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## **Educational Technology as a Tool for Multicultural Democratic Education: The Case of One US History Teacher in an Underresourced High School**

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### **Abstract**

This case study analyzes the pedagogy of one US history teacher as he prepared students for active and effective citizenship through multicultural democratic education in an underresourced alternative public high school. In particular, the paper examines his practice and focuses on his incorporation of educational technology (the Internet, multimedia technology, and word-processing applications) to achieve his pedagogical goals while teaching in a school with significant technology resource constraints. This study found that through the use of technology his practice stressed critical thinking, critical and multiple perspectives, and data manipulation skills that enable his students to work with information both in and out of school. This paper also encourages educators to proceed with caution in incorporating educational technology to promote multicultural democratic education given the continued existence of the “digital divide” and underresourced schools.

Addressing current issues in social studies education, this paper illustrates the ways in which educational technology may promote active and effective citizenship among racially and ethnically diverse students in underresourced schools. Applying the multicultural democratic education framework developed earlier (Marri, in press; Marri, 2003a; Marri, 2003b), this study examined one high school US history teacher’s pedagogy and incorporation of educational technology in a public high school with significant technological resource restraints. (For the purposes of this paper, *educational technology* is being defined as the Internet, multimedia such as film, and word-processing applications such as PowerPoint). This paper suggests that educational technology can, in fact, facilitate two of the three elements in the multicultural democratic education framework: critical pedagogy and thorough disciplinary content. The author also posits that the potential exists for educational technology to assist in building of community (the third element of the multicultural democratic education framework) in the classroom, provided that sufficient and quality resources are available.

Two rationales undergird the study. First, social studies education’s mission of preparing active and effective citizens (National Council for the Social Studies, 1994) may be aided through an incorporation of educational technology in multicultural democratic

education. Second, there has been a lack of social studies education scholarship on effective uses of educational technology in underresourced schools, and this study aims to shed light in this area. Social studies educators have been traditionally charged with educating students for active and effective citizenship (National Council of the Social Studies [NCSS], 1994). This charge has become more important as United States citizenry becomes increasingly politically disengaged and more racially/ethnically diverse. Data on voting rates and polls in the United States clearly shows that political disengagement continues to increase to unprecedented levels, especially among youth (18 to 24 year olds). Concurrently, the number of racial/ethnic minorities is rising, and unfortunately, members of these racial/ethnic minorities tend to be more politically disengaged than the general US population, as evidenced by lower voting rates.

Several social studies educators have argued for a reconceptualization of democratic education to transform this racially/ethnically diverse politically disengaged population into an active and effective citizenry (Banks, 2001; Marri, 2003b; Parker, 1996). Similarly, an increasing number of scholars have also held that educational technology is necessary in social studies classrooms to teach students the skills of active and effective citizenship (Berson, 2000; Crocco, 2001; Glenn, 1990; Martorella, 1997). Thus, this study addresses these two trends by examining how educational technology may aid multicultural democratic education in its mission of educating for active and effective citizenry.

Further, this study considers the increased focus on using educational technology by social studies educators (Crocco & Cramer, 2004; Whitworth & Berson, 2003). The growth in the number of articles on this subject between 1996 and 2001 in publications affiliated with the National Council of the Social Studies (NCSS) and the US Department of Education serves as evidence. This trend is hardly surprising in light of the national priority of technology instruction in the schools over the last decade (Crocco & Cramer, 2004). However, even with increased educational technology implementation in schools, there remains a dearth of studies examining effective uses of educational technology in underresourced classrooms, particularly in social studies. Because of this lack of research, this study attempts to document teaching practices and technology use in an underresourced high school US history classroom.

This paper begins with the research question and an explication of the study's theoretical framework. A description of the methodology follows. Next, the findings for the study are discussed: (a) the teacher's use of the Internet and film as primary informational resources as he created lessons that emphasized critical and multiple perspectives and (b) educational technology serves as a tool to promote critical thinking skills and the skills to effectively attain and manage information. Educational implications are then examined before concluding the paper.

### **Research Question**

The research question for this paper asks, "How did a skilled high school US history teacher use educational technology as a tool for multicultural democratic education?" In answering this question through a case study (as described in Stake, 1995), this paper aims to generate pedagogical examples for implementation in other high school social studies classrooms.

Data on this teacher was collected as part of a larger study on three skilled social studies teachers and Classroom-Based Multicultural Democratic Education (CMDE; Marri, in press). The theoretical framework used was also developed from this larger study. For the

purposes of this paper, the data are analyzed specifically to examine his incorporation of educational technology in his multicultural democratic education pedagogy.

### **Theoretical Framework**

Multicultural democratic education, simply put, is a combination of democratic *and* multicultural education. It aims

to improve race relations and to help *all* students acquire the knowledge, attitudes, and skills needed to participate in cross-cultural interactions and in personal, social, and *civic* action that will help make our nation more democratic *and* [italics added] just. (Banks, 2003, p. x)

Multicultural democratic education begins in the classroom because, as Cuban (1984) stated, true long-lasting educational reform must start in the classroom. It consists of three elements – critical pedagogy, building of community, and thorough disciplinary content – each of which is explained in the following sections.

#### **Critical Pedagogy**

Critical pedagogy engages students in social problem solving by enabling them to think about which problems are worth solving, according to whom, to what ends, and in whose favor (Ball, 2000; Freire, 1990; Parker, 2001). Critical pedagogy works on a continuum and encourages students to move toward action and human agency (Ball, 2000; Freire, 1990) by applying agency through critical thinking in the classroom, then through individual social action, and finally through group social action.

At the first stage of this continuum, teachers encourage students to exercise agency *within* the classroom. Teachers may, for example, use inquiry lessons or discussions with the goal of fostering critical thinkers. Several studies provide evidence that an emphasis on critical thinking may encourage democratic values among students. Torney, Oppenheim, and Faren (1975) found that students in nine countries who engaged in critical thinking activities such as discussion of contemporary issues were politically knowledgeable and held less authoritarian attitudes than did their peers who did not engage in critical thinking activities. Hahn (2001) also found that practice in decision-making after exposure to various viewpoints is essential to develop the knowledge, abilities, and values needed for democratic life. Moreover, civic action, if it does not grow out of critical thinking, may reinforce political naiveté or apathy (Hahn, 2001). Civic action based on critical thinking, however, has the potential to engage citizens working to improve society.

At the next stage, moving to a larger domain, students may be encouraged to exercise agency outside the classroom (Ball, 2000), such as the school itself. Students may, for example, work to have the school send newsletters and flyers in multiple languages to help parents/guardians who may not understand English. During the final stage, where group action is enabled (Ball, 2000), students may be encouraged to work with others to address community problems. Teachers, students, and parents, for instance, can organize to have a mobile satellite library to serve neglected sections of the community.

#### **Building of Community**

Building of community means teachers create a climate of mutual respect to help students build positive relationships, resolve conflicts, and develop group problem-

solving skills (Browning, Davis, & Retsa, 2000; Nelsen, Lott, & Glenn, 2000). Through this element students are encouraged to engage in discussion and interact socially with other students from different racial, ethnic, cultural, and language groups to build understanding. Teachers can structure cooperative groups that enable students from different racial and ethnic groups to become acquainted as individuals (Banks, 2000). This is important because, as Dewey (1916) stated, it is by associating and resolving issues with people whose views are different from one's own that democracy is learned. Even in homogenous classrooms, based either on race, class, or gender, teachers can create cooperative groups that allow students to be seen as individuals, instead of representatives of a specific grouping.

### **Thorough Disciplinary Content**

The principle of thorough disciplinary content contains two complementary elements. First, this principle emphasizes teaching the mainstream academic knowledge, behaviors, and values that reflect views accepted by the subject area or discipline. "Most of the knowledge that constitutes the established canon in the nation's schools, colleges, and universities is mainstream academic knowledge" (Banks, 1995, p. 393). Simply put, mainstream academic knowledge provides students with the "codes of power" (Delpit, 1988) that students need to thrive in schools, colleges, and universities.

In addition to mainstream academic knowledge, thorough disciplinary content also incorporates transformative academic knowledge. "Transformative academic knowledge consists of concepts, paradigms, themes, and explanations that challenge mainstream academic knowledge and that expand the historical and literary canon" (Banks, 1995, p. 394). Students are exposed to multiple perspectives and multiple cases on a given subject matter. Content is presented that challenges the notion that traditional interpretations are "universalistic and unrelated to human interests" (Collins, 1990). Teachers provide students with the content that illustrates more than the traditional viewpoint. Transformative academic knowledge emphasizes the content that questions and critiques the standard views accepted by the dominant society.

### **Educational Technology as a Tool**

The study used this multicultural democratic education framework to analyze one teacher's pedagogy. To examine the incorporation of educational technology into his pedagogy, this study conceptualized educational technology as a tool in the context of larger societal structures (Berson, Lee, & Stuckart, 2001). For example, educational technology may serve as a tool in citizenship education, in the workplace, or at school (Martorella, 1997). In particular, educational technology in schools can provide information, aid in the development of knowledge and skills, and link different locations (Knapp & Glenn, 1996). This conceptualization of education technology as a collection of tools fits with the most common notions of technology in social studies education (Berson, et al., 2001).

## **Method**

### **Case Identification**

The public high school US history teacher selected for this study fulfilled the following criteria:

1. He provided equitable opportunities for all students to learn through integrating multiple sources of information.
2. He used multiple perspectives in his teaching.
3. He encouraged students to expand learning beyond the classroom.
4. He was involved in professional development activities.

These four criteria were viewed as a proxy for “good” teaching (Lightfoot, 1983). Good teachers, in this sense, are teachers whose work “might tell us about the myriad definitions of educational success and how it is achieved” (Lightfoot, 1983, p. 11). It was determined that the teacher met the criteria based on preliminary observations of his teaching, recommendations of the district social studies curriculum director, recommendations from other teachers and administrators, and involvement in professional development activities. Because he met these criteria, he was classified as a skilled teacher.

### **Data Generation and Analysis**

Observations of his teaching took place for twenty-nine 50-minute class periods during the course of a unit of study. He was also interviewed three times: at the start of the unit, midway through the unit, and after the completion of observations. Finally, teacher-generated materials such as handouts, quizzes, exams, and projects were collected and analyzed. Students were not interviewed nor was any student-generated material collected, as the study did not focus on students. The present study analyzed the data to create codes and categories of data through line-by-line inductive coding (as in Miles & Huberman, 1984).

### **Case Context**

This section contextualizes the study with a description of Homestead School District, the teacher, Will Sinclair, and description of the Seventh Avenue School where he teaches (all pseudonyms). These descriptions aid in the understanding of the teacher’s characteristics and the environment in which he teaches. A description of a snapshot lesson, which best captures his curriculum and pedagogy, is included.

#### **District**

The Homestead School District is the second largest in a Midwestern state, serving approximately 25,000 students. Its 54 schools include 32 elementary (K-5) schools, 13 middle (6-8) schools, four comprehensive high schools, and five alternative high schools. The district also has early childhood programs and secondary (6-12) alternative programs located at its 54 schools. The district covers approximately 65 square miles, including all or part of 11 towns, villages, and cities.

#### **Will Sinclair**

Will Sinclair is a White seventh-year social studies teacher in his mid-30s. After working in a local bookstore for several years, Mr. Sinclair decided to enroll in a teaching certificate program in social studies education. He was inspired by Jonathan Kozol’s (1991) *Savage Inequalities*. He stated,

How we could have an area where kids obviously are getting a better deal, and simply because of where they lived? I mean, they were getting better resources and they were getting, for the most part, better teaching in these schools. It really took something

special to get across the importance of school to kids and how school can be a wonderful place. I thought, "Well this is one way I can affect the world, one way I can make a difference." (Interview 1)

Mr. Sinclair started teaching at Seventh Avenue School as a student teacher and became a full-time teacher there upon completion of his program.

### **Seventh Avenue School**

The Seventh Avenue School (SAS), an alternative school, provides a four-semester sequence of academic courses and related work experiences that emphasize a core academic curriculum for each semester. The school's mission is to provide a program for academically struggling students that focuses on completion of requirements for a high school diploma while learning skills needed for independent adult living, citizenship, and work. Academic courses are scheduled for the first half of the day at the school. Students spend the other half of each day working at different work sites away from the school building.

SAS is an underresourced alternative public high school, especially in terms of educational technology. Neither Mr. Sinclair nor his students had access to computers in their classroom. Instead, these students shared a computer lab of 10 computers with the 45 other students who attended SAS. Because there were only 10 computers for 15 students in his class, students were forced to share. At times, because of malfunctioning computers, student access to these computers was additionally restricted during class time. Further, since most students did not own personal computers, SAS provided the only regular access to computers for these students.

### **Students**

Mr. Sinclair's fourth semester class consisted of 15 students who started as a cohort at the SAS together as first semester students, meaning that these students have had the same classes for the last year and a half. There were 10 females (6 White, 1 African-American, 1 Native American/African-American, 1 Hispanic, and 1 Asian-American) and 5 males (4 White and 1 Hispanic) in this class. They all arrived at SAS with zero to five credits (a very low number) after 2 years at a comprehensive high school. His students also had experienced situations atypical for high school students. For example, five students were parents, and several lived on their own. According to Mr. Sinclair, virtually all of the students were on the low end of the socioeconomic scale.

### **Snapshot Lesson**

Mr. Sinclair taught a 1-month-long unit on the Civil Rights Movement. This snapshot lesson, which occurred over 3 days, captures his typical pedagogy during the course of the unit. The lesson focused on the reasons for Martin Luther King's "Letter From Birmingham Jail," beginning with a PowerPoint presentation of eight pictures of the events following the 1964 disappearance and murder of three civil right workers (James Chaney, Andrew Goodman, and Michael Schwerner) in Philadelphia, Mississippi. Every student was expected to verbally answer "W" questions (who? what? why? where? and when?) about each picture. Mr. Sinclair recorded these verbal answers using the speaker notes box in PowerPoint and projected these answers on a screen. Based on the answers provided by the class, students were expected to hypothesize about what the pictures have in common. Mr. Sinclair led a discussion about their answers and subsequent hypotheses.

After this discussion, Mr. Sinclair posted an Internet Web page on the projector showing the chronology of events from the trial of those involved in the murder of the three civil rights workers in Philadelphia, Mississippi. Through these exercises, Mr. Sinclair pointed out the major events and activists involved, along with highlighting the historical tension between African-Americans and Whites in the southern US. These exercises enabled students to synthesize their own hypotheses and understanding in light of actual events.

The next day, Mr. Sinclair projected a PowerPoint slide of a famous picture of Elizabeth Eckford (a 15-year-old African-American girl and one of the "Little Rock Nine," the nine African-American students who integrated Central High School in Little Rock, Arkansas in 1957) with books in her hands, being yelled at by several White men and women as she walked to school. Students individually examined this picture by providing their verbal interpretation of the picture: "They don't like her," "She's going to school," and "She could get beat up." Similar to the previous day's lesson, Mr. Sinclair posted students' answers on the screen before further reviewing the history of the Little Rock Nine and desegregation at Little Rock's Central High School. During this review, one of the students pointed out that the White woman heckling Elizabeth Eckford, Hazel Bryan Massery, later publicly apologized for her actions. Mr. Sinclair added, "Elizabeth Eckford now questions whether it [the fight for desegregation] was worth it because of rising segregation today." To illuminate his point and to connect the past with the present, he created an inquiry lesson on Homestead's current housing and school segregation, which the students investigated using figures found on Web sites of local newspapers, the city government, and the school district.

To end the second day, Mr. Sinclair told students that they would study Martin Luther King's "Letter From Birmingham Jail" the following day. Further contextualizing the historical letter, Mr. Sinclair showed a part of Spike Lee's documentary, *Four Little Girls*. This film focused on the 1963 bombing of the 16th Street Baptist Church in Birmingham, Alabama, an attack that left four African-American girls dead. Following the showing, Mr. Sinclair highlighted several facts evident from the documentary: Spike Lee juxtaposed white and black viewpoints, Birmingham was commonly referred to as "Bombingham," and the citizens shared the sentiment that even Birmingham's streets, sewers, and water were segregated.

On the third day, Mr. Sinclair led a seminar in which the students examined the text of "Letter From Birmingham Jail." Three questions served as the basis for this seminar: How did Dr. King respond to being called an "outside agitator" in Birmingham? How did Dr. King respond to charges that his followers were breaking the law? How did Dr. King feel about being labeled an "extremist" by his critics? Raising these questions, Mr. Sinclair pointed out, "No one knows for certain 'The Answers.' That's why we need this discussion."

Students prepared for the seminar during class in two ways. First, they wrote individual responses to quotes in the letter that they found interesting or that helped clarify Dr. King's ideas. Second, the students, in teacher-selected groups of four, discussed the letter through an examination of whether Dr. King justified breaking laws and whether a law-breaker expresses respect for law by breaking it. After these preparations, Mr. Sinclair led a seminar discussion of the text.

## **Findings**

Seeking to further understand how technology can be used in social studies classrooms, this paper examines the ways in which a skilled high social studies teacher used educational technology as a tool for multicultural democratic education. This section

maps the multicultural democratic education lens onto Mr. Sinclair's teaching described earlier, along with additional data obtained from interviews and other artifacts. Even with significant technology resource restraints, Mr. Sinclair was able to incorporate technology into two of the three elements of multicultural democratic education (critical pedagogy and thorough disciplinary content). Further exploring these practices, this section discusses his attempts to incorporate educational technology into his pedagogical efforts at multicultural democratic education.

### **Critical Pedagogy**

As discussed previously, critical pedagogy encourages students to move toward human agency (Ball, 2000; Freire, 1990) by exercising agency through critical thinking, through individual social action, and through group social action. Using the Internet as a vehicle for information enabled Mr. Sinclair to promote critical thinking, which is the beginning stage of the critical pedagogy continuum. Mr. Sinclair's pedagogy did not promote individual social action or group social action. A discussion of why individual or group social action was not promoted is beyond the scope of this paper (for a more extensive discussion on the lack of promotion of social action, see Marri, 2003b). This section analyzes Mr. Sinclair's pedagogical aims to advance critical thinking and the ways educational technology facilitated this process.

Critical thinking may be defined as a process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication (Scriven & Paul, 1996). The NCSS (1994) endorsed critical thinking as an essential skill "that should be promoted in an excellent social studies program" (p. 7).

Mr. Sinclair utilized educational technology as a tool in several ways to promote critical thinking. First, because critical thought requires information, Mr. Sinclair used the Internet as an information-gathering tool to create lessons because he wanted to provide multiple perspectives and he lacked text resources. He presented viewpoints from both Whites and African-Americans while studying both the events surrounding the 1964 murder of civil rights workers in Philadelphia, Mississippi, and desegregation. This approach contrasts with most textbooks that provide only one viewpoint. During the interviews, Mr. Sinclair suggested that the availability of sources on the Internet enabled him to incorporate this information into his pedagogy. The Internet as an information-gathering tool also proved especially important to Mr. Sinclair because he taught at SAS, an underresourced public school. SAS often did not provide Mr. Sinclair regular access to curricular resources (textbooks, supplemental readings, etc.) otherwise available to better-resourced schools. As a result, the Internet became his primary informational source as he created lessons for his students. Although the school could not provide textbooks, Mr. Sinclair was still able to access information necessary to practice critical pedagogy through the Internet.

Next, Mr. Sinclair used the Internet as a data instrument to promote critical thinking with his students. As mentioned earlier, when a student mentioned that Elizabeth Eckford no longer questioned whether the fight for integration was worth the effort, Mr. Sinclair directed the students to investigate segregation in the city of Homestead. He created an inquiry lesson in which teams of students using shared computers gathered and analyzed data from various Web sites of local newspapers, the city government, school districts, and nongovernmental organizations to examine Homestead's population demographics. Students were not expected to find the "right" answers according to Mr. Sinclair. Instead, they interpreted data available from the Internet to draw their own conclusions, both essential critical thinking skills (Berson, et al., 2001). Access to the Internet enabled Mr.



Sinclair to encourage the development of such higher order skills in his students and, by way of that, individual agency in the classroom.

### **Building of Community**

Unfortunately, the “digital divide” (Compaine, 2001) prevented Mr. Sinclair from incorporating educational technology to facilitate the building of community. However, educational technology was not necessary for him to build community. Ideally, Mr. Sinclair could have used Internet discussion platforms and email exchanges to aid the building of community with his students. For example, asynchronous electronic threaded discussions can potentially make discourse more egalitarian and less focused on the status, power, or culture of students (Larson, 2003). Such discussions could have also allowed typically unheard students to have a “voice” (Larson, 2003; Merryfield, 2000; Sproull & Kiesler, 1991). His students, for the most part, did not have regular access to a computer and the Internet outside of school. As mentioned earlier, SAS represented the only venue of access for these students. As a result, students could not regularly participate in these Internet-based activities. Even during class time, the lack of educational technology resources at SAS served as an obstacle for such discussions because there simply were not enough computers for all of the students to use. Recognizing these realities, Mr. Sinclair relied on the Internet to gather information for curriculum that drew on students’ experiences and lives in the building of community.

Even without the aid of educational technology, Mr. Sinclair created a comfortable classroom environment that had a strong sense of community. To build community, he used activities and discussions that helped students see each other as individuals, rather than representatives of larger groups, with the goal of understanding each other. For example, during the seminar discussion, he frequently referred to where the students lived and attempted to tie in the curriculum to their family, friends, or work life. This was important because these students lived in many different neighborhoods in the city of Homestead. They came from various cultural, racial, and socioeconomic backgrounds and, for the most part, did not socialize with others outside of this class because of work and family obligations.

According to Mr. Sinclair, despite their differences, he wanted to stress the importance of this class as “a public space where they get together with others to learn.” Because of his methods, students were exposed to a variety of perspectives that moved beyond stereotypes and allowed them to see each other’s personal stake in the issue at hand. For example, students asked vocal students to be quiet to make sure all of their peers had a chance to speak, even if an opposing viewpoint was expressed.

Unlike in the other two elements of multicultural democratic education, educational technology was not a factor in the building of community in Mr. Sinclair’s classroom, illustrating that the building of community can occur in classrooms without the aid of such technology. This example points to the need for further research that examines ways in which educational technology either fosters or inhibits the development of classroom community.

### **Thorough Disciplinary Content**

Mr. Sinclair used educational technology in three ways to promote thorough disciplinary content: emphasis on critical perspectives, infusion of multiple perspectives, and acquisition of a “code of power.” These three examples demonstrate the ways in which educational technology can be used to accomplish multiple goals. First, Mr. Sinclair’s

strength lay in incorporating critical perspectives that question and critique the standard views accepted by the dominant society. Mr. Sinclair stressed critical perspectives by, for example, looking at the fight for desegregation. In his teaching about the Little Rock Nine, Mr. Sinclair pointed out that segregation in the United States was not just a historical event as it is commonly referred to in most US history textbooks. To overcome this misconception, he included Homestead's housing statistics highlighting race/ethnicity. As mentioned earlier, Mr. Sinclair's students, using the Internet, also investigated the current state of segregation in Homestead. He aimed to show how segregation continues to be a current issue facing citizens today and did not end with the victories of the Civil Rights Movement.

Second, Mr. Sinclair emphasized multiple perspectives (based on race/ethnicity, class, and gender) and interjected stories from different groups to make the content more complete. For example, when discussing Dr. King's letter, he provided comments from a variety of groups, such as African-Americans who lived in Birmingham, other African-American community leaders, Whites from Birmingham, and the Ku Klux Klan. In addition, showing Spike Lee's documentary, *Four Little Girls*, allowed many voices to be heard and exposed students to the idea that the movement did not have a single unified idea behind it. Instead, students learned that a variety of perspectives played a role. Through the incorporation of educational technology, film in this case, Mr. Sinclair aimed to go beyond the "well, this happened and that happened" method of teaching history because his students found this approach boring and not worthwhile. Further, because his students had not been successful in traditional school settings, Mr. Sinclair sought to move away from the "facts and dates" method of teaching history. Using film and other Internet sources enabled him to craft his pedagogy to meet this multiple perspectives goal.

Third, while Mr. Sinclair stressed transformative academic knowledge, he limited the emphasis on mainstream or traditional academic knowledge. Because Mr. Sinclair did not stress traditional academic knowledge, his students were not completely prepared with established canons found in most textbooks and US history classrooms. Instead, he stressed "codes of power" that students needed to succeed in traditional academic settings. According to Delpit (1995), codes of power, such as ways of talking, ways of writing, ways of dressing, and ways of interacting, serve as rules for participating in power. Thus, success in institutions – such as school and the workplace – requires the acquisition of these norms of power. By explicitly teaching the codes of power, teachers aid students in gaining the knowledge and skills to succeed in the larger society.

Mr. Sinclair placed importance on students' gaining the skills to work with written texts, pictures, audio recordings, music, and film clips. For him, working with educational technology was a code of power that students needed. According to the NCSS (1994), acquiring and manipulating data means that teachers aim to "increase the student's ability to read, study, search for information, use social science technical vocabulary and methods, and use computers and other electronic media" (p. 8). He expected students to engage with information in order to understand it and incorporate other evidence from their own research. For example, Mr. Sinclair's students relied on Internet-based research for their investigations. For this to occur, he taught students, even with limited access to computers and the Internet, how to conduct effective and efficient research on the Internet. Such a skill becomes especially important given the proliferation of low-quality Internet sites with little education value. Teaching this skill was meant to help students effectively navigate various data sources both in and out of school. For instance, knowledge of navigating the Internet is a critical skill that enables a person to have more access to gainful employment (Peck, Cuban, & Kirkpatrick, 2002). As such, Mr. Sinclair provided his students with the skills for economic empowerment, as well.

## **Implications**

Using as its framework a conception of multicultural democratic education, overall this study aims to help social studies educators foster active and effective citizens. Further application of that framework analyzes the ways in which Mr. Sinclair used educational technology to facilitate multicultural democratic education. It found that Mr. Sinclair used educational technology in several specific ways. Mr. Sinclair used the Internet and film as primary informational resources as he created lessons emphasizing critical and multiple perspectives. In addition, educational technology served as a tool for him to teach critical thinking skills and the skills to attain and manage information effectively. Even though Mr. Sinclair's use of educational technology may seem simplistic, these findings are important in several ways

### **Educational Technology**

To begin with, this study highlights some of the obstacles faced by teachers who aim to incorporate educational technology in underresourced schools. Rather than reporting on the increasing numbers of models of pedagogy incorporating educational technology in resource-rich schools, this paper presents such models in less than optimal conditions. In addition, this study provides educational technology-based pedagogical examples that emphasize higher order skills rather than drill and practice programs, which are so common in underresourced schools (MacGillis, 2004). For example, Mr. Sinclair's practice stressed critical thinking and data manipulation skills that may enable his students' abilities to work with information both in and out of school. His practice provides illustrations of how educational technology may be used to promote such skills in schools with significant resource constraints.

Some scholars have questioned whether computers can promote collaboration (Oppenheimer, 1997; Tiene, 2000; Warschauer, 1997). This study also raises questions about educational technology's ability to develop communities in underresourced classrooms. Mr. Sinclair illustrated that community can be effectively developed without the aid of educational technology. However, the digital divide, like the one found in Mr. Sinclair's classroom, calls attention to potential problems occurring when not enough exists for all students to use computers regularly. Such situations may lead to increased competition among students, as well as potential disputes over access (Berson et al., 2001), which may undermine the building of community in classrooms with limited educational technology.

### **Teacher Educators**

Teacher educators may want to share this study with preservice teachers to help them think about possible interactions between teachers' rationale, educational technology, instructional plans and strategies, practice, and contexts. By doing so, teacher educators would be working to help preservice teachers think about the purpose of teaching for active and effective citizenship in complex ways. For example, Mr. Sinclair's building of community emphasized activities that helped students see each other as individuals with the goal of understanding across racial/ethnic, gender, and socioeconomic boundaries. Such pedagogical examples may help preservice teachers grasp the reality that teaching students to become active and effective citizens in these diverse United States is a challenging enterprise that requires intense preparation and focus.

Finally, this study may help teacher educators make the link between critical pedagogy and implementation in actual classrooms for practitioners. Advocates of critical pedagogy

press teachers to help students become critical thinkers, decision makers, and transformers of their current life situations (Giroux & McLaren, 1994). However, several scholars have criticized critical pedagogy for its lack of applicability to classrooms. The inaccessible language of critical pedagogy made it difficult for practitioners to make links between the rhetoric of critical pedagogy and its implementation within actual classrooms (Ball, 2000). Ellsworth (1989) also criticized the literature on critical pedagogy because of its lack of usefulness in assisting educators to think through and plan improvements in actual classroom practice. The classroom practices described in this study can aid teacher educators to operationalize such a philosophy for their own students. For example, Mr. Sinclair's emphasis on critical perspectives, infusion of multiple perspectives, and acquisition of a code of power illustrate how critical pedagogy might be actually implemented in racially, ethnically, culturally, and socioeconomically diverse classrooms.

### **Conclusion**

Will Sinclair, a skilled United States history teacher, taught at an underresourced alternative high school that served academically struggling students. Mr. Sinclair created interdisciplinary curricular units, combining psychology, English, and US history, that closely mirrored his conceptions of the knowledge and skills his students needed for active and effective citizenship. During one such unit, entitled Civil Rights Movement, Mr. Sinclair used educational technology as a tool for multicultural democratic education. His practice illuminated how to implement multicultural democratic education with educational technology, especially in underresourced schools. In addition, his pedagogy provides classroom examples for teacher educators and both preservice and in-service teachers.

Additional studies that critically examine multicultural democratic education are needed because the US continues to foster a racially/ethnically diverse politically disengaged population. Education technology may aid educators in this mission. However, given the continual existence of the digital divide and underresourced schools, educators must proceed with caution to explore these possibilities.

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### **Notes**

1. I use the definition by the US Census Bureau in the 2000 Census for defining racial/ethnic minorities. Racial/ethnic minorities are persons of Hispanic origin, Blacks, American Indians, Eskimos, Aleuts, Asians, and Pacific Islanders.

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