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Integrating technology into the middle school social studies curriculum

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INTEGRATING TECHNOLOGY INTO THE MIDDLE SCHOOL SOCIAL STUDIES CURRICULUM

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ABSTRACT

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The purpose of this study was to evaluate the effect of integrating technology into the social studies curriculum on the delivery of instructional services to middle school students. The use of integrating technology for the middle school means providing teachers and staff with the opportunity to innovatively and creatively interact in the learning process and enhance learning opportunities for students as they strive to attain the New Jersey Core Curriculum Content Standards in Social Studies. Training had been provided by the representative from the textbook publisher on how to use the supplemental curriculum materials as well as the building technology coordinator on basic computer usage. This study focused on the entire student body as well as all the social studies teachers, including special education, which consisted of approximately 1,000 seventh and eighth grade students enrolled at the Helen A. Fort Middle School in Pemberton Township, New Jersey. The impact of implementing technology into the social studies curriculum was beneficial for everyone involved. The results of this study indicate that still more technology training needs to take place for this school's teaching staff until everyone feels comfortable and confident with their technological knowledge.

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Chapter One

Introduction

For the past four years, the social studies curriculum has been the textbook issued to the students the first week of school. Typically, the seventh grade teachers would teach all the material in the first half of the textbook and the eighth grade teachers would teach all the material in the second half of the textbook. In other words, if the material was not contained in the half of the book the teacher was required to teach, then the teacher did not teach the material, regardless of the content or immediacy of the material. The building principal, also the social studies department chair, decided that the school's current curriculum desperately needed revision. Using his previous experience as a middle school social studies teacher, the building principal believed that the textbook should be used as a curriculum resource, not as the source of information in the curriculum. One way of supplementing and enriching the learning environment for the students is to integrate technology into the curriculum, which in turn, could positively impact student motivation and enthusiasm for a subject that very rarely uses technology in its current form.

Focus of the Study

The focus of the study was to evaluate the effectiveness of technology integration into the social studies curriculum at the Helen A. Fort Middle School in Pemberton Township.

The study also examined the effect of integrating technology on student academic achievement as well as staff instructional practices.

Purpose of the Study

The purpose of this study was to evaluate the effect of integrating technology into the social studies curriculum on the delivery of instructional services to middle school students. Integrating technology into the curriculum means providing teachers and staff with the opportunity to innovatively and creatively interact in the learning process and enhance learning opportunities for students as they strive to attain the New Jersey Core Curriculum Content Standards in Social Studies.

The publisher of the textbook has supplemental materials available for both teachers and students to present the material in an interactive format. For example, with the purchase of an on-line subscription for each student and social studies teacher, the subscriber can access a verbal download of each chapter on the individual student's reading level. This feature would be a tremendous advantage for the special education students as well as their teachers so that the student can "read" the material individually at their own pace and on their own reading level. Not only will this feature make interacting with the text less frustrating for the student, the student will also have access to this same on-line information at home, without the large textbook leaving the student's locker.

The computer equipment required for the students and teachers to access this material is currently in place and the department teachers have received appropriate training on utilizing this equipment and related supplemental materials. Training has been provided

by the representative from the publisher on how to use the supplemental curriculum materials as well as the building technology coordinator on basic computer usage.

Definitions

administrator and faculty academic degrees- the percentage of administrators and faculty, including classroom teachers and educational support services personnel, in the school possessing a Bachelor's, Master's or Doctoral degree

District Factor Group (DFG)- an indicator of the socioeconomic status of citizens in each district that has been useful for the comparative reporting of test results from New Jersey's statewide testing programs. The measure was first developed in 1974 using demographic variables from the 1970 United States Census. A revision was made in 1984 to take into account new data from the 1980 United States Census. The DFG designations were updated again in 1992 using demographic variables from the 1990 United States Census which include occupational status of adult household members, district population density, median family income, percent of those in the work force who receive some unemployment compensation, and percent of residents below the poverty level.

Elementary School Proficiency Assessment (ESPA)- the New Jersey state test for fourth grade students that measures what students know and can do in language arts literacy (reading and writing), mathematics and science. It is designed to give an early indication of the progress students are making in mastering the knowledge and skills described in the Core Curriculum Content Standards for these content areas. The results are to be used by schools and districts to identify strengths and weaknesses in

their educational programs. It is anticipated that this process will lead to improved instruction and better alignment with the Core Curriculum Content Standards in kindergarten through grade four. The results may also be used, along with other indicators of student progress, to identify those students who may need instructional support in any of the three content areas. This support, which could be in the form of individual or programmatic intervention, would be a means to address any identified knowledge or skill gaps. Students' scores are in one of three categories: advanced proficient, proficient, and partially proficient.

Advanced Proficient- test scores in this range signify that the student has exceeded state standards for the tested content area

Proficient- test scores in this range signify that the student has met the state standards for the tested content area

Partially Proficient- test scores in this range signify that the student has not met the minimum state standards for the tested content area and may be most in need of instructional support, which could be in the form of individual or programmatic intervention

Grade Eight Proficiency Assessment (GEPA)- the New Jersey state test for eighth grade students that measures what students know and can do in language arts literacy (reading and writing), mathematics, and science. It is to be used as a primary indicator for identifying those students who may need instructional intervention in the three content areas. It is designed to give an indication of the progress students are making in mastering the skills they will need to pass the High School Proficiency

Assessment. Students' scores are in one of three categories: advanced proficient, proficient, and partially proficient.

High School Proficiency Assessment (HSPA)- the New Jersey state test for eleventh grade students is designed to give educators information about eleventh grade achievement in the areas required by the New Jersey Core Curriculum Content Standards. The test currently includes the content areas of language arts literacy and mathematics. Passing all sections of this test is a requirement for receiving a high school diploma. Students' scores are in one of three categories: advanced proficient, proficient, and partially proficient.

Limitations of the Study

The limitations for this study were that the intern and building principal needed to determine how available funding will be used to purchase various technology components for successful integration. The intention is to purchase the best materials available to service the greater number of students. Only the social studies teachers, including special education social studies teachers, at the middle school will participate. Approximately 1,000 students in seventh and eighth grade and thirty teachers will be affected by the study and its results.

Setting of the Study

Pemberton Township is a rural/suburban community located in the north/central part of Burlington County, approximately 25 miles south of Trenton. According to the United States Census Bureau's 2000 statistics, nearly 29,000 residents live in the municipality

that spans almost 63 square miles. The world-famous Deborah Heart and Lung Center is located in Browns Mills, a development within the community. Pemberton Township borders both the Fort Dix Army Base and the McGuire Air Force Base. Almost one third of the community's workforce is employed by the government with the vast majority of those employed by one of the aforementioned military installations. The next largest class of employment is educational, health, and social services accounting for nearly 25% of the community's industry (United States Census Bureau http://factfinder.census.gov).

Relatively speaking, Pemberton Township is a fairly young community, as approximately 3,500 residents are 62 years of age or older. The largest age group is 35-44 years of age which represents nearly 18% of the municipality's population. Based upon gender, the community is nearly divided evenly with 51% of the community residents being female while 49% are male. Two thirds of Pemberton Township's residents are Caucasian and 23% are classified as Black or African American. The next largest racial group in the community is Hispanic or Latino (8.6%), of which the majority is classified as Puerto Rican.

According to the United States Census Bureau's 2000 statistics, 68% or almost 15,000 of the township's residents were over 16 years of age and employed. Nearly 32% were classified as "not in labor force" and less than four percent were unemployed. 54% of the families in the community earned at least $50,000 in 1999 with 29% of those earning between $50,000 and $74,999. 13% percent of the families earned less than $25,000 in 1999 (United States Census Bureau http://factfinder.census.gov).

According to the United States Census Bureau 2000 statistics, education is a priority for the residents of Pemberton Township. Of the 18,000 residents over 25 years of age,

80% are high school graduates or the equivalent thereof. Of the 20% without a high school diploma, 15.5% had completed ninth to twelfth grade, and 4.5% had less than a ninth grade education. Approximately 8,100 township residents are at least three years of age and enrolled in school, with nearly half (48.9%) of them in grades one through eight. 25% of school-age children are enrolled in high school and 16% are enrolled in college or graduate school. The remaining 9.4% are enrolled in nursery school, preschool, or kindergarten.

Over half of the township's residents (53%) 15 years of age and over were married in 2000 while 28% reported that they had never been married. Nearly 19% of the township's residents reported their marital status as separated, widowed or divorced.

Most of Pemberton Township's residents were born as United States citizens as nearly 89% were born in the United States and 4.4% were born in United States territories. 52% of the community's residents were born in New Jersey. Seven percent were born outside the United States and its territories. Of the residents who were foreign born, nearly 38% were born in Europe, 40% were born in Asia, and 20% were born in Latin America. Of the township's approximately 27,000 residents five years of age and over, 85.5% list English as the only language spoken at home.

A variety of educational opportunities and programs are offered in the Pemberton Township School District for students from preschool through 12th grade. According to information submitted to the New Jersey Department of Education for the 2001-2002 school report cards, over 5,800 students are enrolled in the district's nine elementary schools, one middle school, and one high school (New Jersey School Report Card (http://nj.evalsoft.com/njPDF/menu1/result_display4632.asp). Students from neighboring

Pemberton Borough attend Pemberton Township's schools for 7th through 12th grades. A comprehensive program in special education for preschool through 12th grade is also available in addition to the numerous educational opportunities. Advanced Placement courses in Social Studies, Physics, Chemistry, English Literature, Psychology, Calculus, Computer Science and Biology are offered at the high school level as well as an established and widely recognized JROTC program (New Jersey School Report Card (http://nj.evalsoft.com/njPDF/menu1/result_display4632.asp).

100% of the administrators and faculty members in the district possess at least a Bachelor of Arts or Bachelor of Science degree. In addition to possessing a Bachelor of Arts or Bachelor of Science degree, 24% possess a Master of Arts or Master of Science degree while one percent possesses a doctorate degree. Three schools in the district, Alexander Denbo Elementary School, Helen A. Fort Middle School, and Pemberton Township High School, all have at least one staff member who possesses a doctorate degree.

The Pemberton Township Board of Education has approved and supported an educational program that provides an array of activities that have positively affected students. The program's accomplishments include the following: "offering a full-day in-district preschool program for 4-year-olds and a full-day program for 3-year-olds held in local day-care/preschool facilities; implementing a before and after school child care program for preschool through sixth grade, as well as a breakfast program open to all students in the district; supporting a professional development program for all staff to enhance teaching techniques and student learning; implementing a technology plan that has placed computers and courseware in all classrooms throughout the district; and the

district has incorporated the Comer project in all elementary schools and Coalition of Essential Schools at the middle school and high school" (New Jersey School Report Card http://nj.evalsoft.com/njPDF/menu1/result_display4632.asp).

Reading, language arts, mathematics, science, and social studies with additional areas of physical education, art and music are the focus of the curricula in grades pre-first through eight. Middle school students have the opportunity to select programs in technology, environmental science, Spanish, woodshop, life skills, art, vocal and instrumental music. The middle school also offers alternative educational opportunities for at-risk students. The high school offers a certified Adult Education program and an alternative program for at-risk students (New Jersey School Report Card http://njevalsoft.com/njPDF/menu1/result_display4632.asp).

Table 1.1

Statewide Assessment Results 2001-2002 By Exam And Subject

	District Average	District Factor Group	State Average
	ESPA Language Arts		
Advanced Proficient	0.7%	3.2%	6.0%
Proficient	63.6%	72.0%	73.1%
Partially Proficient	35.7%	24.9%	20.9%
	ESPA Mathematics		
Advanced Proficient	11.4%	20.3%	27.2%
Proficient	35.6%	42.7%	41.3%
Partially Proficient	52.9%	37.0%	31.5%

	GEPA Language Arts		
Advanced Proficient	3.5%	4.8%	8.3%
Proficient	57.6%	64.2%	64.9%
Partially Proficient	39.0%	31.0%	26.8%
	GEPA Mathematics		
Advanced Proficient	4.7%	9.2%	16.0%
Proficient	32.6%	39.9%	42.2%
Partially Proficient	62.8%	50.9%	41.8%
	GEPA Science		
Advanced Proficient	7.7%	13.9%	18.9%
Proficient	63.5%	60.2%	56.0%
Partially Proficient	28.8%	25.9%	25.1%
	HSPA Language Arts		
Advanced Proficient	6.4%	9.0%	14.8%
Proficient	63.9%	70.7%	66.3%
Partially Proficient	29.7%	20.3%	18.9%
	HSPA Mathematics		
Advanced Proficient	6.2%	9.8%	19.1%
Proficient	42.2%	53.5%	49.5%
Partially Proficient	51.6%	36.7%	31.4%
	HSPA Overall Proficiency		
All sections at or above proficient	46.1%	60.1%	65.8%

This past year, the district began the process of designing a strategic plan. A mission statement, vision and core values were established and a Strategic Planning Team has provided guidance and direction for development of action plans. Next year, it is anticipated that specific objectives will be met and the district will use the plan to focus

on strengths while continuing to improve. After evaluating the district's state-mandated test results, Pemberton Township certainly has room for improvement (see Table 1.1).

The Helen A. Fort Middle School in Pemberton Township is the only school in the district servicing seventh and eighth graders. The school was established in the fall of 1990 by combining the staffs and students of two of the district's elementary schools in the building which had been the ninth and tenth grade high school. The middle school was named after a longtime teacher in the school system now deceased.

Students attending the Helen A. Fort Middle School have been promoted from the Marcus W. Newcomb Elementary School, which services some of the fifth graders and all of the sixth graders in the district. Located directly across the street from the middle school, Newcomb School sends its students to the middle school upon completing sixth grade. The school holds an orientation day on the first day of school specifically for the incoming seventh graders. Eighth graders begin their school year the following day.

Since Pemberton Township is classified as an Abbott district and involved in the New Jersey Whole School Reform Initiative, the Helen A. Fort Middle School follows the Coalition of Essential Schools (CES) whole school reform model. Over a specified period of time, all the stakeholders (parents, students, staff, and the community) are involved in designing programs and strategies to improve student achievement levels. The program's ultimate goal is to provide all the participants with opportunities for involvement in meaningful educational experiences for children and adults. Ten common principles drive The Coalition of Essential Schools: "intellectual rigor; less is more; schools providing for diversity in learning; personalized teaching and learning; student as worker—teacher as coach; mastery through exhibitions; tone of decency adopted by all stakeholders;

commitment to entire school; resources used appropriately; and democracy, equity, diversity—honored daily" (Helen A. Fort Middle School Teacher's Handbook 2002).

The Helen A. Fort Middle School offers a comprehensive curriculum that includes academics, electives, intramural and extracurricular clubs and sports. The academic, social and emotional needs of students are met through the school's House organization system. The school is composed of seven different learning communities called Houses. Each learning community consists of approximately 140 students taught by six different teachers who teach the core academic classes (math, social studies, science, physical education, and two teachers for language arts). This system allows teachers to become more familiar with individual student needs and interests to better prepare them academically, socially and emotionally for the challenges of young adulthood and high school. According to the school's website, "the House concept establishes an organizational transition between the 'little or no movement' self-contained elementary classroom school and the 'freedom-filled', ever-changing life in High School." The two assistant principals in the building handle a majority of the issues that the Houses confront on a daily basis. One assistant principal handles issues (including discipline) affecting the seventh grade Houses and the other assistant principal handles issues (including discipline) affecting the eighth grade Houses. Each assistant principal meets with members of each House on a weekly basis to plan and discuss student progress. Also included in these meetings are the designated school guidance personnel, learning specialists, and skills teachers. These additional staff members participate in these meetings to offer their situational knowledge so that the students' needs can be incorporated into the daily instructional strategies and routines.

Along with two of the elementary schools in the district, Joseph S. Stackhouse and Samuel T. Busansky, both kindergarten to fourth grade schools, the Helen A. Fort Middle School received a failing grade from the government in regards to the school's efforts to comply with the federally mandated No Child Left Behind Act. For two consecutive years, the school has failed to achieve adequate yearly progress for academic excellence. According to the 2001-2002 New Jersey School Report Card, the middle school's state testing scores are well below the state's average with the exception of the science portion of the Grade Eight Proficiency Assessment (GEPA) in which more of the school's students scored in the Proficient range compared to the state average (63.5% for Helen A. Fort Middle School compared to 56.0% average statewide). As far as the rest of the results are concerned, see table 1.2.

Table 1.2

New Jersey Grade Eight Proficiency Assessment (GEPA) 2001-2002 Results By Subject

	Helen A. Fort Middle School	NJ State Average	% Difference
	Language Arts Literacy		
Advanced Proficient	3.5%	8.3%	-4.8%
Proficient	57.6%	64.9%	-7.3%
Partially Proficient	39.0%	26.8%	12.2%
	Mathematics		
Advanced Proficient	4.7%	16.0%	-11.3%
Proficient	32.6%	42.2%	-9.6%
Partially Proficient	62.8%	41.8%	21.0%
	Science		
Advanced Proficient	7.7%	18.9%	-11.2%
Proficient	63.5%	56.0%	7.5%
Partially Proficient	28.8%	25.1%	-3.7%

Significance of the Study

This study made a contribution to the enhancement of the current instructional techniques implemented by the instructional staff in the social studies department. Prior to this school year, the unwritten rule within the social studies department was that the textbook is the curriculum to be taught, not a supplemental resource to be integrated into the instructional process.

Organization of the Study

The remainder of this study is organized in the following way: Chapter Two Literature Review; Chapter Three Data Collection; Chapter Four Presentation of Research Findings; Chapter Five Conclusions, Implications, and Further Study.

Chapter Two

Review of the Literature

What is Technology and Technology Integration?

Technology is all around us. Everywhere one looks technology is present. From refrigerators, freezers and microwave ovens to televisions, telephones, videocassette recorders (VCRs), compact disc (CD) and digital video disc (DVD) players, technology is everywhere. Ortega and Ortega define technology as "a conscious process by which people alter their environment" (1995). All of these technological innovations have dramatically altered our environment over the years in attempts to improve current living conditions. Yet one could argue that the greatest advance in technology arrived with the invention of the computer and the impact its creation has had on society.

Depending upon one's perspective, technological innovations have advantages and disadvantages to individuals in society. Sometimes technology has developed at such a rapid pace, that we as members of society have difficulty in keeping up with the developments, let alone stay ahead of the learning curve. Snider agreed when she stated, "Try as we might, technology will not stand still long enough so it can be viewed and reviewed objectively" (2002). However, rapid improvements may not necessarily indicate positive changes. According to a poll conducted in 1995 by the Wall Street Journal and the National Broadcasting Company (NBC), 43% of Americans said that the country's social and economic problems stem from a decline in moral values (Bailey

1997). Of those who were polled, 75% said that traditional values have grown weaker (Bailey 1997). How does this information relate to technology? Gerald D. Bailey believes that the decline in moral values is directly affected by the speed at which everything changes because of technology (1997). Even though several of our traditional values can be extended to accommodate our ever-changing technology-rich surroundings, some elements of this new environment force us to reevaluate our values (Bailey 1997).

What effect does the weakening of traditional values have on integrating technology into America's classrooms? Bailey believes the effect is a significant one in that there is more to technology integration than simply "teaching students how to use technological tools; it should also involve discussions about the ethical dilemmas that arise when applying these tools" (1997). Yet introducing technology into classrooms opens a myriad of learning possibilities for both teachers and students. Technology, when used correctly, has the power to enhance instructional opportunities in a way that would have otherwise been impossible. "Using technology to enhance and enrich the existing curriculum basically means to increase the value or power of the classroom curriculum within the confines of existing school structures and schedules" (Dyrli and Kinnaman 1995). For example, the use of technology in the classroom allows a teacher to lead students on a virtual field trip where they can experience what it is like to climb up Mt. Everest, sail across the Atlantic Ocean and travel across the Sahara Desert, all without leaving the classroom. Or a classroom teacher can guide students on a virtual expedition, "a real-life journey that is captured and documented in images, sound, and text, with the results being transmitted primarily on the Internet" (Green 2001). Since the students are not able to experience the journey firsthand, the virtual expedition can provide them with the

opportunity to feel as if they themselves participated in the expedition (Green 2001). "Technology fosters and supports a constructivist approach to learning when used as a tool in the process of making meaning and supporting inquiry. Technology can facilitate the process of meaning making as well as the sharing of results" (Merkley, Schmidt, and Allen 2001). Effective technology utilization provides vital learning experiences for students to construct meaning in a way that could potentially make a lasting impression for all involved. Bober has defined technology as "systematic and systemic thinking about the application of knowledge, tools, and skills to solve practical problems, create new products that satisfy human needs, and enhance performance" (2002). It is this definition that best applies to education and the integration of technology into the classrooms of today and tomorrow.

Why Integrate Technology?

The need for advances and innovations in the field of education is no longer an option, but rather a necessity brought about in recent years by the speed at which our society as a whole now functions. This issue has become a more serious one, especially within the educational community, for a number of reasons. While the problems of technical support for teachers as well as financial support remain significant obstacles in the process of successful technology integration, the potential rewards of student achievement and learning successes can provide school administrators the added incentive necessary to complete this implementation process.

Technology has become a substantial component of our everyday lives. "As classroom access to communication and information technologies increases and vast amounts of

information become available in digital format, students will need to be literate across a variety of communication technologies" (Merkley, Schmidt and Allen 2001). Because technology has gained such a market share of society's attention and basic functionality, it is a necessity that students and teachers become aware of technology education both as a separate subject matter and as a supplemental instructional tool (Ortega and Ortega 1995). "Technology is here, has been here in some form or another for awhile and will stay. Integrating technology throughout all levels of social studies education is vital if we are interested in a transformative rather than a traditional approach to social studies" (White 2002). However, to simply insert technology in various places of convenience benefits neither the students nor the teachers. This trend has become quite prevalent, especially when the teacher has not fully developed their instructional style of which technology is a component. Changing the fundamental practices of teaching and learning are necessary in order to appropriately influence the inclusion of technology (Persichitte, Caffarella, and Ferguson-Pabst 2003). As a result, the educational rewards of curriculum integration will not be realized until the individuals influencing the classroom environment change (Persichitte, Caffarella, and Ferguson-Pabst 2003).

So how do school districts realize the benefits of technology? Early approaches, while energetic and aggressive in nature, were focused on the technology itself, rather than the use of technology to enhance educational experiences. While this approach has shown results, the majority of teachers and administrators have been unable to equate this approach to their own environment (Reilly 2002). This stems from the lack of interest in technological advances at an individual level that exists in most of the educational community. Their interest is directed more toward the improvements of the curriculum,

not the improvements to the equipment that could enhance the curriculum (Reilly 2002). The focus of school districts revolves around the use of technology "to increase the power of the classroom curriculum by providing opportunities which go beyond the limitations of existing school structures and schedules without serious disruption to them" (Dyrli and Kinnaman 1995). This requirement is satisfied through the use of technology with an ongoing commitment from teachers who understand that students need technology to be part of their daily educational routine since they have grown up in a highly technical world (Cooper and Bull 1997; Rudnesky 2003). Effective technology integration into the curriculum presents a problem for the teachers who find themselves either less knowledgeable in the use of said technology than the students, or using instructional methods they are coerced into supporting (Cooper and Bull 1997). Appropriate training and instructional standards for integrating technology can be invaluable to the district and its staff in improving the overall academic performance of the student body.

While the current needs of society require a technology-rich education, the effectiveness of technology is based upon the school district's ability to establish an effective curriculum complete with technical support for the instructor and widespread understanding of technology's importance. Staff members who often support technology find themselves searching for the specific relief technology will bring to a problem. Cooper and Bull state that "advocates of educational technology often look for educational problems that can be solved with a particular tool rather than beginning with the curriculum to determine which educational problems may need solving" (1997). Zorfass also noted similar issues when she wrote that some teachers who were becoming

dissatisfied with technology began relying solely on the technology to initiate improvements in teaching and learning instead of focusing on the curriculum itself (1993). This is not an effective method since research indicates that the integration of technology needs to be deeper and more granular in its substance instead of a band-aid approach (Cooper and Bull 1997). The primary exception to this rule and best example of technology's efficiency is the frequent improvement of academic results with at-risk groups and challenged students (Swain and Pearson 2002). While the integration of technology is constructive in this environment, it is not a basis for duplication of integration within the standard curriculum.

As a result, there is a definitive need for technology to be integrated into the school curriculum that has been brought about by the multimedia rich and technologically robust society in which these students. The political and financial constraints of a district may cause a significant limitation as to what forms of technology may be available (Bober 2002). However, these constraints do not forgive the district of its obvious responsibility to provide the materials and resources necessary to further enhance the potential academic achievements of its students.

Training Teachers on Technology Integration

"Everyone seems to agree information and communication technology is here to stay, changes education, and can be an incredibly powerful learning and teaching tool; consequently, teachers are expected to make the adjustments necessary to integrate technology within their respective programs" (Barnard 1997). There are many factors that contribute to the successful implementation of integrated technology across the

curriculum. Perhaps the most significant aspect is the teacher's comfort level with technology, more important than how the teacher uses it. "Teachers recognize that good technology-integrated lesson plans take a lot of work, just as well-planned traditional lesson plans. However, just as a good teacher is very comfortable with his or her content area, integrative technology usage requires comfort as well" (Nickell, Field and Roach 2000). If a teacher is uncomfortable with using technology, then the possibilities of that teacher integrating technology into instructional practices is minimal. One of the largest factors which influence computer integration in elementary schools is the extent of computer knowledge possessed by the teacher (McCannon and Crews 2000). According to McCannon and Crews, research indicates that "teachers with average to below average computer knowledge have considerably limited utilization of computers in instruction when compared to teachers with higher levels of computer skills" (2000).

Anxiety can have such a negative influence on teachers' use of technology, that once the anxiety is alleviated, the teachers' learning can begin, which in turn, means the students can benefit from the teacher's newly acquired knowledge. This anxiety, caused by limited computer knowledge, hinders attempts made by teachers to integrate technology into instructional practices (McCannon and Crews 2000). Fulford and Ho (2002) reason that "increased exposure to technology decreases fear and anxiety and, increases confidence, knowledge, and self-efficacy regarding technology." Examples of increased exposure include proper training on basic computer concepts and uses as well as hands-on training have been shown to reduce anxiety caused by technology integration (McCannon and Crews 2000).

For students to use technology appropriately and effectively, they must have teachers who are trained to steer them along the way. Teachers must take the initiative by including technology in the curriculum so it is a tool for students to use as they are learning. Students will need assistance in learning how to use data, developing thinking and problem-solving skills, as well as evaluating the wide variety of information available in cyberspace. Teachers must be the central component in planning and integrating technology in the classrooms as "it is essential that teachers be trained before they begin guiding their students through the exciting maze of technology available through the Internet, World Wide Web, E-mail, video conferencing and other services" (Tinson 1996). McCannon and Crews argue that a majority of technology training has often been inadequate or nonexistent for many elementary educators because the focus has habitually been on showing teachers how to use the technology but not how to successfully integrate it into instruction (2000). Cooper and Bull also agree with McCannon and Crews in that "much of today's educational technology training tends to focus on the mechanics of operating new machinery, with little about integrating technology into specific subjects" (1997).

How do teachers receive training to successfully integrate technology into daily instructional practices? One possibility is through training at nearby colleges and/or universities, especially for pre-service teachers preparing to enter the profession. Several universities, and school systems alike, have focused on increasing the availability of technology resources for students in addition to professional development opportunities for staff (Fulford and Ho 2002). Providing pre-service teachers with the extensive training necessary to integrate technology into their teaching practices and instructional

strategies is critical to the whole process. If these future teachers are technologically literate, they will be better prepared to guide their students through the numerous technological opportunities that will be available to them. The technology habits of practicing teachers who serve as role models and field mentors to education students during their practicum and student teaching experiences are also critical to successful technology integration in the future (Fulford and Ho 2002). It is during these situations that the pre-service teachers experience how technology can be realistically integrated into the K-12 environment, as opposed to the theoretical applications they have learned in college. "Studies have found that technologies modeled at least once a week by their supervising teachers became technologies pre-service teachers were comfortable using" (Fulford and Ho 2002). If these future teachers are to be expected to use technology in their classrooms, then they need to have a continuum of technology use and role models throughout their college experience and into their field experiences (Fulford and Ho 2002).

Even though the emphasis is on successfully integrating technology into students' learning experiences, one needs to remember "that no machine can ever replace the one-on-one interaction between a teacher and a student. Technology is a tool, and is only as effective as the person using it (Tinson 1996). One way to open the door to unlimited learning opportunities is through the use of telecommunications, cyberspace and computers (Tinson 1996). If teachers are properly trained to use the technology available to them, it has the potential to be an incredibly powerful learning instrument. Rudnesky believes that thorough planning and training gives teachers the comfort level necessary to apply newly acquired skills and tools and appreciate all the benefits technology

integration has to offer (2003). "Unlike the chalkboard, overhead projector, and videocassette recorder, computer technology as a tool takes continual learning; otherwise, the computer ends up being an expensive typewriter or pencil" (Rudnesky 2003). Integrating technology into daily instructional routines is no different than learning to ride a bicycle; it takes time, practice and patience, as well as the financial and technical resources necessary for successful implementation. "The use of computer technology requires both commitment and flexibility as traditional lesson and time constraints often have to be looked at in a different manner if technology is to be more effective" (Diem 1999). Perhaps Dyrli and Kinnaman said it best: "Teachers must be willing to invest the time and energy required to become as familiar with technology-based resources as they are with paper, pencils, and textbooks" (1995).

How to Integrate Technology

Successfully integrating technology into the curriculum may require teachers to change their teaching style as "using technology in any form implies a 'hands-on' experiential teaching approach" (Diem 1999). While the utilization of technology does not provide only one "right" way of finding information, "since allowing students to collect and use information implies that there may be no one 'correct' response to a question. The expected 'answers' may not surface as students formulate their own rationales and perspectives gathered from a variety of sources" (Diem 1999). By allowing students to be creative in their quest for knowledge, not only may their answers vary but so may the locations in which the information can be found. Diem states that in order for the use of computer technology to be effective, it must be participatory in nature (1999).

"Students must learn not only how to gather data, but how to use, interpret, and judge its validity. To repeat a 'new saw', not all information on the Internet is accurate" (Diem 1999).

One approach to integrating technology into classroom instruction involves teaching students the fundamentals of productivity tools in separate computer courses (Wales 1995). This method "assures an equitable background in computer use while integration evolves. Time is also conserved when students know how to use an application well enough to focus on content-area learning goals before integrated use begins, and teachers are more apt to use a powerful software package if students are familiar with it" (Wales 1995). In other words, if the classroom teacher only has to be concerned with teaching the content area concepts and not basic computer functionality, the teacher is more willing to integrate technology into instruction.

In "Paving In-Roads for Technology Integration—a Classroom Example", Carolyn Wales offers an eight-step algorithm for technology integration (1995). The eight steps include targeting a content-area subject and choose an adventuresome teacher as well as the need to find one or two simple software tools that serve the needs of that teacher (Wales 1995). The next step Wales suggests is to plan a unit with the end goal of integrating a productivity tool, one that supports computer literacy followed by training students in computer classes to use the productivity tool and additional resources (Wales 1995). Once the students have been trained in using the necessary resources, the computer teacher should invite the teacher to observe a computer class in which an example of simulated integration is in progress (Wales 1995). Wales believes that it is critical for the successful integration of technology to occur that time in computer class

be devoted to the development of the content area's project so that the potential exists for similar projects to be attempted in the future (1995). The last steps in the algorithm are to "facilitate a later project for full integration in the content area and become the facilitator/coach" for future projects (Wales 1995).

Another model to use as a guide for successful technology integration into classroom instruction is a critical constructivist one which consists of four steps: modeling and applying; reflecting; involving student activity; and developing a community of learners (White 2002). Technology should be the focus in the modeling and applying phase, "as students must be able to express their natural inquisitive nature, instead of being passive recipients of facts" (White 2002). The reflecting aspect should be promoting and developing the students' critical thinking and problem-solving abilities. "Every activity and assignment should have a reflection component, with shared activities and projects that encourage critique and further reflection" (White 2002). The third phase, involving student activity, is a necessary component in this model. "Projects for a class in which the students are responsible for constructing their own learning can illustrate the priority of active learning" (White 2002). After the students have the opportunity to discuss and reflect upon their work, "the class chooses the projects to complete, sets priorities for the projects, and may add projects of their own design" (White 2002). The final phase of the model, developing a community of learners, should be the social studies teacher's ultimate goal. "The use of modeling and the application of discussion and reflection involve students actively in acquiring knowledge, and with that, the social studies instructor lays the foundation for a classroom comprising a community of learners" (White 2002).

Integrating technology successfully into the curriculum requires cooperation between the teacher and the student involved (Diem 1999). "As students begin to deconstruct information and data acquired through the thousands of information sources now available to them, teachers may have to readjust their own views and interpretations of events" (Diem 1999).

Supporting Technology Integration

In order for technology to be integrated into the curriculum successfully, the system needs to be supported with financial and technical resources. Components of successfully integrated programs include technology coordinators, the technicians who maintain and repair the equipment, as well as any other people who provide assistance to those who use technology (Bailey 1997). Integrating technology requires a team effort and no one individual can assume all the responsibilities involved. Dyrli and Kinnaman believe that "administrators must provide teachers with a professional climate that encourages and enables them to innovate, invent, reflect, and develop" to make technology integration a success (1995). Administrators and faculty leaders need to develop and maintain a curiosity-driven environment rather than one in which faculty members feel obligated to utilize the available technology (Cooper and Bull 1997). Parents, supervisors, other colleagues, even students, need to support teachers integrating technology, as a "nurturing work environment that encourages risk-taking, recognition, and rewards is vitally important" to the success of the integration and implementation efforts (Bailey 1997). Barnard also supports this belief as the establishment of support networks allows for a higher level of effectiveness and durability for technology integration within the

schools to flourish (1997). By making help available to technology users when they either have questions or need some sort of assistance is a critical element for successful technology integration into the curriculum. "Participants can have a high degree of motivation about technology, but if no one is around to answer or assist them when they actually begin using technology, their motivation can plummet after one or two small misadventures" (Bailey 1997).

Support of technology integration can also come from within the faculty members and staff members themselves. Nearly every school has staff members who are technology trendsetters, willing to take risks that years into the future become standard operating procedures among the staff. Cooper and Bull advise administrators to take care of these people because they "need to be given the state-of-the-art equipment and software to explore their uses and applications, with the expectation that they will share what they learn with other faculty members" (1997).

There are several methods in which administrators can support and encourage faculty to integrate technology into instructional practices. These methods include, but are not limited to, "providing equipment to faculty members, providing summer grants to develop ways of using technology in teaching, as well as providing travel funds to attend workshops and conferences that focus on technology use in teacher education" (Cooper and Bull 1997). These motivational methods are only examples of how school administrators can provide a nurturing environment to allow staff members to take a chance by trying something new.

School communities are not the only source of support for technology integration into the school curriculum. Often overlooked, teacher education programs at colleges and

universities have the opportunity to make significant contributions to technology integration programs in K-12 schools. Schools want to hire teachers who are technologically proficient and have enough knowledge and experience to integrate technology into everyday instructional practices. "The university and school-based environments must reinforce one another by modeling effective technology use, and by supporting both teachers and teacher education students who wish to incorporate appropriate use of technology into classroom practice" (Cooper and Bull 1997). Teacher education programs and schools in which prospective teachers perform observations and practicum experiences have a symbiotic relationship; the schools will need to hire teachers to fill vacancies in the future and the colleges and universities need schools in which to place future teachers for observations, practicum and student teaching experiences. However, prospective teachers are not receiving adequate technology training in their college programs and enter the classroom without sufficient knowledge and experience to integrate technology into instructional practices. Cooper and Bull indicated that many teacher education programs lag behind the technology found in K-12 schools (1997). "The problem is compounded by the lack of systematic planning for technology funding at universities in general, and by low priority for such funding that teacher education programs often experience within the university at large" (Cooper and Bull 1997). "In fact, there are few linkages between actions in support of K-12 schools and support of the higher education programs that prepare teachers to use technology (Cooper and Bull 1997). Unfortunately, the "funding for technological equipment for public K-12 schools is significantly better than those for teacher education programs. In order to prepare teachers who can adequately function in high-tech teaching

environments, the teacher education programs have to be creative with their limited technology capacities and have to work closely with the public schools to address this hardware insufficiency" (Xu, Dunn and Lee 2000). Both schools in which pre-service teachers are placed and institutions of higher education need to collaborate with each other. "There must be simultaneous efforts to infuse technology in the schools where the prospective teachers observe and have practicum experiences. Schools of education must invest time and money to assist schools in their technological efforts so both can learn from the experiences" (Cooper and Bull 1997).

Results of Technology Integration

Research indicates that the results achieved by integrating technology into the everyday curriculum are numerous. Successful technology integration has positive effects on learning opportunities for both students and teachers. "Willis reported on three studies conducted in middle and high schools with findings suggesting that students who use technology in the social studies 'demonstrate...better communication and language skills, and...discussions that involved higher order thinking'" (Nickell, Field and Roach 2000). The accessibility of technology to students and their ability to use technology effectively, specifically computers, can enhance student standardized test scores as well as their overall learning environment (Swain and Pearson 2002). Other research studies cited by Swain and Pearson (2002) indicate that students who use computers demonstrate stronger higher-order thinking skills and problem-solving techniques than those who did not. James, Lamb, and Householder point to recent research which shows "that purposeful use of computers in classroom instruction can indeed enhance student outcomes" (2000).

Integrating technology into curriculum content areas is believed to be necessary for assisting students in creating meaning and developing situated knowledge as well as a broader understanding of conceptual information. By helping students make connections across the curriculum, technology integration has been recognized as an important learning outcome, especially for middle school students (James, Lamb, and Householder 2000).

Technology integration not only benefits student achievement, but can also have a significant effect on teachers and their instructional strategies. Zorfass says that what made technology use most successful was when teachers brought technology into curriculum contexts in which students were actively engaged in learning, where they were pursuing authentic tasks in which they were invested, and where students were guided and coached through the learning process by teachers who facilitated the learning (1993). "Within the context of a strong curriculum, technology use had the potential of enhancing active teaching and learning" (Zorfass 1993).

Chapter 3

Design of the Study

Research Design

The intern wanted to learn about the effect that integrating technology into the social studies curriculum would have on the seventh and eighth grade students and teachers at the Helen A. Fort Middle School in Pemberton Township who are directly involved in the process. Integrating technology into the social studies curriculum would enhance the students' knowledge and application of social studies skills as they relate to the New Jersey Core Curriculum Content Standards and the New Jersey Workplace Readiness Standards. The purpose of this study was to evaluate the effect of integrating technology into the social studies curriculum on the delivery of instructional services to middle school students. Through this process, teachers and staff would have the opportunity to innovatively and creatively interact in the learning process and enhance learning opportunities for students.

Development and Design of Research Instruments

In creating the student survey, the intent was to determine how technology is currently used in their classes and if the use of technology influences their interest and motivation in such classes. For example, if a science teacher uses technology regularly for instructional purposes, is the student more likely to be interested in science because

technology is being used, or does the student's interest exist regardless of the technology used for instruction. In creating the teacher survey, the intent was to determine if teachers are comfortable with using technology for instructional purposes and to what extent do they use it to perform their teaching and non-teaching tasks.

Sampling and Sampling Techniques

As part of the required curriculum, all seventh and eighth grade students are mandated to take a social studies class for the entire school year. Therefore, all students enrolled in the school were requested to participate in completing the intern's Institution Review Board-approved survey, as the results of the intern's research project will directly impact these students. The reason for requesting that all certified teaching staff complete the survey instead of only the social studies department teachers was twofold: to prevent the social studies teachers from feeling "singled-out" by having to do some additional paperwork; and also to possibly influence a "trickle-down" approach of integrating technology into other core curriculum subject areas. Many of the social studies teachers, primarily special education teachers, are responsible for teaching more than one subject area in the course of the day. Perhaps integrating technology into the social studies curriculum could pave the way for these teachers to also integrate technology into some of the other content areas that they teach.

Data Collection Approach

The intern distributed surveys to all homeroom teachers within the building and requested that the homeroom teachers disseminate the surveys to the students. At the time

the surveys were distributed, there were approximately 950 registered students in the middle school. As requested by the building principal, a permission slip was attached to the survey which needed to be signed by the student's parent/guardian to grant permission for the student to participate in the surveying process. The intern requested that teachers submit the completed surveys to the office on a daily basis as the students submit them to the teachers. To provide proper motivation for students to participate in completing the ten-question survey and returning the completed survey in a timely manner, the intern offered to buy snacks in the school's cafeteria for the first homeroom in each grade level to have 100% of the class's surveys completed and returned.

The intern requested that all teaching staff members in the building participate in completing a survey as well. At the time the surveys were distributed, there were 95 certified teaching staff members in the building. The survey consisted of 16 questions and should take no more than five minutes to complete. The intern requested that the completed teacher surveys be submitted to the office with the students' surveys.

Data Analysis Plan

The intern analyzed data on an ongoing basis throughout the study so as to make modifications when situations warranted them. This study was action-research based in which the data told the story of any modifications that needed to be made in the future. The intern requested that all teacher and student survey instruments be distributed, completed and collected within a one-week time frame prior to the beginning of the school's winter break. The intern then coded the survey results using Microsoft Excel software and presented the research findings upon compiling the results. The intern

examined the relationship between the answers to specific survey questions on both the teacher and the student surveys. In examining this relationship, the intern compared and contrasted related questions and corresponding responses on the teacher survey to the student survey.

Chapter Four

Presentation of Research Findings

Introduction

The intern distributed 95 surveys to all the teachers in the building. An additional two surveys were distributed to the building principal and assistant principal for informational purposes. Of the 95 surveys distributed, 38 were returned, which was the equivalent of 40%. At the time the student surveys were distributed, there were 939 seventh and eighth grade students enrolled in the building. Of the 939 surveys distributed, 91 were returned, which was the equivalent of 9.7%. There were 471 surveys distributed to seventh graders, 63 were returned, which was the equivalent of 13.4%. There were 468 surveys distributed to eighth graders, 28 were returned, which was the equivalent of six percent.

The Impact of the Study

The impact of implementing technology into the social studies curriculum was beneficial for both the students and instructional staff members. 81% of the teacher survey respondents felt their students were more responsive to instruction when they used technology. That figure corresponds with 89.8% of the student survey respondents who stated that they felt they performed better in classes when teachers used technology to teach and 90.8% of the student survey respondents who stated that they enjoyed classes more when teachers used technology to teach (see Tables 4.1-4.3).

Table 4.1

Teacher Survey Respondents Who Feel Students Are More Responsive To Instruction When They Use Technology

	Respondents Per Answer	% of Total Respondents
Strongly Agree	4	10.5%
Agree	22	57.9%
Disagree	8	21.1%
Strongly Disagree	2	5.3%
Other	1	2.6%

Table 4.2

Student Survey Respondents Who Feel They Do Better In Classes Where Teachers Use Technology To Teach

	Respondents Per Answer	% of Total Respondents
Strongly Agree	19	21.3%
Agree	61	68.5%
Disagree	9	10.1%
Strongly Disagree	0	0.0%

Table 4.3

Student Survey Respondents Who Feel They Enjoy Classes More When Teachers Use Technology To Teach

	Respondents Per Answer	% of Total Respondents
Strongly Agree	20	22.5%
Agree	59	66.3%
Disagree	7	7.9%
Strongly Disagree	1	1.1%

Nearly all or 97.2% teacher survey respondents stated that they had access to computers at work and most or 92.1% had a computer at home that they used for non-teaching tasks. The accessibility of computers in the work environment indicates that the school district is committed to making technology available to teaching staff members across curriculum content areas. The only exception was physical education as a survey respondent indicated that the physical education teachers move from one classroom to another to teach health classes and they do not have computers to utilize in the gym offices. Since most teacher survey respondents stated that they have a computer at home that they use for non-teaching tasks, this usage is indicative of most staff members having some level of computer knowledge that may range from computerized banking to various card games like solitaire. The benefit to this knowledge is that the teachers are less likely to be afraid of technology and may be more willing to experiment or learn how to implement it into their daily instructional practices. As a result, teacher survey respondents stated they were comfortable using technology with their students and were also comfortable using technology for teaching tasks (see Tables 4.4 and 4.5).

Table 4.4
Teacher Survey Respondents Who Are Comfortable Using Technology With Their Students

	Respondents Per Answer	% of Total Respondents
Strongly Agree	13	34.2%
Agree	18	47.4%
Disagree	4	10.5%
Strongly Disagree	2	5.3%
Other	1	2.6%

Table 4.5

Teacher Survey Respondents Who Are Comfortable Using Technology For Teaching Tasks

	Respondents Per Answer	% of Total Respondents
Strongly Agree	11	28.9%
Agree	17	44.7%
Disagree	7	18.4%
Strongly Disagree	3	7.9%
Other	0	0.0%

Despite the fact that the majority of the teacher survey respondents stated that they were comfortable using computers for both teaching and non-teaching tasks, one half of the teacher survey respondents (50%) stated they did not use e-mail at all to communicate with parents who had the capability while the other 50% did use e-mail to communicate with parents at varying rates (Table 4.6). In addition to these statistics, 57.9% of the teacher survey respondents stated that they did not use e-mail to communicate with staff members even though every staff member had their own e-mail account, while the remaining 42.1% did use e-mail to communicate with staff members at varying rates (Table 4.7). Even though teaching staff members who responded to the survey indicated that they were comfortable with using a computer for non-teaching tasks, they may still have a higher comfort level with staff members by interacting with them in person as opposed to using electronic means.

Table 4.6

Teacher Survey Respondents Who Use E-Mail To Communicate With Parents Who Have The Capability

	Respondents Per Answer	% of Total Respondents
Not At All	22	57.9%
At Least Once A Week	11	28.9%
Once or Twice Per Marking Period	3	7.9%
At least Once A Month	2	5.3%

Table 4.7

Teacher Survey Respondents Who Use E-Mail To Communicate With Other Staff Members

	Respondents Per Answer	% of Total Respondents
Not At All	22	57.9%
At Least Once A Week	11	28.9%
Once or Twice Per Marking Period	3	7.9%
At least Once A Month	2	5.3%

Chapter 5

Conclusions, Implications, and Further Study

Conclusions

In evaluating the effectiveness of this study, a few areas of concern need to be addressed. First of all, the social studies department chairperson decided at the conclusion of last school year that the entire curriculum desperately needed revision. These revisions were made to the curriculum before the current school year began. However, these changes were not clarified until two weeks prior to the first day of school. When the department teachers arrived at school the day before school began, they were faced with this new curriculum, much of which was quite different than the previous edition. As a result, there was very little preparation time allotted for teaching staff to make such dramatic curriculum adjustments to their instructional practices. All of the teachers in the department did not receive the new curriculum until a staff in-service held the day before students began the school year. There was no trial period or pilot program time allotted. The district administration approved the curriculum revision, financially provided for the teachers' time and materials to complete the curriculum during a four-day workshop in late August and did not want to see the time and money wasted; therefore, the decision was made for this curriculum to go into effect immediately. Teachers who reported to the back-to-school in-service were in for quite a surprise when they discovered that the material they had planned to teach all summer was no longer what they would be teaching this school year.

The social studies department chairperson believed that one way of supplementing and enriching the learning environment for the students was to integrate technology into the curriculum, which in turn, could positively impact student motivation and enthusiasm for a subject that very rarely used technology in its current form. The intern believes it would be unfair to evaluate the success of this study solely on this current school year as teachers have not had sufficient time and experience to not only experiment with the new curriculum, but to also integrate technology into a curriculum they themselves may not have reached a comfort level with yet.

The results of this study indicate that still more technology training needs to take place for this school's teaching staff until everyone not only feels comfortable using technology with their students, but also feels confident with their technological knowledge. There were still a number of survey respondents who were either uncomfortable using technology with their students or were uncomfortable using technology for teaching tasks. As described in Chapter Two of this thesis, a technology user's comfort level has a direct correlation to the extent to which a computer user will utilize a computer and its various applications. With sufficient training and guided practice, the entire teaching staff will become increasingly more comfortable with technology's role in the classroom.

Implications of Study on Leadership Skills

The implications of the study on the intern's leadership development were few but nevertheless significant. The intern has learned that if change needs to be implemented, it is best to prepare the teaching staff in advance by advising them that they will need to make modifications to their instructional practices for these changes to be implemented

successfully. The intern has also learned the importance of gaining staff support for initiatives that are proposed and put into effect as they are usually the ones responsible for making the initiatives happen in the first place. Also professional development based upon staff input would be a potential solution for similar situations.

Implications of Study on Organizational Change

The organization has changed as a result of the study. Teachers are becoming more comfortable with their knowledge and use of technology in the classroom not only for instructional purposes but also for non-teaching tasks. However, the teachers in the department were still adjusting to the revised social studies curriculum and have not yet determined how to consistently and appropriately integrate technology effectively. Not only were the teachers responsible for integrating technology into the curriculum, they were also responsible for learning a new curriculum altogether. Prior to this study, the student textbook was the social studies curriculum for the school. In other words, if specific material didn't appear in the textbook, then the teachers didn't teach it. In developing this new curriculum, the social studies department chairperson wanted to give the teachers some new-found flexibility and freedom in the material they taught their students and at the same time, provide guidance as to what should be taught and when it should be taught.

Further Study

There is a need for further study. To determine the effectiveness of technology integration into the social studies curriculum, teachers in the department should have the

opportunity to experiment with numerous aspects of the curriculum and various instructional strategies that would best benefit the students receiving instruction. Since this is the first school year in which the use of technology is being strongly encouraged and the teachers have received some training on how to implement it into instructional practices, the social studies department staff members will need additional time to hone and perfect the skills of their craft. In addition to implementing technology into the curriculum this year, the teachers also had to adapt to an entirely new curriculum that was implemented this year. To evaluate the effectiveness of integrating technology into the curriculum in the curriculum's first year of implementation without providing the teachers with sufficient preparation time for this new curriculum is premature. The intern needs to identify effective practices and curriculum changes in order to determine this program's effectiveness. At the conclusion of this process, the intern recommends evaluating this program at the close of the 2004-2005 school year after which teachers have had one full school year to be exposed to the revised curriculum and one additional year in which to experiment with the revisions after receiving them.

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Appendix A

Student Survey

December 15, 2003

Dear Students, Parents and/or Guardians,

My name is Mrs. Stewart and I am a graduate student at Rowan University as an educational administration major. I am learning to be a school principal and I have been working with Mr. Kidney and Ms. Kelly since the beginning of this school year. In order for me to complete my course requirements, I need to write a research paper and I need your help. The topic of my research paper is to determine how technology is used in this school's social studies classes. You can help me by completing the attached survey and returning it to your homeroom teacher.

Your responses to this survey are completely anonymous and voluntary, meaning that no one will know if you completed a survey or how you answered the questions on the survey. You will neither be punished if you refuse to complete the survey, nor will you be rewarded for your cooperation. ***You are not required to complete this survey***, but the information that I get from your answers on this survey could affect potential learning opportunities for you in the future.

Please sign your name below to give me permission to use your survey in my research paper and return this paper to your homeroom teacher no later than **Tuesday, December 23, 2003**. The first homeroom in each grade level to complete this survey and turn it in to their homeroom teacher will receive a free ice cream treat of their choice in the cafeteria during your lunch periods. Additional copies of this survey will be available on the table outside the cafeteria during lunch periods.

Thank you very much for your anticipated cooperation with this survey.

Sincerely,

Mrs. Dawn Stewart
Administrative Intern

Student's Name (please print):_____

Student Signature:_____

Parent/Guardian Signature:_____

HR:_____

_____Please put a check mark on this line if you do not wish for your child to participate.

Student Survey on Technology

DO NOT PUT YOUR NAME ANYWHERE ON THIS SURVEY

Please circle the letter of your response to each question. The term "technology" refers to any computer based activity including computer labs, multimedia events and slide shows. Technology does not refer to traditional media such as videos, filmstrips or overheads.

1. Do you have a computer at home that you use for completing school assignments (such as book reports, projects or homework)?

   A. Yes
   B. No

2. I feel I do better in classes where teachers use technology to teach.

   A. Strongly agree
   B. Agree
   C. Disagree
   D. Strongly disagree

3. Are you more likely to complete your homework if you can use a computer?

   A. Yes
   B. No

4. Do you have a computer at home that you use for educational programs (such as test prep, tutoring programs or advanced subjects)?

   A. Yes
   B. No

5. Please rank the subjects below from 1 to 6, using 1 as your most favorite:

   A. Mathematics _____
   B. Science _____
   C. Social Studies _____
   D. Language Arts _____
   E. Phys. Ed. / Health _____
   F. Cycle Classes _____

6. Please check each subject area in which you have used technology in previous years.

   A. Mathematics _____
   B. Science _____
   C. Social Studies _____
   D. Language Arts _____
   E. Phys. Ed. / Health _____
   F. Cycle Classes _____

7. I enjoy classes more when teachers use technology to teach.

   A. Strongly agree
   B. Agree
   C. Disagree
   D. Strongly disagree

8. My gender:

   A. Male
   B. Female

9. My grade:

   A. 7th
   B. 8th

Appendix B

Teacher Survey

December 15, 2003

Dear Teachers,

My name is Dawn Stewart and I am a graduate student at Rowan University as an educational administration major. I have been working on various projects with Mr. Kidney and Ms. Kelly since the beginning of this school year. In order for me to complete my course requirements, I need to conduct a research study for my thesis and I would appreciate your help. My thesis topic is to determine to what extent technology is integrated into the curriculum and its effects on student achievement.

I realize that this is an incredibly busy time of year and you already have more than enough to do with what little time you have. I would greatly appreciate it if you would be willing to take five minutes to complete this survey for me. Most of you will probably have it completed in much less time than you think.

Your responses to this survey are completely anonymous and voluntary, meaning that no one will know if you completed a survey or how you answered the questions on the survey. ***You are not required to complete this survey***, but the information that I gather from your answers on this survey could affect potential teaching and learning opportunities for you and your students in the future.

I am requesting that all surveys be turned in to Mrs. Marilyn Martin in room 42 no later than **Tuesday, December 23, 2003**. All students will be given the opportunity to complete similar surveys. The first homeroom in each grade level to complete this survey and turn it in to their homeroom teacher will receive a free ice cream treat of their choice in the cafeteria during your lunch periods. Additional copies of this survey will be available on the table outside the cafeteria during lunch periods.

Thank you very much for your anticipated cooperation with this survey. I wish all of you a happy and joyous holiday season.

Sincerely,

Mrs. Dawn Stewart
Administrative Intern

P.S. **All homeroom teachers:** Please collect your homeroom students' surveys on a daily basis and send them to room 42 with your attendance. I will be keeping track of the collected surveys on a daily basis so as to determine which classes have turned theirs in first. Please do not hold onto completed surveys until all of them have been turned in!

Teacher Survey on Technology

DO NOT PUT YOUR NAME ANYPLACE ON THIS SURVEY

Please circle the letter of your response to each question. The term "technology" refers to any computer based activity including computer labs, multimedia events and slide shows. Technology does not refer to traditional media such as videos, filmstrips or overheads.

1. I use technology with my students:

    A. At least once a day
    B. At least once a week
    C. Several times per marking period
    D. Not at all
    E. Other: _____

2. I am comfortable using technology with my students.

    A. Strongly agree
    B. Agree
    C. Disagree
    D. Strongly disagree
    E. Other: _____

3. I use technology for teaching tasks (for example: lesson plans, grading, creating documents, etc.):

    A. At least once a day
    B. At least once a week
    C. Several times per marking period
    D. Not at all
    E. Other: _____

4. I am comfortable using technology for teaching tasks.

    A. Strongly agree
    B. Agree
    C. Disagree
    D. Strongly disagree
    E. Other: _____

5. I believe there is sufficient opportunity to use technology in the current curriculum.

   A. Strongly agree
   B. Agree
   C. Disagree
   D. Strongly disagree
   E. Other: _____

6. I feel my students are more responsive to instruction when I use technology.

   A. Strongly agree
   B. Agree
   C. Disagree
   D. Strongly disagree
   E. Other: _____

7. I would prefer technology be integrated into the curriculum through:

   A. Structured predefined lesson plans
   B. Independent creative applications
   C. Support materials
   D. Internet site usage
   E. Other: _____

8. I use e-mail to communicate with parents (who have the capability):

   A. At least once a week
   B. At least once a month
   C. Once or twice per marking period
   D. Not at all

9. I use e-mail to communicate with staff members:

   A. At least once a week
   B. At least once a month
   C. Once or twice per marking period
   D. Not at all

10. I have access to computers at work.

   A. Yes
   B. No

11. I have a computer at home that I use for non-teaching tasks.

C. Yes
D. No

12. I feel the current technology in the school building is

A. Very current
B. Reasonably current
C. Requires minor upgrades to software, equipment or both
D. Requires major upgrades to software or equipment
E. Requires major upgrades to software and equipment
F. Other: _____

13. My gender:

A. Male
B. Female

14. My age:

A. Under 25
B. 25 - 34
C. 35 - 44
D. 45 or older

15. I have been teaching:

A. Less than 5 years
B. 5 – 10 years
C. 11 – 15 years
D. More than 15 years

16. I currently teach:

A. English/Literature
B. Science
C. Social Studies
D. Math
E. Physical Education/Health
F. Other:_____