachers and parents.

Those thoughts came to my mind while I asked the class to break up into groups of four. It was too noisy and my voice barely heard by the class. “Next time, do it quietly, please. We have neighbors who are willing to learn.” I said it ferociously to warn those who were trying to test the water! It was the first meeting and messages should be sent to maintain classroom stability. After turning the class into 7 groups, I announced, “from now and on we will work in groups and in the next meeting at the computer lab each one should know his group mates”.

I referred to the Students’ Evaluation Record written by Mr. A; the history teacher, in order to form groups. The SER showed the academic performance of each student for the last month. Also, I discussed the issue of organizing the group and the roles that each member should have in it. That was a part of what had been said about cooperative works. After a quick look to my watch, I realized that there were just ten minutes left. “Woo, the time passes too quickly, I have to do two things before I leave” I said to myself.

Unfortunately, the remaining time wouldn’t allow for distributing the pre-computer attitudinal survey; therefore, I postponed it to the next meeting. However, I had the chance to handed out a copy included 7 lists of fours and I encouraged each group to
deliberate in order to choose a name for the group and specified a role for each member. The next meeting would be on Tuesday of next week and I hoped that each group would succeed in such small task. I crossed my fingers hopping that they would have the time to do that. Two minutes left and students should be ready for the next class; there was no recess between classes. I asked them to turn back the class in rows; there was little noise this time. Immediately, the bell rang and I walked out after I thanked the students and reminded them that our meeting tomorrow would be in the computer lab. In my way out, I met a young man in mid twenties who greeted me and presented himself as a math teacher for 8/2.

Journal # 2

Today was Tuesday and it was 7:00 AM when the school morning gathering began. Since I was the teacher of the first period, I stood next to my class to maintain quietness. That was a school’s rule and I had to follow it. The morning gathering took ten minutes and then all students walked to their classrooms. My attention was to take the class directly to the computer lab, but because most students did not bring their materials with them; we first walked to the class and then we headed the computer lab. Moving back and forth to the computer lab consumed portion of the class’s time. While students were entering the lab, I asked them to set wherever they wanted. All computers were off. “We suppose to sit in groups, don’t we?” X said. I replied, “Yes, we will do that, but after you finish filling out the survey”. I distributed the twenty-item computer attitudinal survey and I encouraged students to honestly write their responses.

While students engaged in filling out the survey, I took out my notebook and wrote some words describing the lab. It was “6$^M \times 9^M$” hall with three windows in its northern side. The lab contained 22 Gateway Pentium III PCs with 14” monitors, which were distributed into horseshoe shape. In the middle there was a rectangular “1.5$^M \times 2.5^M$” wooden table. Only 17 machines worked properly. Gateways machines were more recent with Pentium III processors and speeds of 600. All machines had both floppy diskette and CD-ROM drives. Most computers operated by Windows 98 and included Office 2000. In the front, the teacher had his own computer hocked to 1220c hp ink-jet printer. Students
were sitting on wooden round chairs. The lab had no networking connections or presentation systems.

After finishing those words of description, I engaged in organizing the handouts of today’s meeting. I prepared a list of regulations of using computer lab to maintain both students’ and equipments’ safety. Also, I sketched steps of launching the software “Islamic Civilization Encyclopedia”. I already installed the software in 8 machines with the assistance of the computer teacher Mr. Z. He was very cooperative and many adjustments had been made to his schedule in order to free the computer lab for my study. It was very important to build a good relation with him. While I was busy in reviewing the handouts, I heard many calls from students who told me that they were done with the survey. I stood and I requested those who finished to raise their hands; most of them did and a few didn’t. After a quick look to my watch, I realized that ten minutes passed since I handed out the survey. I waited few more minutes to let those who did not finish completing the questionnaire, and then a volunteer student started to collect questionnaires and enveloped them. After that I asked the class to break into small groups. Student enthusiastically called upon each other to form the groups. After few minutes of moving around, each student found his way to his group. There were 3 groups on my right, 1 was facing me and 3 groups on my left hand…..