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Using Technology to Enhance Student-Based Learning in the Social Studies Classroom

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Using Technology to Enhance Student-Based Learning in the Social Studies Classroom

Ryan Bayne

EDCI 590 Individual Research

April 30, 2009

A handwritten signature in black ink, appearing to read 'T. Coffman', is written over a horizontal line. The signature is fluid and cursive.

Signature of Project Advisor

Teresa Coffman
Associate Professor of Education

Table of Contents

INTRODUCTION	.....3
LITERATURE REVIEW	.....4
<i>Goals and Attitudes Related to Technology Use</i>	.....5
<i>Supporting Student-Centered Teaching and Learning</i>	.....6
<i>Strategies for Preparing Pre-service Social Studies Teachers to Integrate Technology</i>	.....7
<i>Research on the Use of Computer Technologies</i>	.....8
<i>Comparing Instructional Strategies</i>	.....10
<i>Guidelines for Using Technology</i>	.....12
<i>Consistency Among the Research</i>	.....13
METHODOLOGY	.....14
<i>Pretest, Matching Section</i>	.....18
<i>Pretest, Multiple Choice Section</i>	.....18
ANALYSIS OF RESULTS	.....19
<i>Pretest Analysis, Matching Section</i>	.....19
<i>Pretest Analysis, Multiple Choice Section</i>	.....21
<i>Post Test Analysis, Matching Section</i>	.....23
<i>Post Test Analysis, Multiple Choice Section</i>	.....24
<i>Discussion of Results</i>	.....25
CONCLUSIONS AND RECOMMENDATIONS	.....28
<i>Conclusions</i>	.....28
<i>Future Research</i>	.....30
Table 1	.....34
Table 2	.....35
Table 3	.....36
Table 4	.....37
Appendix A	.....38
Appendix B	.....40
Appendix C	.....43
Appendix D	.....46
Appendix E	.....49
Appendix F	.....51
Appendix G	.....52
Appendix H	.....54
Appendix I	.....55
References	.....57

INTRODUCTION

In the past two decades, the amount of technology in schools has risen dramatically. While technology was once used mainly for drill-and-practice activities, it can now be used to create a learning environment that extends well beyond the boundaries of the school. Technology provides an incredible number of resources and classrooms are no longer limited to what is in the library. A teacher can explain to students a new topic, find primary sources on it, and show videos, all within a class period. A student can communicate with other students, not only within the school, but across states as well, in order to establish multiple perspectives on key topics. In addition to this, it is also believed that “student involvement in learning is enhanced with computers” (Budin, 1991, p. 18). Despite all of the benefits of technology, however, teachers often find that they lack the proper knowledge on how to implement it most effectively. Beaudin and Grigg (2001) note that, “a person's self-efficacy towards a task will influence the decision to take on that task, the amount of effort used on the task, and the persistence in accomplishing that task” (¶ 5). Certainly, it is important for a teacher to be comfortable while instructing, but proper training for technology use is often neglected. This often leads to teachers implementing technology only in a way that is not beneficial.

An example of this would be to display notes through a data projector rather than an overhead projector with no added 'extras', such as video or sound. To use technology to its fullest potential, one must become well-versed and trained in such a way. Strickland (2005) states that, “simply put, teachers often lack the time to integrate technology effectively” (p. 141). When that time is taken, however, it can lead to an increase in learning opportunities for the students and create real-world activities that may not otherwise be possible. Additionally, the use of technology in schools often motivates students. In one middle school class that was being

studied, 24 of the 27 students stated that they use a computer regularly and are comfortable with learning new concepts in such a way. Of the three that stated they do not use a computer as much, all three mentioned that they look forward to using school computers to learn new ideas. Students in today's society are almost always exposed to a greater amount of technology than in the past. For this reason, their comfort zone is often greater than one who has not used it as much. For many students, adding technology to a student-based lesson adds to their motivation and has positive benefits.

The purpose of this research was to compare results of student achievement when using technology to student achievement without technology, both in a constructivist learning environment. Two sixth-grade U.S. History classes were compared. The one using technology (first period), the experimental group, had access to videos, audio, Internet, and graphic files, and created a multimedia presentation. The class without technology (fourth period), the control group, had visual resources in print, and made a final product without the use of technology. Some made a magazine; others made a collage, or a story. Results between the two groups were very similar. While both groups showed nearly the same improvement on both sections of the post test, the experimental group scored slightly lower on the multiple choice section, which involved a higher level of application. A discussion as to why this may have happened is referred to in this paper.

LITERATURE REVIEW

As the amount of technology in schools increases, questions regarding its effectiveness and implementation of it will rise as well. Certainly, technology brings with it a whole series of issues—ethics, privacy, training, equity, for example—but almost none of which have not been

researched since technology's arrival in the classrooms. Nevertheless, in comparing research, certain common themes do arrive.

In Budin's (1991) article, *Technology and the Teacher's Role*, he states that technology should be used as a tool to enhance learning. The teacher will always play a part in the classroom. Of course, much has changed since this article was written, and technological advances have been significant. Nevertheless, as most research continues to state, teachers do play an important part in technology integrated classrooms. In these environments, however, it is often beneficial to create a shift from teacher-centered learning to student-centered learning, in which the students work to develop solutions for higher-level problems. The following research focuses on not only teacher training to plan for such activities, but the effectiveness of them as well, from the viewpoints of teachers, students, and the administration.

Goals and Attitudes Related to Technology Use

In 2001, a study by Bennett and Scholes, "Goals and Attitudes Related to Technology Use in a Social Studies Method Course", looked at the impact of technology in society and how our schools were changing as a result of it. In this, they considered not only the attitudes of students in regards to technology in education, but also the attitudes of teachers. Teacher preparation for technology in education is essential in the implementation of it. Today, most prospective teachers go through programs in which technology is a part. "The pendulum is moving from only offering separate technology courses to infusing technology into pedagogy courses in professional education programs" (Bennett & Scholes, p. 374). However, for experienced teachers who have not yet been properly trained on implementing technology into the classroom, it can often be an intimidating experience. Likewise, for students who are not often exposed to certain elements of technology, they may have a difficult time adjusting to such lessons.

Bennett and Scholes (2001) looked at the overall attitude of 42 students (prospective teachers) in an undergraduate class (Social Studies in the Elementary Classroom) during the 1997 school year. During this class, students took a pre- and post test regarding their attitudes towards technology in the classroom. It was found that as the course went on, the overall student attitudes improved significantly. This was not surprising—as students became more exposed to the benefits of technology, they became more comfortable with it. However, for those who are not properly trained, they often face the same fears that these students mentioned in their pretests: “not personal,” “not reliable,” and “scary” (Bennett & Scholes, p. 378). Proper training and support is extremely important in the development of technology infusion within the classroom. Bennett and Scholes note that “There are multiple ways to infuse the technology, but the instructor is key to matching the specific technologies within the objectives for the lesson.” (p. 381). Being familiar with the variety of software available within a school system is essential. As teachers become more familiar, technology will become even more beneficial.

Supporting Student-Centered Teaching and Learning

The challenges faced by teachers in the 21st century, according to Cunningham (2003), is far greater than it has been in the past. With statewide and national accountability, teachers must not only be responsible for the growth of their students, but their own growth as well. As technology grows and can be used as a tool in the classroom, teachers are expected to be able to use it in order to create an even more effective learning environment. For many teachers, this is a long term process and it does require a system of support. According to Cunningham, “An institutional commitment to technology that ensures long-term support, and a departmental commitment that ensures meaningful technology integration into all phases of teacher preparation” is needed (§ 3).

At Wake Forest University, the institution in which Cunningham's (2003) research had taken place, prospective teachers were introduced to the possible gains that could be made in education through the use of technology. Each student had been given a laptop with network connectivity throughout the campus, as well as "more technology-enhanced classrooms, and a system for technology support" (§ 4). Students and faculty members were encouraged to use online mediums such as *Blackboard* in order to communicate information to one another, and training tools and materials were made readily available. While the exposure to technology may have seemed like a lot for the students, an earlier Cunningham (2001) study noted that "The hope is to permanently affect the instructional design strategies of future teachers so that technology is considered as an integral tool to enrich student learning and enhance quality teaching" (p. 18).

As students graduated from Wake Forest University with their education degrees, the program had helped them to develop a greater understanding of not only how technology can be used in the classroom to create more student-centered instruction, but also to "appropriately communicate with the educational community, and to model ethical behavior and professionalism" (Cunningham, 2003, § 22). Creating a technology proponent that would be required as part of the curriculum was a key element in preparing the students for the new challenges of the 21st century.

Strategies for Preparing Preservice Social Studies Teachers to Integrate Technology

Just as Cunningham (2003) supported the technology enrichment in the education program at Wake Forest University to help students develop a certain comfort level, Brush and Saye (2009) state that, "Ineffective or inadequate use of technology by K-12 teachers may be directly related to the preparation provided to preservice teachers at teacher education institutions" (§ 3). Many teachers, unfortunately, were not required by their collegiate

institutions to fulfill such requirements as those put upon the Wake Forest graduates. The goal of the research by Brush and Saye was to use “a number of strategies to help [teachers] understand and apply models and practices for integrating technology into their future classrooms—thus, strengthening the link between technology, pedagogy, and content” (¶ 3). While Brush and Saye find that computers are often used for lower-level skills, they believe that if teachers gain proper exposure and training for these tools, they can be used in a more beneficial way. The goal of this research was to explore various models of technology integration and the barriers that go with them. In this, it was noted:

Many researchers and teacher educators believe that the best opportunity for preservice teachers to strengthen technological pedagogical content knowledge (TPCK) and, thus, practice effective strategies for integrating technology into their teaching occurs through authentic classroom experiences, such as field-based practicum activities, teaching internships, and student teaching. These types of experiences, when implemented effectively, provide some of the best opportunities for beginning teachers to see how different classroom variables (e.g., resources available in classrooms, class size, and student demographics) can have an impact on teaching methods and strategies (Brush & Saye, 2009, ¶ 12).

With the different methods of modeling technology integration, however, come a number of barriers, which are discussed in this research. One of the major barriers is being able to find optimal field experiences that provide the same technology that would be accessible within the schools. Another barrier is that many veteran teachers find themselves already occupied by other professional responsibilities and do not wish to take on additional training. While these problems (and others) do exist, Brush and Saye (2009) look to continue to work on finding solutions in future research.

Research on the Use of Computer Technologies

Research that looks at how technology can be used effectively was also completed by Gibson and McKay (2001) in their article, “How Research on the Use of Computer Technologies

Can Inform the Work of Social Studies Educators”. In this article, the authors asserted that the use of computers as a tool in the classroom can help students to develop real world skills. Gibson and McKay note, “There is a new society emerging as a result of the ongoing information revolution” (¶ 16). In order to prepare students for the everyday world outside of school, today's youth should be exposed to technology and information literacy. Gibson and McKay went on to state, “All educators are encouraged to continue to think of ways to take best advantage of these tools in order to maximize the benefits for their students and to best prepare them for survival in the information society” (¶ 1).

Gibson and McKay (2001) looked at ways in which technology can best be used in order to promote critical thinking in the learning environment. Many teachers have used computers in order to employ methods of drill-and-practice. However, research has shown that the benefits of technology in these types of activities are very limited. “Studies show that using computers to automate instruction through...drill and practice...has little to no significant difference on learning” (Gibson & McKay, ¶ 4). Instead, Gibson and McKay argue that the most effective use of technology is through student-centered learning. In this type of environment, the teacher acts as a facilitator rather than instructor. The students become more actively involved in the learning process, making it more personal for them. In this sense, computers can become a tool of almost unlimited resources, creating access to charts, multimedia, and primary sources that would otherwise be restricted to whatever is within the boundaries of the school walls.

Problem based learning, as it is known, focuses on an overall question or problem that students must solve. One example of this type of lesson that is gaining in popularity are *WebQuests*. A *WebQuest* is an interactive, computer-generated lesson that creates a higher-level task for students to solve (Gibson & McKay, 2001). Although there are thousands of WebQuests

available, on almost any subject in the curriculum, they almost all follow the same format: introduction, task, resources, process, evaluation, and conclusion. They are designed to promote higher-level thinking and problem solving. In these activities, students are very actively involved in the learning process and must generate their own solutions to the problem presented.

Besides problem based learning, Gibson and McKay (2001) also looked at computers as a tool for research. In this, they note that such technology provides for a range of multimedia otherwise inaccessible by textbooks alone. Additionally, computer software and valuable Internet resources are often updated regularly, whereas textbooks and many other resources within the school are rarely changed at all. There are certainly limitations to using the Internet as a resource; one must know how to find the correct information, and just as important, students must know how to critique websites in order to evaluate the validity of the information. Too often, students often view what they read through the Internet as being true, when that is not always the case. Students should be able to find information and evaluate it as a skill. When used correctly though, computers are an extremely valuable tool for research. Gibson and McKay note that students not only benefit because of the software programs such as ‘Inspiration’ that help to organize ideas, but also because they are often more motivated when using the computer.

Comparing Instructional Strategies

WebQuests, mentioned by Gibson and McKay (2001) as one of many tools that can be integrated into a technology-based lesson, was the main focus on the research of Strickland (2005) in her article, “Using WebQuests to Teach Content: Comparing Instructional Strategies”. In this research, Strickland compared the end-of-unit exam scores between a seventh-grade history class that participated in a WebQuest to a similar class that instead participated in a

poster-making, constructivist activity. In this research, the two activities were used to close a unit, reviewing what was learned rather than to teach new concepts. In the end, the poster-making class scored the higher average. In her research, Strickland looks at possible reasons why this may have occurred.

In Strickland's (2005) research, students of the two classes were given a pretest. The results of this pretest showed very similar results—the two groups were separated only by 0.19 points (45.61 to 45.42). For the first two weeks of the unit, both classes took part in the same traditional learning activities. Following this time period, one class was instructed to work individually to create a poster project, entitled "Roadmap to Freedom". The other class worked in groups and used a WebQuest in order to create a news broadcast on the Texas Revolution.

Following these activities, students took the end of unit test. In this, the experimental group (using the WebQuest) averaged a 78.59, while the control group (which made the poster) averaged an 85.75; 7.16 points higher than the previous group. In analyzing the data, Strickland (2005) looked at scores for the posters compared to the WebQuest activity. In this, she found that the posters required more analyzing than did the WebQuest, which focused more on recalling facts. Strickland notes that "The WebQuest was designed to make the topic more interesting and inviting; however, the experimental group never seemed very interested in the assignment" (p. 145). However, with the poster activity, students had to "synthesize the information they gained into one graphic illustration" (p. 145). Strickland goes on to note that the majority of the student population had Internet access at home, and that for those who do have it, they may not have been as motivated to use it at school as those without. In the end, Strickland stated that because WebQuests were relatively new, there was not a whole lot of research readily available on them.

However, when used correctly and evaluated for higher levels of thinking, WebQuests can be a very valuable tool in the learning environment. Strickland (2005) states that “the best way to prepare students for success on state mandated tests is to focus learning on the state curriculum through exciting and meaningful instruction. WebQuests do just that” (p. 145). While WebQuests are one of many tools that can be used into the classroom for higher level learning, it is essential that teachers understand how to implement such technology effectively.

Guidelines for Using Technology

In research by Mason, Berson, Diem, Hicks, Lee, and Dralle (2000), five principles were evaluated as guidelines for technology integration in the school environment. Of these five, the first is to “extend learning beyond what could be done without technology” (p. 107). This theme is certainly the most relevant to this research, and it is consistent among the other researchers as well. Technology provides several resources that would otherwise not be available. In a history classroom, for example, videos and actual speeches can be used in order to help students learn the material. Being able to do research online allows students to explore ideas and texts beyond the limits of the school walls. The remaining themes of the research were to:

- Introduce technology in context.
- Include opportunities for students to study relationships among science, technology, and society.
- Foster the development of skills, knowledge, and participation as good citizens in a democratic society.
- Contribute to the research and evaluation of social studies and technology (p. 107).

In this research, Mason, et. al. (2000), believe that “if technology is truly to impact both

pedagogical competence, as well as increase knowledge in the social studies...the instructor...must be the continual focus of these beliefs” (p. 114). In order to use technology effectively, teachers must be properly trained. As the research notes in its second point (Introducing technology in context), technology should never be used simply for the sake of using it. It should be used, instead, when it helps to create a better lesson. An example of this would be using PowerPoint to display visuals, or even audio, of primary sources in order to help students achieve a better understanding of a topic. A constant and consistent training program is extremely valuable in helping teachers to move towards a more technologically-integrated classroom. As Mason, et. al, point out, however, technology often gets outdated quickly, and in training, there must be room for flexibility and development.

Consistency Among the Research

In Strickland's (2005) article, WebQuests are used in order to allow students to go beyond the scope of the curriculum in creating a new multimedia presentation. Gibson and McKay (2001) continually mention the benefits of technology as a resource, due to the vast number of sources that it offers. While Mason, et al. (2000), do caution about ‘using technology for technology's sake’, they see unlimited potential for it as a learning tool. In one example from their research, students used digital archives in order to gain a better knowledge of key Civil War battles, including a transcription of an 1863 newspaper article and reenactment clips of famous battle scenes. In this case, technology provided resources that would otherwise not have been available inside of the classroom. Despite the benefits that come with technology, however, many teachers are hesitant to use technology in the classroom. This is often due to the fear of something going wrong, or because they have not been properly trained on it. However, Bennett and Scholes (2001) assert that as teachers become more familiar with technology, they

experience greater comfort and are more likely to incorporate it into their classrooms.

With the increasing role of technology in the classroom, research continues to be written regarding its effectiveness. However, certain themes within the research can already be seen. For one, computers can provide an almost unlimited number of resources well outside of the borders of the traditional classroom. It can create instant communication not only between students of different schools in a city, but also throughout the world. The higher-level activities made possible by technology, combined with the additional motivation that many students show when using it, can work to create a very effective learning environment inside of the classroom.

METHODOLOGY

Research has shown that constructivist teaching—teaching in a way that is student-centered as opposed to teacher-centered—helps to not only keep students engaged, but to create an environment in which they are to think critically.

A classroom where the teacher has adopted a constructivist approach to learning expects performance and persistence from the learners. The students are expected and encouraged to generate their own ideas and knowledge by execution, exertion, and expansion of the known (Cey, 2001, ¶ 16).

Technology in the classroom can be used as a tool to create this type of learning environment, in which students work to achieve a greater understanding of the topic through their own observations. The usage of computers in the classroom environment can be a very positive change and create a new type of student/teacher relationship (Gibson & McKay, 2001). “Technology opens the door to learning social studies skills and content in ways impossible in the traditional classroom” (Mason, et al., 2000, p. 107). For a variety of reasons, teachers are often hesitant to incorporate these technologies into their own classrooms.

Thus, the goal of this research was twofold. First, research was done to determine if a

sixth grade history class exhibited higher performance in learning and understanding in a student-centered instructional environment that incorporated technology versus a similar environment that did not use technology. Secondly, the effectiveness of technology in a constructivist classroom to create increased levels of understanding and student involvement on topics in the sixth grade history class was explored. The focus of this research was based on a middle-school, social studies classroom and it was aligned with the Virginia standards of learning.

Students in today's world are often accustomed to and comfortable with technology. However, it is not uncommon for it to go unused or used in an ineffective way in the classroom. According to Bennett and Scholes (2001), "Technology content and skills are incorporated into education programs, but typically, technology content is taught as a separate course" (p. 373). "It is believed that student involvement is enhanced with computers" (Budin, 1991, p. 18). In research by Beaudin and Grigg (2001), they state, "Although teachers may need to have some experience with a software program, they do not necessarily need moderate to high levels of computer self-efficacy to implement that technology into their teaching" (p. 2). Other studies that looked at the implementation of student-centered technology projects in an elementary school classroom included one completed by Hofer and Swan (2006) that examined ways to create a constructivist learning environment that aligned with the Kentucky standards of learning.

To fulfill the first goal for this research project, a mini-unit was designed and implemented into a sixth grade history classroom. These lessons were entirely student-centered and technology based for one classroom section, and student-centered but without technology use for the second classroom section. The unit consisted of lessons from "People of the 1920s".

The unit was five days in length and included a pretest and post test. Effectiveness of the unit was based on post test scores as they related to the pretest scores. Additionally, student involvement towards the lessons was factored into the overall effectiveness of the units.

Research questions that this project explored included:

1. *How well does a sixth grade history class perform in a student-based learning environment that uses technology versus a similar environment without technology?*
2. *How can technology be used to create a higher level of understanding and student involvement on topics in the sixth grade history classroom using a constructivist approach to learning?*
3. *How does motivation impact student engagement?*

The main part of this research was to design and implement the actual student lessons. These lessons were used in a sixth grade U.S. history classroom. The unit included video, audio, primary sources, a wiki, and a discussion board for the first period classroom that utilized the technology components. In order to effectively create technology based lessons, text references were reviewed. These included Schrum and Solomon's (2007) *Web 2.0. New Schools, New Tools*; LeBaron and Collier's (2001) *Technology in its Place: Successful Technology Infusion in Schools*; Wiske, Franz, and Breit's (2005) *Teaching for Understanding with Technology*; and Lohr's (2008) *Creating Graphics for Learning and Performance*. For the fourth period classroom that did not use technology, they were given pictures, posters, readings, and primary source documents to examine. Following the unit, post test assessments were analyzed. Unit Plan Overviews are provided in Appendix A for both class periods – period 1 that had technology integrated and period 4 that did not.

The lesson for each day was similar in the two classes, in that they both covered the same

material. The lessons differed, however, in the actual activities that were implemented in order to ensure student learning. Each class began with a pretest. In the introductory lesson (Day 1), the first period class was shown a brief five minute video to introduce the students to figures of the 1920s. Next, they worked in groups in order to answer preview questions on the unit. Rather than watch the video, the fourth period class looked through a class set of “Roaring Twenties” magazines in order to become more knowledgeable on the topic. See Appendix B for a Lesson Plan Overview of Lesson 1, Day 1.

The lesson for the second and third days (Lesson 2) of the unit allowed students in first period to use computers to research and watch brief videos on each of the important people they were to study from the decade. In this lesson, fourth period completed the same task but with library resources rather than computer access. See Appendix C for a Lesson Plan Overview of Lesson 2, Days 2 and 3.

On the fourth day of the unit (Lesson 3), students worked in small groups on their unit projects. In first period, they were given the option of creating a PowerPoint, a photostory, or a newspaper on the 1920s. In fourth period, students were allowed to create a magazine, a collage, or write a story on what life was like in the 1920s. See Appendix D for a Lesson Plan Overview of Lesson 3, Day 4.

Assessments were conducted during the fifth and sixth days and both classes ended with presentations and a post test activity. See Appendix E for the Assessments, completed in Days 5 and 6.

The overall effectiveness of each unit was based off of the pre- and post test data. Results of post test scores were compared to pretest scores with each of the sixth grade history classes and the data was analyzed in order to see the impact of technology integration in a constructivist,

student-centered classroom.

Pretest, Matching Section

To begin the unit concerning 'People of the 1920s' and the 'Harlem Renaissance', students were given a two part pretest. Each part began with ten questions. The first pretest (See Appendix F) was in matching format. In this, students had to determine the significance of ten different people during the 1920s time period. The ten people were:

- Duke Ellington
- Bessie Smith
- John Steinbeck
- Georgia O'Keeffe
- Langston Hughes
- George Gershwin
- Charles Lindbergh
- Jacob Lawrence
- F. Scott Fitzgerald, and
- Amelia Earhart

On this pretest, they were given eleven choices—one for each person, and an extra so that if they missed one, they would not automatically miss a second one. Students were informed before the pretest that it would not be for a grade and that many of the names they would see would be new to them. They were told that it was to find out what knowledge they may already have, as well as to see how much they learned throughout the unit.

Pretest, Multiple Choice Section

The second half of the pretest assessment was a ten question, multiple choice test (See

Appendix G). Students were given this assessment after they completed the matching section. The reason for this is because the multiple choice section contains clues that would be helpful in determining the correct answers in the matching portion.

ANALYSIS OF RESULTS

The results of this study compare student achievement when using technology (in class period one) versus student achievement without the use of technology (in class period four) in a sixth grade U.S. History class. A two part pretest was given to both groups, each consisting of ten questions. The first pretest was in matching format and the second was multiple choice. In both pretests, students had to determine the significance of people during the 1920s time period. Follow-up post tests were also distributed and the results from each for the two different groups are discussed below.

Pretest Analysis, Matching Section

Overall, the students in the first period class, the class that used technology, had a very difficult time with this assignment. This is not surprising. Almost all of the people they were quizzed on were new to them, so their background information was very limited (See Tables 1 and 2). The two people from the pretest that stood out the most—Amelia Earhart and Charles Lindbergh, would stand out the most in all of the history classes that completed this assignment. One reason for this is because they were record setting pilots—Lindbergh was the first man to fly solo across the Atlantic and Earhart was the first female to match the task. Additionally, Earhart's attempt to fly around the world in 1937 has been well documented and students often hear about this prior to the sixth grade.

Student number seven, whose 60% mark was the highest in the class, stated that “We

talked about Amelia Earhart in elementary school. We watched a video on people who have achieved incredible things and she was in the video. Charles Lindbergh and the Wright Brothers were too.”

It should be noted that Charles Lindbergh and Amelia Earhart were the two most famous pilots in America of the era, and both were considered national heroes for their accomplishments. The other eight choices—all of which are musicians, artists, and writers—were among many in their profession during the time. While their works are well known to many adult figures, their names are often new to students coming into the sixth grade.

“I didn't know any of them, I was just guessing,” said student twenty-three, whose score of a 30% was very near the class average. Another student, number twelve (50% score), stated that “I knew a couple. I tried using clues on the rest of them, like which name sounds like a musician, and which name sounds like an artist. It was hard but I was able to get a couple of them right.”

In fourth period (See Table 3), (the class that was not using technology), students had many of the same difficulties. However, for many students in this period, one thing remained consistent—Amelia Earhart and Charles Lindbergh were the most well-known of the ten people. Just like first period, fourth period had a difficult time with this assignment, and the major reason is their limited background information. While their previous history courses did cover a wide range of information, they had not yet learned about the decade of the 1920s, and the people that lived during that time period.

The group that both periods had the most difficult time with was the writers (John Steinbeck, F. Scott Fitzgerald, and Langston Hughes). While first period averaged a 20.7% on these three people, fourth period averaged a 17.3%. In the two classes, the profession that saw

the most correct answers were the pilots. The next three were artists, musicians, and finally, writers.

Pretest Analysis, Multiple Choice Section

The second half of the pretest assessment was a ten question, multiple choice test. Students received this assessment after they completed the matching section. Overall, in the technology-based first period, results were very similar. When compared to the matching section, students generally scored within ten percent of their former score. The biggest improvement came from student six, who scored thirty points higher. This student attributed the higher success to the “different format. I was able to use process of elimination better, with only four choices instead of eleven.” The scores for students in period 1 who used technology for the second part of the pretest (the multiple choice) ranged from 10% to 70%. The class average was 33% on this section, compared with 34% on the previous section.

Results in fourth period, those without technology, were about the same as well. Most students scored within 10% of their matching score, with only about one-fourth of the class showing a more significant change than 10%. The scores for the second part of the pretest (the multiple choice) for students in period 4 who did not use the technology ranged from 10% to 80%. The average score was 34%. This was two points higher than the 32% for the matching section.

The following graphs (See Figure 1 and Figure 2) compare the results from each question on the second half (the multiple choice) of the 1920s pretest. While the actual percentages vary, similar trends in both class periods can be seen by comparing the two graphs. Students scored higher on the second question than the first, lower on the next two, and back up on the fifth. The sixth remained about the same, they scored lower on the seventh, higher on the eighth, and lower

on the final two. The most troubling questions for both classes were numbers four, seven, nine, and ten. The most successful questions were two, six, and eight.

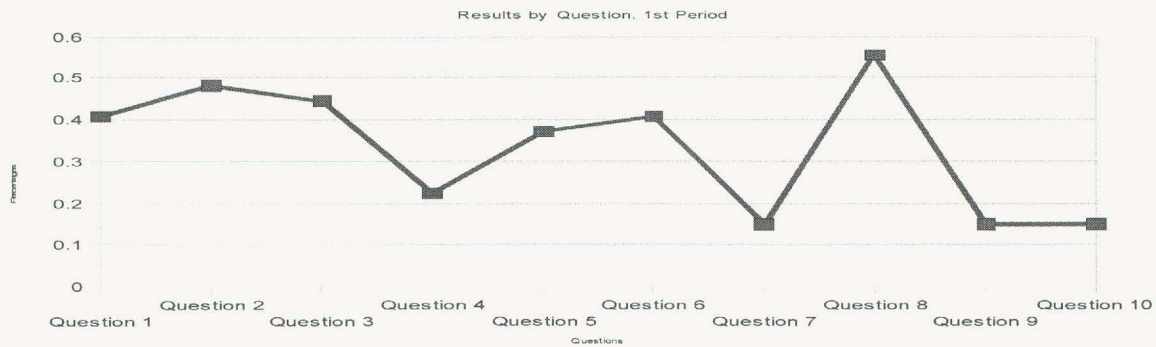


Figure 1: Results by Pretest Question, Multiple Choice section, 1st Period

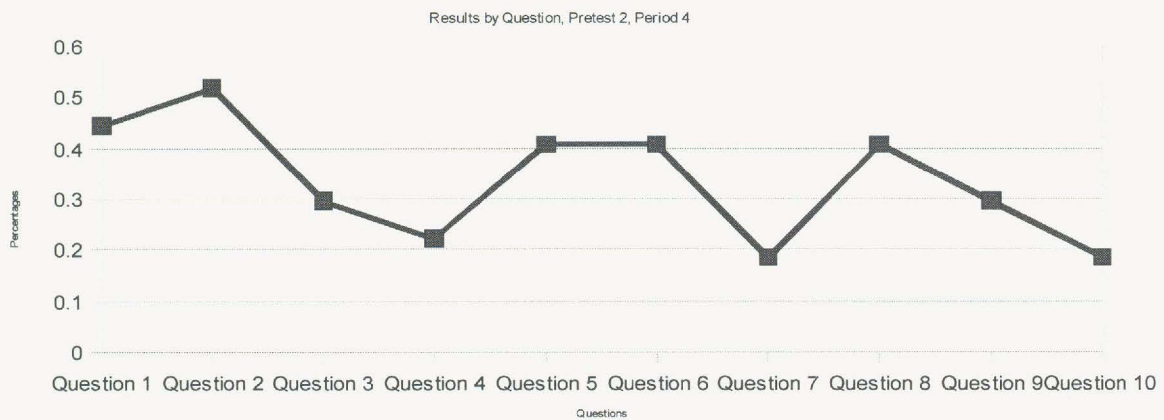


Figure 2: Results by Pretest Question, Multiple Choice section, 4th Period

Question four listed two songs and a birthplace. The songs, *Blueberry Hill* and *What a Wonderful World*, were both performed by Louis Armstrong of New Orleans. In this question, three of the four choices were musicians, possibly making the answer more difficult.

Additionally, Louis Armstrong was not a name students would have seen on the matching section. One student who answered this question incorrectly stated that, “I did not think he was the right answer because I did not see his name on the matching part. That is why I chose Duke

Ellington.”

Question seven concerned the subject of John Steinbeck's books, and question nine asked about Georgia O'Keeffe's paintings. Of these two, one student who answered them incorrectly wrote, “I was not sure what the correct answer was. I knew we were going to be learning about the 1920s, so for Steinbeck, I chose B (a hero from the Great War) because that event just happened. For Georgia O'Keeffe, I chose 'The Harlem Renaissance' because I knew we would be learning about that as well.” Question ten was difficult for most students due to the multiple correct answers they had to know.

The second question (about Langston Hughes) was answered with a relatively high success rate. This could be because a generous percentage of students were able to identify Langston Hughes, Duke Ellington, and Jacob Lawrence on the matching section.

An interesting aspect of this pretest was how similar students performed on both sections. There was very little difference in the matching and multiple choice portions; students did not seem to particularly favor either one. Overall, the students in the first period section who used technology scored almost the same as those from the fourth period section who did not use technology.

Post Test Analysis, Matching Section

The post test given to both class periods for the matching section is shown in Appendix H. Overall, both classes showed dramatic improvement in their test scores. In the pretest results, first period (the class with technology) averaged a 32%. In the post test, this class averaged a 96.07%, for an improvement of 64.07 points. The average improvement for students was 63.21 points, with 25 of the 28 students scoring at least 50 points higher.

In reviewing the incorrect answers (See Table 4), students often had the correct career of

a person, but would get the more specific part of the description mixed up. For example, student four knew that Bessie Smith and Aaron Copland were both musicians; this person simply confused what type of music each person did. Similar patterns occurred with student six (Georgia O’Keeffe and Jacob Lawrence are both artists); student 23 (John Steinbeck and F. Scott Fitzgerald are both writers); and student 26 (Louis Armstrong and Bessie Smith are both musicians). Student 18 would have scored a 100% , had it not been for not forgetting to answer for John Steinbeck. Student eight confused Jacob Lawrence and Langston Hughes, but knew that they were both part of the Harlem Renaissance.

Patterns seen in fourth period results, those who did not use technology, were very similar to first period. The improvement seen in this class was remarkable as well, going from a class average of 34% to a 97.78%, an improvement of over 64 points. In this class, 24 of the 27 students scored at least 50 points higher than on the pretest. Like the first period, students with incorrect answers often had the correct careers, but the exact descriptions were off.

Post Test Analysis, Multiple Choice Section

Just as vast improvements were made on the matching section of the post test, the first period class (those with technology) saw great improvements on the multiple choice questions. The post test given for the multiple choice section is shown in Appendix I. In the pretest, the class average went from a 33% to a 97.6%, an improvement of 64.6%. Of the 280 total questions, the twenty-eight students answered 274 correctly, and only six incorrectly. Of those who answered incorrectly, they often had the career correct, but the exact description wrong.

In the fourth period class (those without technology), results were again very similar. This class averaged a 98.5%, for an improvement of approximately 64.5% from the pretest score of 34%. This is only slightly lower than the first period, and had just one more question been

correct, the entire class would have had a higher average. In this class, there were only four incorrect responses compared to the 266 that were correct. Both classes saw all but three students improve by at least 50 points from the pretest to the post test.

The chart below (See Figure 3) shows the subject for each question, as well as how the two classrooms responded to each. The most difficult questions were on John Steinbeck and Jacob Lawrence, each with three incorrect responses. Question two asked, “Which of these writers would have most likely written about the poor, migrant workers?” Those who did not put Steinbeck chose F. Scott Fitzgerald, another writer. Here, they had someone in the correct profession, but they simply confused what they were writing about. Question five asked, “Who would have most likely painted scenes from the Great Migration?” The three incorrect responses all chose Langston Hughes, who was a poet during the Harlem Renaissance.

	1st period			4th period		
	Correct	Incorrect	Percent	Correct	Incorrect	Percent
1 Charles Lindbergh	28	0	100.0	27	0	100.0
2 John Steinbeck	26	2	92.9	26	1	96.3
3 Harlem Renaissance People	27	1	96.4	27	0	100.0
4 Musicians	28	0	100.0	27	0	100.0
5 Jacob Lawrence	27	1	96.4	25	2	92.6
6 Geogia O'Keeffe	28	0	100.0	27	0	100.0
7 Duke Ellington	28	0	100.0	27	0	100.0
8 Langston Hughes	27	1	96.4	26	1	96.3
9 Amelia Earhart	27	1	96.4	27	0	100.0
10 Al Capone	28	0	100.0	27	0	100.0
	Total Correct	Total Wrong	Total %	Total Correct	Total Wrong	Total %
	274	6	97.6	266	4	98.5

Figure 3: 1st Period versus 4th Period, Post Test Results

Discussion of Results

The results of this study show tremendous pre- and post test improvements in assessment scores throughout both classes. While fourth period (the control group who did not use technology) scored slightly higher on both sections, first period (the experimental group who

used the technology) showed slightly more improvement. However, just one more incorrect answer on a fourth period pretest or one more correct answer on a post test could have reversed this entirely. Overall, the results of this study showed that both methods of teaching seemed to be beneficial to the students.

In this study, the two classes that were chosen had similar class averages to begin with. First period had an 89.59%, while fourth period had a 92.12% as its average. It should be noted, however, that first period had three students participating with averages just under 70%, while the lowest average in fourth period was 77%. All four of these students passed the post test with at least a 90% overall (First period: 100, 90, 100; Fourth period: 100). First period has fifteen females and thirteen males, while fourth period has sixteen females and twelve males. These two classes were chosen for this study due to their similarities.

The overall attitude of the students throughout the unit was very positive. First period enjoyed having the opportunity to use technology, and after initial instruction, things went very smoothly. This was not the first time that this class was taken to the computer lab, but with each new assignment, a certain amount of instruction was required. Having students work in small groups helped ease their comfort, as one student noted, "If I wasn't sure how to do something, somebody in my group would usually know what to do." Another student stated that, "It was nice to do something different. We like using computers to do our work. The videos were helpful too. I could think about them when I was taking the test." In this class period, technology was used not only to help gather information and see it through video, but also to apply it in creating a multimedia presentation.

Of the three project choices (PowerPoint, PhotoStory, and the Newspaper report), the most popular choice was the PowerPoint. One group chose this because, "that is the program

that we know how to use the most.” This was likely the reason that some of the other groups chose it as well. With this option, application of what they learned seemed to be more limited, and instead, they were simply recalling facts. All six of the people who scored below a 100% on the multiple choice section of the post test had done a PowerPoint for their multimedia presentation.

Fourth period (the control group without technology) seemed to enjoy their activities as well. For this period, students knew exactly what to do and what was expected of them. They worked hard on their projects, and did not seem any less motivated than first period. While one student stated that, “if I had the choice to use a computer to do my work, I probably would,” another said that, “I know that we'll get a chance to use computers later in the school year, so this is good. I like doing this type of work anyway.” Only one group chose to do the 1920s story (in which they work individually), but the end product on each of these was very impressive. Most chose the collage, and found that they needed to be very creative in coming up with the pictures and descriptions. “It was hard, but working with a group made it easier to get pictures together and describe them,” said one student. “We really had to think about what to put on our collage to make it nice.” While this group did not watch videos on each person as the other class period did, their activities seemed to involve a higher level of thinking that allowed them to excel. The majority of the people who did not score a 100% in this class worked on the magazine. On this project, some of the students focused simply on their part, rather than the whole project. This allowed them to become experts on one aspect of the magazine, but not the entire thing. This was true in the PowerPoint presentation of first period as well.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the research completed for this project, the following is a summary regarding each of the three research questions proposed at the beginning of this project.

Research Question #1: How well does a sixth grade history class perform in a student-based learning environment that uses technology versus a similar environment without technology?

Overall, teaching in a constructivist fashion was very beneficial, whether using technology or not. The results of the pretest compared to the post test of both classes was almost identical. With technology, it did seem as though most students chose the option in which they had the highest level of comfort (PowerPoint) rather than exploring new ideas. In the fourth period class, students were willing to try the different options without technology almost equally. The results of the the pretests compared to the post tests were remarkably similar in both class periods. Although technology was helpful for first period in obtaining new information, the bigger factor in student success seems to have been that the unit for both classrooms was student-centered. While technology provided a great resource for those who used it, the class that did not use it was able to achieve their learnings through other methods. Both class periods were equally successful.

Research Question #2: How can technology be used to create a higher level of understanding and student involvement on topics in the sixth grade history classroom using a constructivist approach to learning?

Although both classrooms improved almost equally on the post test, first period did have access to multimedia resources such as audio and video that may have made the unit more

memorable for them. As the unit progressed, students discussed the various videos they had seen. Instead of reading about Louis Armstrong playing the trumpet, they were actually able to watch him. While finding and reviewing information in texts certainly has its merits and value, being able to actually watch footage from the era being studied gives the students a first-hand account of what the culture of the time period was like. In this particular unit, the end results, as shown in the formal assessment, were similar, and the goals of learning were achieved.

However, through informal assessment (such as watching over the classroom), it was observed that students were discussing what they saw in the videos, both inside and outside of the classroom. In sixth grade, students are being exposed to many of the people from this unit for the first time. Their background information is very limited. While textbooks alone can help a student to learn the required information, technology can help bring it to life for the students, which it did in this case.

Research Question #3: How does motivation impact student engagement?

The students who did get to use technology were excited about it, as they usually are. It provides an outlet for them, which is different than what seems like a typical classroom lesson. For many students, it puts them into a comfort zone. Almost all of the first period students have computer access at home, and creating this type of lesson put them 'in control'. Technology can open up a whole new world of learning for students. However, with so much opportunity for learning, students, if left alone, may not know where to begin and may have difficulty completing tasks. In order for a unit to be effective, it is essential that expectations and goals are clearly stated from the beginning.

While neither class seemed to be more motivated than the other, fourth period went into this activity knowing that they would have other chances to use the computer lab. However, had

fourth period had access to technology, it certainly would have been a useful tool in supplementing their knowledge regarding the people of the 1920s and the Harlem Renaissance. Likewise, had first period had a little more teacher-centered instruction, they may have scored even higher on the test. The best solution is to maintain a balance between technology and non-technology related activities, while keeping the instruction student-centered.

Future Research

As technology in the classroom increases, a greater amount of research is beginning to develop regarding its effectiveness. A general consensus among the research that is readily available, however, is that technology should be used to create a better lesson, and that its benefits should be exposed. In Johnson's (1996) research, he stated that the benefits of technology during the time did not outweigh the cost. Just over a decade ago, technology was brought into the schools mainly for lower-level thinking skills. Over one decade later, it provides an unlimited number of resources that can be used to enhance teaching. An example of this would be using a PowerPoint presentation that includes audio and visuals that create a greater understanding of a topic, rather than making a presentation that simply displays notes for the students to copy. Another example would be to search news headlines from historic events from the past, or to show a PhotoStory depicting a key battle of World War II. If the goal of the lesson is to have students take notes, it can be done with just a blackboard and a piece of chalk.

Technology is a valuable resource that brings limitless possibilities into the classroom, and it should be used in this way. However, for many teachers, it is often difficult to keep up with the pace of technological change, and it is easy to shy away from using such methods for this reason. A system of support is important in developing a technologically-savvy school environment.

This dilemma has been discussed in recent studies, such as Wright's (2008) Case Study of technology infusion in a rural school system. In the article, he notes that, "The key issue is the knowledge level of the teacher regarding the technology tools the district provides. For that reason, the focus of in-service education should continue to be providing teachers with ongoing programs of continuing technology education" (p. 10).

A similar study regarding teacher preparation for technology was completed by Donovan, Hartley, and Strudler (2007). In this study, schools assigned laptop computers to each student for their studies. In the research, it was noted that the two main areas of concern for the teachers were how it would affect their classroom, and how they could best implement it effectively.

Concerns such as these often lead to an overall failure to implement technology. Student-centered learning can certainly be accomplished without the use of computers, and it may not necessarily create a less motivating environment. However, students could certainly lose out on the benefits that are offered by technology.

Another issue, not discussed in this research, but certainly prevalent, is that of assistive technology in education. How can accommodations be made when necessary so that all students have equal opportunities to learn? This issue is the topic in the text, *Assistive Technology: Access for All Students* (Johnston, Beard, and Carpenter, 2007). In *Intercultural Competence and the Role of Technology in Teacher Education*, Davis, Cho, and Hagenson (2005) look at the role of different cultures in technology integration. The authors advocate that teachers need to "develop professional competence and confidence in intercultural education" and that this is "crucial for those who support instructional development, educational software design and student services" (Davis, et al., p. 385). A study by Morrison (2007) looks specifically at Assistive Computer Technologies (ACT) and their educational benefits. While Morrison

recognizes the benefits of assistive technology to those with learning needs, she sees the “process for the integration of assistive technology into the curriculum” as more complex (p. 83). As ACTs take on a bigger role in our schools, further research on their implementation is being conducted.

Although the focus of this research was to compare a technology-based unit to a similar unit without technology, constructivism was a theme throughout both units. Yilmaz (2008) created a list of basic principles of constructivism:

- Learning is an active process.
- Learning is an adaptive activity.
- Learning is situated in the context in which it occurs.
- Knowledge is not innate, passively absorbed, or invented but constructed by the learner.
- All knowledge is personal and idiosyncratic.
- All knowledge is socially constructed.
- Learning is essentially a process of making sense of the world.
- Experience and prior understanding play a role in learning.
- Social interaction plays a role in learning.
- Effective learning requires meaningful, open-ended, challenging problems for the learner to solve.

Creating a student-centered learning environment helps to keep the class engaged and active in the learning process. Additionally, it allows for higher-level thinking to take place in the classroom. Research on the effectiveness of constructivist teaching is plentiful. Bolinger and Warren (2007) review various methods of this type of teaching in their research, “Methods Practiced in Social Studies Instruction: A Review of Public School Teachers’ Strategies”. In this

study, Bolinger and Warren recognize that while many teachers do believe in the effectiveness of constructivist teaching, they are often hesitant to use it. The reasons for this vary. For some, improper training or knowledge of how to do it are a factor. For others, standardized tests mandated at the state level play a major role—many teachers, feeling the pressure from these tests, use teacher-based lessons in order to ensure that the necessary information is being covered, rather than leaving it up to the student. In order for constructivist teaching to be successful, as Yilmaz (2008) notes, the teacher must first be willing to embrace the new ideas and principals that come with the constructivist pedagogy.

Despite the obstacles that surround technology and constructivism, their benefits in the classroom have been discussed significantly in previous research, and will continue to be looked at in the future. The major issue seen consistently throughout the research is the training that goes into the implementation of these two aspects of teaching (technology implementation and constructivism). Cunninham's (2003) study at Wake Forest University showed how emerging prospective teachers into technology-based environments creates a high level of comfort that they can later take into the classroom. Almost all colleges and universities in America are now shifting towards these methods. In order to graduate, one must meet certain technology requirements. Because teachers are becoming more proficient (as they enter the profession with these skills), it will be interesting to see how research changes within the next ten years. Additionally, as technology does become more widely used in the classroom, it will be interesting to see how students and administrators begin to view it.

Table 1

First Period Pre-Test Results – Matching Section

Question/Student #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	# correct	% correct	
1. Duke Ellington	0	1	0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	1	0	1	11	0.41
2. Bessie Smith	0	0	1	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0.22
3. John Steinbeck	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0.07
4. Georgia O'Keeffe	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	0	0	0	8	0.3
5. Langston Hughes	0	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	9	0.33
6. George Gershwin	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0.07
7. Charles Lindbergh	1	1	0	0	1	1	0	0	0	1	1	0	0	1	0	1	1	1	0	1	1	1	1	1	1	0	1	1	16	0.59
8. Jacob Lawrence	0	0	1	1	0	1	1	0	1	0	1	1	1	0	0	0	0	1	1	0	0	1	0	0	1	0	0	0	12	0.44
9. F. Scott Fitzgerald	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	6	0.22
10. Amelia Earhart	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	0	0	1	0	1	1	1	1	0	1	1	19	0.7
																														Class avg.
Student Score:	0.30	0.50	0.40	0.40	0.30	0.40	0.60	0.40	0.20	0.20	0.30	0.50	0.30	0.10	0.30	0.20	0.40	0.50	0.30	0.30	0.30	0.40	0.30	0.40	0.30	0.20	0.30		0.34	

Note: Student results on the matching pretest. Students were assigned numbers, 1-27. On the table, '1' represents a correct answer, and '0' represents an incorrect answer.

Table 2

First Period versus Fourth Period Pretest Scores by Student

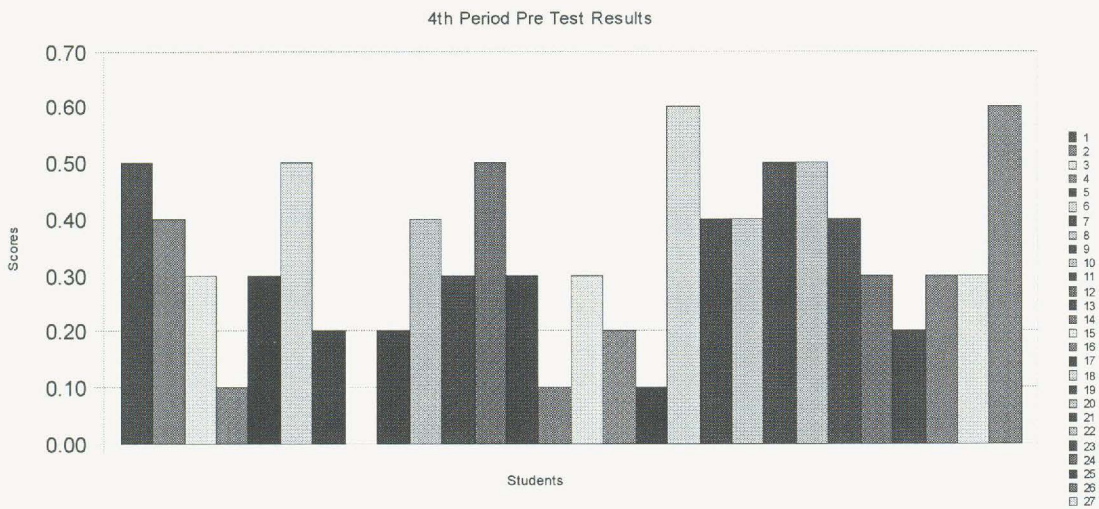
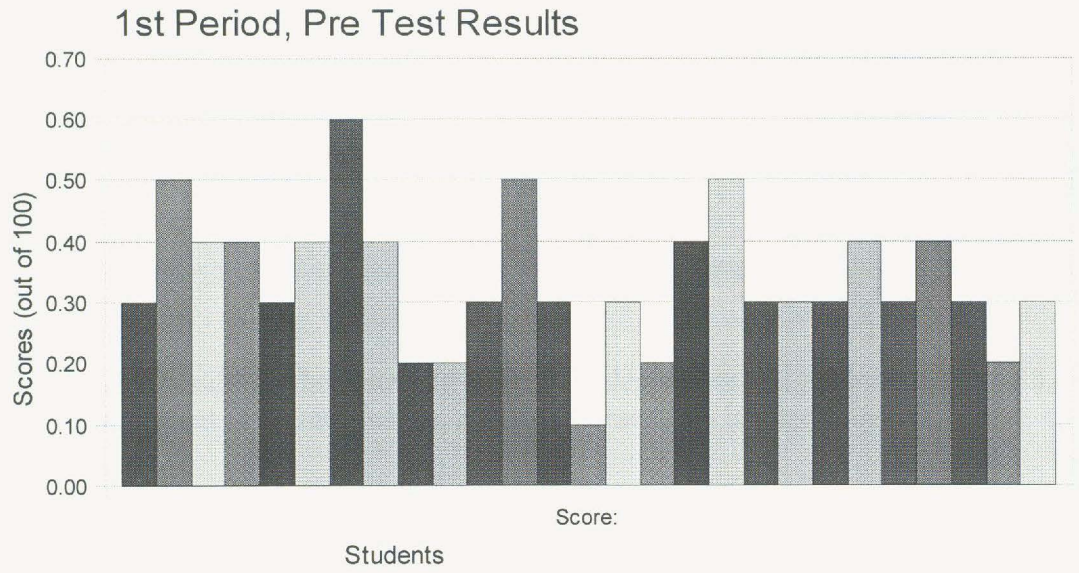


Table 4

Results by Question, First Period versus Fourth Period, Post Test Matching

Question/Student #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	# correct	% correct
1. Louis Armstrong	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
2. John Steinbeck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	100.00
3. Bessie Smith	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	100.00
4. Langston Hughes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
5. Georgia O'Keeffe	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
6. Aaron Copland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
7. Charles Lindbergh	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	100.00
8. Jacob Lawrence	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
9. Amelia Earhart	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	100.00
10. F. Scott Fitzgerald	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	96.30
Student Score	100	100	100	100	100	100	100	100	80	100	100	100	100	100	80	100	100	100	100	100	100	100	100	80	100	100	100	Class Avg.	97.78	
Improvement	70	50	60	60	70	60	40	40	80	80	70	50	70	90	50	80	60	50	70	70	70	60	70	40	70	80	70	Avg. Imp.	64.07	

Question/Student #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	# correct	% correct
1. Louis Armstrong	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	96.43
2. John Steinbeck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	92.86
3. Bessie Smith	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	92.86
4. Langston Hughes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	96.43
5. Georgia O'Keeffe	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	96.43
6. Aaron Copland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	96.43
7. Charles Lindbergh	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	100.00
8. Jacob Lawrence	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	92.86
9. Amelia Earhart	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	100.00
10. F. Scott Fitzgerald	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	96.43
Student Score	100	100	100	80	100	80	100	80	100	100	100	100	100	100	100	100	100	90	100	100	100	100	80	100	100	80	100	Class Avg.	96.07	
Improvement	50	60	70	70	70	30	80	80	60	60	70	50	70	90	70	80	90	50	60	60	50	50	40	70	80	50	70	Avg. Imp.	63.21	

Note: Post test matching results. Fourth period results are on top and first period results are on bottom.

Appendix A

Unit Plan Overview for First Period Class with Technology Integration

<i>Day of Unit</i>	<i>Topic</i>	<i>Brief Description</i>
Lesson 1		
Day 1	Pretest/ Introduction to Unit	The first day of the unit will include a twenty-question pretest, as well as a video to introduce students to the unit.
Lesson 2		
Day 2	People of the Harlem Renaissance / People of the 1920s	Days two and three of unit allow students to explore the people of the Harlem Renaissance, as well as the other famous people of the 1920s. Half of the class will start with the people of the Harlem Renaissance; the other half will start with the rest of the people from the 1920s.
Day 3	People of the Harlem Renaissance / People of the 1920s	
Lesson 3		
Day 4	Videos; Create PowerPoint / Photostory Presentation	In groups of four, students will create either a PowerPoint presentation or Photostory presentation to present to the class; they must include at least one writer, one poet, one artist, and one other person of their choice.
Assessment		
Day 5	Videos and Post tests	Students will take a post-test exam (twenty questions) and present their work.
Day 6	Presentations	

Unit Plan Overview for First Period Class without Technology Integration

<i>Day of Unit</i>	<i>Topic</i>	<i>Brief Description</i>
Lesson 1		
Day 1	Pretest/ Introduction to Unit	The first day of the unit will include a twenty-question pretest. Following the pretest, students will review a 1920s magazine in order to front load them with information.
Lesson 2		
Day 2	People of the Harlem Renaissance / People of the 1920s	Days two and three of unit allow students to explore the people of the Harlem Renaissance, as well as the other famous people of the 1920s. The class will go to the library to use resources such as encyclopedias, biographies, and books about the 1920s.
Day 3	People of the Harlem Renaissance / People of the 1920s	
Lesson 3		
Day 4	Videos; Create PowerPoint / Photostory Presentation	In groups of four, students will create either a PowerPoint presentation or Photostory presentation to present to the class; they must include at least one writer, one poet, one artist, and one other person of their choice.
Assessment		
Day 5	Videos and Post tests	Students will take a post-test exam (twenty questions) and present their work.
Day 6	Presentations	Students will present their work

Appendix B

Lesson 1, Day 1

<i>Pretest/Introduction to Unit</i>	<p>The lesson begins with a ten-question pre-test on the people of the 1920s and the Harlem Renaissance. It will be in 'matching' format.</p> <ul style="list-style-type: none"> • Following the pretest, students using technology will watch a video that introduces them to the people of the 1920s. • For the class not using technology, students will take the same pretest. Following the pretest, students will examine a “Roaring Twenties” magazine in order to preview the people of the 1920s.
<i>Materials Needed</i>	<p>Pretest Pencil Data projector Video—The Roaring Twenties (for class using technology) Class set: The Roaring Twenties magazine (for class that is not using technology)</p>
<i>Materials Included</i>	<p>Ten Question Pretest Video, The Roaring Twenties Magazine, The Roaring Twenties</p>
<i>History SOLs</i>	<p>The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O’Keeffe and including the Harlem Renaissance.</p>

Lesson Plan Title: Pretest / Introduction to the People of the 1920s

Length of Time: One day (45 minutes)

Concept / Topic To Teach:

Following World War I (or the Great War, as it was then known), there was great prosperity in the U.S. Our country saw new inventions and many people reach high levels of fame as they influenced American culture in some way.

Standards Addressed:

The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O’Keeffe and including the Harlem Renaissance.

General Goal(s):

Students will research five people from the 1920s, as well as six people from the Harlem Renaissance (also during the 1920s). They will use a variety of sources in order to acquire information and understand the significance of each person and their accomplishments.

Specific Objectives:

Students will be able to identify with 90% accuracy the significance of ten people during the 1920s.

Cultural Climate of the 1920s and 1930s:

- *Art*—Georgia O’Keeffe, an artist known for urban scenes and, later, paintings of the Southwest
- *Literature*—F. Scott Fitzgerald, a novelist who wrote about the Jazz Age of the 1920s; John Steinbeck, a novelist who portrayed the strength of poor migrant workers during the 1930s
- *Music*—Aaron Copland and George Gershwin, composers who wrote uniquely American music influenced by Jazz Harlem Renaissance African American artists, writers, and musicians based in Harlem revealed the freshness and variety of African American culture
- *Art*—Jacob Lawrence, painter who chronicled the experiences of the Great Migration north through art
- *Literature*—Langston Hughes, poet who combined the experiences of African and American cultural roots
- *Music*—Duke Ellington and Louis Armstrong, jazz composers; Bessie Smith, blues singer

Popularity of these artists spread to the rest of society.

Required Materials: Pretest, Video, and Magazine

Anticipatory Set (Lead-In):

Students will begin by taking a ten minute pretest on the people of the 1920s and the Harlem Renaissance. It will be explained to them that they have not yet learned this information and that they are not yet expected to know it; it is to see what they do know, as well as to see how much they learn.

Step-By-Step Procedures (*for technology-integrated lesson*):

1. Students will be given the pretest; they may begin immediately. They will have ten minutes to complete this. (10 minutes)
2. Using the data projector, show the video, “The Roaring Twenties” (30 minutes).
3. During the video, have students write down peoples names as they hear them, as well as a brief sentence on what they may have accomplished. Try to get at least five names and facts.
4. In the last five to ten minutes of class, review the video with the students:
 - a. Who are some of the important people that you heard about?
 - b. Why do you think they were so important?

- c. What was life like in the 1920s? What were some of the things that were popular?
 - d. How do you think life was different in the 1920s when compared to the decade before?
 - e. What do you think the general attitude of the 1920s was?
 - f. How do you think this attitude helped certain people to become so famous in the 1920s?
5. Conclude class by explaining that the atmosphere and overall attitude of the 1920s allowed for artists, musicians, and writers to become extremely popular.

Adaptation and Procedures for non-technology integrated lesson:

Using a class set of “The Roaring Twenties” magazine, have students work in pairs in order to answer the same questions that are listed above (from question 3). They should turn this in at the end of class.

Assessment Based On Objectives:

Grade is based off of what students wrote during the video (ten points per person and fact; 50 points total). For those who did not use technology, the assessment will be based off of the answers to the questions they answered using “The Roaring Twenties” magazine.

Appendix C

Lesson 2, Days 2 and 3

<i>People of the 1920s / Harlem Renaissance</i>	Two day lesson looks at the different people that were involved in the 1920s and the Harlem Renaissance. The class will be split into two sections—one will use the first day to study the “People of the 1920s,” while the other half of the class will use that day to study the “Harlem Renaissance”. They will switch topics on the next day.
<i>Materials Needed</i>	Computer lab Internet Access Worksheet on “People of the 1920s” and “Harlem Renaissance” Pencil Six Sound station boxes Class set of headphones Library resources (encyclopedias, biographies, etc...)
<i>Materials Included</i>	Worksheet on “People of the 1920s” and “Harlem Renaissance”
<i>History SOLs</i>	The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O’Keeffe and including the Harlem Renaissance.

Lesson Plan Title: Important People of the 1920s

Length of Time: Two days (90 minutes)

Concept / Topic To Teach:

For the class with technology, students will use a class website, as well as outside resources, in order to find information about various people of the 1920s. For the class without technology, students will use library resources in order to acquire information.

Standards Addressed:

The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O’Keeffe and including the Harlem Renaissance.

General Goal(s):

Students will research five people from the 1920s, as well as six people from the Harlem Renaissance (also during the 1920s). They will use a variety of sources in order to acquire information and understand the significance of each person and their accomplishments.

Specific Objectives:

Students will be able to identify with 90% accuracy the significance of ten people during the 1920s.

Cultural Climate of the 1920s and 1930s:

- *Art*—Georgia O’Keeffe, an artist known for urban scenes and, later, paintings of the Southwest
- *Literature*—F. Scott Fitzgerald, a novelist who wrote about the Jazz Age of the 1920s; John Steinbeck, a novelist who portrayed the strength of poor migrant workers during the 1930s
- *Music*—Aaron Copland and George Gershwin, composers who wrote uniquely American music influenced by Jazz Harlem Renaissance African American artists, writers, and musicians based in Harlem revealed the freshness and variety of African American culture
- *Art*—Jacob Lawrence, painter who chronicled the experiences of the Great Migration north through art
- *Literature*—Langston Hughes, poet who combined the experiences of African and American cultural roots
- *Music*—Duke Ellington and Louis Armstrong, jazz composers; Bessie Smith, blues singer

Popularity of these artists spread to the rest of society.

Required Materials:

Computer Lab with Internet access; “People of the 1920s / Harlem Renaissance” worksheet; class set of headphones; six sound station boxes; library resources, including encyclopedias, biographies, and books about the 1920s.

Anticipatory Set (Lead-In):

Students will be asked to recall some of the important people from yesterday's video, and why they were important. Discuss what life was like in the 1920s (5 minutes). In the classroom without technology, students will do the same, except will be looking at the Roaring Twenties magazine and answering questions.

Step-By-Step Procedures (*for technology-integrated lesson*):

1. Students will work in groups of four to five (chosen by teacher; groups should be heterogeneously chosen). Each group will be given two computers to use; a pair of headphones for each group member; one “sound station” box (these are boxes that can be plugged into the computer for sound; six pairs of headphones go into these boxes).

2. Students should access the class web site located at: <http://rtmshistory.wikispaces.com> . Three of the groups will then click “Harlem Renaissance, while the other three click “People of the 1920s”.
3. Students should use information on the web page, as well as external links (provided on the web page) in order to obtain information for each person on the “People of the 1920s/Harlem Renaissance” worksheet. As they go through each person, they will see primary and secondary sources (pictures, videos, audio files). They may view these using their headphones and sound stations (having six people view a video at one computer limits the amount of bandwidth being used—videos would not work if thirty students are trying to access videos all at once).
4. As students complete their section for the day, they may take the online quiz that is located at the bottom of the page. They may also take this quiz at home. It is a practice quiz that goes over the material that they were to research. This is not a grade.
5. The next day, groups switch topics. If they did “People of the 1920s”, they do “Harlem Renaissance” the next day, and vice versa.

Adaptations and Procedures for non-technology integrated lesson:

The class will visit the library; using biographies, encyclopedias, and printed pictures from the time period, students will work in groups in order to complete the same worksheet. Upon completion, students will take a paper copy of the same “online” practice quiz. This is not for a grade.

Assessment Based On Objectives:

Grade is based off of People of 1920s/Harlem Renaissance worksheet (100 points total).

Appendix D

Lesson 3, Day 4

<i>People of the 1920s / Harlem Renaissance</i>	<p>During this lesson, the class with technology will be placed in groups and given a DVD with videos from each of the people they have studied (videos range in length from 30 seconds to four minutes). They will design and create a computer presentation that will contain: one artist; one writer; one pilot; one musician; and one other person from the time period.</p> <p>They may create either: An 8 slide PowerPoint Presentation; a 3 minute PhotoStory presentation, complete with script; or use Publisher to create a five story, two page newspaper.</p> <p>For the group without technology, they will use their resources in order to create a collage, a 1920s story, or a time line.</p>
<i>Materials Needed</i>	<p>Computer lab Internet Access Worksheet on “People of the 1920s” and “Harlem Renaissance” Pencil Six Sound station boxes Class set of headphones PowerPoint or Photostory Library resources Poster board Glue</p>
<i>Materials Included</i>	<p>Worksheet on “People of the 1920s” and “Harlem Renaissance”</p>
<i>History SOLs</i>	<p>The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by c) examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O’Keeffe and including the Harlem Renaissance.</p>

Lesson Plan Title: Presentation of the 1920s People

Length of Time: One day (45 minutes)

Concept / Topic To Teach:

Students using technology will use the information that they found online in order to use technology to create a presentation on five important people from the 1920s. They must include: one artist; one writer; one pilot; one musician; and one other person of their choice. At least two people must have been part of the Harlem Renaissance. For the class without technology, students will have the option of either creating a collage, a timeline, or writing a 1920s story.

Standards Addressed:

The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O'Keeffe and including the Harlem Renaissance.

General Goal(s):

Students will show their knowledge that they have acquired over the past two days on the people of the 1920s through the use of a technology-related project. For those not using technology, they will have the option of showing their knowledge of the 1920s through creating a time line, a collage, or a story.

Specific Objectives:

Students will be able to identify with 90% accuracy the significance of ten people during the 1920s.

Cultural Climate of the 1920s and 1930s:

- *Art*—Georgia O’Keeffe, an artist known for urban scenes and, later, paintings of the Southwest
- *Literature*—F. Scott Fitzgerald, a novelist who wrote about the Jazz Age of the 1920s; John Steinbeck, a novelist who portrayed the strength of poor migrant workers during the 1930s
- *Music*—Aaron Copland and George Gershwin, composers who wrote uniquely American music influenced by Jazz Harlem Renaissance African American artists, writers, and musicians based in Harlem revealed the freshness and variety of African American culture
- *Art*—Jacob Lawrence, painter who chronicled the experiences of the Great Migration north through art
- *Literature*—Langston Hughes, poet who combined the experiences of African and American cultural roots
- *Music*—Duke Ellington and Louis Armstrong, jazz composers; Bessie Smith, blues singer

Popularity of these artists spread to the rest of society.

Required Materials:

Computer Lab with Internet access; “People of the 1920s / Harlem Renaissance” worksheet; class set of headphones; six sound station boxes; PowerPoint; Publisher; PhotoStory; library resources; poster board; glue

Anticipatory Set (Lead-In):

Students will be asked to recall some of the important people from yesterday's lesson, and why they were important. Discuss who their favorite people were (5 minutes).

Step-By-Step Procedures (*for technology-integrated lesson*):

1. In the same groups as the day before, students will be given a CD. The CD contains videos from each of the people they have learned about. They may watch any of these videos.
2. Groups will use their information from before, combined with the videos they now have, in order to create a presentation. It may be in three formats: An eight slide PowerPoint; a 3 minute Photostory, complete with script; or a five-article, two page newspaper, using Microsoft Publisher.
3. Students will have this period, as well as most of the next period, to work on their projects. Each student is responsible for contributing to the group effort. Each project should include: One writer; one artist; one pilot; one musician; and one other person of their choice. The project should contain at least two people from the Harlem Renaissance.
4. As one person is typing, other students in the group should be writing what they are going to type. Any work that is not finished in class should be “written” out for homework, so that they can finish the next day.
5. The next day, students will work to finish project.

Adaptation and Procedures for non-technology integrated lesson:

Using the information they have acquired over the previous two days, students will have three options: Create a 1920s magazine, which will be 8 pages in length; create a 1920s collage on a piece of poster board, with a description of each item on it (and a 3 minute presentation); or each group member can write a story on what life was like in the 1920s, using ten facts from the time period and including facts about at least five people within the story. Students will have thirty-five minutes the next day in order to complete this.

Assessment Based On Objectives:

Grade will be based off of project; rubric will follow. Grade counts as a test score, and it is out of 100 points.

Appendix E

Assessment, Days 5 and 6

<i>People of the 1920s / Harlem Renaissance</i>	During this lesson, groups will continue with their presentation. Additionally, in the last fifteen minutes of class, they will work individually to complete a unit 'post test.'
<i>Materials Needed</i>	Computer lab Internet Access Worksheet on “People of the 1920s” and “Harlem Renaissance” Pencil Six Sound station boxes Class set of headphones PowerPoint or Photostory ; Post Test Library resources Glue Poster Board
<i>Materials Included</i>	Worksheet on “People of the 1920s” and “Harlem Renaissance”
<i>History SOLs</i>	The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O'Keeffe and including the Harlem Renaissance.

Lesson Plan Title: Presentation of the 1920s People

Length of Time: Two days (90 minutes)

Concept / Topic To Teach:

Students will continue to work on their presentation, so that they may finish it. Additionally, students will end class by working individually in order to take a post-test on the people of the 1920s and Harlem Renaissance.

Standards Addressed:

The student will demonstrate knowledge of the social, economic, and technological changes of the early twentieth century by examining art, literature, and music from the 1920s and 1930s, emphasizing Langston Hughes, Duke Ellington, and Georgia O'Keeffe and including the Harlem Renaissance.

General Goal(s):

Students will show their knowledge that they have acquired over the past two days on the people of the 1920s through the use of a final project.

Specific Objectives:

Students will be able to identify with 90% accuracy the significance of ten people during the 1920s.

Cultural Climate of the 1920s and 1930s:

- *Art*—Georgia O’Keeffe, an artist known for urban scenes and, later, paintings of the Southwest
- *Literature*—F. Scott Fitzgerald, a novelist who wrote about the Jazz Age of the 1920s; John Steinbeck, a novelist who portrayed the strength of poor migrant workers during the 1930s
- *Music*—Aaron Copland and George Gershwin, composers who wrote uniquely American music influenced by Jazz Harlem Renaissance African American artists, writers, and musicians based in Harlem revealed the freshness and variety of African American culture
- *Art*—Jacob Lawrence, painter who chronicled the experiences of the Great Migration north through art
- *Literature*—Langston Hughes, poet who combined the experiences of African and American cultural roots
- *Music*—Duke Ellington and Louis Armstrong, jazz composers; Bessie Smith, blues singer

Popularity of these artists spread to the rest of society.

Required Materials:

Computer Lab with Internet access; “People of the 1920s / Harlem Renaissance” worksheet; class set of headphones; six sound station boxes; PowerPoint; Publisher; PhotoStory; library resources; glue; poster board

Step-By-Step Procedures (*for technology-integrated lesson*):

1. Students will be given 35 minutes in class to complete their project.
2. At the end of 35 minutes, students will put away materials and begin working on their post-test.
3. If students need additional time to finish project, they can come in before school and work in the lab. If this does not work, they will see the teacher to make arrangements for completion.
4. On the next school day, Day six, students will present their projects.

Adaptation and Procedures for non-technology integrated lesson:

Lesson plan will be the same as the class that is using technology.

Assessment Based On Objectives:

Grade will be based off of project; rubric will follow. Grade counts as a test score, and it is out of 100 points.

Appendix F

Pretest, Matching Section

People of the 1920s and Harlem Renaissance, Pretest Part 1

Name: _____

Date: _____

Instructions: For each person, find the correct description.

- | | | |
|-----------|---------------------|--|
| _____ 1. | Duke Ellington | a. novelist who wrote about the poor migrant workers of the 1930s |
| _____ 2. | Bessie Smith | b. pilot who flew from New York City to Paris in 1927 |
| _____ 3. | John Steinbeck | c. Painted scenes of the Great Migration during the Harlem Renaissance |
| _____ 4. | Georgia O'Keeffe | d. novelist who wrote about the Jazz Age of the 1930s |
| _____ 5. | Langston Hughes | e. First woman pilot to fly solo across the Atlantic |
| _____ 6. | George Gershwin | f. Painted urban scenes and later, scenes of the American Southwest |
| _____ 7. | Charles Lindbergh | g. Poet of the Harlem Renaissance |
| _____ 8. | Jacob Lawrence | h. Blue singer during the Harlem Renaissance |
| _____ 9. | F. Scott Fitzgerald | i. Famous jazz musician during Harlem Renaissance |
| _____ 10. | Amelia Earhart | j. American composer who wrote famous music, influenced by jazz |
| | | k. Notorious gangster of the 1920s |

Appendix G

Pretest, Multiple Choice Section

People of the 1920s and Harlem Renaissance, Pretest Part 2

Name: _____

Date: _____

Instructions: For each question, circle the correct answer.

Q.1) Which of these people would most likely have a painting in a New York Art Museum?

- A. Langston Hughes
- B. Duke Ellington
- C. Ella Fitzgerald
- D. Jacob Lawrence

Q.2) Which of these people would most likely have his work read at a poetry reading?

- A. Jacob Lawrence
- B. Langston Hughes
- C. Duke Ellington
- D. Louis Armstrong

Q.3) The Harlem Renaissance can best be described as:

- A. The time period in which African Americans joined the war effort during World War I
- B. A time period when African Americans came to the city to look for jobs
- C. A time period in which African Americans fought against the discrimination in New York City
- D. A time period where African Americans celebrated their culture and roots through music, art, and literature

Q.4) Blueberry Hill and What a Wonderful World were two songs performed by this New Orleans artist:

- A. Ella Fitzgerald
- B. Duke Ellington
- C. Jacob Lawrence
- D. Louis Armstrong

Q.5) Jacob Lawrence's paintings often focused on:

- A. World War I
- B. The Great Depression
- C. The Great Migration
- D. Westward Expansion

Q.6) Which of these people would most likely have work seen in the Metropolitan Museum of Art in New York City?

- A. Amelia Earhart
- B. George Gershwin
- C. Georgia O'Keeffe
- D. Aaron Copland

Q.7) Which of these type of characters would most likely have been read about in a John Steinbeck novel?

- A. A city person of the 1920s
- B. A war hero from the Great War
- C. The president and political workers
- D. A poor, migrant worker

Q.8) What did Amelia Earhart try to accomplish in the 1930s?

- A. Become the first woman to fly from North America to South America?
- B. Become the first woman to fly across the world
- C. Become the first woman to fly a commercial airline
- D. Become the first woman pilot in a major war

Q.9) Georgia O'Keeffe was known for her paintings of:

- A. Former presidents
- B. Migrant workers
- C. The Harlem Renaissance
- D. Urban scenes and scenes from the American Southwest

Q.10) Which of these people were famous composers of the 1920s?

- A. F. Scott Fitzgerald and John Steinbeck
- B. Aaron Copland and George Gershwin
- C. Georgia O'Keeffe and Aaron Copland
- D. George Gershwin and John Steinbeck

Appendix H

Post Test, Matching Section

People of the 1920s and Harlem Renaissance, Post Test Part 1

Name: _____

Date: _____

Instructions: For each person, find the correct description.

- | | | |
|-----------|---------------------|--|
| _____ 1. | Louis Armstrong | a. novelist who wrote about the poor migrant workers of the 1930s |
| _____ 2. | John Steinbeck | b. Painted scenes of the Great Migration during the Harlem Renaissance |
| _____ 3. | Bessie Smith | c. pilot who flew from New York City to Paris in 1927 |
| _____ 4. | Langston Hughes | d. novelist who wrote about the Jazz Age of the 1930s |
| _____ 5. | Georgia O'Keeffe | e. Painted urban scenes and later, scenes of the American Southwest |
| _____ 6. | Aaron Copland | f. First woman pilot to fly solo across the Atlantic |
| _____ 7. | Charles Lindbergh | g. Poet of the Harlem Renaissance |
| _____ 8. | Jacob Lawrence | h. Famous jazz musician during Harlem Renaissance |
| _____ 9. | Amelia Earhart | i. Blue singer during the Harlem Renaissance |
| _____ 10. | F. Scott Fitzgerald | j. American composer who wrote famous music, influenced by jazz |

Appendix I

Post Test, Multiple Choice Section

People of the 1920s and Harlem Renaissance, Post Test Part 2

Name: _____

Date: _____

Instructions: For each question, circle the correct answer.

- Q.1) How did Charles Lindbergh make aviation more popular?
- A. He carried passengers on mail delivery flights.
 - B. He flew nonstop across the USA.
 - C. He flew across the Pacific Ocean to Japan.
 - D. He flew nonstop across the Atlantic Ocean
- Q.2) Who was the novelist who wrote about the poor migrant workers of the 1930s?
- A. John Steinbeck
 - B. Langston Hughes
 - C. F. Scott Fitzgerald
 - D. Stephanie Myer
- Q.3) Which of the following individuals is not associated with the Harlem Renaissance?
- A. Bessie Smith
 - B. Duke Ellington
 - C. Georgia O'Keeffe
 - D. Langston Hughes
- Q.4) During the 1920s Aaron Copland, George Gershwin, and Duke Ellington were all associated with
- A. politics
 - B. art
 - C. music
 - D. literature
- Q.5) Who was a Harlem Renaissance artist who painted the Great Migration?
- A. Duke Ellington
 - B. Langston Hughes
 - C. Jacob Lawrence
 - D. John Steinbeck

- Q.6) This southwestern painting was most likely painted by
- A. Langston Hughes
 - B. Georgia O'Keeffe
 - C. Jacob Lawrence
 - D. George Gershwin
- Q.7) Louis Armstrong and _____ were both jazz composers.
- A. George Gershwin
 - B. Georgia O'Keeffe
 - C. Langston Hughes
 - D. Duke Ellington
- Q.8) Langston Hughes was known for
- A. Music
 - B. Art
 - C. Poetry
 - D. Crime
- Q.9) Amelia Earhart was the first woman to do what?
- A. Fly with Charles Lindbergh
 - B. Run for President
 - C. Vote in the United States
 - D. Fly nonstop across the Atlantic Ocean
- Q.10) One of the most famous gangsters of the 1920s was
- A. Al Capone
 - B. Duke Ellington
 - C. David Sarnoff
 - D. Warren Harding

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