

Culturally Responsive Uses of Computer Technology: A Portrait of Three Teachers Working in Urban Schools

Rona Frederick
The Catholic University of America

Kmt Shockley
George Mason University

ABSTRACT

There is a dire need to prepare all students, especially those most marginalized in the US, for the digital age. Unfortunately, access to and uses of the Internet and computer related technologies continue to be a persistent problem for many students. Since schools serve as one of the few access points for utilizing computer technologies, this article, using an interpretive case study method, highlights three exemplary African American teachers working in under resourced inner urban schools in the mid-Atlantic region of the United States who use computer technology in culturally responsive ways. By exemplary, we mean that each teacher was chosen via school nomination because they demonstrated a relentless commitment to their students; these teachers drew connections between their instruction and their students cultural experiences; and they used computer technology in meaningful ways. The results suggest that these teachers thought of computer technology as a vehicle to excavate positive imaging and authentic material to expose their students to their cultural heritage. The research also revealed that the teachers used the Internet as a mechanism to assist in the development of their students' personal and cultural identity.

INTRODUCTION

There is a dire need for teachers to prepare *all* students for the digital age (National Education Association, 2008). Computers and related technologies are commonplace in every facet of industrialized societies. In commerce, businesses continue to use more and more technology to produce goods and provide services for their consumers. A simple walk into the local grocery store may find one using a self-checkout register to assist them in the purchase. On a personal level, many individuals rely on computers for personal correspondence, information gathering, business transactions and job searches, all of which make our everyday existence more efficient. According to a Debell and Chapman (2006),

"Since these technologies have the potential to improve access to information, to help get tasks done better or more quickly, and to facilitate communication, computer and Internet use rates are indicators of the standard of living." (p. 3)

Unfortunately, the utilization and reliance on computer technology in society has a devastating impact on many African American students, who have limited access and/or limited experiences using computer technologies (Morse, 2004). The lack of access and/or limited exposure translates into less personal and professional opportunities for students after they graduate from high school. Therefore, those who are already marginalized are less able to function and compete in an increasingly technological and global society. These circumstances create a number of questions that our society must grapple with in order to move forward with some measure of equity.

The broader question becomes, first, how do schools prepare diverse students for a technological society? Second, since we know that urban schools serve as one of the few access points to computer-related technology for children of color and poor children (US Department of Commerce, 1999), how can we, as teacher educators, prepare teachers, who have the ability to impact change, to foster environments where their diverse students engage in the use of the Internet and computer-related technologies in meaningful ways. And third, what can we learn from exemplary African American teachers who integrate computer technology into their classroom practice? The first two represent ongoing questions that illustrate the growing urgency for needing to resolve the digital divide. The latter question provides the foundation for this article. That is, this article examines the practices of African American teachers in lower resourced urban areas who integrate computer technology into their pedagogical process.

Although studies have been conducted on successful urban schoolteachers and their pedagogical philosophies (Irvine, 2001; Ladson-Billings, 1995), few explore how exemplary African American teachers use computers “successfully” to enhance teaching practice in urban classrooms for African American students. By exemplary, we mean, teachers who drew connections between instruction and their students’ racialized experiences and lives. Since these teachers work largely with Black students, they challenged inequitable schooling conditions by countering barriers to accessing knowledge, a historical issue in the Black community. We found that these educators thought about computer technology as a liberating tool. They used the Internet and computer-related technologies to both access and present empowering stories about Black community. They wanted their students to use the Internet and computer-related technologies to not only question larger social issues and ideas, but to actively make change for their communities. Finally, we came to understand that their use of computer. This article provides such highlights.

This article also responds to the absence of African American teachers’ ‘voice’ by examining their use of computer technology in inner urban environments. In previous works, African American teachers and their use of computer technology was examined from a critical race and African centered perspective (Frederick, 2007). In this article, we examined perspectives, knowledge construction and identity building as exemplary African American teachers infused computer technology into their teaching practice. We begin by situating this discussion within a larger theoretical discussion concerning the status of pre-service teachers and culturally relevant teaching. This is followed by teaching vignettes focused on these educators and their perspectives and practices while using computer technology. We close with discussion and implications.

AFRICAN AMERICAN TEACHERS SITUATED AT THE INTERSECTION OF RACE, CLASS AND COMPUTER TECHNOLOGY

The need for pre-service teachers to be prepared for culturally diverse students in the digital age is well documented. In 2020 approximately 40 percent of the nation’s school-aged children will be students of color (Irvine, 2001). While the student population is growing more diverse, prospective teacher populations remain predominately white and female. At the same time, there is mounting pressure to prepare all students for the ‘digital age.’ The continuing challenge for schools and for teachers is to foster an environment where students develop necessary technological skills (CEO Forum, 1997; Education Week, 2007; School Technology and Readiness Report, 1997).

However, in many cases, having teachers, in-service, pre-service and alternatively trained, developing the knowledge skills and dispositions to understand the history, experiences and learning styles of African American students continues to be a prevalent issue (Hale-Benson, 1982; Hilliard, 1997). In general, the literature pertaining to urban education and children of color is littered with accounts of tracking (Oakes, 1985); oppressive conditions

(Kozol, 1991); tendencies toward over-centralization and over-bureaucratization (Button, 1994), as well as examples of poor teaching (Haberman, 1991). Moreover, these students attend schools that suffer from unequal allocation of resources and other institutionalized policies (Darling-Hammond, 1995; Fine, 1991; Kozol, 1991), which translates into dilapidated infrastructures, distributions of substandard books (Neuman & Celano, 2001) and limited or inferior access to computer and related technologies.

Academically, many African American students' score below basic levels on achievement in reading and mathematics standardized assessments (NCES, 2007). In particular, research indicates that African American children are placed in special education classes at higher rates than their White counterparts. In U.S. schools, African American students are only 17% of the total population, but they represent 41% of students in special education classes, with 35% of those students labeled mentally retarded (Shockley, 2002). Furthermore, African American students disproportionately represent 36% of those who are suspended and 32% of those who are expelled from school (US Department of Education, Office of Civil Rights, 2002).

Researchers offer numerous explanations for disparities in academic achievement for African American students attending public schools. Some argue that there is a widespread problem of low expectations by many white, female pre-service teachers with regard to the academic achievement of children of color (Ladson Billings, 1999; Ziechner, 1993, Ziechner & Melnick, 1995). Others believe that there is a lack of cultural congruency among teachers and students (Irvine, 2000), while other scholars see structural inequalities reinforcing racism, classism, and sexism in educational institutions. As Darling-Hammond (1995) argues, students from racial and ethnic "minority groups" in the United States face persistent and profound barriers to educational opportunities as a consequence of structural inequalities in access to knowledge and resources.

We contend that social and cultural congruency between teachers who are members of the African American community and their students is important in teaching for culturally responsive ways in urban schools (Haberman, 1995; Irvine, 2000). In other words, understanding the cultural mores, rites, history, and experiences, and learning styles of diverse groups matters (Shockley, 2007). Currently, the teaching force comprises teachers who are mostly white and female (Villegas & Lucas, 2002). Included in these numbers are the growing numbers of alternatively certified teachers matriculating through programs like *Teach for America*, who, in many cases, are White, middle class and have limited previous exposure to the populations with whom they teach. At the same time, minorities comprise 42% of US public schools (NCES, 2007). Meanwhile, the general student population is undergoing dramatic shifts in demographics. The new demographics demand that teacher education programs foster environments where teachers understand the diverse cultural needs of all students across race, class and other forms of difference (Ladson-Billings, 1999).

In 2007, however, the inequalities and aforementioned disparities prevalent in the US remain largely unchanged and are further complicated by the integration of computer technology. Educational technologies such as the Internet and computer-related technologies, accessible in many schools, are still unavailable, non-functional or sub-standard in many of the homes where students of color and poor students live (Debell & Chapman, 2006). According to the National Center for Education Statistics (NCES), while computer use varies little by socioeconomic class with regard to access to computer technology at public schools, 60% of those families living in poverty have access to computers at home. Thus, school becomes the sole access point for use of the Internet and computer related technologies. Within schools, access to and meaningful uses of computer technology still remain issues (NCES, 2000, NCES, 2006, Smerdon, 2000) further privileges those students attending schools that are predominately White or of higher socio-economic levels, while further marginalizing African American students, especially those attending schools in urban settings.

Although teachers, in general, are challenged with ways to integrate meaningful uses of computer technology into their practice (Cuban, Kirkpatrick & Peck, 2001; Tyack and Cuban, 1994), some exemplary African American teachers continue to both reject and resist the hegemony they face by striving to create spaces to educate their students (Ball, 2000; Irvine, 2000). Moreover, some of these exemplary African American teachers use the Internet and computer technologies not merely for the purpose of skills acquisition but also to transform African American students' lives.

In what follows, we present three vignettes of African American master teachers who counter the idea that computer technology is not a transformative tool in inner city schools where access and use of computer technology is one of the lowest in the US (ED Week, 2007). It is our hope to provide a framework for understanding these exemplary teachers' wisdoms of practice.

METHODOLOGY

Given that we were interested in capturing the lives, experiences and teaching practices of transformative African American teachers, we employed an interpretive case study approach that enabled us to compare and contrast the diverse ways these teachers constructed "exemplary teaching" for African American students using computer technology. We examined how these teachers delivered their teaching practice for African American students by focusing on three areas: how they built relationships with students; why they made particular curricular choices; and, their perspectives on teaching.

The following research question guided this study: How do excellent African American teachers in urban schools educate their students by using computer technology in their teaching practice?

The subsidiary questions consisted of the following:

(a) Relationships: In what ways do African American teachers make connections to their students and to the community in which their students live by using the Internet and computer-related technologies?

(b) Knowledge: What are these African American teachers' conceptions of knowledge as it relates to the Internet and computer-related technologies?

(c) Curriculum: How do progressive African American teachers use the Internet and Computer related technologies in ways that demonstrate an understanding and embracing of Africa and the Diaspora?

(d) Dispositions: What kinds of dispositions do African American teachers who use the Internet and computer-related technologies in urban schools embody?

(e) Perspectives: What are African American teachers' perspectives of the role of the Internet and computer-related technologies in teaching?

Case Selection

Each of these exemplary teachers worked in inner-urban schools in the Mid-Atlantic and two of them taught in the public schools, and one taught in an independent school. Each was referred to us based on criteria developed from the literature on culturally relevant teaching (Ladson-Billings, 1994). The criteria consisted of the following: African American teachers who understood and embraced African American culture in their curriculum and in their instruction; African American teachers who worked diligently to counter barriers to accessing knowledge; African American teachers who taught in culturally-responsive ways and manifested dispositions

that led students to believe in themselves and their abilities; African American teachers who used the Internet and computer-related technologies to enhance their teaching practice in all African American inner urban classrooms. We relied on the process of school nomination to solicit participants. We solicited recommendations from administrators in schools and in the central office as well as teachers to locate exemplary teachers.

Data Collection and Procedures

In order to document their practice, each teacher agreed to participate in both formal and informal interviews as well as classroom observations conducted by one of the researchers. During the interview phase, teachers were asked questions such as: How do you approach planning your lessons using computer technology with your students? What kind of things have you done in the classroom to facilitate academic success of African American students? And, are there students that you have been unable to reach using computer technology? Observations were conducted over the course of a thematic unit. Thematic units lasted between 2 weeks and 6 months. The researcher looked specifically at the following activities: classroom dynamics, classroom discourse patterns, classroom activities and the physical setting. Additionally, all interactions with participants were audiotaped. Like other participatory research whereby research is conducted with the larger goal of co-collaboration and the use of language grounded in shared experiential context (Lincoln & Guba, 2000) interviews were carried out in an interactive, dialogic manner that elicited interviewer self disclosure in order to arrive at mutual understandings (Lather, 1991). In other words, the interviewer fostered an atmosphere whereby participant and interviewer co-constructed meanings. Much like a feminist approach, the interviewer strove to establish a relationship that was collaborative and non-exploitive and void of objectification in order to conduct research that was transformative (Cresswell, 2007)

Analysis

We used Nvivo qualitative software to begin the process of open coding. We sifted through interviews, observation transcriptions and field notes closely examining events, sayings, and actions that were found to be conceptually similar (e.g., technology as exposure, technology as exploration). We coded and recoded sentence-by-sentence and then by paragraph using the research questions as a guide. These codes were derived from meanings of sentences and paragraphs. Axial coding, “the process of relating categories to their subcategories” helped us to construct broader meanings of the data that would later be scaffolded into narratives (Strauss & Corbin, 1998, p. 123). During this process, we grouped, sorted, and classified themes searching for recurrent patterns (e.g., kinds of discourse around Blackness, interactions with students, discourse of empowerment, discourse around technology). Repetitive phrases and recurring metaphors in both coding processes became the dominant themes in the construction of each vignette.

FINDINGS

In this section, we present three vignettes of teachers’ practice. One high school teacher, Kathy Jones, pseudonym, guided her African American students through the “Middle Passage” using *The Amastad* and the Internet as the basis for the thematic unit. Another teacher/principal, Brother Kofi, pseudonym, helped his students to examine the implications of The Booker T. Washington/Dubois Debate on vocational/intellectual education and implications for the African American community using the Internet as a vehicle. Finally, a middle school teacher Christina Cooper, pseudonym, fostered a space where students unleashed their “voice” using Microsoft Office Tools. Included in each vignette are teachers’ perspectives on teaching African American students using computer technology with limited resources as well as their teaching practices.

Kathy Jones

Jones taught at an all African American inner-urban high school located in Washington, DC. Her class consisted of sophomores, juniors and seniors, many of whom shared that they had some exposure to computer technology but limited knowledge of who they were as people of African descent. Jones integrated the Internet and computer technology into various components of the unit. Her goal was to expose her students to African culture and to utilize computer technology and related software as a vehicle to help her students design culturally relevant images.

Jones believed that the Internet and computer-related technologies were powerful teaching tools. She asserted that by using the Internet, “I can take these students to a farm community; I can take these students to the Ancient Pyramids in Africa ... I can take them to Spain to see Balboa the new architecture...” In other words, Jones recognized that by utilizing the Internet, her students would experience simulations that would allow them access to physical spaces that they, under normal circumstances, might only read about in a book.

Jones also recognized the power of the Internet as a medium to tap into African-centered ways of knowing and being. In other words, she wanted her African American students to access relevant knowledge that would help them to develop a cultural consciousness. Therefore, she believed that information accessed on the computer must be culturally meaningful and relevant to her students’ living in the inner-urban context. In this way, computer technology was used to support Jones’ African-centered pedagogical practice. It served as a medium to help her students understand the interconnections between ancient Africa and African Americas. She also attempted to provide a foundation that would help her African American students re-conceptualize and re-define their identities in ways that countered more overt racist logic and African American degradation reproduced by stereotypical images seen daily in commercial media. For example, during one class session she shared the following empowering statistical data about African Americans to the class:

Jones: There are 37 million African Americans in the United States and 52% are female. There are 96,000 African American engineers--whether mechanical or electrical; there are 41,000 African American physicians ...

In this discussion, Ms. Jones worked hard to give her students insights and a more nuanced account of African American socio-economic reality. Likewise, she desired for her students to challenge more subtle and indirect forms of racism encountered through the media relationships, institutions, corporate businesses, and the legal system.

In what follows, we will demonstrate how Ms. Jones used content found on the Internet to legitimize the contributions and stories of knowledge by and for African and African American people. In addition, we observed Ms. Jones helping her students to come to understand their connections to Africa, in turn, promoting critical consciousness. For example, she recognized that by tapping into certain liberatory websites, her students could be exposed to different cultures and lifestyles that they might never experience otherwise.

According to Jones, the purpose of the Amistad thematic unit was to “help her students awareness of their African cultural past.” Throughout the year, Jones designed a number of computer-enhanced thematic units that incorporated her students’ personal experiences while simultaneously connecting them to a range of African concepts, experiences and ideas. More specifically, Jones wanted her students to “extend their natural talent and understandings by using the computer technologies” to understand how their ancestors persevered and resisted the horrors of slavery. Ms. Jones attempted to foster an environment where students began to develop an understanding and valuing of their cultural heritage.

Jones officially began the Amistad thematic unit explaining the connections between Africa and African America. Her students sat at tables shaped in a U and listened intently as she briefly explained the diagram and the importance of knowing their geographical and cultural source. She began with the contributions of ancient Khemet, which she referred to as the beginning of civilization and drew connections between ancient Khemet and Africa to Slavery, the Civil War, and the African American Cowboys.

Next, Jones turned her attention to the story of the Amistad. Students learned details about the story of Debbie Allen and her desire to turn the small tome she found at the Howard University library into a movie entitled, *The Amistad*. *The Amistad* is about a group of Africans who were captured by Portuguese slave hunters and transported to North America. The enslaved Africans, led by Singbe, resisted and revolted, captured their ship, La Amistad, and were eventually seized off the coast of New England. The African captives won their freedom in a case before the United States Supreme Court and ultimately sailed back to their homeland in Africa.

Jones then showed the movie, *The Amistad*, to her class. As students watched the movie, Jones narrated from the back of the room explaining different aspects of the story. The showing was followed by a class discussion about concepts such as symbolism (e.g., shackles, sun) as well as ways the movie connected to her students' daily lives.

After viewing the movie, Jones' students designed spot drawings based on an important theme or symbol that resonated with the student throughout the movie. In this context, a spot drawing refers to a detailed sketch of an image. Jones taught her students about page layout and editorial statements. Using samples of page layout from "Essence Magazine," (a popular African American women's magazine), Jones taught her students fundamental designs and proper terminology for page layout. In addition, she taught her students how to write an editorial statement. Each editorial statement focused on an aspect of the movie that resonated with the students. The editorial statement supported the spot drawings. After her students completed the spot drawing, Jones wanted them to scan the images into the computer so that each spot drawing would be digitally enhanced. Unfortunately, throughout much of the thematic unit, the scanner was broken. Instead, Jones asked her students to capture their spot drawing images on digital camera and stream the images into the computer.

Jones then demonstrated how to manipulate images to meet her students' personal needs. During an observation, students gathered around the computer while Jones digitally manipulated the image of a Kente cloth outfit. She used Photodeluxe software, an outdated version of Photoshop software, as well as PowerPoint to show how students could transform the image size and colors. Jones encouraged her students to use the computer technology and their imagination to transform their spot drawings in ways that they could not do by hand. As she finished the mini-lesson, she said, "you have control over what the viewer sees." Jones fostered a space where her students thought of themselves as the designers and the co-constructors of images for and about their African culture. Jones encouraged her students to work in collaboration since her equipment was limited. Some students worked on designing their spot drawing, while other students went on-line to capture images and symbols that would enable them to complete their spot drawing.

One student used images found on the Internet as well as images drawn by hand and scanned them into the computer. She used Photo Deluxe to manipulate the shackles in a way that represented the enslavement of people of African descent. The image was then transferred to PowerPoint in order for the editorial statement to be added. She called this image, "Our Beautiful African People: The Depiction" and wrote the following editorial statement:

The scene which affected me most in the “Amistad story” depicted our beautiful African people bare naked, forced from their homes, to a foreign land, shackled down in darkness, and beaten like animals. As I watched the screen, I begin to feel a sense of disgust come over me, as the white slave keepers repeatedly cursed and beat, our people, people who were once kings and queens of great dynasty.

With the use of the word “our” she built connections between herself and her African ancestors. When she wrote, “I watched and I felt a sense of disgust,” we got the sense that the images and the depictions captured in the movie had a profound effect on how she viewed the Middle Passage. For her, the events became real. She also recognized that as a result of the horrific process, enslaved Africans were forced to live in America. Finally, she highlighted the significance that before the tragedy and in spite of the tragedy, Africans were members of a great dynasty.

As a culminating exercise, Jones’ students created two books in the form of compact discs called “Amistad” and “Amistad Extended.” Additionally, each of her students created a personalized compact disc, a digitized portfolio which held the digitized book and other digitized projects each student created throughout the year. Jones wanted the friends, family, employers, potential admission directors at colleges and universities, the local community as well as those outside of their community to learn about Amistad and to see samples of her students’ work. In addition, the work was to be placed on the Internet, which, in turn invited an international audience to view the project. Finally, the “Amistad,” the book, was to be displayed at the exhibit hall when the re-constructed ship docked at the waterfront in their city.

Kofi Jefferson

Kofi Jefferson served as principal and educator of a multi-leveled 5th-8th grade class at an African-centered school, Sankofa Academy. We refer to Kofi as Baba Kofi since that is how the students and community members referred to him. Sankofa Academy was founded in 1977, emerged out of a working-class, politically-conscious African American parents’ community desire to have child-care. A member of the Council of Independent Black Institutions (CIBI), Sankofa has distinguished itself as a “non-public, precollegiate, self-governing institution that is not financially dependent upon a larger public or sectarian organization” (Jones, 1992, p. 85). The mission of Sankofa, as well as other CIBI schools, is to “tackle, absorb, decipher, reject, appreciate European American culture in all its racism, complexity, liberation, and ideas and models” (Madhubuti, 1994, p. 8). To this end, culture, as a process, served as a tool for educating African American children.

Like Jones, Baba Kofi used the Internet as a counter-hegemonic tool to provide his students with exposure to African ways of being, knowing and understanding via imaging, primary documents located on the Internet. This way of using the computer technology was congruent with Baba Kofi’s teaching philosophy. The motto in his classroom was “exposure is the key to success.” In speaking with Baba Kofi over time, we learned that he was excited about the possibilities that computer technology brings. He shared, “with a book we have to create our own images in our heads. When I read Booker T. Washington’s *Up from Slavery* years ago, I had to visualize images in my head as I read. With the [computer the] children are able to see that images [of Booker T. Washington] in real time. So that is it. It is fascinating what technology can offer, if used properly.” By real time, he was referring to the immediacy of seeing images, hearing actual speeches, linking to relevant resources and being a part of the atmosphere of the time period within a matter of seconds. Baba Kofi argued that this makes the Internet one of the most powerful educational tools.

As part of his responsibilities as a teacher, Baba Kofi believed that his students must “master” the use of computer technology since it represents one of many essential components necessary to compete with other racial groups. He was purposeful about the ways that computer

technologies should be used. His African American students must not only know how to use computer technology in ways that lead to the building of self-knowledge and consciousness, but also his students must become the creators, designers and constructors of computers and related software in order to compete with other racial groups. In doing this, his students would become the “producers of knowledge” about computers as opposed to the consumers.

I observed Baba Kofi and his 28 students, over the course of a two-week thematic unit. During that time, I focused on how he infused the use of computer technology and the Internet as a “transformative” teaching tool in his social studies thematic unit. For Baba Kofi, “transformative” meant the way that he used computer technology to allow the voices and images of powerful African American leaders to be illuminated in the “official” school curriculum. Although, subtle in its use, the computer technology informed how his students came to understand important ideas in this debate as well as their own personal responsibilities as the emerging generation of African American leaders.

The thematic unit consisted of three consecutive activities: a reading from Asante’s text entitled *African American History: A Journey of Liberation* called “African American Leaders Speak Out” an Internet search, a mind mapping activity also referred to as cognitive mapping. In its design, the thematic unit helped students to conceptualize and understand the basic tenets of the debate between Booker T. Washington and W.E.B. Dubois. Throughout the thematic unit, Baba Kofi invited his students to engage in activities that focused on the historical context, the major thinkers, and the main arguments during that time period. These activities led to the final dramatization, which consisted of a debate between the two eighth grade classes in which students represented the side of either Washington or Dubois. During the debate, students argued for the best way to educate the African American community during reconstruction.

The thematic unit began with students reading a chapter entitled, *African American Leaders Speak Out*, focused on African American leaders at the turn of the 20th century. Among the most notable were Booker T. Washington and W.E.B. Dubois. In short, the chapter covered the life, time and thoughts of Booker T. Washington and W.E.B. Dubois. Also highlighted were William Trotter, who viewed Washington as a danger to African American people, Ida B. Wells, a crusader against lynching and Carter G. Woodson who argued that a Eurocentric method of education would create an African American race of people who would accept the idea of European superiority and African American inferiority.

Baba Kofi asked his students to use the Internet to locate Dubois’s essay “Of Mr. Washington and others” from his book, *The Souls of Black folks*. They were to locate the speech that Booker T. Washington gave at the Atlanta Cotton States Exposition. The students conducted an Internet search to find the speeches by placing in the search box the title of each of the speeches. Students, on their own accord, further searched for the Atlanta Compromise speech since it was referenced both in the textbook and in the speech “Of Mr. Washington and others.” In addition, students were able to locate images by selecting a Google image search of Washington and Dubois. As students searched, they found pictures and images of African Americans from the 19th century. In the following passage, Kofi noted the response from the students as they researched Washington and Dubois,

The students became excited. It tends to wake up the assignment to be able to use the technology and see Booker T’s picture along side the speech; I mean that is amazing to be able to see that image and those words right next to it. And then when you finish with him to be able to go and see W.E.B. Dubois’s picture with the Niagra movement and all of these Black men standing around them, the talented tenth and to see his speech... using a medium that they are familiar with brings it right home for them.

In addition, both groups located information about the Niagra Movement, the Atlanta Compromise, Tuskegee University and any information that would aid them in winning the

debate. As part of the assignment, students were asked to respond to the following questions about Washington and Dubois and their philosophies, arguments and strategies for racial uplift.

After downloading their primary speeches and other relevant information from the Internet, students gathered in their teams in preparation for the debate. The debate was held in front of the entire school. The Dubois Team argued the value of using one's mind that will in turn move the Black community out of a state of depending on others for their survival. They also noted the tremendous contributions that left by Dubois that can be seen on-line.

Washington's Team argued that Washington left one of the greatest schools in the country. He also developed a plan that would give jobs to the masses. Finally they argued that Tuskegee students made their own bricks to build the Institution. The debate ended with members of the audience, the rest of the junior high school voting on the side with the most logical argument.

The culminating debate revealed the evolution of two thoughts in the minds of students. First, students recognized that contemporary Blacks are still in a mental state of dependency, not much different than the physical state of dependency of their enslaved ancestors. However, in acknowledging that many members of the African American community lacked some form of autonomy, these students cited "managing money", building and supporting Black-owned business as a way to eliminate mental and physical dependent states of being.

Second, students on both sides of the debate recognized the need for what Agyei Akoto refers to as members of the African American community "owning and controlling the psychic and physical space that they call their own (Akoto, 1992, p. 3). In other words, these students viewed the concepts of community control and institution building as important contributions left by both Washington and Dubois (Asante, 1992, Akoto, 1992; Doughty, 1973). They saw the answer for what had to be done with members of the African American community as not only managing one's own money, but also constructing, owning and supporting Black-owned businesses.

Kofi fostered a space where students learned the importance of self reliance as well as the Ngoza Saba principle Kujichagulia (self determination). In other words, his students learned through structured activities like textbook reading, mind mapping activity, Internet research, and debate that they and other members of the African American community must take control of their own destiny, their institutions, and their resources. That includes liberation of the mind, which leads to the freeing of the physical state, not only individually, but for the whole African American community. Kofi, through his classroom practice, exposed his students to these African-centered concepts. He used the computer technology as a counter-hegemonic tool to expose his students to positive imaging and ideas that would lead them to think about agency, autonomy and institution building within the African American community.

Christina Cooper

Cooper taught in a 7th grade classroom in an inner urban school. Cooper's classroom practice was observed several times over the course of one month. In that time, her thematic unit focused on autobiographical writing and the development of student voice. Her objectives for this thematic unit were three-fold: 1) to embrace and include her African American students' experiences in the curriculum; 2) to strengthen her students' expository writing skill; and, 3) to demonstrate to her students how to use Microsoft Word processing software as a critical tool to facilitate the writing process.

Cooper expressed the importance of connecting her students' lived experiences to the writing assignment. She sought to "use her students' lives as the primary text as opposed to using a textbook that leaves her students' lives out of the story." She said,

Imagine if you were forced to use textbooks that excluded you and your history. That has an impact on them... imagine if you study the last 12 years in public school and you are forced to use textbooks where the images don't look anything like you and the people don't share your history. You begin to feel invaluable. And that can have an impact on self-esteem and concept.

Cooper recognized the detrimental impact of privileging European culture, history, experiences, and imaging on her African American students' psyche. On one level, she spoke to the powerful messages that were sent to African American students who were mandated to read textbooks that are predominately Eurocentric. On a deeper level, Cooper addressed the ongoing marginalization of the African American experiences in the textbook. Therefore, Cooper designed this thematic unit in ways that centralized her students' experiences.

Second, Cooper wanted her students to learn the skill of elaboration. She found that the editing capabilities of the Microsoft software programs helped her students take more risks with their writing. In the following conversation, she shared her thoughts about why Microsoft Word software programs help facilitate the development of voice for her African American students. She shared:

When I think back to students who tell you at the very beginning when you ask them to do a pre-write on any subject. The first words are, "I can't write. What do you want me to write." They don't trust their own voices. They don't trust their own words... So I would have to say the most important thing is using the computer to develop students' voice, to help them to find their own voice and using it as a tool for editing their work. Because the revision and editing phase of their writing is the most painful part for reluctant writers, they say, "you mean I have to do it all over?" The notion of starting a paper [all over] that they think is good is a killer.

She continued:

On the computer they can move paragraphs, they can delete, shift them down to the bottom, delete sentences, move them, copy and paste them some place else, save the first draft and copy it on the second page and make it the second draft, revise and edit that, copy that and make their third draft without ever picking up a pen or a pencil or using a sheet of paper.

By using a word processor, Cooper believed that the "painful" process of revising and rewriting commonly associated with pen and paper editing was eliminated. She added, "it's powerful... no red lines. It makes [my students] want to revise. It takes the tediousness out of starting over." As a student, Cooper recalled seeing her papers marked up with red ink—often referred to as the "bloody paper." She never forgot when a professor red-lined her paper and wrote, "too verbose" all the way across the text. To this day, she recalled "25-40 years later, I still remember 'too verbose,' for me it almost killed the joy of writing."

Cooper found that composing essays on the computer placed the focus on the content as opposed to the "process" on the editing. Cooper was well aware of the advantages her African American students would have if proficient in word processing programs. However, based on her observations, her students came into her classroom not knowing how to type or how to use editing tools such as cut, paste, copy, spell, check etc. As Cooper inferred, when attending inner-city schools, it was not a guarantee that all students would leave with basic word processing skills, although it is a necessity in the U.S. workplace and in larger society. She underscored the process of writing using Microsoft Word processing tools in order to prepare her African American students for life outside of the Middle School.

On the first day of instruction for the thematic unit, Cooper disseminated a survey for her students to complete. With assistance from the director of a progressive educational organization, Cooper developed this survey as a way of getting to know her students. During one of our conversations, she explained that she wanted to “invite her students’ lives into the classroom and intermingle [them] with what [she] was teaching.” The survey began with a letter to her students inviting them to divulge their personal interests, likes and dislikes.

During the initial lesson, Cooper reiterated to her students why she valued their opinions and experiences. The survey, then, became a springboard for getting to know her students, for building her course curriculum and for creating her classroom environment. She explicitly asked students about themselves and what interests they held. By employing the survey, she demonstrated that she valued her African American students’ thoughts and experiences.

Cooper realized that the survey was incomplete because it was not developed with student input. To correct this omission, she probed her students to find out if there were important questions absent. In a sense, she wanted her students to be co-constructors of the survey. I found that her students seemed surprised by this request. However, Marquita, an aspiring poet, raised her hand and asked if she could include the question, what mood do you feel like you are most in. Cooper included this question. I highlight this conversation as a way of demonstrating how Cooper values her students’ voice, thoughts and ideas. Cooper also viewed her survey as a work in progress, constantly evolving to meet the present needs of her student.

During this stage of writing, Cooper told her students to answer each question by typing the beginning of the sentence and the response into Microsoft Word. She explained that the answers would become the basis of their autobiographies. For example, one student wrote, My favorite radio station is WPGA, 96.5.

At this phase, Cooper expressed to the class that there was no concern for spelling or grammar errors. Proper formatting, however, was encouraged. Cooper wanted her students to use Times Roman 12 pt while answering the questions for two reasons. She found that her students, without guidelines, tended to use “word art” because they associated the colorful aesthetics with substance. Cooper, therefore, wanted to provide a formatting strategy at the onset. Second, she wanted her students to become familiar with the formatting standards required by most high schools and universities. Her hope was for her African American students to become exposed to the process of composing essays using computer technology.

Cooper then focused on the process of elaboration. By taking advantage of the Microsoft word processing tools, she told each student to place their “curser” behind each initial response and then answer the question, “why?” For example, Shante wrote in this phase: My favorite radio station is WPGA 96.5 ...because they tell you the news and play music.

In the next draft of the autobiography, Cooper asked her students to revise, rethink and rewrite. Cooper encouraged them to further elaborate on their responses by adding vivid details. In many cases, she worked individually with each student, probing their answers and searching for more detail. To illustrate, she found that by using computer technology she could assist her students with technical questions while at the same time helping them elaborate. For instance, one student struggled with how to answer one of the questions on the survey. Cooper sat next to Tamia to help her re-conceptualize the question.

Tamia: I am struggling with the question, what do I like about Washington, DC?

Cooper: What are the things you like best?

Tamia: I don’t like Washington, DC...well, I do like Virginia.

Cooper: ...I want you to understand. Just because the question reads what are the things you like best about Roosevelt does not mean you have to respond that way...but I want you to elaborate on why. So what you just shared with me, I have been here all of my life, I want you to share that with me.

Here, Cooper worked with Tamia to name her own reality. This is done in two ways. First, Cooper provided a space for her student to rethink the question, “what things do I like about Washington, DC” to fit her personal needs. In her conversation, Cooper pointed out, “if you don’t like the city, say it. Elaborate about this in your paper.” Second, she probed Tamia by asking her specific questions that would help her articulate her thoughts. In the end, the student was able to integrate her answers into the final text using Microsoft Word.

Spelling and grammar became important during this writing stage. Cooper further encouraged her students to take advantage of the editing tools available on Microsoft Word in order to facilitate the process. In addition, Cooper focused on sequencing and transitional statements during this phase. Lavice wrote,

The best thing about living in Washington, DC is that it is very fun. I love my ‘hood because I am surrounded by family and friends. If I had the power to change anything about this city, I would tell people to stop shooting and stop the violence. I have lost too many family members to violence....

In the final stage, students were asked to share pieces of their autobiographical essays with their classmates.

INTERPRETATIONS

Culturally responsive teaching has become the “battle cry” for educators who strive to meet the linguistic and cultural needs of their students (Irvine, 2001; King, 1991; Ladson-Billings, 1994). By examining these exemplary African American teachers’ use of computer technology in the lives of their students, we can develop an understanding of how computer technology can be thought about in culturally responsive ways. These teachers thought deeply about the purpose and intention of the use of computer technology not only in their teaching practices, but also in the lives of their students. These African American teachers believed that it was their responsibility to develop in their students both technical and ‘critical computer literacy’ skills that could be utilized both inside and outside of the classroom. I refer to ‘critical computer literacy’ as students developing the skills to, as Cooper argued, “read between the lines.” In other words, these transformative African American teachers wanted their students to “talk back” to the computer by examining meanings in the text, posing questions and searching for answers (Cristensen, 2000). These teachers wanted their students to recognize that text on the Internet was not neutral, but rather offered perspectives that could help their students to develop stances on particular issues. Therefore, they held themselves personally accountable to not only thinking about the role of technology in their students’ academic lives, but also about the role that technology played in advancing the agenda of the larger African American community (Shockley, 2007).

Although all three of these teachers thought about technology as an empowering tool in their classrooms, they used the Internet and computer-related technologies in vastly different ways. Both Jones and Kofi utilized the information found on the Internet to build connections to their students’ African cultural consciousness (Akoto, 1992). In particular, Jones constructed a classroom community where her students designed spot drawings that reflected their understandings of the Amistad experience by using software programs such as PhotoDeluxe and PowerPoint. Kofi’s students mined the Internet in order to pull and analyze the original speeches of Booker T. Washington and W.E.B. Dubois. Kofi’s students were exposed to liberatory narratives about the African American experience via Internet research. By using the Internet, his students saw positive and diverse imaging and learned important information about their cultural history. As demonstrated in his vignette, Kofi seemed to foster an environment where his African American students formulated their own thoughts about oppression, liberation and self-reliance. In both vignettes, the Internet and other computer-related technology became a counter-

hegemonic tool for helping their students' access and depict liberating material about their communities of African descent (Madhubuti & Madhubuti, 1994).

Cooper used technology differently as a liberatory practice. She built connections to their students and their communities using computer technology as a medium (Ladson-Billings, 1994). These teachers strived to help their students make sense of their personal worlds. For example, Cooper used Microsoft Word processing software to facilitate her African American students' development of voice through autobiographical writing. In essence, she wanted her African American students to be comfortable with naming their own realities (Freire, 2001). In doing so she taught her students word processing skills that she could not assume they knew. This digitized communication skill, she argued, was not only needed for high school and college, but also to function effectively and to create social change in larger society (Lynn, 1999; Solorzano & Yosso, 2000).

DISCUSSION

Thus far, we have provided an overview of these teachers' practices and computer technology in the lives of African American students. We now turn our attention to a discussion about the authentic experiences that they created in their classrooms. Previous studies have focused on the design of innovative culturally responsive tools (Pinkard, 1999; Tettegah, Bailey & Taylor, 2007; Winston & Phillip, 2007) and uses of linguistic digital text (Hall & Damico, 2007), however, research that discusses the intersection of culturally responsive teaching and meaningful uses of computer technology is still in its early stages of development (Clark & Moore, 2007). Thus, this discussion brings to the fore ways teachers and teacher educators can begin to think about how computer technology can be utilized in ways that meet the needs of their culturally diverse students taking into account their unique socio-cultural frames.

This discussion is framed by three dominant themes that were present in these teachers' practices as they integrated the Internet and computer-related technology in the teaching and learning experiences in their practices. Much of the practices build upon the literature found in cultural responsive teaching. These themes represent (a) perspectives of computer technology; (b) identity building via computers, and (c) knowledge construction as it relates to the integration of computer technology into classroom practice.

Perspectives of Computer Technology

The exemplary teachers in this study seemed to think deeply about ways to centralize positive imaging of African American people. They used the Internet as a way to excavate positive African American imaging and to unveil the silenced stories in the school curriculum about the African American experience. As King (2005) suggests a goal of a transformative agenda in African American education is to produce knowledge and understandings of ways to dismantle the "tremendous array of negative beliefs, behaviors and strategies" of domination deployed against cultural consciousness. In the same vein, these teachers "deprogrammed" their students by countering the prevailing stereotypes that exist about the African American community so rife in the media and in larger society. Kofi and Jones, in particular, used the Internet to help their students develop self-knowledge and African American consciousness. Kofi utilized computer technology and, more specifically, the Internet, to expose students to their African American culture. He wanted his students to have a clear sense of their shared history and cultural heroes who paved the way for their existence. Likewise, Jones used the Internet to help her students locate and unveil African stories of perseverance and resistance such as the Amistad, stories that were often marginalized or eliminated from the official school curriculum. By doing this, these teachers explored ways to confront negative stereotypes in order to posit more empowering images using computer technology as a conduit.

Finally, each teacher seemed to recognize the value of exposing their students to diverse cultural environments via the Internet which coincides with the literature on cultural relevant teaching (Irvine, 2001; King: 1991; Ladson-Billings, 1994). These three African American teachers recognized that for their African American students, who rarely left their neighborhoods or cities, the Internet provided a portal to access different cities, countries and cultures from across the world. Although these teachers would argue that the best form of teaching would be to actually provide their students with the authentic experiences, in these cases, they believed that the Internet served as an invaluable tool for exposing students to both liberating African American stories and diverse cultures.

Increasing Identity via Computer Technology

One common theme across all three exemplary teachers was that they understood themselves and their students to be the source of energy for the computer technology. In other words, computer technology became a tool as opposed to an object in and of itself used primarily for rote exercises which is the norm in many classes composed of poor students and/or students of color. As the source of energy for the computer, students used the computers in ways that were reflective of their personal lives. For example, in Cooper's classroom, students wrote essays about their lives. This finding suggests the importance of engaging African American students in multimedia technology where students have instruction support and freedom to build from their own cultural frameworks (Hall, 2007).

These teachers and their classroom practices stand in opposition to technology being thought of as a "substitute for a teacher" or technology as a reified agent of dominant culture. These exemplary teachers and their students were able to produce, disseminate and consume their own cultural symbols as opposed to being the receiver of a teaching machine. As a tool, the computer technology was one of many sources for building personal and cultural awareness. This notion of understanding technology as a source of energy manifested itself in important ways.

Knowledge Production and Computer Technology

The practices of these three exemplary African American teachers suggested that the Internet and computer-related technologies is a dynamic tool for accessing the liberating stories of the African American experience in four important ways. The Internet and computer-related technologies helped these African American teachers bring to the fore the lives, experiences, contributions and stories of people of African descent. Additionally, we found that these teachers fostered environments where their African American students became the authors of personally and culturally liberating stories. By utilizing computer technology in this culturally responsive manner, these African American teachers fostered an environment where the school curriculum reflected the images of their African American students. In essence, African American people, their history, and their experiences became the subject, rather than the object, of the "official" curriculum in their classrooms (King, 2001). These African American teachers used the Internet and computer-related technology as a way of accessing liberating stories. Likewise, these teachers and students used the computer-related technologies to disseminate their own stories.

IMPLICATIONS FOR INSTRUCTION

Although the focus is on African American students, these case studies provide instructions not only for teachers of African American children, but also for teachers of all children of diverse backgrounds. Tapping into the essence of the child first, excavating the Internet for sound culturally relevant materials, encouraging the use of "voice" and using technology as a vehicle to share stories is simply 'good teaching' (Ladson-Billings, 1994) using technology.

As teachers think about what it means to prepare their students for the diversity of students in their classrooms they must remain mindful of the need to bring to the fore the use of technology as a cultural tool in teaching practice and connect it to the lives of students. Computer use should be thought about in relation to their students' social location and as a medium to elicit the building of self and cultural identity. In addition, computer technology should be thought about as a tool for disseminating important culturally-relevant information not often evidenced in the "official curriculum". Therefore, professional development and teacher education must provide pre-service teachers with opportunities to learn about the history, experiences and learning styles of diverse cultures as well as providing teachers with ongoing collaboration about meaningful computer use. Ongoing and sustained professional development, mentorship and inquiry groups can be used to support teachers in their learning about computer integration in culturally responsive ways. In doing this, those students most marginalized will be not only technologically savvy, but also may be the designers and producers of technology that could, in turn, foster culturally responsive spaces.

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Contributors

Rona Frederick is currently an Assistant Professor of Education Administration at The Catholic University of America. She has dedicated her life to research on Black Education, culturally relevant instruction, and meaningful uses of computer technology. She earned her Bachelor's Degree in Psychology, a Masters Degree in Africana Studies, and a Ph.D. in Curriculum and Instruction from the University of Maryland, College Park.

Kmt Shockley is an Assistant Professor of Educational Transformation. His research focuses on understanding the relationship between teacher education programs and classroom pedagogy. He also studies culturally centered ideological perspectives. Kmt holds a B.A. in African American Studies, a B.S. in Education, a Master's in Education Administration and a Ph.D. in Educational Leadership from the University of Maryland, College Park.