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ACCEPTANCE

This dissertation, EMPOWERING INSTRUCTIONAL PRACTICES OF TECHNOLOGY USING TEACHERS OF LOW-INCOME AFRICAN AMERICAN STUDENTS, by CRYSTAL ANIKA CUBY- RICHARDSON, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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## ABSTRACT

### EMPOWERING INSTRUCTIONAL PRACTICES OF TECHNOLOGY USING TEACHERS OF LOW-INCOME AFRICAN AMERICAN STUDENTS

by  
Crystal Anika Cuby Richardson

The purpose of this case study was to investigate the empowering instructional practices of three technology-using teachers in an elementary school populated by low-income African American students. The participants, from Ladson ES, had been teaching a variety of grade levels and had between six and ten years of experience. Over the course of six months the researcher collected data including field observations, interviews, and artifact reviews, such as lesson plans and student assignments. Portions of frameworks of multicultural education, empowering education, and culturally relevant pedagogy were linked to examine and document the teachers' instructional strategies and technology use as it related to empowerment education. Analysis occurred through an iterative process where data was coded and recoded until saturation was reached and themes emerged. Findings from this study indicated that teachers used technology and empowerment as a way to provide exposure, increase self-esteem, and prepare students for their futures. Through a variety of software tools and instructional practices, including cooperative groups, classroom roles, and student discussions students engaged in the learning process and teachers created an environment that was pleasant for student learning and engagement. Students were empowered in a variety of ways: through the use of videos to expose them to different cultures, building of confidence, and use of cooperative groups to help them learn how to work together. The results of this study indicate that teachers would benefit from training on how to integrate technology with multicultural education and how to further instruct for empowerment especially in

elementary school classrooms. Additionally, the results also point out the need for more empowerment in classrooms for both teachers and students.



EMPOWERING INSTRUCTIONAL PRACTICES OF TECHNOLOGY USING  
TEACHERS OF LOW-INCOME AFRICAN AMERICAN STUDENTS

by  
Crystal Cuby Richardson

A Dissertation

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Doctor of Philosophy  
in  
Instructional Technology  
in  
the Department of Middle-Secondary Education and Instructional Technology  
in  
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Georgia State University

Atlanta, GA  
2013

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While my name may be the only one on the title page, it took an army to help me with this process. So, to my army of supporters, I say thank you! To my friends, new and old, who kept asking are you done and how close – I can now say “I am done!” Let's catch up on all those girls' nights out I had to miss. I want to thank my family for their constant encouragement. Mom – thanks for pushing me to get it done; Dad – thanks for your quiet encouragement and prayers to see me through; and Steven – for taking my mind off things when I needed a break. To my two lovely princesses, you have been a delight and have pushed me more than ever so now I have more time to spend with you. To my husband, Jermaine, thank you for your patience, encouragement, and prayers, and extra hours with the girls. Without any part of it I may still be floundering about trying to finish this thing.

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## ABBREVIATIONS

AR	Accelerated Reader
AYP	Annual Yearly Progress
CRCT	Criterion Referenced Competency Test
CRP	Culturally Relevant Pedagogy
DOL	Daily Oral Language
IWB	Interactive Whiteboard
LTS	Learning Technology Specialist
MCE	Multicultural Education
NCLB	No Child Left Behind
PC	Personal Computer

## CHAPTER 1

### INTRODUCTION AND STATEMENT OF THE PROBLEM

Technology, specifically computer use, is a concern within the school system. Educators, responsible for the preparation of the next generation's workforce, are at the forefront of helping to decrease what is quickly becoming the newest form of illiteracy (Hess & Leal, 2001), the lack of computer knowledge. The ability to use and navigate a computer and the Internet is a primary skill needed to enter the 21<sup>st</sup> century workforce and knowledge community (Gibbs, Dosen, & Guerrero, 2009; Schloman, 2004). Additionally, those often left out of this knowledge community are low-income and minority citizens. Moreover, technology literacy is mandated as a portion of the No Child Left Behind (NCLB) legislation of 2001 which states as a goal:

to assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability. (2001)

However, this is not always accomplished, especially in low-income and minority areas. So, it is imperative to prepare students for their futures and especially those whose background puts them at a societal disadvantage in the beginning of their educational pursuits.

#### Background and Rationale

Historically, there have been differences in educational practices, resources and schools. These differences have risen through prejudices against ethnic groups experienced as early as the settling of the United States by Europeans. These differences

have often been based on gender, race, and/or socioeconomic status. The differences have never been eradicated, while attempts have been made over time to reduce differences that caused achievement gaps, technology gaps, wealth, and information gaps, they still exist. As schools in cities, became populated with more children of African-American and/or Hispanic descent the white middle class moved to outer parts of cities, and often took with them jobs and opportunities, leaving those who could not afford to move in the inner areas. Additionally, those with more wealth of any ethnicity also eventually moved to other parts of town, which left the children in the inner city schools to be the low-income minority students.

Currently, the difference in educational technology access and use, known as the digital divide, has been plaguing nations across the world. As Kofi Annan (2003) stated in an address to the United Nations, the digital divide is not a simple question of access; it is a problem on multiple levels, from infrastructure to e-commerce, which affects us globally. However, if technology can be made accessible to all with ample opportunities to use, learn and grow from it, then it can “improve the lives of everyone on the planet.” (Annan, 2003, para 19) Additionally, Annan (2003) urges us to remember that we are in charge: “While technology shapes the future, it is people who shape technology, and decide what it can and should be used for” (para. 20).

Using Annan’s comments as a backdrop it becomes clear that the digital divide is something that affects humanity globally and understanding it in one aspect could help in decreasing it overall. Specifically, within the United States, and particularly within schools it is not the traditional question of access that is the focus of many research studies; rather it is the question of use. This digital divide primarily focuses on the way that technology is used by the haves and have nots typically defined by race, economic

status, and gender; and, possible solutions seek to find ways to bridge and eliminate gaps, specifically in urban schools (Ertmer, 2005; Gibbs et al., 2009; Hohlfield, Ritzhaupt, Barron, & Kemker, 2008; Schloman, 2004).

Valadez and Duran (2007) have suggested a four-pronged definition of digital divide that states that the divide is actually a combination of four factors: (a) physical access, (b) use in the classroom, (c) availability of support, and (d) social consequences. *Physical access* is the actual availability of computers and Internet in classroom or other places within the school building. Computer use in the classroom is the amount of time the computer is used for instructional purposes either at school or at home. This also includes the amount of time that higher order instructional practices are used within the classroom with the computers. Support for the use and integration of technology is important for consistent use. This factor is concerned with the amount and degree of training, administrative support and other factors available for teachers to be able to integrate technology into their classrooms. The idea of social consequences is concerned with how teachers are working to improve their professional practices through communication and collaboration with colleagues and students. It is also concerned with how teachers perceive computers and the Internet to be a factor in higher order thinking skills for students. Each of these factors needs to be addressed in order to decrease the divide. Ultimately, the underlying causes of classism and racism that created these conditions need to be addressed to fully eliminate the digital divide making the fourth prong of social consequences so important to rectify. Likewise, Riel, Schwarz, and Hitt (2002) proposed a three-way definition of the divide based on its slope, depth, and width. The slope is determined by the cultural context of the computer use, depth is the structural difference in access and width is the spread of the access differences.

Furthermore, Gorski (2009) and Hohlfield, et al. (2008) urge educators to look at technology as a way to empower the users to participate more in society, particularly by teachers and students using the technology. They go on to state that technology is a form of social justice because it has the ability to bridge information and knowledge gaps that have traditionally kept different populations uninformed. However, with technology most information is readily available to all who seek it. But, until there is equitable use among all who have access to technology resources the digital divide will continue to exist. Each of these cases illustrates how the definition of the digital divide has expanded since the oversimplified description of access gaps. The digital divide is a much more complicated issue that involves teachers, students, administrators, and communities as a whole. It is also a much deeper issue that has components of racism, classism, power and privilege, which is why it is prevalent and important to lessen.

Historically, technology access has been most prevalent in middle and upper income areas and among majority populations more so than minorities (Gibbs et al., 2009; Hess & Leal, 2001; Riel et al., 2002; Schloman, 2004). Therefore, when underserved groups are placed at a disadvantage by their circumstances and the power structures in place, access and use problems can be understood as social justice issues. Particularly, when there are specific populations affected by use differences and not just the access to technology itself, it becomes clearer that the divide is a social justice situation. Whether it is socioeconomic status or race differences, digital equity should be the norm especially at schools. Students need educators who are prepared to instruct them so that they can gain 21<sup>st</sup> century skills such as technology, information and media literacy, creativity and critical thinking. This means that students should have the opportunity to explore critical thinking and collaboration as well as media literacy and

Instructional Computer Technology literacy (Skills, 2004). Another component of 21<sup>st</sup> century learning is defined as the need for students to be involved in civic projects to improve their community both locally and globally. Technology is important in both of these aspects.

Many studies (Ching, Basham, & Jang, 2005; Hohlfield et al., 2008; Schloman, 2004; Warschauer & Matuchniak, 2010) have also shown that the access and type of use of computers at home creates a digital divide because it limits the amount of time a student has to access computers outside of school. Students who are limited in home computer use are at a disadvantage for becoming familiar with technology and having positive experiences with it at early ages (Ching et al., 2005). This lack of experience may limit the benefits they see at later stages in their academic career. Two of the largest determinants of home computer ownership and Internet access, and thus computer use outside of school, are family income, race, and education level (Annan, 2003; Hargittai, 2010; Hess & Leal, 2001; Reinhart et al., 2011; Schloman, 2004; Wei & Hindman, 2011). For example, statistics have shown that when the family income is less than \$15,000 a year, most likely there is not a computer in the home (Hohlfield et al., 2008; Schloman, 2004). Additionally, Warschauer and Matuchniak (2010) reported that while many homes have computer access, if we examine the numbers of homes that have Internet access the number decreases to 61.7% when Internet access is considered. Then examining the same threshold of under \$15,000, we find that only about 28% of these households have Internet access. This also impacts what students are able to access and obtain information about at home

Furthermore, Hess and Leal (2001) found that when determining how technology is provided to urban school districts, the percentage of African American students was

more of a factor than the percentage of Latin American students. Generally, this study found the greater the percentage of African American students, the higher the student to computer ratio. There are also disparities in the way that computer technology is maintained. Hohlfield et al. (2008) found that while most schools in high-income and low-income areas have the same types and access to computers, they do not always have the same type of maintenance of them. In contrast to Hess and Leal (2001), they found that the trends were changing with regards to maintenance and suggesting that low-income schools may be focusing on providing supports necessary but they are not at a rate that so that more technology resources could be obtained and managed effectively. However, they are doing this in different ways. In many high-income schools not only do they focus on the functionality of the machines they also focus on the integration (Reinhart, Thomas, & Toriskie, 2011), which increases the use and assurance that computers are working. In most instances, high-income schools benefit from better maintenance of technology due to increased parental involvement and voicing their desire to have functioning technology. So, it becomes pertinent that with the limited access to computer technology low-income African American populated schools use the available technology in a positive, empowering ways that are beneficial to students because the equipment may not be functioning at later times or available outside of school.

### Problem

Students face a digital divide based on the ineffective technology use in inner city schools where students primarily use computers and other technology, hardware or software, as a remediation tool and not as a resource to build and use critical thinking skills. As technology access becomes more equitable (Becker; Judge, Puckett, & Bell, 2006; Judge, Puckett, & Cabuk, 2004; Reinhart et al., 2011; Valadez & Duran, 2007),

students are benefiting from technology access, including computers and the Internet. However, the use of the technology in different school locations, whether urban, suburban, rural, high income or low-income, varies. As students are prepared for future endeavors, the ways that technology is used needs to be examined so, we, as educators can best serve the academic and social development needs of our students.

Technology can be used in a variety of ways, which along a continuum from positive to negative benefits for students. Often the variety of technology use, is determined by the income or academic level of the students involved (Becker, 2000; Damarin, 1998; Heemskerk, Brink, Volman, & Dam, 2005; Judge et al., 2006; Reinhart, Thomas, & Toriskie, 2011). However, the fact that there is a variety of use based on income or ethnic background is a problem. As Damarin (1998) states, all students deserve the right to use technology in “meaningful and creative ways” (p. 13). So, when students are only able to experience technology use with drill and practice activities or other remedial tasks, they may be lacking the creative and meaningful side of computer use and are not gaining 21<sup>st</sup> century skills.

Recent literature shows technology access divides are decreasing (Becker, 2000; Hess & Leal, 2001; Hohlfield et al., 2008; Reinhart et al., 2011; Valadez & Duran, 2007). Schools at both ends of the economic spectrum have access to computer technology, the Internet, and other tools to enhance their curriculum. However, in schools where a majority of the students are low-income and African American, technology use does not include long-term benefits for students (Hohlfield et al., 2008; Reinhart et al., 2011). Instead students are often taught how to use the computer and do what it instructs them to do and not how to control the computer (Chisholm, 1998). Without instruction on how to



become producers of knowledge, students may miss out on the benefits of increased critical thinking skills and self-empowerment.

In technology rich environments, instructional strategies are diverse. While research has shown that technology will aid in the areas of engagement (Laffey, 2004; Mabry & Snow, 2006; Page, 2002; Roschelle, Pea, Hoadley, Gordin, & Means, 2000) and motivation (Dermody & Speaker, 2002), teachers do not always see these benefits in their classroom. Furthermore when technology is coupled with community involvement and project-based assignments, engagement and ownership of work improves (Chisholm, 1995b, 1998; Dermody & Speaker, 2002). Thus, when students are not exposed to the link between computer use and challenging work not only do they not receive the maximum benefit of the technology use, they may not see the need for it either. Therefore, since technology is readily available in low – income and minority populated schools (Becker, 2000) and communities it becomes critical that it is used effectively as a tool for educational and not just recreational purposes.

When students in disadvantaged by low-income are not able to benefit from the tools that are available to them, the “use” digital divide widens. Unfortunately, this expansive digital divide is the status quo in many schools where low-income African American populations are the majority. Although teachers may have access to ample technology resources, most do not have consistently well-developed methods for integrating this technology into their classrooms (Gorski, 2009). This may be a result of lack of training, beliefs about technology use, or a mismatch with their pedagogical beliefs. These factors are addressed in the literature review. As a result, even students in urban schools with up-to-date computers and other technology resources readily available continue to have their education diminished by the digital divide.

To be effective and beneficial for students, technology must be used consistently with a clear purpose. If the goal of technology use is to try to reduce the digital divide and other opportunity gaps, then there instruction needs to focus on building collaborative and critical thinking skills (Banks, 1991), especially since this is an area in which high-income and low-income schools differ. Unfortunately, in most low-income African-American schools, this is not done consistently (Becker, Ravitz, & Wong, 1999; Becker, 1999; Judge et al., 2006; Judge et al., 2004; Lowe, Krahn, & Sosteric, 2003; Valadez & Duran, 2007). Some teachers in low-income African American populated schools are using technology to create collaborative problem-based or project-based lessons and encourage critical thinking, but not all. For example, Frederick (2007) detailed teachers using technology to provide transformative experiences with their students through technology integrated unit plans. Additionally, Pinkard (1999) has done work with using technology to build critical thinking skills. But these examples are not enough. In order to begin to address the problem of type of technology integration and use of critical analysis in lessons, the overall instructional practices and pedagogical beliefs of the teachers need to be investigated. The methods used, beliefs held, and strategies employed differ from teacher to teacher. From the literature, we know that students in classes where technology is used well will have higher engagement in their lessons and often stretch themselves to achieve more due to their interest in the subject areas (Dermody & Speaker, 2002; Frederick, 2007; Mabry & Snow, 2006; Roschelle et al., 2000). Additionally, low-income African American students who have been taught in a way that challenges them to critically analyze and synthesize problems, situations and viewpoints are more likely to make a greater impact on the society around them and be more engaged in the materials that they are studying (Chisholm, 1995a, 1998; Duncan-

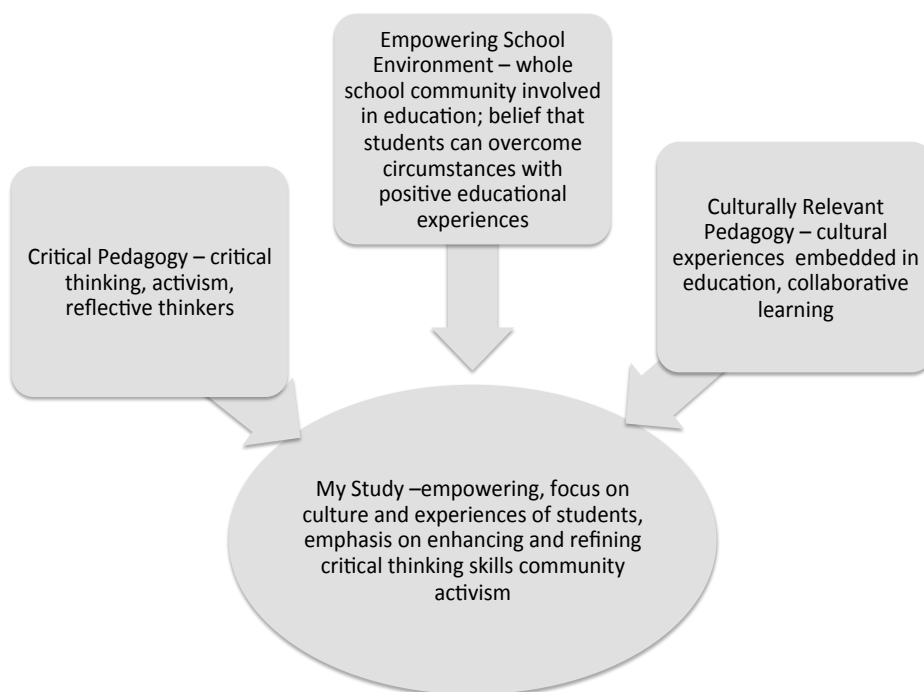
Andrade & Morell, 2008). Therefore, it is imperative we understand the instructional strategies, which are fueled by their pedagogical beliefs and philosophies, of teachers who consistently use technology-enhanced lessons so that we can improve the practices of all teachers in low-income African American populated schools, and therein improve the future of the students in these schools.

### Purpose of the Study

The purpose of this case study was to identify and describe the instructional strategies of elementary school teachers who implemented technologically enhanced lessons in low-income African American populated schools in an urban southeastern school district. Specifically, I investigated the ways technology was integrated into the overall instructional scheme and looked for evidence of teaching within a critical pedagogy framework of empowerment which is defined in the theoretical framework. As indicated by Santayana (1890), if we don't know our history we are doomed to repeat it. Therefore, it was important to know how technology was being used in low-income African American classrooms to document practices for the benefit of current and future teachers and students. Students in low-income African-American schools often have special circumstances such as limited parental involvement in education, lack of computer access at home, or additional home responsibilities to name a few, so it was advantageous to understand and document the ways technology was implemented as a part of the entire curriculum to enhance lessons, create an empowering environment to improve school and local communities, and improve overall instruction for those yet to come.

## Theoretical framework

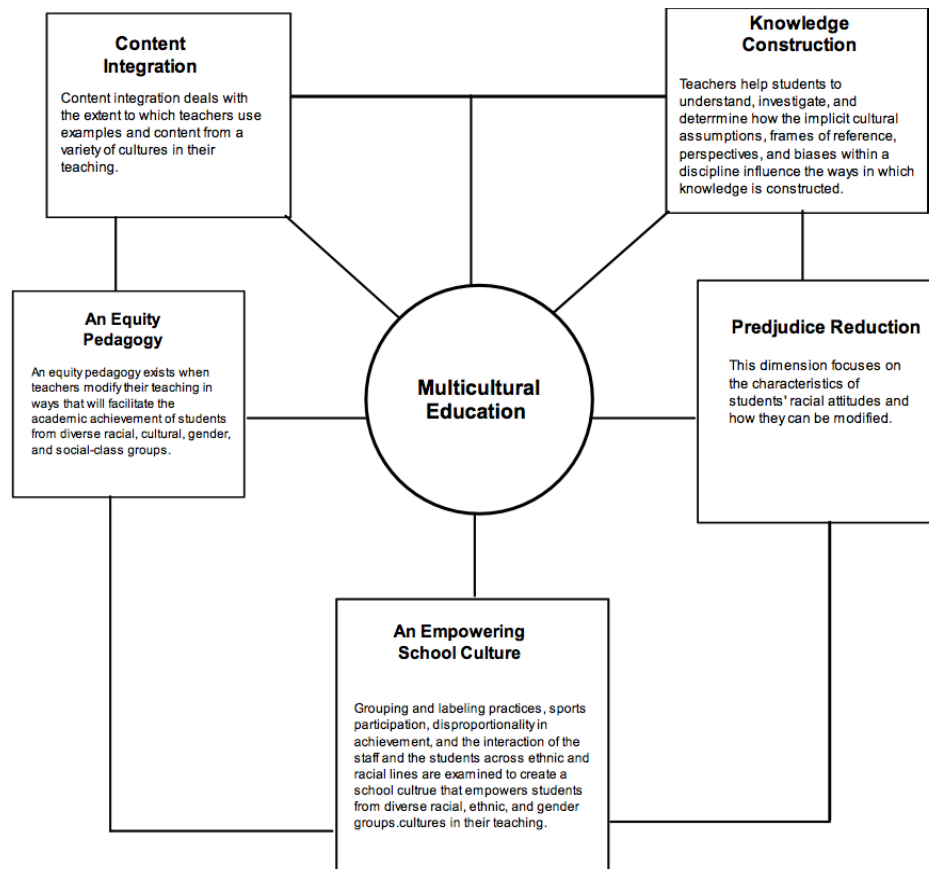
This study was framed by a combination of multicultural education (MCE), critical pedagogy, and culturally relevant pedagogy (CRP) as they apply to creating an empowering school environment. The significance of each can be seen in Figure 1, which describes the pieces of each framework that were used to focus the study. Each of these has components that are essential to the education of low-income African American and I took the pieces of each that influenced and defined the framework for my study. Culturally relevant pedagogy was used because it emphasizes the need for children's African American culture to be an important factor in their school education as well as academic success and sociopolitical awareness (Ladson-Billings, 1995b; Young, 2010). This piece concerning culture is not included explicitly within either of the other pieces. Since, I was concerned with cultural background as well as socioeconomic status, it was vital to have a framework that includes culture as a key component. Emphasis on helping children to help themselves and their community is present in both the critical pedagogy and culturally relevant pedagogy schools of thought. Finally, as an overarching component, the framework of an empowering school environment was used. This framework places the whole school community at the forefront of education of its students. Banks (2009) describes an empowering school environment as one that involves, not just teachers and students, but the school and community itself as critical components in the education and empowerment of the area. As a collaborative these components worked together to showcase how educators, administrators, and the community must work together to ensure the academic, social, and political success of our students.



*Figure 1: Theoretical Framework Overview*

The frameworks described in Figure 1 worked together to outline a theoretical framework on which to ground my work. Throughout the study, I sought to find evidence of empowerment in the ways that will be explained in this section. Banks (2004), in the *Handbook of Research on Multicultural Education*, defined a continuum for multicultural education outlined by the following categories: content integration, knowledge construction, reducing racial prejudice, equity pedagogy, and empowering school environment. A brief overview of each of the dimensions is seen in Figure 2. For the purposes of this research, I focused primarily on the idea of an empowering school culture, which encompasses each of the other dimensions. As Banks (2004) defines an empowering school culture, it is a school where there is a culture of equality and

empowerment. This type of empowerment is such that students, teachers, administrators, and community members are encouraged and reflective upon their practice to improve and continue the success of the school (Banks, 1991).



*Figure 2:* Description of the dimensions of multicultural education (Banks, 2009a)

In particular, creating an empowering school environment entails the collaboration and participation of the whole school community (Banks, 1991 2009; 2004 2009; Gay, 1995). This climate is one that systematically involves the whole school in building and fully embracing the belief that all children can learn and exceed. In these schools students experience equality and empowerment in every aspect of the curriculum. Teachers and administrators take full responsibility for the education of the children (Banks, 1991). Additionally, all faculty and staff are fully vested in making sure the students know that they believe that they can learn and master the skills needed to be successful. Since creating an empowering environment is not only the most comprehensive view of multicultural education but also the most impactful for students' futures, I specifically focused my attention on the use of technology to enhance and facilitate empowering school environments. However, the multicultural education framework does not always emphasize the inherent racist or classist American society, which Duncan-Andrade & Morrell (2008) see as the way to empower students to change and better their situations. Instead, MCE strives to build awareness and equity for all of the ethnic cultures and all economic statuses. Thus, it does not allow for a strong focus on eradicating the inequities caused by racial or classist disparities (Duncan-Andrade & Morell, 2008; Ladson, 1998). Additionally, it does not specifically focus on African-American culture. As a result of these omissions, aspects of critical pedagogy were included as a part of the theoretical framework.

Critical pedagogy focuses on the ways that students have been oppressed and what can be done to liberate them from the hegemonic system in which they are schooled (Duncan-Andrade & Morell, 2008; Gay, 1995). In critical pedagogy the emphasis is on socioeconomics to the exclusion of ethnic background. Early scholars in the area of

critical pedagogy such as Freire (1970) believed that if the oppressed were educated in a manner to allow them to work within the sociopolitical system to demand freedom from the oppressors then they would be better participants in the society as whole, thereby essentially breaking from the cycle of oppression from which they had been accustomed. This Freirean model has been a central idea of critical pedagogy as educators and scholars have been implored to become reflective members of their community and also active in the sociopolitical setting (Duncan-Andrade & Morell, 2008). This would ideally lead to educators that are able to encourage students through their schooling exercises to constructively restructure the implicit racism and oppressive systems that surround them. The key to this idea, however, is that teachers need to be an active part of the learning process.

Shor (1992), a critical pedagogue, defined the use of an empowering education as a “critical-democratic pedagogy for self and social change” (p. 15). Implicit within a critical-democratic pedagogy should be the idea of critical thinking where students are taught to critically analyze the world around them and the power structures that manage it. Through analysis of the different situations students encounter both within their community and within school walls via textbooks and other materials, they should be able to question the validity and authority of the content they are being presented. This is similar to the idea of knowledge construction presented by Banks (2004) which challenges educators to reflect upon the way that content is presented to students while ensuring that a variety of viewpoints are shared. However, it differs from Shor (1992) since Banks (2004) is more concerned about the cultural backgrounds and assumptions being shared and taught while Shor (1992) is concerned about the revealing and challenging the power structures that are dictating the knowledge being taught within the



classrooms. Allowing students the ability to thoughtfully challenge the status quo is essential to providing an empowering education.

The combination of critical pedagogy and empowering school environment works to allow students and teachers to focus on student success both inside and outside of school. Particularly, it focuses on the involvement of community members and their participation in preparing students for the world outside of formal schooling. While this was central to my line of thought, neither of these ideas addressed specific methods for educating in a racially diverse society or education that seeks to eliminate racial inequities and persistent gaps. Critical pedagogy has at its roots a focus on the issues of socioeconomic class inequities as opposed to racial inequities (Freire, 1970). With much of the work of critical pedagogues being focused solely on class issues, this left a void in my study. Since I was interested in class as well as racial inequities, it became important to understand the frameworks or theories that addressed ways to overcome inequities experienced from racial differences. Sleeter (2013) has done work in attempting to reduce racial inequities with her work on race construction, specifically with white teachers. She has found that children of color may withdraw from education when they are not taught in ways that embrace their culture and racial identity, especially when it is not only embraced but also marginalized and devalued by mainstream curriculum (Sleeter, 2013). This is where the importance of culturally relevant pedagogy becomes notable, because it focuses on students' cultural or ethnic background, with a specific focus on African-American students. It is also deeply connected with focus on academic success and sociopolitical awareness.

A common criticism of the general idea of multicultural education as a whole is that it is so widely defined that the core principal of social justice and equity often gets

lost in the overall implementation (Gorski, 2009). In efforts to address racial, particularly African American, needs in education, Ladson-Billings addresses empowerment in terms of the need for teachers to be aware of the background of their students. She defines culturally relevant pedagogy as a means to empower students in the aspects of emotion, politics, society, and intellect with the use of cultural examples within the framework of existing curriculum to make concepts attainable and relevant (Ladson-Billings, 2009). Specifically, she emphasizes teaching in a way that both affirms students' culture, increases their awareness of the social inequities around them, and instructs in a way that allows students to “transcend the negative effects of the dominant [white male] culture” (Ladson-Billings, 2000). In her book, *The Dreamkeepers* (2009), Ladson-Billings describes several characteristics of what she terms as culturally relevant teaching. These suggest that teachers should:

- be a part of the community;
- believe that all students can learn;
- help students make connections between local, national, global ideas;
- believe education is a community of learners;
- allow students to learn collaboratively;
- critically view knowledge;
- be passionate about content;
- believe knowledge is continual and recycled; and
- believe that excellence is something that takes student diversity into account.

In sum, Ladson-Billings believes education should be centered on the idea of the “collective empowerment” of the African American community (1995a, p. 160).

When specifically defining culturally relevant pedagogy, Ladson-Billings (1995a, 1995b) details three characteristics: (a) academic success, (b) cultural competence, and (c) critical consciousness. Academic success is important for students to work toward seeing the value of education. Problems arise when, because of cultural differences, students are not exposed to academic content that allows them to see their culture experiences as valuable. Therefore, it becomes important for teachers to showcase material where African American cultural examples are showcased in ways that make students want to learn. Cultural competence, the ability of teachers to readily use students background as a vehicle of learning, is critical to attaining the academic achievement of students since students are quicker to respond to that which is familiar to them (Ladson-Billings, 1995a). Generally, this type of teaching takes into account the cultural backgrounds of students that are being taught and providing instruction that meets students where they are in an effort to make instruction more receptive to the way in which the students learn. This is similar to the facets of critical pedagogy in that both focus learning on the whole child and their experiences. Lee (2005) summarizes that this is the reason why urban students and those of minority backgrounds excel in situations where the learning is meaningful to them. Placing the knowledge in a context that is important and related to the students' situations allows the students to readily see connections, thus become more engaged in the instruction.

Transformative education is essential to Paul Gorski's work (Clark & Gorski, 2001; 2001, 2009) especially with the use of technology as an empowering tool. The focus of his research is on the use of technology as a part of an instructional schema that is empowering and critically analytical. His main belief is that technology, when used appropriately within the classroom, will allow students more opportunities not only to

analyze but also become better equipped to participate democratically in their community and the socio-political arena as a whole (Gorski, 2009). This is done in several ways such as project based assignments, assignments relevant to children's community, engaging students in cooperative learning (Duncan-Andrade & Morell, 2008; Sapon-Shevin & Schniedewind, 1991). Most importantly the empowering school culture informed by critical pedagogy is student-centered. Student centered projects often draw upon student interests, ideas, and questions for assignments and are not strictly tied to the hegemonic curriculum when it comes to class discussion and exploration. The empowering school culture allows students to become active participants in their learning, questioning, and problem solving which is what critical pedagogues espouse educators to implement in lessons (Duncan-Andrade & Morell, 2008; Sleeter, 1996).

Low-income African-American students are often at a disadvantage educationally due to many factors including Western curricular expectations (Duncan-Andrade & Morell, 2008). For example, in western curricular models, instruction for low-income students is characterized by competition, drill and practice remediation, and preparation for participation in the economic society (Gorski, 2006 as cited in Duncan-Andrade, 2008, Banks, 1991). These methods are generally not aligned with the cultural backgrounds of minority students, which are built on community participation, particularly African American students. Multicultural theorists as well as critical pedagogues insist that students need to be instructed in ways that engage them through inquiry and critical analysis of the world around them (Duncan-Andrade & Morell, 2008; Gay, 1995).

Within public schools, teachers are concerned with preparing students for high-stakes tests since funding is dependent on a school's Adequate Yearly Progress (AYP)

status. However, both critical pedagogues and multiculturalists agree that the instructional system should release some of the pressure from test performance and basic skill drilling. Instead, students should be involved in activities that are rigorous in both academics and critical analysis of social issues. However, critics (Payne as cited in Duncan-Andrade & Morell, 2008) believe that there is no room for basic reading, writing, math academic skills instruction and critical skill building. But, when students are deeply engaged in the tasks of collaboration, analysis, and synthesis especially around curricular content they will inherently gain the skills needed to complete the assigned higher order tasks and more while working at higher cognitive levels (Duncan-Andrade & Morell, 2008; Ladson-Billings, 2009).

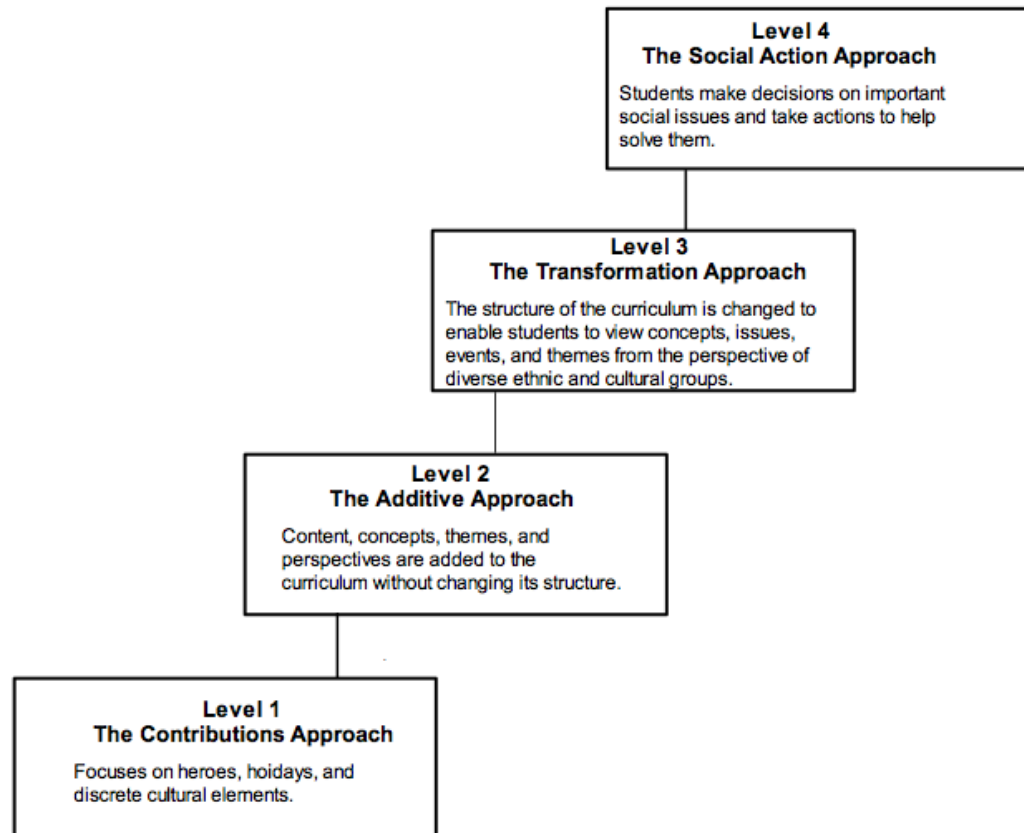
In the inclusion of all viewpoints, students are exposed to the inherent oppressive systems that surround them and are empowered to make their own decisions about how to overcome their circumstances. These systems include the white middle-income society that attempts to dictate what are the norms of society and what other groups should strive to achieve. At times, these systems can lead others to think that students who do not attend middle-income schools or are not part of the dominant power structure are less than or deficient. However, in presenting all viewpoints and instructing students include racism and classism that may have served to place them in underfunded inner city areas through movements such as “white flight” to suburbs or city outskirts. In order to discern and critically analyze viewpoints present in school and their community, students need to be exposed to more than cultural peripheries such as food, clothing, and holidays. Instead, students need to understand that cultures are different but not deficient. As such, students need to be exposed to more of the differences in cultural backgrounds and celebrate them, which include different economic backgrounds as well as ethnicity. As

students of low-income backgrounds become more informed of the power struggle, it becomes the job of educators to instruct the students on methods to work towards social justice within their community (Duncan-Andrade & Morell, 2008).

In order to attain this level of transformative education, teachers need to undergo and partake of the reflective practices that will aid in the creation of critical thinkers. Their students, in turn, are encouraged to think more democratically about different cultures in an effort for them to be more accepting of others' contributions to the classroom and society as a whole (Banks, 2004). As children begin to see the value in everyone's contribution, then they will be able to work together to develop common solutions to problems and work towards resolutions instead of constant prejudiced behaviors. There are a variety of ways that this can take place within in a classroom. However, within the context of this study I specifically examined the way that technology was used as a piece of the empowerment puzzle.

The ideal situation is to have all teachers implementing technology with the fidelity that Gorski (2009) discussed where the focus is on empowering students by teaching with social justice and equity. Unfortunately, this is not the case in many schools where the students need assistance most, those populated by low-income minorities. In fact, Banks (2004, 2009b) reports that most teachers fall within the bottom two tiers of the multicultural integration approaches as seen in Figure 2. Levels one and two contributions and additive, primarily serve as a guide to begin introducing cultural awareness into the classroom. However, as instruction approaches the top of the diagram, instructors are beginning to look more into the transformative processes of multicultural education and the ideals of critical pedagogy espoused by scholars above (Banks, 2004; Duncan-Andrade & Morell, 2008). For example, for teachers to truly to be

in line with instruction in transformative means they would need to be able to teach curricular content from all viewpoints and present it in a way that is relevant to the students being taught. Students would need to use the technology in a way that is equitable to all students and allows students to explore topics that are community-based and approach sensitive issues with a social justice focus.



*Figure 3: Approaches to multicultural education integration (Banks, 2002)*

Additional characteristics of the empowering school environment include use of cooperative groups (Banks, 1991), action research, and formative assessment (Duncan-Andrade & Morell, 2008). Likewise, presentation of problems in ways that encourage students to think critically, analyze data, and explore new topics is essential to critical pedagogy (Duncan-Andrade & Morell, 2008). Since technology is meant to enhance primary strategies and essentially is well-suited for collaborative, inquiry-based problem type assignments it seems a natural fit for the integration with multicultural and critical pedagogy strategies because it allows students to find and create their own knowledge through the pursuit of an answer to the posed situations. Additionally, culturally relevant pedagogy's, emphasis on the attaining of essential skills, working collaboratively and collectively, and recycling of knowledge is inherent in the use of technology. All of these are in concert with Gorski's (2009) belief that technology use is essential to empowering students to become engaged members of society because of the information that is withheld without it. Thus, to frame my case study, I examined the instructional strategies and technology integration through the lens of empowerment outlined within multicultural education and critical pedagogy. In particular, I looked for ways that students were challenged, empowered, allowed, and encouraged to critically analyze the world around them.

### Research Questions

As stated previously, the purpose of this case study was to identify and describe the instructional strategies of elementary school teachers who implemented technologically enhanced lessons in low-income African American populated schools in



an urban southeastern school district. Therefore, the following guiding question and sub-questions were used in this case study investigation:

What are the instructional strategies of three elementary school teachers who consistently implement technology-enhanced lessons in an urban school populated by predominantly low-income African American students?

1. How do teachers within the structure of the overall classroom instruction use technology with their students?
2. How is technology used as an empowering agent for and by teachers with their students?
3. Why do these teachers use technology used in their classrooms?

### Significance of the Study

This study is significant to teachers and school leaders who work with low-income African-American students. As teachers are studied, a list of strategies may be compiled to outline what types of activities, instruction, and facilitation is effective with low-income African American students. While the dispositions of the teachers are factors in the way that strategies are implemented and the impact they have on students they were not specifically addressed in this study. However, for the most part teachers held high expectations and beliefs that the students could succeed and were for the most part pleasant and positive with the students, yet firm. Administrators can use this list when interviewing potential teacher candidates and also when evaluating current teachers. The results of this study can also be used to inform better ways to integrate technology and thus, decrease the technology use divide in low-income African

American populated schools. Finally, the ways in which students were empowered were uncovered and documented to generate ways that teachers can instruct to improve the academic but more importantly sociopolitical needs of their students. Additionally, this study provides suggestions for ways for teachers to develop as better instructors of African American students in low-income schools.

### Terms and Definitions

Listed below are the operational definitions for the technical terms that were used throughout this document. These definitions guide the use of the specific terms within the context of this study.

1. *Critical Thinking Skills* - “Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.” (Scriven & Paul, 1987)
2. *Empowering Agent* – Instruction that encourages and creates a way for students and teachers to better themselves beyond school education through critical analysis of social settings, cooperative and collaborative problem solving and involvement of community. It is often characterized by high standards, assertive, instructionally minded administrators, parental involvement, and assumed responsibility by teachers and principals for education of all students.(Banks, 1991, 2004; Duncan-Andrade & Morell, 2008)

3. *Empowering School Environment* - As defined by Banks (2009a) this is an environment in which students, teachers, administrators, and the community work together to ensure the academic, social and political success of all people involved in the school. Additionally, students and teachers are involved in the social action practices in the desire to prepare more socially proactive citizens. Within the context of this study, school environments that are empowered are concerned with the academic needs of students, understand and instruct in a way that showcases the value of cultural differences, and actively seek to consistently involve students in activities that prepare them for social action and community involvement. (Duncan-Andrade & Morell, 2008; Ladson-Billings, 1995a)
4. *Low-Income* - Students whose family incomes are at 185% or less (\$33,485 for family of 4) of the Federal Poverty Guidelines are designated as economically disadvantaged or low-income. These students' family incomes allow them to qualify for the federally funded free and reduced lunch programs at the schools they attend. (Instruction, 2008).
5. *Promethean Board*- An interactive whiteboard that connects to a computer and allows teachers and students to interact with content resources for a more hands-on learning experience.
6. *Technology* – Any item, enhancement, or discovery that improves life for practical purposes. For the purpose of this study, technology will specifically refer to educational technology that includes electronic resources, particularly computer or computer based, used for the purpose of enhancing education. For this study, this may refer to computers, tablets, smart phones, Internet, and/or interactive white boards.

7. *Technology enhanced lesson* – Lessons in which teachers and students use technology.
8. *Technology Integration* – For the purposes of this study, technology integration is the consistent use technology in daily routines for instructional purposes especially to develop critical thinking skills. (Technology in Schools Taskforce, 2003 as cited in Lawless and Pellegrino, 2007; Lim, et al. as cited in Hew & Brush, 2007; Hew & Brush, 2007)
9. *Technology Integrator* – Educator who infuses technology for teacher and student use into daily practices and pedagogical practices during instruction.
10. *Title I School* – As defined by federal government, a school where 40% or more of the students receive free or reduced lunch. For this study, Title I schools will refer to schools where the majority (> 50%) of the students receive free or reduced lunch.
11. *Urban School* – Schools located in the inner city hearts of major metropolitan cities. These schools are typically populated with low-income, minority students. For this study, I am particularly concerned with traditional public urban schools where the majority of the population is African American.

### Summary

This chapter provided an overview of the case study that investigated the instructional strategies of teachers in low-income African American populated schools. The problem of technology use being varied and often poorly used in many urban environments was stated and indicated the importance of understanding how teachers that

are using technology use it. It was also important to document the specific instructional strategies they used to make technology's use purposeful and effective. Therefore the guiding question for this case study was to identify and define the instructional strategies of three elementary school teachers who implemented technology in their instruction. I specifically investigated how the teachers used technology with their students and if or how technology was used as an empowering agent for the teachers and with the students. Finally, the significance of being able to create an overview of general strategies teachers was described. In the next two chapters, a literature review framing the study is presented as well as the methodology of the study.

## CHAPTER 2

### LITERATURE REVIEW

The purpose of this study was to identify and describe the instructional strategies of elementary school teachers who implemented technologically enhanced lessons in low-income African American populated schools in an urban southeastern school district. With the belief that technology can be a method to create and embody an empowering school environment, I examined literature that highlighted the use of technology within urban school in positive contexts. Teachers' instructional practices with technology are particularly influenced by several factors, including beliefs about pedagogy, technology benefits overall and personal proficiency, and the culture of the school where they are used.

Teachers are the most important factor in determining the atmosphere of the classroom, whether it is warm and inviting to all students or whether it is dominated by their personal preconceptions, beliefs, and culture. In an ideal situation teachers' in the midst of framing instruction would balance their personal beliefs and cultural underpinnings to create an environment that is open and welcoming to all of their students. By doing this, the teacher takes their personal bias out of instruction to allow students to explore all sides of the content from traditional and non-traditional viewpoints so that all voices can be heard and critiqued. This ideal situation involves understanding how their personal beliefs impact instruction and controlling for any innate biases to allow for the freedom of all viewpoints to be seen, heard, and valued. However, this is rarely the case. But, reflective and empowering teachers are able to see biases based on their own beliefs and injustices in the curriculum to teach students to critically analyze the world around them and pose solutions to these things. Since all of the items

discussed above have impact on how a teacher instructs, this literature review will focus on the major topics of teacher technology use within urban schools, how technology can and has been used as an empowering agent, and conclude with a discussion of teacher beliefs because in the end this is the driving factor in teacher instruction. This discussion will showcase that while many schools have access to technology, the access is not always reliable and the use is often not effective for the long-term knowledge of students. In particular, due to low-income African American students having a limited access to computers outside of school this creates a serious handicap (Schloman, 2004). Throughout this literature review it will also be revealed that there is a need for examining how teachers are using technology within their classrooms in positive ways that prepare students to be active citizens in their school and community beyond the school framework.

### Technology use in urban schools

Technology has been used broadly for a variety of educational purposes. The technology used in classrooms has lasting effects on students, often influencing their thoughts and beliefs about themselves (Page, 2002). In low-income areas technology is seen along a continuum from extremely positive uses that range from building critical thinking skills (Frederick, 2007) through investigation and knowledge construction to negative uses that center on behavior management (Garrison & Bromley, 2004) and drill and practice activities (Becker et al., 1999; Lowe et al., 2003; Warschauer, Knobel, & Stone, 2004).

As discussed in Chapter One, the digital divide is a social justice concern with which schools should be concerned to ensure that students are given the equal and

equitable rights to the available knowledge. Students have at their disposal many forms and types of technology but are not always entrusted with the means to use it for educational purposes. Furthermore, the students need to have the ability to access these technology tools and use them constructively within their schools. Since the inequities in race and income cause reduced access to technology, it is vital to work to reduce these disparities through appropriate instruction, exposure, and opportunities. In order to do this it is imperative to examine how this is being done to provide examples to others. The effects of the positive uses of technology can empower all students, especially urban youth to be successful in school and have the ability to use technology to better their social situations (Gorski, 2009). Instructional strategies that include technology also allow students to become more engaged and motivated about their schoolwork (Chisholm, 1995a; Dermody & Speaker, 2002; Ertmer, Addison, Lane, Ross, & Woods, 1999; Frederick, 2007; Page, 2002). On the other hand, poor uses of technology serve to bore students, cause behavior problems, and otherwise stagnate academic progress (Garrison & Bromley, 2004; Warschauer et al., 2004). Several studies that address the various types of technology use will be examined in this section.

Teachers who use technology consistently often do so without the daily support of a computer technologist. If they are able to complete their tasks with minimum dependency on the technology support staff, they are more likely to use technology (Sandholtz & Reilly, 2004; Zhao, Pugh, Sheldon, & Byers, 2002). If there is no dependency on others for their usage, it is easier for teachers to implement and integrate technology into their respective content areas. In a 2002 study, Zhao et al. (2002) found that consistent users of technology often had buy-in from their school team, which included students, parents, and administrators. The research team sought to determine



why teachers did not integrate technology into practice even when they were provided with technology resources. The research team studied the ten participants and evaluated implementation of the various teacher projects through the use of interviews, surveys, and observations. Initially, the research team used a survey based on principles relevant to the type of technology integration that include the following criteria: “technology proficiency, computer anxiety, attitudes and beliefs toward technology in education, previous and planned professional uses of technology, [and] pedagogical styles” (Zhao et al., 2002, p. 488). The team then narrowed inquiry down after the surveys to a set of ten case studies. They analyzed and categorized them into themes that delegated the success of each project under the general headings of innovator, innovation, or context. Zhao, et al. (2002) as well as Zhao & Frank (2002) define the “innovator” as the teacher who needs little outside to complete the project, the “innovation” is defined as the type of project and how easily it fit within the school structure allowed its success. Finally, the “context” is the way the project was integrated into the entire school and with other teachers. Overall, the authors determined eleven factors that fit into each of these categories and provide some rationale for why teachers integrate technology and how successful it is.

In investigating the innovator, Zhao, et al. (2002) found that a teacher’s technology proficiency, pedagogical style and social awareness greatly factored into the success of the innovation. Each of these items factors into the degree and effectiveness of technology integration. The teacher’s knowledge of what goes into certain types of activities and beliefs about technology use whether as an integral part of curriculum or as an extra add-on play into the types of assignments given by the teacher and also value of the activity viewed by the students. In the innovation and context sections, Zhao, et al.

(2002) cite that the amount of reliance on technology support and divergence from school culture and other school parties have an effect on whether or not a project is successful. Therefore, it is beneficial to have a school environment that holds positive technology beliefs and expectations and the ability to support and help in creative uses of technology.

While factors of dependence, distance, and context of project play a role in the use of technology being integrated, the important factor is still the teacher. In the studies that follow there are descriptions of how teachers are using technology in their classrooms and schools as a whole.

Warschauer, Knobel, and Stone (2004) explored technology usage and equity by documenting the ways Instructional Computer Technology (Brown, 2007) is used to enhance student learning in diverse SES contexts. The researchers used surveys, interviews, artifact collection, observations, and an inventory of equipment to collect data at eight economically diverse high schools. The uses of technology for science and English/Language Arts were similar across the schools. Particularly, within these subjects the use of technology was focused on simulations, data analysis and PowerPoint for science and for PowerPoint and writing essays. However, in math there were great differences between the high and low-income area schools where the low-income schools use the computer for more drill and practice activities while the high-income areas used the computers for statistical analysis. The teachers in both high - and low - income areas did not seem concerned with the use of technology for knowledge construction but more so with the functionality of the tools. For example, teachers were more concerned with locating the information for a report as opposed to evaluating its validity or value to the overall instructional goal.

The overall themes of the study were summarized under the headings of performativity, workability, and complexity (Warschauer et al., 2004). Performativity refers to the use of technology to see how students were able to perform with the tool and use it for basic performance. Workability is the term used to describe how the computers are set up within the school, whether they are in classrooms or labs, and how they are maintained. This also refers to how teachers are trained to integrate technology and what communication channels are in place for questions or other technology concerns. The final category, complexity, refers to how teachers integrated the technology and the type of tasks that students were required to complete. For instance, students in low-income schools often were not assigned difficult or complex assignments that required out of class computer time because the teachers did not believe their students would have access to computers outside of school. Unfortunately, the focus on raising test scores outweighed the desire to integrate technology as it does in many low-income schools that have increased pressure to raise test scores (Gibbs et al., 2009; Hew & Brush, 2007; Meier, 2005; Warschauer et al., 2004).

Some teachers only use computers because it is mandated within the school. However, they do not have training for how to use them properly. Therefore, students are taught using methods that only used technology as a reward system for finishing assignments early or good behavior. Other students may not see the educational benefit of technology use because they are not afforded the positive aspects of using the tools (Ertmer, 2005; Garrison & Bromley, 2004). They may see the computer as something that only “smart” children are allowed to use and be deterred from trying to use technology because they are never one of the first students to finish an assignment.

In Garrison and Bromley's (2004) study, the purpose was to investigate how the social context influenced the way computers were used in an urban elementary school. The case study was done over the course of three years particularly focusing on the use of a computer lab and classroom computers in the selected school. Through interviews, field observations, and document reviews they found that teachers often used the computers as a method "of defensive teaching." Defensive teaching centers on the idea of controlling students and minimizing behavior issues; however, it may actually create more behavior issues. Several examples of this type of teaching occurred when teachers were with students in the computer lab and provided detailed step-by-step instructions when students were able to proceed ahead further without much assistance. Often misbehavior, while in the computer lab, was met with harsher consequences than in the other specials, or non-core, courses. Additionally within the classrooms, computers were often used with a reward system for good behavior or withheld from those who misbehaved. The teachers also were less willing to learn more about the functionality of the computers or how to fix simple problems for fear that it would create more responsibility and work for them.

Likewise, with the limited freedom the students were given in the computer lab they developed their own ways of controlling their environment through creative pacing of assignment completion or creatively impeding their progress. Garrison and Bromley (2004), determined that students generally entertained tactics of pretending to work and undermining authority with the help of the computers. Pretending, involves either "withholding (pretending inability) [or] superficial busyness (pretending productive engagement)" (pp. 596-597). In the withholding instance of pretending, students pretend to not be able to complete basic computer functions, such as remembering passwords, or

other simple tasks they had been observed to do in the past. False busyness was observed as students pretended to be on-task working diligently but they were actually faking on-task behavior to be excused from another class to finish the computer assignment. For example, a student copied and pasted text into a document to appear to be on task just wanted to look busy so they would have a reason to ask for extended time to be excused from the next class. In undermining, students did simple things such as unplug the mouse or computer processing unit (CPU) to get out of completing the assignments under the assumption that the computer was broken. This was done so the teacher would revoke computer privileges, which allowed the student to be relieved from an assignment they did not want to complete anyway. The authors claimed both the undermining and pretending behaviors result from the defensive teaching style that the teachers implemented. Restricting computer use of the students forced them to adapt their own ways of coping and maintaining a sense of empowerment over their situation. However, the long-term effects of this type of teaching in situations where teachers have total control over the learning environment is detrimental as students are not involved in the learning process and become further detached from it.

This type of resistance to certain educational practices is often a way that students work to oppose the culture of the school. In particular, minority students use resistance to defy and express their rejection of racist practices and experiences in school (deMarrais & LeCompte, 1999). For instance, students may object to the devaluing of their cultural experiences, tracking, or lowered expectations. While some students may express this rejection by quietly withdrawing from school, others may more actively act out verbally or physically to express their frustration. Additionally, Willis' work describes that low-income youth will often reject dominant norms and rituals as a way to

express their aversion to social setting norms that are set by the middle class majorities. However, often these resistance patterns are formed within the dominant school norms and sometimes those that oppose them work to create broader changes within the societal structure (Gordon, 1984).

### Technology Benefits to Students

Positive use of technology in the classroom can have great rewards on student performance. These rewards include greater engagement, self-esteem, and motivation (Chisholm, 1995a; Dermody & Speaker, 2002; Ertmer et al., 1999; Frederick, 2007; Page, 2002). Students who may not be the best students in traditional academics may have technical expertise that will allow them to contribute to class in ways they had not before (Page, 2002). These benefits should be explored and more widespread than they are. In the studies discussed below the way that technology is being used in K-12 schools and urban environments are explored. The discussion is limited to what is done specifically within the school because this is the only place that is guaranteed for students to have technology access (Hohlfield et al., 2008). While there are several studies where technology access is granted through afterschool programs libraries, and external research projects this literature will only address these that are directly tied to classroom instruction (Schloman, 2004).

Staples, Pugach, and Himes (2005) performed a multiple case study of three urban elementary schools. Each of the schools had a majority of low-income African American students enrolled. The three schools were chosen based on their receipt of a grant to help with technology purchases and development of resources for improving technology integration within their buildings. Additionally, as a part of the grant the schools were

able to work with the local university to help with the technology integration part of their job. Primarily, the study was interested in determining how the schools decided what to support and how this would be facilitated, the way the school culture helped or harmed technology integration and the factors that affected technology integration decisions. Over a three-year period, researchers collected field observations, teacher and other personnel interviews, student work and teacher lessons, and technology event timelines.

The results of the study showed the following three trends had a prominent effect on technology integration: 1) alignment with school's curriculum/mission, 2) teacher leadership, 3) public/private roles for technology recognition (Staples et al., 2005). These show that overall when the principal and administrative staff are supportive and vested in the integration of technology the teachers will emphasize its integration into their lessons. However, if the principal does not see technology as a priority it will not be used readily (Hew & Brush, 2007; Staples et al., 2005). For instance, in the first school the principal strongly supported and expected the technology to be used within the classroom projects and assignments and it was used widely but not always in positive and effective ways. The type of use varied from word-processed documents to embedded videos; however, since the expectation was not set at a high standard the minimum requirement was met but all students did not experience the benefits. In general, the teachers who were excited about student-centered work were more likely to use the computers in ways that emphasized this type of use. However, where the teachers were dispensers of knowledge in the classroom, computers use occurred as an add-on opportunity. This is often the case when teachers carry the belief that technology is not an essential part of instruction.

When there is a clear alignment between the technology and the curriculum there was more emphasis placed on the technology use (Gibbs et al., 2009; Staples et al.,

2005). Additionally, when the principal clearly made this link and emphasized it, the technology was used more readily (Staples et al., 2005). Likewise, teacher leadership was important to the study. Teacher leaders were important because they became examples within the school building of what could be done with the technology tools. Furthermore, the teacher leaders served as a means for others to receive help and move the school in a different direction. Similar studies of technology integration (Ertmer, 2005; Hew & Brush, 2007; Lawless & Pellegrino, 2007) cite that having a teacher mentor available to showcase technology benefits and model their successes significantly influences whole school buy-in of technology use.

Professional development was one of the methods used to provide teachers at the schools with the resources to integrate technology within their classrooms. However while workshops are critical, without consistent follow-up and mentoring they will not result in widespread technology integration (Hew & Brush, 2007). In Staples, et al. (2005) a variety of workshops were offered at the schools; however, only a handful of the teachers actually implemented what they learned in the workshops. The opportunity to attend technology integration conferences was offered. Teachers were required to present and attend; thus, those who were less motivated did not have the opportunity to attend. Also, there was no requirement for teachers to share what they learned from the conference; therefore, there was little benefit to the staff as a whole to move toward integration.

Finally, whether teachers were privately or publicly recognized by the administration for their use of technology within the classroom was a common trend in the study results (Staples et al., 2005). It is important to recognize teachers' efforts to try new strategies. For, they need to know that the extra effort of technology integration is



valued and appreciated by the administration (Hew & Brush, 2007). This can be done through praise of increases in students' problem solving skills through increased achievement and critical thinking skills or supportive comments that encourage teachers to continue their efforts. For example, at one school in the study by Staples, et al. (2005) technology was readily used by teachers and students and they received praise for their technology use at the school. In turn, the students and teachers were encouraged to keep working toward new technology projects and goals.

Mouzza (2008) performed a study with in a low-income predominately African American populated elementary school where four classrooms were studied to understand the impact of laptops on student education and how teachers implemented them into their practice. Particularly, Mouzza (2008) was interested in how teachers used the laptop computers for overall instructional goals, children's attitudes towards computers, and how they were used to support learning. Through the use of qualitative interviews and focus groups, classroom observations, artifacts, and student surveys she obtained data that informed the research questions and led to the findings discussed below.

Teachers who were issued class laptops for each student used technology for more collaborative, interactive projects in which students were more involved in knowledge construction (Mouzza, 2008). For example, one teacher noted that her lessons were now geared around long-term cross curricular projects where students were working "around an important issue" (Mouzza, 2008, p. 457) to expand the curriculum and expose them to new ideas instead of limiting the instruction to single idea or content standard lesson. Whereas, the control group teachers without the individual laptops did not use their standard classroom computers in ways that promoted knowledge construction and cited that only the students who were not behavior problems received the opportunity to work

on computers. Unlike other studies (Garrison & Bromley, 2004), the students did not rebel from the unequal access to computers, perhaps because they did not know they had the ability to do so. When teachers make the shift from teacher-centered to student-centered use of computers, they may begin to see more student engagement in their lessons (Lumpe & Chambers, 2001) and greater gains in students' critical thinking skills. Students showed improvements in their attitudes toward school and also their motivation for completing assignments. Often tasked with researching ideas and solutions, the students began to tackle issues that directly impacted their school and community showcasing the ability of technology to be used as an empowering agent. Additionally, the students in the laptop classes were more likely to discuss the ways they could learn with the computer and see its benefit as a learning tool whereas those in the non-laptop classes saw the computer as "just for fun" (Mouzza, 2008, p. 461). Since the students may not be able to use computers outside of school, it is important that they are able to see computers as a learning vehicle early and often within schools for their benefit later in life (Ching et al., 2005). Overall, Mouzza (2008) determined that the laptops supported student learning in the following four ways: Increased student motivation and persistence in doing schoolwork, increased interactions with peers and teachers, student confidence in their academic abilities, increases academic gains in writing and mathematics within the group. Since students had so much time with their laptops, they often used it for educational purposes at home as well as school to work on homework, typing skills, or computer shortcuts whereas their counterparts were more likely to be playing games (Mouzza, 2008). This reiterates the importance of computers being used effectively within the classroom so students can understand that the computer is a powerful educational tool and not just another type of gaming device (Ching et al., 2005).

### Positive use in Urban Environments with low-income African American students

In urban schools, where the population is primarily minority (e.g. Latino, African American) and low-income students, there are other factors that can indicate a “good technology integrator.” Since teachers often use technology for remedial purposes in these environments (Warschauer et al., 2004), it is interesting to see some of the more innovative uses present in literature. Each of the examples presented here have worked to increase student engagement (Dermody & Speaker, 2002; Frederick, 2007) and allow students to surpass their documented learning levels (Dermody & Speaker, 2002).

Positive uses of technology have been documented with low-income African-American students. These uses include showcasing student independence, collaboration, critical thinking skills and focus on knowledge construction. In Mabry and Snow’s (2006) study of the Cooltown project, the research identified how the use of laptops at home effected student achievement and student attitudes about education in a low-income school with a high population of English Language Learners (ELL). Through a mixed qualitative and quantitative methods study, Mabry and Snow found that the availability and use of laptops at home increased students’ inquiry skills, responsibility, spontaneous collaboration and technological skill acquisition. The major findings of the study were that technology helped to (a) reshape educational experience with technology, (b) change the educational outcomes, and (c) personalize curriculum standards-based accountability.

Additional benefits have been seen with low-income students who were issued laptops for schoolwork and homework (Mabry & Snow, 2006). They found that the use of technology gave students more ownership of their work and increased their

engagement in the tasks assigned. Moreover, students who were not the typical academic or student leaders became experts in one area or another of computer use and were able to help their peers with different parts of the computer troubleshooting.

Laptops reshaped the structure of the education through the use of individualized and cooperative group activities, rather than the whole group activities observed in the non-laptop classes (Mabry & Snow, 2006; Mouzza, 2008). Students drove their own instruction by using the laptop as a means to develop and answer their own learning assignments. This includes ELL and special education students who were also valuable members of the classroom community through the use of the laptops because they can participate and be active members. When commenting on the relationship between computer use and math or reading achievement a teacher noted that while we cannot determine whether the computers have increased achievement, using computers has allowed low-achieving students the opportunity to shine and be valued in the class (Mabry & Snow, 2006; Mouzza, 2008; Roschelle et al., 2000). Both of which are a very important long-term benefit to their education including increased motivation and self-esteem. High expectations and well-planned lessons also contributed to the increases in the schools' achievement scores. This was also attributed to the authenticity of most assignments being real-world problem and/or related to with problems in their local neighborhoods. Thereby, students took more responsibility and pride in the overall quality of their work.

In a similar study, Page (2002) investigated the effects of technology on elementary students in the areas of achievement, self-esteem, and classroom management. A quasi-experimental design distributed the students between third and fifth grade control and treatment classrooms. Most of the students in the study were

African-American and all of the students were of low SES. Teachers used a variety of instructional strategies with the major difference between the two groups being the addition of technology resources in the experimental group. The experimental classrooms were more likely to be student-centered as more activities were individual and/or small groups where students worked collaboratively at the computer and were more involved in student-centered activities. The findings showed a statistically significant difference between the types of verbal interaction based on the technology or non-technology classroom. Additionally, there was a significant difference in composite self-esteem measures and mathematics achievement scores. This is important because when students have a good feeling about their academic ability they are more likely to continue in school and be engaged in their work (Banks & Banks, 1995). The author extends this line of thinking to suppose that technology alone is a means to escape poverty. While, technology is a piece to social elevation its use alone will not do it. Gorski (2009) and others (Becker et al., 1999; Gibbs et al., 2009; Roschelle et al., 2000; Swain & Pearson, 2001) realized that technology access and use without the teachers to facilitate its effective use in the classroom may be more of a handicap than a help. Technology needs to be coupled with effective, culturally-relevant teaching to ensure that students are exposed and immersed in an environment that continually values their background and affirms their individual desires for knowledge construction (Chisholm, 1995a, 1998; Gibbs et al., 2009; Gorski, 2009). Unfortunately, there is not a significant amount of research that explores how technology can be used as a means of empowerment for students especially those in elementary grades.

Frederick's (2007) case study views technology as a tool for empowering students to change their lives through the use of culturally relevant pedagogy. The major results

were increased student motivation and engagement. In the two schools she examined technology use that transformed the thinking of the African-American students involved and allowed their experiences to be at the forefront of school curriculum. In the first school the students were tasked to learn more about historical figures that were not adequately discussed within the standard textbook. Through the exposure to additional information obtained from Internet resources, the students then prepared a re-enactment of the Booker T. Washington and W.E.B. DuBois debates. In the second school, students were shown videos and photos depicting the Amistad slave ship capture and trial via Internet clips. Through this activity students were exposed to the images that would develop a sense of pride and connection with their African past through exposure and connection to concepts, and experiences of African heritage. The following three themes emerged when computers were used in these transformative ways:

1. “Internet and computer –related technology were important tools for helping student[s] engage in meaningful instruction about the lives and experiences of people of African descent” (p.76).
2. Black students constructed knowledge in a learning community. The teachers, as facilitators, and the computers as intellectual partners were critical educational tools.
3. Internet and computer-related technology can be the media for legitimizing students’ real life experiences, as they became part of the official curriculum.

Specifically, the computers were used in ways that helped students to develop what the author terms as “liberating stories” (Frederick, 2007, p. 76) where the students were able to create and express their connection to the school curriculum and their

community through the use of technology. The teachers specifically then directed them to express this connection in positive ways that showcased their cultural backgrounds. Secondly, the computers were used as a critical educational tool with the students to encourage them to go further in their research and inquiries to build personal connections and relationships to solidify the knowledge they gained. The teachers offered differentiated support by individualizing the instruction dependent on student need and interests. Finally, Frederick (2007) showcased the computer as a way to expose and ensure that the experiences of African American students were valued within the school environment. Using technology to allow African-American history and experiences to be at the forefront of the curriculum, placed students at the cultural center of the curriculum. Therefore the students were able to see and experience an education that is valuable and culturally relevant.

### Technology Integration in Multicultural Environments

Inez Chisholm (1995a, 1995b, 1998) has done significant work on the use of technology in multicultural settings. Most of her work is centered within the context of low-income Hispanic Americans in the southwest United States, but her research does have relevance to students of other backgrounds as well. In her case studies of the use of the computers in classrooms predominantly populated with low-income Hispanic students, she identified several characteristics of the learning environment that should be present. The characteristics are (a) cultural awareness, (b) cultural relevance, (c) culturally supportive environment, (d) equitable access, (e) instructional flexibility, and (f) instructional integration. While these characteristics are beneficial to students of all backgrounds they are of particular import to those of minority status. The first three

specifically are concerned with the need for the learning environment to be representative and inclusive of cultural backgrounds. Students should have a system of support and be able to openly embrace cultural differences. Likewise, teachers should strive to be inclusive of cultural viewpoints and learning styles so as to receive the best from their students. As Banks (2004) describes, this means going beyond the stated curriculum and moving to a more inclusive and realistic picture of ethnic contributions to history and educational pursuits. In terms of cultural relevance, students need to have activities and assignments that make sense to them and are linked to their cultural experiences. This will help the students take ownership of their education and also allow them to see the value in the educational process. A culturally supportive environment, similar to the empowering school environment allows for equity of voice and ensures that the community of learning is extended beyond the classroom (Chisholm, 1998). This means that the parents and schools work together to ensure that students are learning and are empowered to think about more than school problems but extend that to community and larger social problems. The last three criteria for successful technology use are specific to the technology use in the classroom. Equitable access is access that is fair given the learning styles and needs of the students. This means that children receive the access to the computers they need to encourage and support higher-level thinking and skill development but it may not be equal to other students. Instructional flexibility is the ability for students to choose their own type of assignment product or assessment. Finally, instructional integration refers to the way that technology is used in the everyday classroom and lesson. Students should have the opportunity to use technology on a daily basis in a meaningful way (Ching et al., 2005; Chisholm, 1998). She further explains that this allows students the opportunity to engage in higher-order thinking skills, increase



creativity, and problem solve which are important in a multicultural and critical pedagogy (Duncan-Andrade & Morell, 2008).

As far as overall curriculum support, many best practices as described by Marzano (2003) document the use of small learning groups and more facilitative teaching. The use of technology has been shown to implement teaching strategies in these ways (Dermody & Speaker, 2002; Hadley & Sheingold, 1993; Meier, 2005; Sandholtz & Reilly, 2004). Teachers are more apt to address real-world problems with the students and become a project manager of sorts as opposed to the sole dispenser of information. Students therefore can become more engaged in their thinking and learning.

#### Summary of Technology Use

This section described the variety of ways that technology has been used in the urban environment with African-American and other minority populations. Within these descriptions are portraits of positive use where students are engaging in higher level thinking, extending the curriculum, and working in collaborative groups. However, there was also evidence that some teachers used technology because it was mandated and they relegated its use to basic skills practice, behavior management ploys, and/or reward systems. While many of the studies described adequate access to technology, it was generally the teacher's decision how this tool was used in the classroom. With most instructional strategies, it is at the discretion of the individual teacher to determine how it will be used in the classroom and to what extent (Chisholm, 1998; Zhao et al., 2002). Several scholars have stated that the most important dictate of what is taught and how technology is used in a classroom is the teacher (Becker et al., 1999; Chisholm, 1998; Ertmer, 2005; Gibbs et al., 2009; Gorski, 2009). It is for this reason, that instructional

strategies of teachers were the focus of this case study. The case study aimed to shed more light on how technology was used in these positive ways and what instructional strategies enhanced this type of use. Since teacher beliefs were so vital to the integration of technology, the next section discusses how they inform pedagogy and technology use.

## Teacher Beliefs

### Computer use Beliefs

In the world of education, teacher beliefs are critical to understanding how a teacher will instruct and conduct lessons within their classroom. Teacher beliefs determine how the teacher structures lessons, uses technology, and handles cultural differences (Ertmer, 2005; Ertmer et al., 1999; Gorski, 2009). Generally, beliefs related to teaching are tightly aligned to a person's overall belief system, which is formed during childhood (Pajares, 1992). The way that a teacher teaches will often be determined by the way that they were taught in school and how this fits into their belief structure (Pajares, 1992). As new information is taken in throughout a person's life, it is filtered by existing beliefs revising existing structures. However, early beliefs stop being flexible at a certain point in life and become rigid. When this occurs, regardless of the amount or type of information presented to contradict a belief, it becomes very difficult to change these long-held beliefs. Unfortunately, many of the beliefs that teachers develop related to pedagogy and instruction fall into the category of inflexible beliefs, according to Ertmer (2005) and Pajares (1992).

As the field of education evolves to include more and more technology, it is pertinent for teachers to adapt to the change; however, based on their existing belief system, this transition can be difficult. Teachers' beliefs influence what they teach.

Pajares' (1992) research into what he termed the "messy construct" of teacher beliefs uncovered sixteen tenets of teacher beliefs as seen below. Several tenets that were revealed in teachers' everyday practice and pertinent to the study are listed below:

- "Beliefs are created early and tend to self-perpetuate, persevering even against contradictions caused by reason, time, schooling, or experience.
- The earlier a belief is incorporated into the belief structure, the more difficult it is to alter. Newly acquired beliefs are most vulnerable to change.
- Belief substructures, such as educational beliefs, must be understood in terms of their connections not only to each other but also to other, perhaps more central, beliefs in the system.
- Beliefs are instrumental in defining tasks and selecting the cognitive tools with to interpret, plan, and make decisions regarding such tasks; hence, they play a critical role in defining behavior and organizing knowledge and information.
- Beliefs about teaching are well established by the time a student gets to college." (Pajares, 1992, pp. 324-325)

In classrooms, these will be uncovered in teachers' everyday practices.

Ertmer (2005) and Ertmer, et al. (1999) advanced this research by focusing specifically on the use of technology and how teacher beliefs affect its use. In her 1999 article, "Examining Teachers' Beliefs about the Role of technology in the Elementary Classroom," Ertmer (1999) examined how first and second order barriers are related to teachers use of technology in their classrooms and how they perceive the value of technology in the classroom. Additionally, the researchers were interested in the

teachers' beliefs of effective classroom pedagogy. Building on early work that identified the terms first-order and second order beliefs, she separated them to examine their impact. First order barriers are generally thought of as being external to the individual. Lack of planning time, access to computers, knowledge of software tools, or technical support are thought of as first-order barriers. These items can be resolved without any major shift in a teacher's belief system. Professional development and technical support can resolve these types of situations; however, second-order barriers are somewhat more difficult to overcome (Ertmer, 2005). In this study (Ertmer et al., 1999) she explored the different second-order barriers that teachers faced since they all face the same overarching first-order barriers. Second order barriers include items that require possible changes in pedagogy, teacher beliefs about technology, and classroom routines.

Through the use of interviews, surveys, and field observations the researchers collected data on seven teachers over the period of six weeks. The findings of the study revealed that the major determinant of how computers were used was based more on the teachers' instructional strategies and classroom computer arrangement. The teachers' use of the technology was varied but the beliefs about the use of technology were very similar. They viewed technology as a tool for supporting the existing curriculum but not a tool for enhancing an emerging curriculum. Since the teachers were not able to perceive the restructuring of their beliefs to allow the computer to replace a textbook or become central in their instruction, it was more of an add-on tool. However, one teacher in the study did begin to see the possibilities of the computer as a medium for student knowledge creation with more upfront teacher planning. In contrast, teachers who did not see the computers as central to instruction encountered second-order beliefs that hindered their integration such as lack of access based on their classroom set-up and

pedagogy and view of technology. For instance, a few of the teachers viewed technology as an add-on and therefore needed extra time in the day to use it; whereas, teachers who viewed technology as a part of the instruction did not see time as a barrier. Overall, the teachers who viewed technology as a supplemental part of instruction were more likely to experience second-order barriers linked to their belief of technology as not central to education. Whereas, teachers who see a benefit to technology use were more likely to experience less second-order barriers, if any at all. Ertmer et al. (2005) described the need for more of an understanding of exemplary teachers who use technology as well as those who use technology to expand and explore emerging curricular items and what they are doing within the course of their instruction. This is especially important with the teachers of urban youth.

Ertmer (2005) conducted a literature review in which she examined the process teachers go through to use technology in their teaching practices and how their pedagogical beliefs affect this. Her literature review identified the existing research about teacher belief systems, how they are formed, and the best ways to change them. In addition she identified how they affect teaching practices and aimed to provide better ways to impact teacher change. All of these findings were in an effort to identify beliefs about technology and instruction that will increase student learning with technology. Some of her findings indicated that knowledge is related but separate from beliefs and as such teachers may know how to do something and understand its benefits; however, they may believe that the benefits will not work for them so they resist the change. Additionally, since beliefs do not have to be logical or make sense with one another it becomes clear that they are a difficult construct to overcome when dealing with preparing teachers for change.

In many cases, teachers will use technology to support their core pedagogy (Niederhauser & Stoddart, 2001), which will expose their true beliefs about pedagogy and technology use. For example, teachers who espouse a constructivist pedagogy, where learning is student-centered and allows students to explore and discover while they are learning, will be more apt to use technology with student-centered activities. On the other hand, those teachers that are more teacher-centered will find difficulty integrating technology with a constructivist approach because they will try to fit it into their existing pedagogy. These more teacher-centered educators believe that learning can occur best through the teacher providing information to the student as the dispenser of information and knowledge. Typically, this type of classroom is characterized by individual work and a lecture and note-taking lessons.

#### Beliefs about technology use with multicultural and low-income students

As technology access steadily increases, it becomes important to understand what drives teachers to implement its use. This is pertinent for minority and low-income populations that have limited access to effective computer use (Gibbs et al., 2009; Hohlfield et al., 2008). In multicultural environments, it is critical to allow students the opportunity to see and discover the reason for their learning (Chisholm, 1998). Too often teachers will limit the type of technology they use in their classes because they believe the students need more time to master the basic skills needed for high-stakes tests (Duncan-Andrade & Morell, 2008) and the use of technology will not help this. However, technology is beneficial for problem-based and project-based assignments such as research, product creation, and knowledge construction.

For instance, Duncan-Andrade and Morrell (2008) investigated the impact of using a critical pedagogy within an urban school and the impact that it had on the students. They found that when they implemented critical pedagogy they were actually increasing the standard rigor of the standard curriculum. Students were required to examine social issues and propose solutions. However, in order to do this they need to know and possess writing skills necessary to write the solutions, understand the process of local government, and the steps to go through to get laws or rules changed. Duncan-Andrade and Morrell stress that critical pedagogy involves critical analysis that is not separate from academics instead it is a deeper understanding of the standards and a way to readily apply the knowledge to local and global concerns.

When working with low-income African American students it is important to embed ideas and concerns that are of value to them. This involves teaching in a way that makes their culture central to the curriculum and not secondary. Not only does this increase the engagement of the African American students but it also allows other cultures to see the importance of including all viewpoints. In fact, Duncan-Andrade and Morrell (2008) cited the need for further research on the use of empowerment and critical pedagogy within elementary schools. This can be done by implementing more problem and project based learning, cooperative grouping strategies, and critical analysis (Banks, 1991; Duncan-Andrade & Morell, 2008). However, it is important to note that while it is important for African Americans to have these opportunities, the scholars cited here (Duncan-Andrade & Morrell, 2008; Chisholm, 1991) did not specifically work with nor focus on African American students which makes the need for this type of research with low-income African American students more important.

Teachers' views concerning technology have directly impacted how technology is used in their classrooms. In Warschauer, et al. (2004), the researchers' purpose was to document the ways that technology is used with students in diverse socioeconomic contexts. For instance, teachers who believed that low-income students did not have access to computers outside of the classroom (Warschauer et al., 2004) often did not assign homework or major projects that would require out of school access to computers. Additionally, some believed that students who had been low - performing in school could not benefit from collaboration tools and should only use remediation types of software (Warschauer et al., 2004). In a later study, Warschauer & Matuchniak (2010) found that schools still assigned technology tasks differently based on the income levels of students, with 33% of eighth grade teachers in high-income schools assigning simulation activities and 22% of teachers in low-income schools. On the flip side, 31% of high-income school eighth grade teachers assigned drill and practice and 34% in the low-income schools.

Students in primarily low-income schools will be disadvantaged if their teachers hold these beliefs. In other instances, teachers may believe that the most important part of the child's education is to prepare for high-stakes tests without understanding the benefit of other resources that may prepare the students while moving them beyond satisfaction of basic testing requirements (Gorski, 2009; Meier, 2005). However, the most pressing determinant for how teachers will use technology is how easily it will fit with their existing teaching style (Hayes, 2007).

### Summary of Literature

Throughout this literature review there has been discussion of the variety of uses of technology within urban schools throughout the country. However, the underlying facet



of each study has been that what the teacher believes to be important is what is taught in the classroom. Students have been shown to benefit from the use of technology through increased motivation, engagement in the content, and self-esteem (Page, 2002).

Additionally, there has been research done on the benefits of employing a multicultural learning environment with students. Each of these individual topics shows that when student needs are considered students will experience success academically and socially.

However, while several studies have explored how multicultural education and critical pedagogy frameworks benefit students (Chisholm, 1995a; Duncan-Andrade & Morell, 2008; Frederick, 2007; Frederick, Donnor, & Hatley, 2009), few have concentrated on the combination of the two, especially in an elementary context. In fact, Frederick, et al. (2009) and Gorski (2009) specifically cite a need for more research into the area of technology with focus on culturally relevant teaching. Although Chisholm's (1995a, 1995b, 1998) research examined the effective use of technology with multicultural students, it has only been performed in the context of high school Latinos. Likewise, studies by Frederick (2007) and Pinkard (1999) examined technology and empowerment in middle and high schools with African American students. Since work has been done with middle and high school, it would be beneficial to examine technology use with empowerment strategies in an elementary school context. In fact, Frederick (2009) and Gorski (2009) cite the need to examine technology use with multicultural education in more contexts to further research in this area. In order to address this gap in the literature, I examined the use of technology in an elementary school and how it is used as an empowering agent for low-income African American students.

## CHAPTER 3

### STUDY DESIGN AND METHODOLOGY

In many states teachers are expected to integrate technology into daily lessons. As seen in the literature review section, however, this integration has very different implementation levels and descriptions dependent on the teacher and/or students. Low-income African American students, in particular, are often at a disadvantage due to the type of use of technology (Judge et al., 2006). This is due in part to a history of academic disparities in the African American and low-income populations. Also, these students may be impacted by late entrance into the educational setting (Gorski, 2009). Due to teacher beliefs, emphasis on testing, and lack of preparation, students in urban schools do not always experience technology use as an empowering and important activity (Ertmer, 2005; Gibbs et al., 2009; Gorski, 2009). Since the use of technology is an increasingly important criterion for future employment and educational pursuits, it is important to see how technology is being used in low-income African American schools (Ching et al., 2005; Hess & Leal, 2001). Therefore with the purpose of identifying and describing the instructional strategies of elementary school teachers who implement technologically enhanced lessons in low-income African American populated schools in an urban southeastern school, the research questions that guided this study were:

What were the instructional strategies of three elementary school teachers who consistently implemented technology-enhanced lessons in an urban school populated by predominantly low-income African American students?

1. How did teachers within the structure of the overall classroom instruction use technology with their students?

2. How was technology used as an empowering agent for and by teachers with their students?
3. Why was technology used in these teachers' classrooms?

Within this chapter, the research method and design are presented, which includes the: (1) research method and design, (2) researcher background and role, (3) data collection, (4) participants, (5) data analysis overview, and (6) ethical considerations.

### Research Design

Case study methods are often used to describe and examine phenomenon in their natural setting so as to obtain a holistic view of the phenomenon in context. Yin (2003) described it as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). While Merriam (1998), described it in terms of the boundaries defining the study. Most would agree, however, that the definition for case study research is broad (Bogdan & Biklen, 2007; Merriam, 1998; Yin, 2003) and difficult to pin to a particular procedural process. However, I feel that this study was closely aligned to the definition Yin (2003) described because the technology integration was difficult to separate from the constructs of the instruction and it was intertwined within the culture and expectations of the school environment. Baxter and Jack (2008) dictate that boundaries define what the study will be and will not be. This study was contained to a single elementary school with separate sub-units of study. Thus, this embedded case study was bounded by the school with three sub-units of study.

Merriam (1998) stated that case studies are particularistic, descriptive, and heuristic. This case study was particularistic because it was specific to each teacher.

Data collected was analyzed using constant comparative analysis and presented using rich, thick descriptive language to provide context and clearer understanding for the reader. The data was used for interpretive purposes to inform teachers and administrators about positive instructional strategies and methods for using technology within the classroom. This study was heuristic because it allowed the reader to understand how technology was used in the classroom through examples of the work assigned to and completed by students. The language used by the teachers was also an example of how the teacher strived to build critical thinking skills and empowering classroom environments.

#### Framework of Design

The framework of critical pedagogy requires teachers to be reflective in their views of their practice as well as be active in the community. This, in turn, should be tied deeply to their instruction. Therefore, close attention was given to teacher interactions with each other and the greater school population.

Within multicultural education, there were several variables to consider in the structure of classroom instruction. As described by Yin (2003) and Merriam (1998) case study is beneficial for contexts when there are several variables that are hard to extract from the phenomenon. It was useful to study all variables as a whole unit so that meaning was not lost in the investigation and especially when all variables are equally important to understanding the phenomenon under investigation. For instance, in attempting to change a program to have more of an empowering school culture, schools need to involve the whole school community, i.e. the principal, parents, teachers, students and other community members. Through the cross-case analysis and with the school as a

case, I was able to see how the different components of the school intersected and interacted to create or not create an empowering school environment.

### Bounds of Case

For this study, the case was defined by the bounds of a single elementary school, in an urban southeastern school district. In schools, it is often difficult to separate what the teacher does with technology from their overall instruction. Likewise, how the teacher structured their classroom activities, related to students and used technology are all interrelated within their pedagogical beliefs, cultural background, and educational experiences as outlined in the literature review (Ertmer, 2005; Ertmer et al., 1999). To attempt to separate them would be difficult at the least and detrimental at the most to understanding the whole picture of their instruction and technology use within the classroom. Therefore, I primarily focused on teachers' instruction in the classroom. Additionally, I interviewed an administrator to gain additional information on the expectations for technology use and ideas of empowerment within the school. The primary location of research was a second-grade classroom, a multi-age special education classroom with second and fourth grade students, and one fourth grade classroom where the teachers consistently implemented technology-enhanced lessons as identified by other teachers, parents, and other personnel. Merriam (1998) and Stake (1995) both stated that the unit of study was the most important part of defining a case study. It became critical then to define or bound the case in such a way that the questions can be answered through intense observation and other methods but not so narrowly that there was not enough data to be collected (Bogdan & Biklen, 2007).

Within each sub-unit of study, I observed and analyzed items such as student assignments, technology use or non-use, and teacher-student interactions. Pseudonyms were used to protect the identity and anonymity of the participants, school, and district where the research took place. While it was originally planned to examine the entire school, it actually occurred that the school was not examined fully so there were three separate cases bounded by each of the individual participants' classes. Specific examples of empowering school environment were identified and recorded within the selected classrooms; however, the school building was examined holistically to analyze how this applied to empowering the students and teachers of the entire school.

#### Research Setting and Context

Since the purpose of this embedded case study was to identify and describe the instructional strategies of elementary school teachers who implemented technologically enhanced lessons in low-income African American populated schools, the study took place in a K-5 elementary school located in an urban, southeastern school district. At the time of the study, Great District had over 41,000 students enrolled with approximately 33,000 African-American students. There were about 4000 teachers in the school district. The specific school, Ladson Elementary (pseudonym), was located in an inner city, residential area of a large southeastern city. It was a K-5 elementary school that enrolled approximately 250 students the year of the study. The student population at this school was 98% African American with approximately 82% receiving free or reduced lunch. With its high economically disadvantaged student population, it was designated as a federal Title I school and therefore received federal funds to aid in the education of its students. There were 23 teachers at Ladson Elementary. This school had demonstrated

continued academic proficiency by meeting the AYP, Adequate Yearly Progress, goals for the past seven consecutive years as determined by their Criterion Referenced Competency Test (CRCT) scores and attendance data (Georgia Department of Education, 2010). In addition, for the past two years the school had met over 70% of the local district targets that were set above and beyond the state governed AYP goals. However, Ladson had failed to meet the AYP criteria the year prior to the study.

Within Great District, there were a wide variety of technology resources available to students and teachers. Efforts within the district were made to help ensure that there was equitable access to technology across the district. For example, technology surveys and personnel were used to assess the needs of different schools and efforts were made to distribute computers, interactive whiteboards, and other materials based on the needs of students and staff. Additionally, the district cluster teams also made technology purchases based on the individual needs of the schools. However, most decisions about the type of technology available in a school were determined at the discretion of the particular school. In these instances, the school administrators had most of the input into what was purchased for the building, technology and otherwise. Many schools used their Title I funds to finance their purchase of technology. For example, several schools in this district had invested in the purchase and acquisition of interactive white boards (IWB) in the form of Promethean boards, laptop carts both PC (personal computer) and Mac machines, thin client Linux machines, as well as iPods, document cameras, digital cameras, and camcorders.

Like the district as a whole, Ladson Elementary had several technology tools and may have had more than the average school its size. Therefore, I chose to examine their instructional strategies and how they helped with critical thinking and empowerment.

Ladson Elementary was a prototype school that had consistently measured successful achievement as determined by the state CRCT and AYP criteria. At the time, Ladson Elementary had approximately 20 interactive white boards, a Macbook laptop cart with 13 machines, ten Apple iPods, and ten Apple iPads. Additionally, each classroom had six to eight Linux thin client machines which could be accessed daily because of their location within the classroom as well as access to a PC and Mac lab. The Macbook laptops and iPods were only available via teacher checkout by request and reservation. It was the expectation of the administration at Ladson Elementary that teachers in the school use and integrate technology into their daily instruction.

In the midst of the study, Great District underwent some major changes in administration due to the previous years standardized test results in several schools that trickled down to many of the schools including Ladson. These changes were a result of problems that occurred from the actions of several teachers and administrators throughout the district. As a result of these changes Ladson's principal was changed and a new principal was assigned prior to the start of the school year. Additionally, the teachers had been subject to investigations in and about the school related to the students' performance on the state CRCT tests the previous two years. Needless to say, the teachers were on edge to an extent and worried about how the new administration would work out for their school. At the end of the school year, Ladson closed and the teachers were required to interview for new positions within the district.

### Participants

The participants in this study were purposefully chosen based upon recommendations of their peers, teachers, and administration, in the building as well as



parents. The specific teachers chosen for the study were selected based on these criteria with input from the media specialist assigned to Ladson Elementary.

Prior to the opening of school in August 2011, a brief questionnaire was distributed to faculty and administrators during a faculty meeting. I provided a brief oral overview of what I was researching and then allowed the teachers and administrators to complete their respective questionnaires asking for recommendations of effective teachers in their building. The questionnaires used for each group can be found in the Appendix A.

After the questionnaires were completed I tabulated the responses to see what teachers were recommended the most by the faculty and administrators. Next, during the first week of school, I asked the faculty to send home the parent questionnaire with students. I received several parent responses back and then tabulated the results and cross-referenced with those that were recommended by the faculty. When this list of potential participants was narrowed, I cross checked the list to see which teachers fit the criteria of good use of technology by examining their teaching practices with respect to the ones defined by Chisholm (1998). These criteria cultural relevance, culturally supportive environment, equitable access, instructional integration, instructional flexibility, and cultural awareness are discussed in the literature review section. The most commonly referenced teachers were invited to participate in the study. In the end, I obtained three participants. The participants were a fourth grade teacher, a second grade teacher, and an interrelated special education teacher who serviced students across second – fourth grades. Originally, I had one more participant who had to drop from the study due to time constraints.

Prior to the return of the questionnaires, focus had been placed on obtaining participants in the upper elementary grades because that is when mandatory state testing begins. Often these grade levels were a consistent place of instructional focus as they were the major determinants in a school's AYP status. Additionally, studies (Policy, 2008) have shown that when students, as early as third grade, do not successfully complete the requirements for promotion they are at a great risk for not graduating from high school. Therefore, it was important to uncover what teachers are doing to ensure that low-income African American students experience academic success. However, given the results of the survey, I altered my original plans and included teachers from the lower grades as well as upper grades. Additionally, I included one member of the administrative team in my interviews to gain a different perspective.

Table 1:  
*Participant Demographic Information*

Participant	Ericka	Dionne	Kenneth
Age	29	32	39
Years Teaching	6 <sup>th</sup> Year	10 <sup>th</sup> year	10 <sup>th</sup> year
Grade	4 <sup>th</sup> grade	Interrelated 2 <sup>nd</sup> – 4 <sup>th</sup>	2 <sup>nd</sup> grade
Years at Ladson	6 years	6 years	3 years
Ethnicity	Caucasian	African-American	African -American

Erin Jones was a fourth grade teacher who had been teaching for six years. She and her teammate split teaching duties up into their specialty areas so she primarily taught English/Language Arts while her teammate taught mathematics. They both taught science and social studies. Ms. Jones used technology daily through her Promethean board and thin client machines. She stated that she does not know what to do when her technology is not functioning.

The second participant, Kenneth Sanders, was a second grade teacher who had worked at Ladson for three years. He was a strong believer in providing students with opportunities to succeed. He also believed technology was important in giving students the ability to see what they ordinarily could not see.

Finally, Dionne Baker was a special education teacher who serviced children across several grade levels. She used technology within her system of individualized education to meet the students where they were and help them grow. She had taught in another state prior to becoming a part of the Ladson faculty.

I also included a member of the administrative staff, Mr. Smith, who served as the school instructional coach during the study. His role was to serve as a mentor and supportive resource for the teachers. He also was tasked with providing professional development and curricular resources as requested. However, his printed job description and actual job were somewhat different. The above statements detail aspects of his printed job description; however, much of his daily activities mirrored aspects of an assistant principal by handling discipline issues and other administrative tasks as assigned by the principal. His views of technology were that it should be used to engage the students and it is a means to prepare students for their life beyond Ladson. Mr. Smith was the only member of the Ladson administrative team that was included because he

had been at the school for some time unlike the principal who was new to the school and the position. The instructional facilitator, who was responsible for curricular resources for the lower grades, was the other part of the administrative team.

### Researcher Background and Role

At the time of the study, I served as a learning technology specialist (LTS) in Great District and I was assigned to several schools within a certain region. My job responsibilities could be placed into three main categories: technician, instructor, and evaluator. As a technician, I was called upon to help teachers and/or administrator with technology problems such as resetting passwords or training on software programs (i.e. electronic gradebooks, or data warehouse system). While this was a major portion of my work, the core of my position was as an instructor. In this role, I was called upon to model technology integrated lessons, help educators locate resources, and coach teachers on how to best use new tools to aid in their technology integration. This involved creating a trusting coach/mentoring relationship so that the teachers could come to me with problems, questions, and concerns and be helped without fear of negative consequence. However, this was often in conflict with my role as evaluator. In many instances within my district-level role, I observed teachers and provided informal observation data to the teachers and in general form to my supervisor. This was sometimes viewed as a punitive action to teachers who may have thought there was a conflict with other components of my role. Through my past employment, I worked with many of the teachers at Ladson Elementary through training sessions and individual coaching or mentoring sessions. I had experience using technology and training teachers, but to some I may have been purely viewed in the role of evaluator.

As a former secondary classroom teacher, I was aware of different strategies for instruction, technology use, and classroom management. Since I had this experience, I understood the struggle to balance these elements in a classroom. However, I also had my own biases about how I believed technology should be used and how children should be treated so when I observed items to the contrary it struck a negative chord with me. For example, uses of technology as a remediation tool or disrespectful comments to students were things that were noted in my field observations. Through the use of observer comments and a reflective journal, I tried to maintain my etic realizing that the point of this research was to understand the instruction through the participants' viewpoint (Merriam, 1998).

I was familiar with several of the staff members and could be seen as an insider. However, some staff may have viewed my presence as a distraction or as a type of authoritative observer. For this reason, I sought to maintain a position as a neutral observer, where I managed the role of the researcher as a visible part of the observation. As described by Merriam (1998), I was an observer where my participation within the classrooms was secondary to my role as an observer. I tried to allow the lesson to unfold holistically in order to observe and record the strategies and activities of the class. However, when it was requested and/or required I assisted as needed. For instance, two of the participants experienced problems with their IWB while I was observing and while I was not specifically asked to assist, it would have been a disservice to the teacher to not assist. So, I did.

All researchers have innate biases based on cultural beliefs and other factors (Ertmer et al., 1999). What I strived to do within this study, was focus on the participant's view of what was happening and try to maintain an etic or outsider's view (Merriam,

1998). With this in mind, my views on how technology should be used in classrooms and how the rooms should be structured for maximum student learning were monitored throughout the study through memoing and after observations. In order to address these biases and separate them from data, I implemented the use of a reflective journal to record my personal thoughts separately from what was observed. Additionally as data were collected and analyzed, I was flexible allowing myself to redefine terms or constructs based on the data collected. Throughout the process, I used peer debriefers, participant member checking, and data triangulation to limit the amount of researcher bias.

#### Data Collection and Triangulation

Data was collected over a period of five months, beginning September 2011 and ending February 2012. I was able to observe the classes at various times through the year and finished collecting data prior to the spring break and the push for teachers to prepare students for the state standardized tests. A variety of data was collected, which included field observations, interviews, and physical artifacts. Each piece of data was analyzed and compared against the others to gain a holistic understanding of each participant. For instance, the interviews provided information on teacher beliefs on technology use and benefits as well as empowerment ideas. Since the interviews provided self-report data, this was compared with what was observed in the classroom. In some instances there was in conflict with the self-reported data the teacher provided and what was observed in the classroom, which was documented and reported, in the case reports. Additionally, student assignments were analyzed as a third source of data to either reinforce or refute what was gained from the interviews and field observations. Data was analyzed soon

after it was collected. A sample of the data that was collected is summarized in Table 2. The types of data received from each source are described in the sections that follow.

Table 2:  
*Data collection overview*

Data Type	Observations	Interviews	Physical Artifacts
Types of data analyzed	Teacher instructional delivery Seating of students Assignments given to students Student engagement in tasks	Two individual interviews with participants lasting between 20 and 40 minutes	Lesson Plans – 3 per participant

## Classroom Observations

Classroom observations were done throughout the course of the study to observe teacher-student interactions, type of technology integration, and the focus of assignments given. A protocol for how classroom observations were done is included in the Appendix B. As stated previously, I sought to become a participant observer because the benefit of being able to do so allowed me to see more of the situation as an insider which proved invaluable (Yin, 2003). Additionally, as critical pedagogy is an advocacy theory, it was important that the researcher be more than a neutral observer (Creswell, 2003). While I sought to be a participant observer, as the study progressed my role could best be described as a neutral observer more participant observer because I was an observer first and participant only if necessary (Merriam, 1998). However, since I was known as an observer and somewhat familiar to the participants and over time their students I would not consider myself a complete observer because I was not hidden or unknown.

Ladson-Billings (1995a) defined the following items as being important within culturally-relevant teaching and creating collective equity and justice. These are an emphasis on academic success, cultural integrity within the classroom, and critical awareness. Data in these areas was collected through student assignments, community involvement in the classroom, class discussions, and teacher interviews to look for specific examples of these three items. Additionally, Chisholm (1998) espoused a few additional items to consider when teaching with technology, specifically in a multicultural setting. Chisholm's (1998) additions include equitable access, instructional flexibility, and instructional integration. In turn, I observed the classroom design, technology assignments, and allocation of technology resources, which allowed me to address technology use in multicultural setting.



Both Chisholm (1998) and Ladson-Billings (1995a, 2009) agree that the classroom is a place for both teacher and students to learn. Therefore, teacher-student interaction was a subject for observation. I watched and noted how the teacher spoke to students, conducted classroom instruction, and what information about student culture was or was not used in student assignments or class discussions. It was also exhibited in the type of assignments that were provided to students and whether they were problem-based, or involved higher order thinking skills. In examining classroom design, I noted how the students were organized and if they were working in groups or individually. Additionally, I observed how the computers and other technology resources were placed throughout the classroom. Since technology integration involves the use of technology in a way that is seamless and productive part of daily instruction (Chisholm, 1998), I paid attention to how the technology was used in daily lessons and as a part of class assignments.

Classroom visits were announced and unannounced to allow me to see an accurate picture of the regular classroom activities and not only technology activities. Two of the participants stated that they were open to me visiting at any time while there were planned visits, they were not averse to other visits that were unscheduled. However, I did inform the participants that, if for any reason, if they were not comfortable with me being there during any visit, I did not stay. In all cases, the first visit was announced and planned with the participant to be after the initial interview. Announced visits ensured that there was technology use within the lesson for observance of strategies that were relevant to the research questions and how the technology was implemented within the context of overall instruction. This may have skewed the data some because the participants knew I was coming and therefore may have adjusted their normal

instructional practices. Additionally, given my role in the district and at the school, teachers may have been slightly more reserved. These observations were scheduled based on the teacher's preference. Each participant was observed at least three times. Two were announced and at least 1 was unannounced. The unannounced visits allowed me to experience a day where the students or teacher may or may not be using technology. When technology was not being used, I focused my attention on other activities and strategies used with the students. Each observation session was scheduled to last approximately 60 to 90 minutes in order to observe an entire lesson. Written field notes were recorded in a research notebook. On the left hand side of the page, I recorded my personal thoughts, questions, and opinions as they arose to clear my mind and allow me to focus on the actual activities of the class. After an observation was completed, I recorded reflective comments to have a fresh view of emergent themes, connections, or opinions of the situation as close as possible to its occurrence. The researcher transcribed the field notes.

### Interviews

Merriam (1998) believes that interviews are beneficial for understanding things that are not directly observable through classroom observations. Additionally, interviews provided opportunities for the researcher to inquire about background information, goals, and specific research agendas that may not be seen in the classroom (Yin, 2003). This included feelings about assignments, lessons, and instruction in general. It also made it possible to understand the teacher's intention for designing and teaching a lesson in a particular way. Interviews were designed using a semi-structured protocol. The questions were designed to understand teachers' views of technology use and its integration in the classroom, type of instructional strategies they felt worked best with

technology and with low-income African-American students. Additionally, questions focused on how they felt that they prepared their students for civic participation were posed. Administrator interviews focused on their views of how and why technology is used in classrooms. I was able to learn the teacher's feelings about technology use in the classroom, how their teaching impacted critical thinking skills and also how they felt their teaching was empowering students.

The first interview took place prior to the first observation to gain demographic information, goals for teaching, and goals for technology use by students. The second interview involved gaining more information about the classroom observations and clarifying various activities and viewpoints. I also questioned participants about their view of empowerment within this interview to provide background on their ability or potential to teach for sociopolitical awareness. Additionally, questions about lesson design in general were posed to see how culture, empowerment, and critical thinking played a role in the design of a lesson. A timeline of the intersections between the interviews and observations can be seen in Table 2.

The two interviews varied in length from 20 to 40 minutes. The initial interviews tended to be longer than the final interviews due to the amount of questions. There was also variance among the participants in interview lengths. Dionne and Kenneth's interviews were longer for the both and the first and second interview. It was my goal to create an environment where the participants were comfortable to share as they saw fit their feelings positive and negative about the school and instructional practices. The interviews took place in each of the participants' classrooms generally after school or during their lunch period. Each of the interviews was semi-structured to allow room for further questions as they became necessary. Each of the interviews was audio taped and

then transcribed by a third party. After checking the transcriptions for accuracy, they were provided to the participants for member checking. Ericka and Kenneth primarily changed items that were unclear in their opinion; there not any major changes or omissions that the participants made. Dionne did not review her transcripts and stated that she trusted me as the researcher. The interview transcripts were used to develop the subsequent participant chapters. A sample of the interview guide is included in the Appendix C.

### Physical Artifacts

Physical artifacts served as evidence of what the researcher could not physically observe during an observation (Stake, 1995; Yin, 2003). Since I only observed three lessons in a large time span, physical artifacts were collected to see the result of the daily instruction. These artifacts included teacher lesson plans and blank student assignment sheets given to the students. They were collected to see what types of activities are assigned to students to either confirm or refute what the participants purport to have as their desire for instruction. For example, I examined and coded the sample lesson plans I received from the participants. I also examined and coded some of the sample assignment sheets that were received. Since the participants provided what they wanted to give me there was some bias in the results.

Table 3:  
*Time Frame for Data Collection*

Time Frame	Activity	General Purpose
September 2011	Interview #1 Ericka, Kenneth	To obtain demographic information and background knowledge of teacher views of technology.
Late September – Early October 2011	Observation #1 Ericka, Kenneth	To observe instructional strategies with technology and any instances of multicultural education with empowerment focus.
November 2011	Interview #1 Dionne Observation #1 Dionne	More information similar to observation 1
November 2011- January 2012	Observation #2 Ericka, Kenneth, Dionne	
February 2012	Observation #3 Ericka, Kenneth, Dionne	Discuss observations and explore the topic of empowerment and implementation of multicultural education in particular classroom.
Late February – March 2012	Interview #2 Ericka, Kenneth, Dionne	More information similar to the first 2 observations Concluding interview to discuss final views of hopes for students and how their use of technology and empowerment multicultural education has helped.
March 2012	Follow-up (as needed) Ericka, Kenneth, Dionne	Some participants were asked about computer training via email

### Data Analysis Procedures

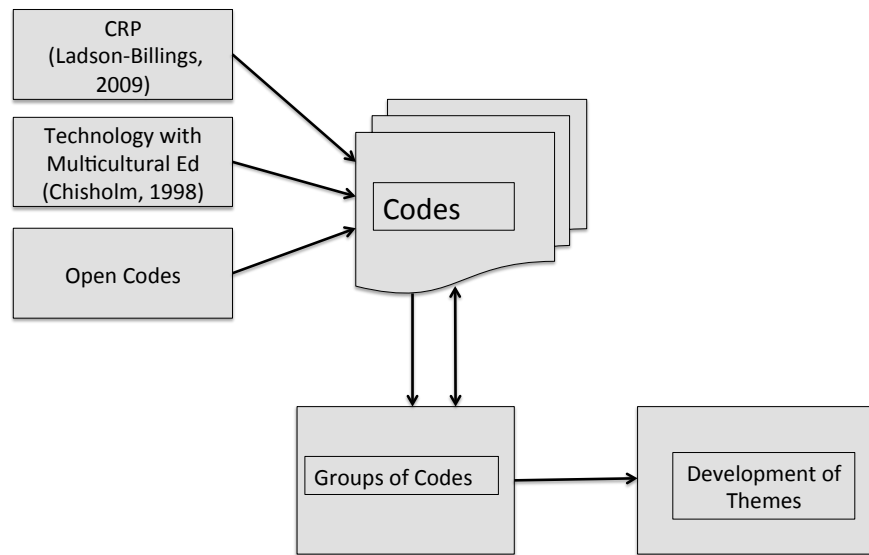
Since critical theory places an emphasis on narrative storytelling, (Ladson-Billings, 1995b), I wrote the participant reports in narrative form to explain and portray the participant as viewed through the collected data. The presentation explored and detailed the findings with regards to individual participants in order to gain an understanding of the way the teacher instructed and embedded technology and empowerment strategies. The narratives included rich, thick descriptions of events, interviews, and observations. Each of these items was woven together to form a comprehensive picture of each subject and their strategies for instruction with low-income African American students.

Interviews were transcribed shortly after they were conducted. Following transcription, the interviews were checked for accuracy and then provided to the participants for member checking. A few edits for clarity made by the participants were performed at this time. Coding began at this time as well. Initial a priori codes were developed from the definitions used by Ladson-Billings (2009) and Chisholm (1998) describing effective teachers of African American students and users of technology. As the need for new codes developed they were added to the codebook as well. A listing of the codes used can be found in the Appendix D. These themes and ideas helped me to develop the initial codebook, which was continually revised throughout the analysis process.

As data was analyzed, codes were continually developed and revised within ATLAS.ti program. With this program, I was able to identify and define the emergent themes. Additionally, as new codes were added to the codebook, the data was reviewed to assure a fit and need for the codes. ATLAS.ti was used to help further organize the

codes and emergent themes. Figure 4 illustrates the process that was used to develop the themes that emerged. A constant comparative method was used to continually regroup and revise the data into categories until a firm set of themes had emerged from the data. This was done by constantly rechecking what had been coded against the definition and other items in that category to see if it needed to be regrouped to another category and making sure there was a firm definition and delineation for each group.

When saturation was reached, the codes were lumped into common categories and then overarching themes were obtained to assess an overall feel for the data as a whole and completely synthesize the results. As a way of recording emergent themes and ideas, a record of observer comments and reflections about the data were kept within a reflection notebook and within the ATLAS.ti program. Additionally, prior to and following data collection sessions, either observation or interview, I memoed findings and thoughts in an attempt to see emerging themes and links to observer comments as suggested by Bogdan and Biklen (2007). Peer reviewers were used to review case reports, discussion sections and results. The reviewers were current and former doctoral students.



*Figure 4:* Illustration of the coding process

#### Ethical considerations

It was the goal of the researcher to maintain an ethical study. All efforts were made to maintain the anonymity of the participants in all documents and reports through the use of pseudonyms. The data collected was stored in a password-protected directory to which only the researcher had access. Any hard copies of data were kept in a secure cabinet in the researcher's office. Additionally, since I was aware of my feelings as both a former classroom teacher and as a learning technology specialist, I was especially attuned to recording my feelings within a reflective journal so as to not allow my feelings or reactions to effect the data collection and/or analysis.



## Trustworthiness

Throughout the study consistent efforts were made to maintain trustworthiness.

The specific items that were done throughout the study are listed below.

1. Data triangulation – Several different types of data were collected, including interviews, field observations, and physical artifacts, throughout the study to confirm or disconfirm findings.
2. Peer reviewers – During the course of the study, peer reviewers were obtained and reviewed data analyzed, drafts of the discussion, and data analysis sections of the write up. These reviewers were current and former doctoral students.
3. Participant member checking – Participants had the opportunity to review the hardcopy of their transcripts and them after the transcription of each interview to ensure accuracy and approval of the content that was analyzed.
4. Reflective journaling – Reflective journaling was done in between and following data sessions to clear my mind and prepare for the next session.

## Study Design Limitations

This study had few participants to allow for the rich, thick descriptions in the data analysis. As such, the ability to generalize the results to a larger population was not possible. It is important to note, however, that I was particularly concerned with what happened in this specific case and not with the purpose of generalizing results to the larger population. Although, As Merriam (1998) stated, use and generalizability can be the determination of the reader in their ability to apply it to their own situation. In efforts to assist the reader, the data was analyzed and is presented with the use of rich, thick

descriptions to allow the reader to find aspects that apply to their situation. Additionally, the cases described how typical or common the situation was overall. For instance, how common technology use is in this school could be compared with another school allowing for readers to draw their own conclusions (LeCompte and Priessle, as cited in Merriam, 1998). However, as we are seeking to understand and explore, it was not necessary to generalize but only to inform future research undertakings and generate possible directions for teachers to use technology with low-income African American students.

Another limitation of the study was the sampling method that relied on staff and parent recommendations. Through this method, teachers were asked to recommend teachers who were effective in their practice and technology integrators. However, it became clear that a definition for technology integrator may have been necessary for a potentially better participant sample pool. One final limitation of the study was the administration change at the school level. With the adjustment of a having a new principal, the teachers may have slightly or largely changed their instruction to be more in line with the new leadership.

### Summary

Within this chapter the methods used in this case study were presented and described. Since the purpose of the study was to investigate how technology was integrated with low-income African-American students, the sample contained teachers who primarily taught these types of students. The study had three participants from the selected school that consistently implemented technology-enhanced lessons. Interviews, classroom observations, and lesson plans were analyzed and provided for data resources.

Data was analyzed through an iterative process beginning with coding and then the collapsing of codes into larger groups and finally overall emergent themes were developed. The next few chapters provide an overview of the school and each of the participants followed by a cross case analysis and indications for future research.

CHAPTER 4  
LADSON ELEMENTARY SCHOOL

Ladson Elementary School was an unassuming presence nestled in a residential area of Great City. The one-story building took up about a block and was immediately surrounded by modest ranch homes, the legacies of a time when children ran and played in the streets until dusk, without fear. In recent years, the drive to the school has changed from traversing street after street of well maintained homes to a journey through a neighborhood with the indications of a steep decline, dilapidated houses, freely roaming dogs, and debris littered yards. The school's efforts to revitalize the neighborhood have been met with mixed results, as epitomized by the new playground at the rear of the school that had been vandalized during the previous summer. For the disappointed teachers, the vandalized playground was just another example of the failed upkeep of the surrounding community. The back of the school stood face to face with the declining areas of the neighborhood, while the front of the school faced a reminder of the community's past, the last of the well-maintained homes of the neighborhood's few original owners.

Upon entering the school, bright cheery walls warmly greeted the school's visitors. Banners proclaiming the school's past success at meeting its district targets for past performances on the statewide tests lined the walls. There was also the friendly Ladson Bear mascot, which touted the upcoming events on a whiteboard that faced the auditorium. As I made my way to the office I could not help to notice the handprints, which decorated the middle of the wall and extended throughout the entire school midway through the hallway. Throughout my years at the school, administrators had

worked to make the school feel more inviting. In the case of the handprints, a few years prior each student was given the opportunity to place their own hand stamp on the walls of the school. The handprints eventually circumnavigated the entire building. The aforementioned playground was another example of administration's efforts to create a more inviting atmosphere at the school. The playground was built at the end of the previous school year by a dedicated group comprised of community volunteers, teachers, and former students. Although the playground was located on the school grounds, the rest of the community used it as well. The typical slides and monkey bars adorned the brightly colored playground, but it also boasted an outdoor classroom with wooden benches and a blackboard, picnic tables, and a gravel pathway from the main school building. Unfortunately, over the summer months, pieces of the playground were either vandalized or dismantled to the extent that they were rendered unusable. The once innovative outdoor classroom suffered the brunt of the vandalism.

Ladson was arranged in the shape of a "U", with grade level classrooms lining either side of the hallways that ramped up slightly from the main office. The cafeteria in the rear of the building anchored the building as the base of the "U". Large square open areas on the sides of the hallways, called pods, occupied the each hallway. These areas were close to the back of the building and housed book storage area and two classrooms in the back corners. Each of the main hallways had large pod areas on the side of the hallway that faced outside. An outdoor courtyard was located outside of the left side of the hallway classrooms that provided access to the other side of the "U" building. The outdoor courtyard had areas that could be used for gardening activities, playing games or other activities on the concrete. However, during my years serving the school as an instructional specialist, I never noticed any students or teachers using the courtyard. In

contrast, the floor space in the three pod areas was often the place of student grade level meetings, or a gathering place for students awaiting dismissal at the end of the school day. I also often noticed student projects set up for display in these areas or students practicing for a school performance or other activity.

The school was bright and well lit due to a combination of large ceiling-mounted fluorescent lights and skylights positioned throughout the hallways. The floors were tiled with a pale blue to reflect both the fluorescent and natural light to make the building seem even brighter and more inviting. The hallway adjacent to the main office housed the fourth and fifth grade classrooms. The cafeteria was in the rear of the U and then the second grade classrooms and third grade classrooms were located on the opposite side of the “U”. At the end of the third grade hallway, there was a small hallway that housed the youngest students: of the school, Pre-Kindergarten and Kindergarten. The walls of the Pre-K/Kindergarten hallway were decorated with the students’ schoolwork as well as poster documenting their progress towards earning to a trip to Living Island. Each year, a community group sponsored a trip specifically for Ladson ES students to Living Island.

Along the walls of the main arteries within the school, charts listed student names and the weekly points they had earned towards their trip to Living Island. Although an invitation Living Island trip is extended to every student, their eligibility to participate in the trip is based on teacher recommendations and parental consent. The Living Island trip took place every year over the Memorial Day holiday and was an all-expense paid outing to the mountains in Great State.

Several years before my visits, an additional building had been added to original building. The hallway connecting the original building to the new addition housed two-second grade classrooms, two first grade classrooms, an instructional facilitator office,

the parent center, and the Apple Mac lab with a large central pod on the main level. The addition of the building was the only part that had a basement. Within this basement level, there was the media center, art classroom, two special education classrooms, and additional administrative offices.

Each classroom at Ladson had windows that faced the outside or the interior courtyard of the school. The area at the rear of the classroom was generally reserved for student supplies. Additionally, in each of the teacher participants' rooms, the students' desks were arranged in clusters of four to six desks. The wall opposite the windows hosted the room's thin client computers along with the bulletin board. The wall adjacent to the window was often used for storage and/or the teachers' and/or students' supplies.

Ladson had been a part of a group of schools in Great District that had undergone a shift in administrative personnel in the recent year. During this study, the school received a new principal at the beginning of the school year. The staff was informed of this change the week pre-planning activities for the school year, just days before the first day of school. Given the short interval between the principal change and the start of the school year, the staff spent time adjusting to the shift in leadership throughout the year. As a result of this interruption, some of the results of the study may have been affected by the change in personnel and the resulting change in attitudes and beliefs of the administration. The skepticism some of the staff felt about the new leadership may have also impacted the study results.

### The Administration

The administration within Ladson consisted of a principal, instructional coach, and instructional facilitator. The principal was serving her first year as a both a principal

and as a member of the Ladson staff. She had been placed there in the wake of the administrative shifts occurring within the district. The other administrators had been at Ladson for a few more years and knew the staff and culture of the school a little better. I had the opportunity to speak with the instructional coach about the school on occasion and often had casual conversations as I saw him the hallway or other locations around the building. Mr. Smith had been at Ladson for five years and had gotten to know the teachers quite well. He knew students by name and would address them if they were disruptive or acknowledge them if they were on task. As a part of the discipline team, I would often see him dealing with a behavior issue where students had been fighting or extremely disruptive in class. Mr. Smith also casually addressed the teachers in the hallways while walking through the building and handled any minor concern discipline or curriculum based as he passed by classrooms if he was able. It was obvious that he felt comfortable in the building and the teachers were comfortable with him.

Mr. Smith held a high regard for technology use at Ladson. He believed that it was essential for the students to have exposure to technology and the way to use it.

I think technology is mandatory. Students need it especially our students, underprivileged students. It allows them to see other parts of the world that they would not see as far as virtual maybe field trips or getting to explore thing outside of their neighborhood.

He knew that the community sometimes limited what the students had exposure to and therefore thought that technology could help the students to experience more than they would normally. Although in Mr. Smith's role was an instructional coach, he was not technically in an authority position. However, he was seen as an administrator in the building. The principal often placed him in that type of capacity by allowing and assigning him to in assist with discipline issues and other administrative tasks. I believe



in Mr. Smith's mind he also saw himself as an administrator and I was aware that he had aspirations of becoming a principal or assistant principal in the future. In fact, as the school year was closing he was actively applying and interviewing for principal positions within the district. Although, he was not in a position of authority over the teachers his actions and words were taken as an authority figure because they held power because they were in direct line with the administration or were provided in an authoritative tone. Mr. Smith had previously been in charge of deciding the technology that was purchased for the school so he was heavily invested in the use of technology and knew that it held benefits for the students. He knew that students needed to be engaged beyond the traditional means so he believed in the power of technology to reach students the way they learn.

Not all students during this age kids are paper and pencil we have students that can operate an iPhone so giving them paper and pencil they are very bored....so I think we need technology to keep their engagement [up] and sometimes technology does that.

Mr. Smith saw technology as a key to engaging those students who were not intrinsically motivated and did not learn through traditional paper and pencil. However, he knew that if you gave them some type of technology they could really showcase their knowledge, and it was important to capitalize on that. He was also aware that the technology in his building was not always used in the most beneficial ways for students. To some extent, he found this disheartening.

In this school... we have the technology. We have the resources. It's not utilized like we would like for it to be but it is here. How would I like for it to be used? I would like for it to be used as a learning tool to reach those students, like I said, that are not being reached in the normal way possibly help them explore more and produce greater artifacts more artifacts now of course it is used for research and of course for typing but I think we can do a lot better job of using technology in this school

Mr. Smith thought technology benefits extended to schoolwork as well as exposure to other ideas and places. He specifically referenced the use of virtual field trips as a means for students to “travel” to places both far and near and widen their worldviews. He knew that if technology were used more consistently to help children explore more they would see more rewards. When describing effective technology use he stated that:

It would look like children doing inquiry based learning using the technology to search on their own going further than their classroom to reach out to students across the world not only just for research and classwork but to explore to show them that there are other avenues and other things out there for them to see or envision

Mr. Smith saw that technology could “take” students places they could not physically go but he knew that the teachers at Ladson were not all using this technology for that purpose. He believed that part of the reason teachers did not see the full benefit of technology use was because of their comfort level. He attributed this lack of comfort with teachers not being knowledgeable about teaching with technology.

Since he saw the importance of technology he expected that the teachers would use the tools they had access to within the school. Training was provided for each of the tools available to the teachers. In several cases, through my position as a Learning Technology Specialist, I was the person to deliver the training. However, it was important to have follow-up sessions for the teacher to ask more questions and get more practice. While is a best practice that works to ensure that teachers will embrace change and new strategies, it does not always occur quickly enough or at all. In my role, I was required to work with several teachers at several schools, which made this follow-up very difficult at times. To the best of my ability, I tried to allow for time to have the follow-up

sessions; however, during the time of the study I was required to do so many tool trainings individual sessions often fell to the back burner. At Ladson, this follow-up generally fell to the teacher to request. In some cases, the administration would ask for whole group follow-up or for follow-up for a particular teacher they had noticed was having difficulties. However, if a teacher was not interested in using the technology or did not feel comfortable with it, then these follow-up sessions may not occur. Therefore, Mr. Smith did not always see what he expected from the teachers in terms of technology use. He mainly attributed this to their lack of comfort with technology tools and using them for instruction.

Everybody knows how to use the technology to research but to use it to teach with have not been trained with as much as um but I guess that comes from their traditional learning through college it is not used because it is not used in college now. Yes, you use it to research in college but you don't use it as a teaching tool.

Mr. Smith felt that the teachers knew how to use the tools that they were familiar with but were fearful of the unknown and what the students may discover. In spite of the district professional development available to the teachers, Mr. Smith suggested that much of the problem lay with colleges of education. Specifically, he mentioned that if they were more proactive in the use of technology then the teachers may feel more prepared as well.

Although, the teachers were at differing levels of comfort with technology Ladson was a positive environment in which to learn. Mr. Smith discussed that since the school was so small he felt that they were "family oriented". He recognized that the teachers seemed to have "a lot of camaraderie" and that they worked well together in their different grade bands. While he was not completely sure that all of the teachers got along

with each other he was able to base his opinion on what he could observe in his interactions.

Part of this relationship was in his mind that they were empowered to be the authority figure in their classroom. He defined empowerment as “teachers in charge of the classroom [and] principals in charge of the school.” He knew that in order for the students to be educated these items needed to work in concert. However, he was a believer in everyone taking on his or her fair share of the educational process.

The teachers’ classrooms have to benefit the school. If all of the classrooms benefit the school, the school does well so that’s what empowerment. Everyone’s in charge of, in power of one area, and that benefits one bigger area and if the school does well the system does well so if all the schools do well the system does well and if the system does well then Great City does well. That’s what I think about empowerment and it filtering down.

Empowerment in this school is just that, we empower the teachers. You are in charge of your classroom and [Administrators] give [teachers] their expectations. ... We expect [the teachers] to do [the assigned tasks], no one should have to go behind [the teachers] and do [the tasks] we just expect them to do it and that’s it. ... [Teachers] are empowered to do what we know they should do.

His view of empowerment centered on doing what was told to the teachers, which somewhat defies the purpose of empowerment, which allows the empowered to determine what needs to be done with injustices they encounter. If teachers are having items dictated then it may be difficult for them to empower others. He saw that the teachers were empowered to be the authority in their classroom and were entrusted to educate students the best way that they could. He believed that if the teachers did what they needed to then the school, and in turn the district would be successful. In his mind, it all started with that teachers and students. However, he believed with these 21<sup>st</sup> century

learners it was important to reach them where they were which started with technology. All of this started with the teacher and student relationship.

### Summary

Ladson Elementary School was nestled in an older neighborhood, which was experiencing a decline as the years progressed. The school was small by comparison to other facilities with an enrollment of just under 300 students. However, the family oriented staff and students had a lot of technology resources at their disposal with two computer labs, laptop carts, iPads, and iPods available to them. The school administration had an expectation of technology use within the building however, they were aware that it did not always occur as they might have wished. Due to teacher discomfort or inexperience, much of the technology at Ladson was not always used well. Throughout the next three chapters, I will discuss how it was used in the classrooms of the teachers in the study.

## CHAPTER 5

ERICKA JONES

*“I feel like most of the time I’m pretty much the facilitator and they’re pretty much the little workers.”*

Ms. Ericka Jones was a sixth year teacher who was born and raised in Great City. She matriculated through the public schools in Great District and also attended one of the colleges located in Great City. After college, she immediately began teaching at Ladson. She was 29 years old, Caucasian, and had been teaching fourth grade at Ladson ES her entire teaching career of six and one half years after graduating in teacher education from a local university. Ericka, similar to a lot of teachers in my experience, stated that she had always wanted to be a teacher and it was “the only thing that naturally made sense to me. They say some people feel like natural teachers and I guess that’s how I felt.” Ms. Jones was a young teacher with a mid-length blond bob haircut who at the time of the study was expecting her first child. At the beginning of the school year, there were 23 teachers and paraprofessionals at Ladson. Ms. Jones, the newly assigned principal and the physical education teacher were the only three Caucasians who worked at the school. As a long-standing member of the school community, it was obvious from her friendly and frequent interactions with other faculty members that Ms. Jones was very comfortable as a minority in the predominantly African American school. The students were also very comfortable with her as they often greeted her when they saw her in the hallways or walked by her classroom. After listening to her talk about education, her students, and her goals, I came to understand that she wanted her students to be successful both academically and socially.

Ms. Jones seemed wary of the new administration, especially since she started her career under the previous administration. Ericka stated that she had a great amount of loyalty to the previous administration and did not know how the current administration would pan out for this school term. It was important to mention that this shift in administration had taken place at several schools within Great District. Throughout Great District, principals were shifted and many teachers found themselves adjusting to new leaders and leadership styles. She stated that it felt “weird” around the school since all of the changes had taken place. While she admitted that things were different with the new administration and somewhat tense, she did not feel as though that trickled down to her students. She said that while she may have told several “small lies” to play down any potential turmoil in the children’s world, she often wondered what the future held for the teachers and staff of Ladson.

I have known Ms. Jones since I first started working for Great District and was assigned to Ladson Elementary for a few years before the study year. Initially, our previous interaction was limited to scheduled professional development training sessions. As the years progressed, our relationship became somewhat friendlier in as I provided her with unsolicited technical assistance and advice. She often called on me to help her with the Promethean board, as well as to assist with any grade book issues, or other technology issues.

### Classroom Physical Environment

Ms. Jones’ room was located down the hall from the main office on the edge of one of the classroom pods. When you entered the room, you came into a center for learning with an array of organized clutter. A row of thin client computers sat long the

wall left of the doorway. The room had clear work areas for the students with grouped student desks. At the rear of the classroom, a curtain separated the student cubbies and coat hooks from the rest of the classroom. Ms. Jones' teacher work area was tucked into the back right corner of the classroom. In addition to her classroom supplies, the area also housed some personal items, such as Ms. Jones' mini-refrigerator and a microwave. A sink with an adjacent water fountain was nestled in the corner as well so that students did not need to leave the room to wash their hands or get a drink of water. Various instructional materials were located on a round table with student assignments in the rear of the room as well. However, of all the times that I visited with Ms. Jones, I never witnessed her in this teacher work area at her desk or the round table. I believe that she may have used it to gather materials but only outside of the regular school day. As I continued around the room, there was a book nook with some low-seated beach chairs surrounded by small bookshelves for the students' independent or novel reading times. I observed a few times when students who finished their assignments early plopped into a chair and read one of the books on the bookshelf or their assigned novel for the unit. At the front of the room was another small work area where Ms. Jones' laptop was located most of the time since this was where the USB connection to the Promethean board was located. She operated from here most of the time when she was in direct instruction mode so that she could easily navigate between instruction from her laptop and the Promethean board.

The walls were covered with a myriad of store-bought and handmade writing and grammar related posters. Posted on the bulletin board were examples of student work that the students had produced throughout the year with attached grading rubrics as well as Ms. Jones' comments of praise and ideas for continued improvement. The center of



the room was laid out with four table groups of five or six desks placed together in a table formation where students sat in their ability groups.

### Instructional Atmosphere

The fourth grade at Ladson Elementary consisted of two classrooms. The two teachers divided their classes into two flexible ability groups, which were frequently adjusted, were based on math and reading ability. The high ability group was named “Tigers” while the lower ability group was named the “Cheetahs”. The teachers also divided the teaching responsibilities up. Ms. Jones taught all of the fourth grade students reading and English/Language Arts (ELA) while her colleague delivered all of the math instruction. The two classes segmented into simultaneous teaching sessions during the morning and afternoon. During the morning, the Tigers had their reading block session with Ms. Jones, while the Cheetahs had their math session with the other fourth grade teacher. The alternate block session was held in the afternoon after lunch. Science and social studies instruction occurred with the students’ assigned homeroom teacher. Within the Tiger and Cheetah groups the students were further aligned to four additional ability groups. Both the major groups and subgroups were re-adjusted throughout the year based on the evaluation of the students’ math or ELA performance. For the first visit of the study, Ms. Jones specifically requested that I attend her afternoon block of Reading/ELA Cheetahs. One time when I visited her class unannounced during the study she told me it was a bad day and asked if I could observe the class on a different day. When I asked when I should return to her class, she mentioned the same timeframe, after twelve noon, as a better time to visit the class. This is the same time as her afternoon block, which, I learned, consisted of her higher-level students. Therefore, the only classes I observed

consisted of these afternoon ELA block sessions, which may have affected my findings since I was not aware of her practices with the lower level students.

During my observations, the children were usually already in the classroom and in the midst of receiving their session instructions from Ms. Jones. Aside from noticing and offering shy smiles or waves for the newcomer in the room, the children continued with their work. In the first session, Ms. Jones was going over the Daily Oral Language lesson. During the second session, the students were beginning their center activities and on the third visit, the students were about to go into their centers while completing activities from the previous day's lesson. During each visit, the students were focused on the lesson with a few minor exceptions.

Ms. Jones' class was a bustle of energy with kids often moving around in sort of an organized chaos. In each of the visits, she would give the instructions for the centers and model the activities the students needed to complete during the session. The children moved purposefully from center to center with instructions that they had been given. To the casual observer, the classroom seemed chaotic with little bodies moving throughout the room and the cacophony of conversations between the students. However, Ms. Jones had a handle on acceptable thresholds for noise levels and student conversations and was able, for the most part, to monitor and maintain a productive classroom atmosphere. As a self-described facilitator, Ms. Jones, provided instructions at the beginning of class and then the students were on their own to navigate through the centers in the allotted time.

I think that it's pretty much student centered. I feel like most of the time I'm pretty much the facilitator and they're pretty much the little workers. They're doing things. They work together. They know that they should ask each other before they ask me. They're in teams. They're ability grouped, but those groups are fluid so they can move between them depending on the topic area. So I think they just...they know that they need to take ownership of their learning in here to make it effective. I'm

not going to do it for them, and that's why I choose to use centers a lot so they're actually manipulating their knowledge that they've been given after introducing a topic.

When I walked into Ms. Jones' classroom at the beginning of class, it was clear that the students knew what to do and how to do it. As she mentioned, she was adamant about students taking ownership of their learning. This showcased that she was empowering them to learn on their own and understand the value of their knowledge. Students were seated at desks that were arranged in groups of five or six. As class began, students pulled out their homework and placed it on their desks. Their homework was reviewed following the Daily Oral Language (DOL) exercise that was projected onto the Promethean board. The DOL was a language arts activity that involved students correcting grammar errors such as punctuation, capitalization, or sentence subject-verb agreement. This type of activity was a common lesson component in the beginning of the language arts classes that I had observed throughout my years in Great District. Ms. Jones had an established routine pertaining to the DOL, including how the students were to respond to the activities as well as how the corrections were to be displayed on the Promethean board. She also had routines for how to document the work at the centers.

As the lesson unfolded, there was a display of the teaching materials for the day projected via the Promethean flipchart (similar to a PowerPoint with much more interactivity). Students were called to the board to correct sentences, highlight different passages, or assist with identifying parts of speech. This was done through the use of the ActivPen, which allowed the user to "write" on the board and control the activity from the board rather than a USB tethered computer. The children in Ms. Jones' room were very adept at using the ActivPen and ActivBoard and would often offer suggestions to those who had some difficulty in using either device. This included instructions on how

to refresh or calibrate the pen and board if the board was not responding. Students could often be seen and heard instructing their classmates to hold the pen near the “flame” which was located in the upper left hand corner of the ActivBoard. After the DOL, Ms. Jones presented a brief instructional lecture, which introduced the lesson for the day. At the conclusion of the formal lesson, the students began their center activities. The help that the students so freely gave to each other showcased a sense of community that Ms. Jones fostered. Ericka’s students were also empowered to help each other as needed with technology as well as other assignments. Since she had established norms and helped them to take ownership of their learning, the students felt confident enough to help classmates with questions about technology or content. This was further exhibited through their participation in their centers. The center activities were the part of the session that the children enjoyed the most.

If we don’t do centers then they’re bummed out. That’s what they expect to do every time they come in here. So they’re just...they like it and they foster it because they know that if they can’t participate in centers actively then they lose centers and then it’s like not what they want to be doing at all. So they choose to take care of that environment.

Center activities began with folding a piece of paper into four quadrants to record the activities or responses from each center. Ms. Jones then provided an oral overview of each of the center activities the students would complete. The students traveled in their cooperative groups to different work areas and completed the various activities. At least two of the activities, in each of the lessons I observed, always involved technology. The other two varied according to the general lesson and instruction for the week. In each center four or five students worked in an area for ten to fifteen minutes and then rotated to a different work area when the timer on the Promethean board beeped. Ms. Jones was

usually stationed at one of the non-technology stations to provide feedback and assistance to those at that work area. She was also available to address any other student concerns.

During one visit, I noticed that the students had varying comfort levels with the Promethean board. Some groups were able to navigate through the activities with ease while others needed to seek the assistance of other students to help them. In one class period, students adjusted the timer on the board for the next rotation; they were also able to easily navigate between the different web activities on the board. For instance, the students were tasked with identifying the definition of words and developing synonyms for the words using [dictionary.com](http://dictionary.com). The students browsed through the website using the ActivPen and then recorded their answers on paper. On another visit, the students were working on an activity using [Quia.com](http://Quia.com). This website had academic quizzes, games, and review activities created by the teachers from all over the country. Teachers assigned the ready-made materials to their students or to created their own materials and assignments. Ms. Jones often used this site to find ready-made materials for her students to use. The students were working on an activity where they had to identify the main idea from passages on the site. After completing the quiz, the group was given immediate feedback on their progress and rationale as to why their answer was correct or incorrect. When minor disagreements arose within the group, the noise level in the classroom would rise. The students were usually self-conscious about the noise level, and would self govern their groups to return their volume back to an acceptable level. Ms. Jones only intervened in the center groups when there was a question that the group could not agree upon or when the noise level exceeded her acceptable threshold.

Although the new leadership team at the school as well as the Great City district had decreased the emphasis on state testing performance, test preparation activities were

often a component of Ms. Jones' center activities. Ms. Jones stated on several occasions that she did not want to lower her standards for herself or her students. She felt if she did not hold herself to the high academic standards implemented by the previous administration, her students' effort level, and thus performance, would decline. She believed lowering the standards might set her students up for failure later in their academic journey. She believed that lowered standards may have resulted in among other things lower test scores. Thus, she prepared her students for the state test as she had done in the years past. Ericka believed that good scores on the state standardized tests provided evidence of her success as a teacher and had been ingrained in her through her experiences in Great District. This can be a piece of evidence of effectiveness, but in terms of this study it can only be seen as a small piece because in instructing for empowerment with technology the ability to critically think and analyze should be the goal and standard not just test scores.

Part Ms. Jones' test preparation model included using materials such as the *Study Island* and *Coach* books. *Study Island*, a standards-based individualized tutor software program, program diagnosed student needs in a particular academic area. It also allowed teachers to customize lessons and assessments for individual students. The lessons and assessments were aligned to the current content standards. The activities in the program ranged from games to quizzes and were assigned to the students based on their pre-assessment results at the beginning of each study unit. The software enabled the teachers to easily review pre-assessment results for all of their students in a single platform. This program was used by many of the teachers at Ladson as a way to prepare students for the state assessment since it was aligned to the state standards. Students often were assigned

to quizzes and games related to the lessons for the week as a means to review the content, as well as prepare them for the state assessment, and evaluate their progress.

Ms. Jones also invested time in choosing the reading materials for her class. She wanted to make sure her students had the opportunity to read books that they could relate to their own lives. Through making sure that the students could relate to the texts that were chosen, she was using some tenets of culturally relevant pedagogy by making the learning relevant to students' culture. For instance, one of the books on her class-reading list was *Road to Paris* by Nikki Grimes. The main protagonist in the book was a young, half-African-American and half-Caucasian girl named Paris. At the start of the book, Paris had just been sent to live in yet another foster home. The book chronicled how Paris struggled to fit in and learned how to trust her new foster family. With this text, Ms. Jones, tried to portray that people all have struggles to overcome and how we can deal with them in different ways. Throughout the novel, Paris is faced with adapting to a different cultural environment, making new friends, and being separated from her biological family. Ms. Jones allowed the students to reflect on many of these themes through the use of reading logs and class discussions. Two other books on the class reading list, *Money Hungry* by Sharon Flake and its sequel *Begging for Change*, focused on the life of Raspberry Hill a teenager who was dealing with the being homeless again, and the return of her estranged father. The book also depicted Raspberry and her friends as they struggled with their own issues of race while growing up in the inner city. The students would often curl up on the mats in the reading corner, immersed in their reading. They would also brag to each other about how much of the novel they had read. The students seemed to enjoy the reading books as well as their class reading discussions and assignments.

Students participated in teacher-led discussions about the characters and events of the books. As part of their reading assignment the students were required to complete reading logs or journals for the various novels read throughout the year. The logs provided students the opportunity to reflect on what they read and also to make connections between their lives and the stories in the books. The content of the logs included a summary of the section read and reflection questions that the students needed to answer for each section. The logs provided opportunities for the students to interact with the texts at a deeper more personal level. I watched as Ms. Jones asked students why characters acted as they did and how did they think they would react in the same situation. It was evident that Ms. Jones' novel choices were based on student interest areas as well as reading levels. By choosing the novels, she did Ms. Jones portrayed that she valued the background of her students and showed them that there was something to be learned from their comments as well as from her instruction. This again showcases the community of learning she developed and how she empowered her students to share their thoughts and ideas because they were important and valuable. The students seemed to be interested in answering the questions, but it appeared a ticket rewards system also motivated the students to engage in the class discussions.

The ticket incentive program was based on students creating a collection of team tickets. To encourage positive behavior, students earned tickets for completing homework, answering questions, and keeping the classroom neat among other things. Students actively sought these tickets and eagerly chattered with their tablemates about doing the "correct" thing, such as putting materials away, neatly stacking class materials in the center of their desks, or cleaning up the area near them on the floor so that they could claim responsibility for the neatness of their area. The ticket count was tabulated at



the end of each class period and the results were recorded per team of tablemates. The team with the most ticket points at the end of the week earned a reward.

### Technology Use

As stated earlier, Ms. Jones was excited about the use of technology. As one of the first teachers to have received a Promethean board at Ladson, she became one of the most consistent users of the technology and could be seen as an early adopter of the technology. The other teachers considered her to be an informal expert on the use of the board, and often came to her for assistance if their Promethean board was not working properly. She explained that she used technology because

The children can relate to the use of technology more and it makes what you're saying come alive to them in a media that is what they use all the time to do everything. They're accustomed to seeing it and using it, and those kinds of things.

Her use of the Promethean board, websites, and word processing tools all illustrated how Ms. Jones' positively viewed the integration of technology into her classroom and pedagogy. She often mentioned the use of a social bookmarking site, [ikeepbookmarks.com](http://ikeepbookmarks.com), as an extra activity for students who finished their assignments before the rest of the class. This site, a social bookmarking website, contained several hyperlinks to web activities organized by various ELA/Reading content topics. Students reviewed standards they had not yet mastered in preparation for the state standardized tests and then chose corresponding activities to complete. The students maintained their own standards mastery charts as they progressed through the activities, becoming stewards of their own learning.

Ms. Jones stated that she felt that technology was important to sustain student engagement. She said

They use it, we use it every day, but it's not just strictly technology. I use both. I can tell their level of excitement and their level of engagement definitely increases when I plan using technology. I just think it engages them in a way that a paper and pencil doesn't engage them. The more interactive it can be, the more they seem to give it their best effort.

She was also mindful of how much technology changed the way she taught.

I pretty much use the Promethean board just to setup the structure of my lessons for...like, when I'm presenting a new thing I have a Promethean flipchart to like guide me. Then I do...like, I might Google the topic and find interactive games for them to use, or the interactive software that we have for the students like Study Island.

Technology was Ms. Jones' preferred strategy for instruction since she believed that its use helped keep students motivated and engaged. She mentioned in one particular conversation that although she enjoyed technology as much as her students, she did threaten at times that she would limit the students' use of technology if their behavior dropped below her expectations. I never witnessed her withholding technology from the students, though.

However, in some instances it was noticed that the higher group, Tigers, was given an assignment of creating a poetry book that the Cheetahs were not given. This assignment comprised of writing poetry and then publishing it with word processing software. I observed the assignment in her lesson plans and while I am not privy to know whether the Cheetahs were given a comparable assignment, I can assert that if they were not these students were placed at a disadvantage because they were not given the opportunity to develop the higher order thinking skills that the Tigers were. If students

are not provided appropriate opportunities at school to use technology and critical thinking skills then they are part of a widening gap and the teacher is somewhat responsible in this case.

Through the use of technology Ms. Jones sought to expose her students to new ideas. She recalled an incident when she hosted a videoconference with students in Africa. “It was interesting to see the kids realize what Africa was really like and not just like this figment of they’re imagination and what everybody tells them.” She saw that both student communities were enlightened by this interaction.

[African children] were surprised what American children look like because they visualized American children as all white and they were like, “Oh, my God! They look like us.”

Using technology as a way to make connections to other cultures and broaden horizons was one way that Ms. Jones utilized technology as an empowering agent. She wanted the students to understand what children in Africa were like and that they were not that different from them. She believed that technology was useful for making these real life connections become more accessible.

So those kinds of connections and where it's real life, real -- I mean, that can't happen every year but we still talk about what families are doing different ways, but those kinds of things I think technology is very important for.

She believed that making these connections were important so that students could make better decisions and understand their world a little better.

Well, I think it's [technology] really good to show pictures of things. In reading passages that we do, some of the concepts in the reading passages, my students aren't familiar with. So even if I show them a picture of what they're reading about and that can make it -- they're like, “Oh, yeah,” they

can connect it. Or if it's to the point when they're doing research on different people or a place that they're interested in visiting just to activate their own imagination or their own goals in life, whatever that might be

The integrated nature of her technology use showcased her vision of technology as an important part of the instructional picture. She stated that she started with the Promethean board and outlined her lesson there while thinking about the standards and what activities will work with the standard.

### Empowerment in the Classroom

Ms. Jones did not speak explicitly about the cultural aspects of empowerment or how technology impacted the students' empowerment. But, she did address cultural awareness in her classroom. Through her use of videoconference and selection of texts for her class readings, she chose to allow students the experience of interacting with African children through live stream as well as in written text. This showcased that she knew the importance of allowing students to see value in their culture that she could not personally express firsthand as a white woman. In our discussions, she also indicated how she saw that the use of the videoconference impacted her students because it expanded the school walls and was a critical component to enabling students to explore other cultures. The technology available to the students allowed this opportunity. Unfortunately, within the Ericka's classroom there were little other examples of technology providing an empowering opportunity for the students, especially in social justice aspects.

Ericka defined empowerment as student confidence.

I think the most important thing that you can teach a child is... [that] their confidence and...ability to explain their thought process can take them

farther than anything else...if I can ask you a question and you can give me an answer and you can explain to me why that is your answer then you are more likely to be heard than someone who can't justify their thought process. I think that as a teacher that is something that I try to really get them to ...form a habit of saying...this is my answer and I know because...or I feel because...so that you own it. You own your knowledge and it can't be taken away from you.

In one of our conversations, she mentioned that she would like for her students to be able go anywhere in Great City and confidently represent themselves and their neighborhood. She believed that if her students could do that, then she had done her job as their teacher. She exhibited this in her instruction by consistently asking them to explain and justify their answers to the questions that she posed. More than anything she wanted them to take pride in their abilities and have the confidence to share what they knew. So, while there was not much evidence of critically analyzing the world around them students were becoming prepared to speak for themselves as an important life skill and one that could be useful as they prepare to contribute to society.

### Summary

Ms. Ericka Jones, a young teacher in experience, believed in the benefits of technology use in the classroom and used technology on a daily basis through the use of her Promethean board and thin client machines. She used a variety of methods including videoconferences, books, and discussions to facilitate her instruction. She saw technology as an integral part of her instruction and instrumental in keeping students engaged and motivated. While she recognized the need to expose students to other cultures similar and dissimilar to their own, she did not always do this with the use of technology. For her students, the use of the centers was their chance to take ownership of their learning and they looked forward to the activities that were included in this part of

the instruction. Her overall goal for teaching was for her students to be able to be self-confident. She believed that confidence and the ability to defend their beliefs and ideas was a key to lifelong learning and success.

### Epilogue

At the end of the school year, Ms. Jones was out on Family and Medical Leave for the birth of her baby. Like the other teachers at Ladson, she was required to attend a job fair in order to be rehired within Great District. Ms. Jones attended the first of these fairs prior to her maternity leave and was offered a position at Johnson ES, a school very similar to Ladson, located just few miles away. Many of the students at Ladson were slated to transfer Johnson ES after the closing of Ladson.

## CHAPTER 6

## DIONNE BAKER

*“If students don’t learn the way I teach; then, I will teach the way they learn.”*

Dionne Baker was in her tenth year in education and her sixth year at Ladson Elementary. She was of Haitian descent and grew up in a Haitian neighborhood often only speaking English at school in South City. She recalled the difficulty she had in her early schooling since she had to learn the English language as well as her academic lessons while in school. She also recalled being teased because of her accent. While it was difficult to detect an accent during our conversations within the study, when she talked to others from the Caribbean or about the Caribbean her accent became more pronounced. At Ladson, Ms. Baker was responsible for teaching students with special needs through an interrelated schedule. This means that her students were assigned to a general education homeroom teacher but reported to her for reading and/or mathematics instruction.

Ms. Baker described her entry into education as a calling. She stated:

I think I always wanted to be a teacher. You know that game you played when you were a kid by yourself. You had the invisible kids in the classroom.... I think that’s my passion. I was just drawn to it. I always loved kids and helping others learn something.

Acting on her passion, she started her career in a general education classroom in a large urban area with a high population of English Language Learners. Her early teaching experiences provided her with more insight to allow her to define her specific instructional role.

My final [teaching] internship I had a class that was 22 students, all were ESOL level ones and of the 22, 16 were special education. Yes. I was like ohhhh, you don’t speak English and you have learning challenges.

...At first I didn't pay attention to it, but then my first year of teaching the same thing happened. It was a second grade classroom and out of the 20 kids, ten were special ed and ESOL. The whole class was [not] ESOL, but ten...so I said I think there's a calling there. Let me go ahead and learn how to better service these children. So that's what I did. I went back to school and learned more about special education.

The children she described were English Language Learners (ELL) or English for Speakers of Other Languages (ESOL) who also had learning difficulties. She described that it was a trying teaching experience because just one of these learning barriers is difficult to overcome, but to attempt to overcome both barriers made teaching twice as hard. In order to help her students, Dionne went back to school to earn a master's degree in education. She focused her studies on learning more about the teaching strategies used with special education students. From the time she finished her master's degree until the time of the study, she taught special education students.

As illustrated by her referencing her craft as a calling, it became clear that Ms. Baker was very dedicated. The symbolism of Ms. Baker being "called" to teach also relates to her spirituality. Many ministers describe their decision to enter the role of ministry as a calling from God, a special request for them to use their talents in a certain way. Furthermore, many African American Christians also believe that the roles they play in church and professionally are specially selected for them based on their gifts or other special talents. Ms. Baker believed that the reason she had been in the same situation with the special education and ESOL students was because she was "called" or specially selected for this type of position. Bible verses and spiritual quotes were posted throughout her room intended to encourage her throughout the day as well as remind her and other instructors about the importance of their work with children. On several occasions she would mention that she had a strong belief in her faith and we sometimes



talked about our families' common religious threads with her sister in seminary and my husband having just completed seminary. She also shared her thoughts about possibly pursuing her doctorate in education in the future.

Like her spirituality, she was equally devoted to her instruction. Her dedication to her instructional career was evident through her extended efforts to include parents in her conversations and decisions about their children's education, as well as her work with general education teachers to share strategies, and do whatever she needed to do to help children. She would often try to contact parents to inform them of their students' progress and also help them if needed. With general education teachers, she provided strategy suggestions in past years and also had occasionally pulled students out of classrooms to provide them extra help or work with a small group within the classroom. For her dedication, a few years before the study, Ms. Baker was honored with the *Ladson Teacher of the Year Award*. This type of award is typically based on nomination by a teacher at the school and voting by colleagues at the school. This showed that Ms. Bakers' efforts were not going unnoticed or unappreciated by the other teachers at the school. Since Ms. Baker was dedicated to her students and their success, she was often distressed by the lack of community involvement in their education. She felt that there had to be a way to allay the apathy that had taken hold of the neighborhood.

Ms. Baker indicated that the job of teaching went beyond the school walls. Through her recollection of her own childhood, she thought that education was better if more people were involved in the education of children. She also thought that the community surrounding the school had an impact on how children viewed education. Unfortunately, in contrast to her beliefs, parent support was not what she expected it to be.

I've noticed that I rarely meet my parents. If I call for meetings they won't attend, or I have to have several attempts for them to come out or even return a letter that says 'No, I'm not coming.' You can perceive that kind of thing. So it's almost...even though it's supposed to be a team effort it feels as though it's just me battling with this situation because the parents aren't really involved.

In special education classrooms, parent involvement is required more than in regular education because of the students' Individualized Education Plan (IEP), which details the services and assistance provided to the students. Yearly meetings to review and/or revise the IEP are required by law to be held. These meetings include the special education teacher, regular education teachers, parents, and students to ensure that the student is receiving all of the necessary services and to plan for the next year. When parents are not present for these meetings, the child loses one of the primary advocates in developing their education plan.

Dionne saw this as a stark difference from her background because in her community, everyone worked together to raise and educate the children. She felt that the lack of the village mentality was a problem with the neighborhood surrounding Ladson. She believed that people did not want to get involved in someone else's personal business, which included supporting their neighbor's children. It was this belief that motivated her to work so hard for her students. She confided to me that at times she felt as if she was their only educational advocate. She tried to understand and reach out to parents who would often tell her that they "don't come [to the school] because school was not enjoyable" for them. Unfortunately, this belief that school is not a place that you can enjoy was often passed down to their children very early in their educational careers. Ms. Baker was not certain "if [the parents didn't] have the foundational things they need[ed] in order to...[help more]" or if there was another deterrent. However, whatever

the reason or apprehension that occurred about the school environment, “it prevent[ed] them” from coming to the building more often. In some instances it was clear to her that the parents were unable to relate to their children’s education needs because of the gaps in their own education. She indicated that some of the parents she came in contact with might have once been in a special education program in the past. Although she empathized with the parents who felt they were unable to help their children, she did not accept their educational deficiencies as an excuse not to be involved in their child’s education. Ms. Baker knew that these parents needed educational assistance in order to be better advocates for their children, and she also felt that the school could provide this help.

So definitely if something could be in place to educate the parents because I think a lot of them are not educated. A lot of them have not finished school and they’re afraid to let the teachers know because they’re ashamed of it.

From these experiences, Ms. Baker gleaned a more in depth understanding of why her students were lackadaisical about their education. It empowered her to want to do more to educate both her students and their parents. She knew that if she did not put forth more effort, her students did not have another representative that was going to teach them to value their education and strive to achieve more in life. She also knew that she needed to ingrain a work ethic into her students so they could develop a desire to succeed and, perhaps, transform the community’s apathy into involvement. As part of her attempts, from time to time, she would talk to parents and the students about working at home on concepts. Unfortunately, she rarely received parental support for these efforts. Without the reinforcement at home, she struggled to make the profound impact on her students’ education that she desired.

## Classroom Layout

Dionne's classroom sat in the corner of a hallway pod located near the second and third grade sections of the building. Her room was directly across the hall from a third grade classroom and adjacent to a second grade classroom. This was convenient as most of her students were second and third graders. When you entered her room, immediately to the left, there was an area of cubbies used for teacher and student supplies. On top of the cubby shelves was hand sanitizer that Ms. Baker repeatedly reminded the students to use upon entering the classroom. She also kept a record of standards mastered, individual learning goals, and other instruction in binders on top of the cubbies. A sundry of supplies littered the cubbies including pencils, pens, paper, and crayons among other items. Following along the adjacent wall to the left of the door in the room was a row of thin client computers with several websites for student use taped on each monitor, including Accelerated Reader and myTestbook.com. There was also a teacher workstation that was used for small group and individual instruction. Her personal desk was located in the opposite corner of the room diagonal from the entryway. Bible verses hung on the wall behind Ms. Baker's desk: a source of daily inspiration. In between the two teacher work areas, were the white board and Promethean board. The white board usually held the objectives for the day as well as the date. Since there was a wide range of abilities in the class, the board listed a myriad of objectives and activities to meet these needs. For instance, on one visit there was a calendar indicating the date for yesterday, today, and tomorrow. This activity was used with her students some of whom were several grade levels behind their peers. I typically observed lessons of this sort in kindergarten or first grade classrooms. While it was never actually verbally confirmed, I could tell from our other conversations that Ms. Baker had a deep belief in God and saw

what she did as ministry to God through her reference as being called to work with special education students. The Biblical quotes around the classroom served as a reminder of what she was doing, and helped her keep focus on her position as an educator, and maintain positive outlook on her position

Behind Ms. Baker's desk area was a refrigerator and microwave oven that were kept covered with a piece of fabric. Continuing around the room, almost directly across from the entryway she had a small reading area with an array of books sorted by grade level for the variety of students she worked with throughout the day. Finally, in the right back corner there were a variety of teaching supplies such as paper, ancillary teaching books, and construction paper that Ms. Baker pulled from to complete her teaching assignments. On the wall opposite the Promethean board leading back around to the door was the student area with hooks for student jackets and book bags. The student areas were covered with colorful cloth to give the impression of a closet. From time to time students would place their belongings in this area however many times the hooks were empty of jackets as the students left them with their homeroom or regular education teacher. Since her students only came to her classroom for a portion of the day, most of their supplies were kept with the primary homeroom teacher.

#### Instructional Atmosphere

Ms. Baker had high expectations for both herself and her students. She believed that all students could learn but they needed to have a positive attitude and put forth a great amount of effort into their work daily. As a self-described "hard worker" she often took criticism from co-workers for doing too much and not taking time to relax. She recalled being mocked for working hard, and it was attributed to a cultural fault "Oh

well, you know...y'all [Haitians] work too hard." She did not understand why this was a problem because she thought she should work hard, and she had worked hard to get to where she was in life. With her grounding in her Haitian work ethic, she set the expectation for her students to always give their best effort regardless of how they were feeling. She believed that many of her Ladson students thought that there was such a thing as working too hard. Not only that, they thought that if you worked too hard that was a bad thing to do. Ms. Baker could not disagree more with this perception. Therefore, the students sought ways to beat the system because that was what they believed the world around them was telling them to do. She gave the examples of students relying on parents' food stamps to get money instead of saving it themselves. She also saw that students thought they would be able to rely on their parents to do everything for them forever. However, that was not acceptable to Ms. Baker who wanted the students to try to match her effort in the classroom. Since Ms. Baker had also grown up in a low-income family like many of her students, she did not understand nor accept their excuses for not doing work. In her efforts, Ms. Baker sought to help her students understand that in the real world there were no shortcuts. She wanted them to put forth the effort they would need to be successful. Through this, Dionne was acting as an empowering agent to prepare them for what lay ahead and giving them the knowledge that in order to achieve anything it would take hard work. She stated:

So if you give 100%, I'm going to give 150%. That's where I'm at. I want you to give 100% and I'll give 150%. So I think when they notice on my bad days if I'm feeling ill or whatnot, if I just sit down then I notice they won't make an effort. Oh okay, well we'll just chill. So even in my pain they're like, "are you okay?" "No, I'm not okay, but it's alright. I'm here to help you." And they'll even be better because they see if she's in pain and she's still here then maybe I should [try].

She wanted and needed her students to know that they had a partner who was willing to put forth the utmost effort to help them achieve academic and social success. Her expectation of success may have made her seem challenging and mean to her students, but it was actually her desire for them to be productive students and citizens that made her demand more of them than they may have otherwise willingly given.

So it's all about feeling safe because I know a lot of them have those needs. Their home life may not be a very safe environment, but if they feel one person actually cares about them. I want them to genuinely know I care. I may be mean, but I'm mean for your own good. I'm mean for your own good.

While she mentioned that she was mean in the quote, I never saw any indication of her being mean to a student. She would often talk to me about what one of her "kids" had done in jest and joke about it but I did not see or hear it happen with the children around. So, what the children interpreted as mean was high expectations and strict routines and procedures designed to make them to feel that they were in a safe learning environment. This expectation was a clear indication of her empowering the students to do more and take more ownership in their education. Dionne understood that part of her job was to prepare her students for future endeavors. Her contribution to in helping them take ownership of learning was critical to their future success.

Ms. Baker often showed concern for students' overall well being and development as she corrected their grammar to prepare them for the world outside of school. She also guided them to solutions through questioning instead of providing direct answers. During the students' practice time, Ms. Baker often assisted students either individually or in pairs to better fulfill their educational needs. While doing this, she constantly affirmed them and their efforts. On one visit, students were reviewing singular and plural nouns. One student was working with Ms. Baker and he had a stack

of words on index cards that he needed to state the plural form of the word. At one point in the activity the student recognized that he had a word from another lesson. Ms. Baker praised him for making a connection to a previous lesson by referencing that he had (the word) desk again. Dionne commented that she was glad that he was able to make the connection to the prior learning. When students were reviewing the word ‘watches’ and the student asked whether this was the type of watch you where or looking at someone. Dionne commended the student for asking the question and used this question as an opportunity to explain homophones, homographs, and homonyms. This student’s question became a teachable moment that was not a part of her prepared lesson.

### Learning Goals

Ms. Baker often had students from various grade levels working on different activities within her classroom. Since different students had different requirements and learning goals, some students came to class different days for variable amounts of time, while other students received daily instruction. Since Ms. Baker’s students had such a wide range of abilities and skills, she created a variety of goals and activities for the students to teach them at their point of need. The goals often included social as well as academic milestones that enabled her to assess each student’s progression over the year.

So for each child I have a different goal for them. Some are real miniscule like be able to look at me. Eye contact. Now, all of them have given me that. I’m like good, now we can move onto the next step. Now that you’re accepting me because now you might be willing to open up and learn something from me. I definitely want my kids to be successful citizens. Be productive and independent. I keep stressing to them that yes you might have problems doing something now, but if you learn how to do it then Mommy and Daddy won’t have to take care of you your whole life.



Progress for her students included such tasks as being able to speak to her in the hallway or talking to other students in the classroom. She recalled that one student would not talk to people when he started at the beginning of the school year, but as the year progressed he had become more vocal and social with the implementation of Ms. Baker's buddy system.

[He] will talk to himself before he talks to others. He'll have a whole conversation. So with him having a buddy now I see him in the hallways going "Hi! Hey!" So I think requiring them to speak [helps with their social development]. Explain your thinking. Justify it because if not I don't know what you're thinking.

She viewed that as a success with that student, since he transitioned from not speaking to speaking to others. Overall, Ms. Baker's foremost goal was for her students to be able to articulate their thinking to others. This was an empowering facet of her instruction because students were now able to express themselves to others and speaking even simple phrases, was important when interacting with peers and adults. Ms. Baker celebrated these small victories with her students. She realized one problem a lot of her students shared was that they felt somehow deficient because they were different from their peers. She wanted them to have "a sense of acceptance because many of them that's the complaint I hear. Kids pick at me or they don't feel like they fit-in in the general setting." While her students may have felt this way in the mainstream classroom, she ensured that they felt accepted and "normal" in her room. In fact, Ms. Baker shared an example where a parent told her child that Ms. Baker was their mom at school.

"You know when you're at school Ms. Baker is your mother. Whatever hurts, whatever pains you have, tell Ms. Baker. She will help you." We're family here. You come in, if you're not feeling good, if you don't understand, don't sit there and waste time. Tell me. I'm not a mind reader. So the kids come in and I...sometimes it's TMI (too much

information). I really don't want to know, but because I put that [policy] in place they're comfortable.

The classroom was a place where the children should be comfortable, and the more comfortable they were the more apt they were to learn. In line with culturally relevant pedagogy, she knew that a positive learning environment was essential to helping her students feel comfortable and want to learn. She strived to make sure that students were comfortable with her and her environment so that they could easily work and complete their assignments.

I definitely want my kids to be successful citizens. Be productive and independent. I keep stressing to them that yes you might have problems doing something now, but if you learn how to do it then mommy and daddy won't have to take care of you your whole life. I have child who is adamant that mommy and daddy is going to take care of him forever. Okay, so that's a hard thing there. Even watching him the classroom he'll say it to you. It's very hard to get him to do something on his own. He'll just wait and stare. So that's a goal for him. I want you to be more independent.

### Technology Use

Ms. Baker used technology in the classroom as a way to reach students at their point of need. In the past, she rarely used technology to remediate students on specific skills. However, at the time of the study she was striving to be more intentional in her technology use. She explained that over the course of the last few years she has tried to tackle new technology challenges so that she could become more and more proficient, in her view, with a variety of technology tools to use with students. One interesting note that Ms. Baker elucidated was as she was more deliberate in her use of technology, she learned more, and began to champion to her students that technology is a valuable learning tool.

They love the technology. So this year alone I've really been focusing on how show the kids that computers are fun. They're not just for games, but games that can help you learn. Now they're seeing the connection. "Well, can I do this?" "Well, can I do my lesson first and then play a game?" Sure. See, you're responsible for your own learning. If you just want to play games, I'm so sorry. We play at home. Here, we're here to learn first. We're all about business. Then we can play.

Ms. Baker's efforts to integrate more technology into her classroom educated her students on the multi-faceted uses of technology, as opposed to the singular uses they may have previously experienced. She relayed that she needed to focus on both the educational as well as leisure parts of computer use because her students did not always recognize the advantages of using technology as an educational tool. This perception was in part due to how technology was used in their homes. As seen in literature (Ching, et al., 2005; Mouzza, 2008), it is critical that students experience technology in educational realms at school because they may not or have not experienced technology as an educational tool outside of school. Dionne believed that if parents had more access and training on how to better use technology at home, the students would appreciate its benefits and educational uses more.

If there was a way that whoever is in office could make leeway or whatnot for the parents to get technology in their homes, and not just have it in the homes to use it inappropriately, but mandate them to come in and get trained adequately to know how to use it with their child. That would just go beyond because even the kids now if I just show them one flipchart they're able to do it on their own because they saw...it was modeled once. "Oh, we know how to do it." So the parents come in and see how it will help their child that will make a big difference.

### Beginnings

In her early years, Ms. Baker was reluctant to use technology because of her limited knowledge about what to do when it did not work.

I think the problem that I [had] is ...I don't know [what to do]...when it doesn't work I panic. What do I do? Where do I go? So I just go back to

old school. We learn paper and pencil. We can do it again. So I felt more comfortable in that zone.

She said that she was in the process of “figure[ing] out how to not be afraid of [technology] because technology is great.” Unlike other teachers Ms. Baker stated:

I’m not afraid of it. My issue is just I don’t feel as though I’m as adequate in using it appropriately for my students. Like if it’s just for me, I write my lesson plans and I can do that.

This reflective thinking led Ms. Baker to find new ways to reach her students when the old approaches did not work. Ms. Baker stated that she had always been a proponent of technology use and its benefits and although she was willing to try new things, she was not comfortable with technology’s unreliability. She was always ready to try to use computers or the Promethean board but shied away in early years because she said, “I didn’t know [what to do]...when it doesn’t work I panic.” She seemed to have overcome this anxiety because she was able to provide her students with beneficial technology resources and activities. She decided that “now I’m being more intentional” with the use of technology, she would integrate into her daily lessons. This was because she saw how much her students responded to her use of technology and realized that it could be beneficial to her students’ learning. One of these benefits was that the students were more adept at using the classroom computers to visit instructional websites during their extra time, after they completed their required assignments. The students were able to use the computers without permission if their work was completed and turned in to Ms. Baker.

#### Recognized Benefits in Daily Use

*I’m trying to be more intentional with introducing lessons with the Promethean Board and the centers ... to reinforce the skills, or test, or assess them.*

When asked about the benefits of technology, Ms. Baker responded that because brain research shows that students' brains are changing and developing quickly, it is vital to provide the students with instruction that models this quick paced method of information transmission.

I'm reading a book and they're saying the kids are digital minded and their minds are changing every day because they're so exposed. The [synapses] in their mind... changes so often. It's processing stuff and so with me just talking and lecturing all day, nothing is new. Nothing is happening. But the technology has all these different visuals. It keeps them engaged so I just have to learn how to change with the times.

Ms. Baker believed that use of technology was important because it allowed students to have continual exposure to new and exciting educational stimuli. Technology exposed the students to material in new ways that may have been easier for them to digest.

The more the benefits of technology use became evident to Dionne the more inclined she was to use technology in her classroom. She started with the district sponsored Accelerated Reader program. This tool encouraged students to read through quizzes based on a book's plot and characters. Students had to recall different parts of the story, and received incentives for their correct answers. Although this prescriptive tool was used to develop reading skills, it was not a true enhancement to classroom technology use because it only served as an online quiz tool not a true interactive tool. This was one of the first technology tools that Ms. Baker used on a regular basis. By the time of the study, she had expanded her technology repertoire to include the use the Promethean board, other computer based activities, and additional educational websites. Ms. Baker's motivation for broadening the scope of technology use in her classroom was an expressed desire to do what was best for her students. Once again, technology

empowered Ms. Baker to expand her skill set for the benefit of her students. In doing so, not only did she expect her students to expand their learning and stretch themselves, she modeled this through her own growth and use of technology.

Dionne stated that technology helped to reach students through “the different modalities of learning, especially for my visual learners and kinesthetic [learners].” She observed that for students who learn visually graphics helped them to better understand the content and “to actually see the concept and give them better access to the concept as well.” She noted that with most of her students it was beneficial to have kinesthetic activities and that is what was helpful about the Promethean board. In one instance while I observed in Ms. Baker’s class the students reviewed pluralizing different nouns using the Promethean board. The use of the flipchart provided a bright background of a yard with vivid colors projected onto it. The various nouns that needed to be transformed into their plural forms were scattered around the board. The interactivity of the board allowed students to get up and move while completing their work. Students discussed the displayed nouns and how to change them so that they became plural nouns. After a student stated an answer, they were asked to write the answer on the Promethean board, which would reveal the hidden correct answer. This type of instant gratification provided students with the feedback they needed to celebrate their success or redirect them for additional help. The board also allowed them to work with the content kinesthetically, which Ms. Baker described as a needed instructional component of her class. Through their use of discussion and technology, the students were able to own their learning and defend their responses based on their new knowledge.

This was very typical of Ms. Baker since she was always trying to find the best way to reach her students just as reiterated by her email signature, “If students don’t learn

the way I teach then I will teach the way they learn.” This affirmation explained why she used so many different strategies in her classroom. While exposure to content may have been repetitive, the repetition was deliberate so that students could aim for mastery. She commented that repetition was a key component to learning in her room.

Anything that’s kinesthetic, hands on, and repetitive. Once they get the repetitive tasks going then I’ll go ahead and build upon and do the more higher level things because I want [them] to have a level of success before throwing [more] at them. I don’t want them to be hurt. So a lot of hands on activities. We do a lot of projects and they like that. Games... Sometimes we use the textbook. They look brand new, but sometimes it’s cracked open. So they’re more... I guess... what’s the right word? There’s ownership to it because they feel like I did this. I’m going to take care of it and they actually seem to learn it. So that’s what I spend more time doing: hands on, repetitive. Over and over. But we did it! Yeah, you’re going to do it again until you get it.

As mentioned in the above quote, Ms. Baker strived for students to own their education. She believed that once students owned their learning, they would take their education more seriously and would want to succeed. She said that there was a lot of despair in the community so it was important to give students an opportunity to be successful. She divided her lessons into small sections and scaffolded the instruction to increase the students’ retention of the material. Ms. Baker saw the students being able to put forth effort and taking ownership for their education as empowerment. She wanted students to be able to explain their learning and justify their answers. Ms. Baker wanted them to know that ultimately they were the only ones that controlled whether or not they learned the material being taught. So, when faced with the implementation and integration of technology, Dionne stated that students are only exposed to the use of technology as a gaming tool. She tried to show her students that technology could also be used for education and learning and not just for gaming. Inside of Ms. Baker’s classroom, education, not gaming was the primary purpose of technology. While

students may have used technology as gaming devices outside of her classroom, inside of it the computers and other technology had educational priority.

Another use of technology was “little Power Points on the computer where it just has the letters flashing back and they have to identify, or their sight words. Things like that.” These PowerPoint’s were used to help students with reading deficits. The flipcharts were used as a way of presenting lesson material and also allowed students to engage in peer tutoring. At the time of the study, Dionne was just becoming more comfortable with this aspect of technology integration into her classroom. However, although Ms. Baker was learning to use the technology more, the students were still steadily gaining benefits from increased use of technology as evident in their enthusiasm and eagerness to answer questions when navigating the Promethean board. Lessons using the Promethean board integrated both teacher directed instruction and also individual student-led lessons.

Ms. Baker often provided several opportunities for students to interact with their content. She mentioned that because her students were low-level learners they needed to see content in different formats to ensure that they were able to retain the information. Therefore, students may see something in print, work with it on the Promethean board and then also listen to the content through discussion with peers and/or the teacher, writing about the content, and possibly physically moving the words around through cutting and pasting. She stated that she also sees a need for remedial software that is used to address specific student needs and can prescribe additional exercises for them to complete. One such tool that she used was the website [MyTestBook.com](http://MyTestBook.com). This website was a test remediation site that allowed the teacher to assign specific activities to the students. The site provided the students’ results and updates to the teachers that



documented how they progressed in a particular area. Students were observed taking quizzes on this software and easily logged in to the site with their username and password. As a reminder Ms. Baker, had website login information taped to the students' desks so that they were able to remember the information. Ms. Baker monitored the students while they worked, but they primarily worked independently and shared their results after completing an activity. Since the activities were prescribed, all students were not responsible for the same activities. Ms. Baker often checked on the students to see if they needed additional practice in a particular area.

### Empowerment in the Classroom

Ms. Baker's ultimate goal was to have her students ready to venture into the world and see beyond their circumstance. She wanted them to be able to speak for themselves, justify their thinking, and take responsibility for their learning. In order to advance in society, she knew that her students had to have the confidence to speak their mind and justify their thoughts to not only their peers but to adults as well. Since, this was a difficult task for many general education students; she knew it was an extra challenge for her students. However, she knew it was important, so she encouraged them through the smallest of steps with praise for any effort in the right direction.

So even for every little thing they do in here they're praised, they're encouraged. Not just for getting it right, but for actually giving adequate effort to it because many times they get upset if they don't get it right. I'm like no, you were thinking. You're on the right track. If you think hard enough it will eventually get close enough to it or even get correct.

She believed that too many of her students saw their current state as not only their present but also their future. She wanted them to broaden their horizons and aspire to

more. She wanted them to have bigger dreams so that they could channel their energies toward a better future.

I even had a student two years ago say, “Oh yeah, my mom lives in Ladson Village. My grandma lives in Carson Village and we live two doors down. When I get older I want to have a unit two doors down.” Not understanding that those are the projects. You want to do better. How about you buy a house? You can move all of them into your house and help them. She’s like ohhh, I can have my own house. It was like a light bulb. Oh, really? Yeah. So we’re teaching you to be a better person so you can buy your own house. Oh. So who knows if that stuck with her, but it was just amazing to see how the light bulb went off. I can own a house?

The revelation that she could aspire to owning a home rather than renting an apartment shocked the student. Ms. Baker saw this as an important part of her role as a teacher, igniting students to imagine what they could have if they dreamed big, set goals, and worked hard. She saw that for students to dream big they had to have a view of what could be. Dionne realized that the students needed some inspiration to dream bigger dreams so she so she began exposing them to highly educated African-Americans.

As a part of this initiative, this past year she highlighted African Americans with PhDs in mathematics.

My board was covered with famous African-Americans who achieved their PhDs in math. They’re like who’s that? The only person they know is Dr. Martin Luther King. Yes, we’re happy. Yay, woo! Thank you King, but there are other people. I want them to understand it’s not just the rappers today that can...that are successful. We can all be successful if you try. I really think it’s the low economics. Learn how to be better.

This was an effort to illustrate to her students that there were people like them who were well educated and that they could also earn an advanced degree if they put their mind to it. Ms. Baker recalled that the students were kind of shocked to see this wall of African Americans with PhDs and used the board as a teaching moment to highlight other African

Americans besides Dr. King. By doing this, Dionne was emphasizing the cultural importance of African-Americans. She was emphasizing culturally relevant pedagogy by showcasing that these African-Americans had accomplished this feat of having high degrees in mathematics. Although, she did not explicitly state that culture was important she was cognizant of the fact that the more students saw value and knowledge in their own culture the more likely they are to value themselves as a contributor to society. In this aspect Ms. Baker was working on providing students for a basis of cultural awareness as well as social consciousness.

The use of cooperative grouping in Dionne's classroom also provided an opportunity for students to be empowered to learn and progress in their studies. She implemented a buddy system to prepare students for basic real-world interactions to be able to speak freely with others.

Cooperative grouping and even discussions with the teacher-teacher/student type. So even when they come in I'm noticing now that students I had who were very shy, and now they're telling me about their home life because I allowed them that. How was your night? What did you do? I have to always engage it. Now they want to engage so I think it's more of just talking to them.

To some the thought of children speaking to one another may not be a major accomplishment; however, with Ms. Baker's students it was important to provide students with the confidence to speak their mind. This was especially important in cases where the student had speech impediments or other intellectual delays that made it uncomfortable to speak in groups of people. Dionne believed that it was her duty to make her students feel and be treated as equals since they often complained that "kids pick at me [and]/or they don't feel like they fit-in in the general setting." So, "a sense of acceptance" in a predictable environment was beneficial and if technology provided that

environment in a general education setting Ms. Baker thought that the educational playing field could be leveled for her students.

When asked directly about her ideas of empowerment, she talked about “a sense of belonging, a sense of accomplishment, and just encouragement.” This belief that empowerment created a circle of support for students was in line with the ideas that scholars (Banks, 1991, 2004; Duncan-Andrade & Morell, 2008) described as an empowering environment, but without a collaborative project to complete there is a void in the ideal empowering education situation. Ms. Baker’s use of technology in class was not most apt for problem solving; however, she did provide students with ownership and encouragement for their work completion. This showcases that she was helping the students to become owners of their circumstance but was not always providing them with critical thinking opportunities. Unfortunately, though, by not providing the students with critical thinking opportunities, she did not help them to fully prepare to be participatory citizens. The students each had their username and passwords taped to their desks as a way to further identify their space in the classroom. Ms. Baker with her small group of special education students, found small victories in many things that the students accomplished and knowing that every bit of encouragement helps, she consistently praised them both privately and publicly in class.

### Summary

Dionne Baker was a committed teacher to the special needs population at Ladson Elementary. She described her self as a “hard-worker” whose purpose was educating students. In her efforts to improve her technology use, she had read books and sought help from colleagues and just simply tried and learned from her mistakes. She used the

Promethean board with her students to give them a visual and kinesthetic method of interacting with their academic work. Additionally, she provided multiple contacts with instructional content to enhance the students' retention of the material. She empowered students through constant praise and expansion of their horizons. In efforts to prepare them for the world outside of Ladson, she challenged their thinking by showcasing successful people in her classroom where success did not equate to entertainers and athletics, rather the advancement of one's education. She constantly encouraged them to be confident in their speech and thoughts.

Ms. Baker had trouble in the past with technology but embraced her own anxiety and transferred that energy into learning something new and engaged her students with it. She worked with them to grow in each of the areas that were indicated on their IEP as well as her personal goals for them. The gains that the students had were due to her diligence and commitment to their success. Additionally, Dionne set goals for herself so that she could continue to grow as a teacher and a professional. Since she was dedicated to her own continual growth she accepted no less than 100% from the students that entered her room.

### Epilogue

As mentioned in Chapter three, at the conclusion of the school year, Ladson was selected to close as part of the Great District redistricting plan. The teachers were part of several job fairs and had to interview for new positions at different schools. Ms. Baker took this time to reflect and decided to leave the district. She relocated to South State to be closer to her family.

## CHAPTER 7

## MR. KENNETH SANDERS

*“Because for me, these children need to be able to know exactly what you taught. But anything I teach them, they should be able to teach somebody else the same thing. That’s what I’m all about.”*

Kenneth Sanders, a thirty-nine year old African American, was a ten-year veteran teacher. This was his third year at Ladson where he was the only male teacher, making him a bit of an anomaly at the school. In his first year at Ladson, Mr. Sanders taught fourth and fifth grade science. At the beginning of the study, in his third year at the school, he had been tasked with teaching second grade as he had done the previous year. Prior to his service at Ladson, Kenneth had taught at two other schools within Great District. Unlike the other two participants, Mr. Sanders was the only one who had held a non-teaching position prior to teaching in the public school system. His previous work experience, as a headhunter for several Fortune 500 companies and in job placement services for adults with disabilities, entailed matching people with suitable career choices. When working with disabled adults, he was charged with helping them - one-on-one - to acquire the skills that would help them be ready for a job. This previous work was what led him to become a teacher.

What made me become a teacher was basically dealing with the adult population prior to being in education that graduated with special education diplomas. I’ve worked with them for many years. So basically, what I wanted to do was get into the school system to work with the youth...so that I can help them out before they entered job market because I’ve dealt with the ones who graduated [with a] special education diploma and then I’ve worked with them in the workforce as far as giving them to be able to work in local jobs in the community and different places whether it would be a law firm or grocery store or accounting office or whatever.

Mr. Sanders believed that if he could help the special needs population and youth

in general to provide them the skills that were needed in the workforce he could make more of an impact on the front side as opposed to training them when they came out of school. He thought that combating the lack of skills from inside the school would be better than waiting until students had graduated to prepare them for the workforce. While he described coming into education as his “fallback” career, Kenneth seriously pursued the education necessary to complete a master’s degree in education and become certified in four different areas: “early childhood, middle grades, social studies and business education for high school.”

Upon first meeting with Kenneth, I was taken by his passion for education and what could be perceived as a desire for his students to be successful inside and outside of school. Like the rest of the school, he was adjusting to the new administration that had been placed there. But, overall, he believed that the school was a positive environment in which to work and learn. He stated that he was impressed with the new principal because she had brought with her a “strong leadership and a style of leadership that empower[ed] the teachers and there is buy-in.” Mr. Sanders’ view was that there was now “flexibility as to what times we teach each subject and more control over the content in any subject.” He explained that the previous administration mandated that

we had to do a number of things a certain way and it didn’t always agree with the way that the child needs to learn and there were many layers of things that were given to us that we needed to do and not enough time to do again.

He felt that this new flexibility “mean(t) [that] we were empowered to use the tools that we felt would best help the children learn instead of having those tools dictated to us.” He also explained that it made him feel that he was trusted as a professional and able to make valid decisions for the good of the students in his class.

So now, it's more balanced as far the times in which I'm able to teach each subject as well as the amount of work that I give to children to making sure that there is mastery and that there is enough time dedicated to them having practice, practice and more practice.

He believed that this shared leadership as he describes would enhance the education of his students because he would be able adjust his daily schedule to fit the needs of his students and do other things as a professional without explicit permission to aid in instruction. His empowerment as a teacher began after requesting a room change to one with more technology: a Promethean Board. Kenneth was granted this request.

### Classroom Physical Environment

As a second grade teacher Kenneth's room was located in the back of the building in the primary wing. The area contained a large open space with seven classrooms and a computer lab around the perimeter. The wing housed the two first grade classrooms, the Parent Center, the Instructional Facilitator office, an intervention classroom, Mr. Sanders' and another second grade classroom, as well as the Mac computer lab. Often classes would meet in the large open area for grade level meetings or quietly wait in rows for dismissal procedures. Occasionally, classes would also complete labs or other activities in the pod so that they could have more space to complete their work.

Mr. Sanders' room was a bustle of young children who were seated in groups at desks throughout the room. His room, like Ms. Baker and Ms. Jones', was also equipped with thin client computers as well as an interactive white board. Six thin client computers lined the wall to the left of the entryway. Above the computer station was a bulletin board that showcased student work and current information concerning science instruction. A bookshelf with supplies was also located along this wall adjacent to the computer tables. The bookshelf contained reading and math textbooks, and other



materials for student learning. As the front of the room was reached a part of the classic dry erase white board was visible; it was used to display the current date and standards for the subject being taught. Adjacent to the whiteboard was the interactive whiteboard (IWB) where daily lessons were generally projected via PowerPoint. There was a small workstation next to the Promethean board for Kenneth to connect his laptop to the IWB. The station was equipped with a stool that Mr. Sanders used when he needed to be near his computer to navigate the board or his PowerPoint presentations. To the right of the Promethean board was a reading area complete with a small rug and chair in front of low bookshelves with literature for young children. Next to this area was Kenneth's desk. His desk was always a clutter filled surface with papers, notebooks, and other items. Needless to say, I rarely saw him sit there with or without students in the room. Behind his desk was a small refrigerator that housed drinks and other snacks, which he usually offered me during our conversations. Following along the wall were some small science projects of the moment. For instance, near the end of data collection there were small sprouting bean plants that had been planted in plastic cups as the students studied plant life in science class. The back corner of the room across from the entry way was a place where various supplies were located, which included manipulatives for math class, teacher's manuals and other ancillary materials for the textbooks used. Leading back to the door was the location of the hooks and closet area for student bookbags and coats. This area was also a little messy as the students were not always careful when placing their materials there. Finally, just before finishing the square and returning to the entry way, there was a locked closet where Mr. Sanders kept additional supplies such as cleaning materials, extra construction paper, scissors, bulletin board materials, etc. The

room was also lit by the windows located across from the entryway in addition to the fluorescent bulbs in the ceiling.

Desks were grouped into four sets of six or seven to appear as tables. The students sat at the desks in mixed ability groups to complete their daily assignments and coursework. There was space in between the groups for the teacher and/or students to walk around the room. All of the groups had five to seven students seated at them except one where there were only two students seated and another where one student sat alone at the back of the class. Mr. Sanders later explained that these students' seating assignments resulted from behavior issues.

### Instructional Atmosphere

#### Teaching Beliefs and the Community

As the authority figure in his classroom, Mr. Sanders saw it as his role to be a teacher to the students as well as the parents at times. Part of this education was to help the parents of his students understand that his job involved instructing students not simply babysitting them. As a part of his high standards for himself and his students it was important that the parents understand that they needed to take part in their child's education.

I do my very best to keep parents involved because I tell the children, I tell the parents, "I am not a baby sitter and I'm not a daycare leader. I'm a teacher," and that's it. When I'm having to baby-sit their child or I'm like daycare [for] their child, that's when I'm calling the parent and I'm letting the parent know this is how I had to behave today. I do not get paid that way. I don't get paid that way. I get paid to be a teacher. It's a teacher job, not a babysitter job, not to be a daycare leader making sure that they have these activities full of play.

Kenneth was adamant that he would not run a daycare service because he recognized the importance of the students' education and more specifically the critical needs of second grade. As a result of this he was very dedicated to speaking to parents about their child's progress academically as well as socially. On two separate occasions, I watched as he finished conversations with parents concerning their children. He later explained to me how he tried to handle situations with care and also to let the parents know that they needed to have a part in this process and he would do what he could but without their support behaviors may not change.

Not only did Mr. Sanders communicate with parents about student behavior, he also informed them of their academic progress. While Kenneth was primarily tasked with educating second graders, he indicated that he had no problem helping the parents of his students as well. He loved teaching and his job was to educate people regardless of whether it was a student or parent. Mr. Sanders was aware that parents sometimes needed to be refreshed on various topics and he was not averse to helping where he could. However, he preferred that they requested the help because he did not want to embarrass them or feel that he was trying to impose on them. Kenneth was well aware that in the Ladson community, educating the parents was sometimes essential to helping students.

When parents tell me that they don't understand their child's homework, I always invite them into my classroom and I show them exactly how...I teach them that particular skill or concept that I'm teaching at that particular time. Some of them are a little hesitant or embarrassed about asking me, or they'll tell me, "I forgot this stuff. This stuff was so long ago." I don't mind because I'm a teacher. I love teaching. It doesn't matter who the population is. I love to teach. So I do my best to not make the parent feel embarrassed about asking that question because I know they probably thought about it many times or may have wanted to ask me that question sooner about how to do something, or what does this mean?

The reason that Mr. Sanders was so concerned with his students' behavior and parent involvement was because he was aware that these factors were critical in ensuring that the students could learn in his class. He recognized that the students in his class had some deficiencies but he saw it as his mission to ensure they received what they needed in order to be ready for third grade. Not only did he want his students to be ready, he wanted them to have mastered the second grade content.

By the time they leave me, they have a less chance of getting it when they get in the third grade because once they get in the third grade they're already expected to know how to read already. They are expected to know how to write already. I just focus on doing everything I can so that these students aren't set up for failure. So whatever they may not have gotten in kindergarten, whatever they may not have gotten in the first grade, when they enter my class in second grade, they're going to get everything that I can give them so that I feel confident at the end of this school year they're ready to move on.

He also expressed his belief in the importance of being able to learn material and apply it, by insisting that they "need to be able to know exactly what you taught. But anything I teach them, they should be able to teach somebody else the same thing." Kenneth ensured that they learned the material through weekly assessments and built in time for extra review until a student was able to master the material.

I found ways in which to do that because it always bothered me in the past, especially with the way things used to be, that it was impossible to give test every week because you were told how things should be versus now having the freedom, the flexibility and being empowered to be able to do things the way you can that you know how in order to help the children. I'm able to teach every subject basically everyday and give assessments every weekend and then I give eight assessments.

This was a new facet of his practice because he explained that with the previous administration he did not have the flexibility to adjust his schedule to allow for this type of instruction/assessment cycle. He was concerned that his students grow throughout the

year, which was why he allowed time for them to continually practice a skill or concept until mastery occurred.

It's more balance[d] as for the times in which I'm able to teach each subject as well as the amount of work that I give to children to making sure that there is mastery and that there is enough time dedicated to them having practice, practice and more practice and master the topic or skill or concept.

Additionally, Mr. Sanders was globally minded and wanted to prepare his students for the global arena. "I give a lot because I expect a lot because they're competing against children globally the same age that they are." In his quest for his students' mastery he also had an internal desire to be the best teacher he could be; he sought to "show mastery in everything [he] did with the children that [he] taught." This would show that he was a "great teacher" because his students would have achieved mastery on all levels.

Basically, mastery in the information that they know and the way that they deliver the information to the students, and feel good about the way that they're doing it and find proof in it based upon weekly, monthly, unit tests. Basically based upon assessments, however frequent they are, whether they're once a year or weekly, or monthly or whatever.

Overall, in contrast to Ms. Baker, Mr. Sanders believed that the Ladson community was supportive of the school and the education that it provided to the local students. He believed that it would be better with "more volunteers -- parent volunteers at the school, as well as businesses that support the school. I think that definitely could benefit the school overall." He also believed that there could be more resources made available to the students.

### Daily Instruction

“My daily goal is written on my door... to make sure that every kid who walks in my classroom smart, leaves out smarter when they go home everyday. That’s my daily goal.” With this in mind Mr. Sanders began and ended his day aiming to help his students to get smarter. His lessons varied from teacher-centered to student-centered but most involved some aspect of the students working together at their table groups. There were a total of four groups in the room and one student sat away from the groups at an individual desk. The child had been seated with one of the groups previously but due to behavior problems he was moved to a desk where he could be more isolated. Each of the groups was made up of girls and boys and I usually observed them working well with one another. The students were heterogeneously placed in the groups and I did not observe them rotating to different areas or having different assignments.

We have cooperative grouping here. The way I group them is that they’re mixed ability groups so that it allows those students who are weak to receive peer assistance from those who are stronger. The strength of students academically depends on what subject your teaching because I have some students who are stronger in one subject and weak in others. By having mixed ability groups they can support each other and share...or speak to them sometimes in a kid friendly language in a way that I can’t express it in order for them to learn the skill or concept that’s being taught at that particular time.

While the groups often talked during the work period, they did not always talk about the work. The students also did not always help each other, which is one reason I hesitated to call the groupings cooperative groups. By definition cooperative groups are tasks where small groups of students work together towards a common goal (Network). In these groups students work together with each other to encourage and hold each other accountable for the work that needs to be done. In Mr. Sanders’ class the students rarely worked together to accomplish a task rather they worked independently while talking

about other things and facing each other. Another aspect of cooperative groups is that students work on their collaboration skills and metacognition. These things were not observed in Mr. Sanders' instruction or student groupings. The students were periodically provided with the opportunity to work with a partner and this partner could be from any of the other tables.

I think anytime you're doing partner activities those help [social development], things such as the Jeopardy because that encourages them to share and discuss. I [also] do partner readings.

In addition, he liked to have the class readings come alive by making them a little more interactive. For instance,

after this marking period has ended, then I'll introduce plays to them. So we'll do short plays where they have to act out the parts and so forth. So that helps to enhance with communicating and enhances that from a social standpoint.

He stated that this format was used for daily work as well as games such as Jeopardy.

I do Jeopardy. So I have...different Jeopardy quizzes that I do and I have three groups. So I have the green, red, and blue team and they compete to win the game in Jeopardy. So I ask the question and they have to discuss it with their teammates and then one person, who is the captain for a team actually give me an answer. If they don't get it, then it goes on through another group and they get points for it.

At the end of each week, Kenneth administered assessments to measure the growth of his students.

So I like to see children change because that's my only focus ...making sure that academic growth takes place. I've got to see academic growth take place because otherwise I'm not doing my job if that's not taking place bottom line. So I get my joy or my thrill each week when I see the work that they're doing, their class working a homework, and then the end result when I give the assessment is on Friday and I give assessments in all subjects basically every week, all subjects.

Since he was focused on mastery Mr. Sanders' assessment results drove his lessons for the following week. I recalled that on a visit to his classroom on a Friday afternoon, he sat grading all of the day's assessments and was planning for how to review and reteach the concepts not yet mastered.

Most of the instruction I observed in Kenneth's class was direct instruction with limited technology integration. While things may have been displayed on the Promethean board, there was not a visit where I observed students using technology or manipulating the Promethean board. Towards the end of my data collection, Kenneth stated that I never came on the days that they were using the computer lab. However, when I suggested that he let me know the next time they were going to the lab, I did not receive any follow-up information about times to visit. Generally, the Promethean board was used to display PowerPoint presentations or videos.

On one visit, students were completing a review of sight words that were displayed on the Promethean board and chorally read the words aloud. They were then tasked with writing a story that included several of the words in a meaningful way. The students worked feverishly to complete the task and then brought them to Mr. Sanders for him to review and revise. Since the grades were based on how many words they used they were trying to use many of the words in their story, the students were observed counting and recounting words their stories. While most of the students were engaged in the task, there was a considerable amount of talking and off-task behavior that caused the room to become somewhat loud. The noise that ensued was not completely task-related. This type of activity did not always exhibit the use of the groups in a positive way. The students completed the task at their desks and some helped their group members with



spelling of different words for their stories but did not always work with partners to correct or receive more ideas for their work.

On another visit I observed a math lesson. I came towards the middle of the lesson and watched as Kenneth instructed his materials managers to distribute the manipulatives needed for the lesson. The two students distributed the stacking blocks (similar to Legos) to each student as he continued to provide instructions for the class. This method of operation was common in his class. Managers were constantly completing their tasks with little prompting from Mr. Sanders showcasing that this was their community of learning. It also indicated that he empowered the students to take part in their learning community by completing the task assigned to them and fulfilling their role, in this case providing materials to their classmates. In this lesson students were seated in groups with their materials on their desks. Although seated in groups, each student was tasked with completing the activity (understanding repeated addition) individually. However, the students, being social in nature, helped their classmates by providing further explanations about the problems. Even though the students had been instructed to complete the task on their individual papers, Mr. Sanders did not mind that the students were working together; in fact, he expected them to do so. He explained that the talking and working together helped students to learn and master new skills. This showed that he understood that students needed to interact with content material in order to learn it better. It was also this interaction that could help to ease any frustration the students may have experienced. Kenneth worked so that the students would eventually get to a point of success.

And then when they go to a topic that they don't know anything about then it's kind of frustrating to them, but they have to see them overcome that through a lot of practice and going through any misconceptions that

they may have along the way and then taking a test on that same topic two to three to four times and they finally achieve it. I'm just as proud of a child that consistently makes the A every time we take a test, as well as the ones that move from a very low score to a very high score, eventually.

### Technology Use

Kenneth talked at length about what he felt would be the optimum ways that he could use technology to enhance instruction. A key component of his ideal classroom was students who entered the second grade completely on second grade level. If this were the case, he felt that he would have been able to use technology in the ways that he spoke about in our conversations. He stated:

I'd rather have students use technology based upon the basic skills that they learned in school to manipulate technology more so than ... having them respond to technology in a form of a question or more of a question/response type game or a type of thing like that. I'd rather [have] them use more inquiry skills as it relates to technology more than constructive response or just choosing A, B, C, or just would like things to be more them using their knowledge to use technology.

He also thought that technology allowed students to map their thoughts and manipulate their ideas.

It makes a difference in the sense that it's more hands on and it allows the children to manipulate information on a computer depending on the subject and the topic in a way where they can either get something right or something wrong, or if it's a freestyle software application then they can manipulate the information however they want and arrange things in the way that they want to. So I like that aspect of it.

Kenneth's technology use was at odds with his stated beliefs about technology. He stated that he believed that technology should be used to develop critical thinking skills and problem solve. However, the use I observed most often was primarily teacher centered. While he had access to a Promethean board as well as thin client machines in his classroom, I observed only minimal use of the computers and no student use of the

Promethean board. He stated that he used tape recorders to help struggling readers yet that seemed to conflict with what he believed technology should be used for in schools. He also liked the use of the computers to read passages aloud to students.

While he talked about using technology to build inquiry skills and not simply for remediation or test preparation, he was not observed using it in this manner.

At the age ...they are, since I teach second grade, [I would like for them] to be able to create power points. To be able to type on the computer their paragraphs. To create story boards. Use the technology in a more manipulative way, but in order to do that is really getting a good foundation of understanding the fundamentals and the skills and concepts that they need for mastery. Using the technology in a freeform way can be helpful in that manner.

I observed that Mr. Sanders' procedures for computer use in the classroom seemed to conflict with his stated beliefs about flexible, "free form" uses of technology. He required students to complete their work and then receive verbal permission to use the computer. On one visit students were reprimanded for not using the proper procedure for using the computer. The students needed to have completed their work and received permission in order to use the computers. While the need for permission was necessary to monitor the use of the technology, it did not build empowerment or ownership of the learning environment; the students did not have the ability to freely go to the computer upon finishing an assignment, even to complete an Accelerated Reader quiz.

Over the course of my observations, it appeared that Mr. Sanders' expectations for his students' computer literacy skills were relatively low. Since I had been at Ladson for a few years, I had the opportunity to work with different teachers. A second grade teacher, with whom I had previously worked, had successfully created a class PowerPoint with her students. Each student had created one slide apiece. While I understood that

students are different from year to year, I did not believe that Kenneth's students were that far from the average group of second grade students that have matriculated through the school. Even though Kenneth felt that the use of technology was important for the students, he felt that many students were lacking in basic skills mastery and that this needed to be the priority for instruction. While this was his focus, the technology used in his class did not add to the basic skills instruction because it was at a minimum level.

I like the fact that it provides, for some students, especially when it comes to reading, it reads aloud the passage that they need to know in order to take a test such as with the Accelerated Reader.

So by taking a computer test, they enjoy that, they enjoy it. And then something else that I do more visual, I use a computer. I just print out the titles of the stories and I post it outside of my door. I don't know if you've seen an accelerated reading chart. So every time they pass a test, they get a star for it and then I put up image of the book over that as well so that they can be reminded of the books that they read successfully. By the end of the year, you see the whole wall just full of books.

Mr. Sanders chose to focus on basic skills mastery in order to prepare students for the state assessments that they would be required to pass in the third grade. His statements regarding how students needed basic skills before they could use the technology to manipulate those skills indicated that he saw the technology use as an addition to the curriculum instead of an integral part of instruction. An integrated view of technology integration would have used the technology to help teach, review, or remediate the basic skills as well as manipulate them.

I think that just more fundamentals [are needed] when it comes to the students. We just need more of that ...[instead of] more technology because if the students don't understand the fundamentals of what they're supposed to learn in school then it's harder for them.

Mr. Sanders described the following uses of technology in his classroom: using tape recordings for students to practice reading; having visuals readily available for making connections to concepts; and building scaffolds for student learning by building their knowledge base for connections to be made to the text. However, what I observed most often was Kenneth using the Promethean board to display videos and PowerPoint presentations. For instance, on one visit I watched as he had students read spelling words from the projected PowerPoint. The students were reviewing the “ur,” “er,” and “ir” sound found in several words. The class chorally read from the screen and then began a reading activity with small groups. This type of activity was observed another time with a different vowel sound, “au” and “aw” with the words projected onto the whiteboard. After the students were finished with reading the words they were then tasked with reading a non-fiction selection about wolves from their reading textbook, which they read aloud independently. The students seemed focused on the task at hand and were able to read in the midst of their classmates reading all at their own pace and in their own voice. The classroom was so comfortable that a student who had not finished with everyone else continued reading aloud by himself even while the discussion started. This exhibited that there was a culture of ownership of learning in the classroom and also a positive climate for differences in student needs. It also showcased that Kenneth was aware of student needs and allowed students to complete things in their own time.

Kenneth enjoyed his own technology tools and felt that they provided him the opportunity to instantly have and share information with his students.

I use my iPod if it's something that comes up all of a sudden like we were just reading a short story and it started describing cotton and how cotton is used to make fabric and so forth and it began to describe the cotton [plant] and how it drifts and so forth with the wind.

I start describing that in that manner so I want my students to be able to see what cotton looks like so that they can understand what's being described to them. So I just put up my iPod, put up several photos of cotton plants so we can see because we're just talking about plants. So that helped them understand clearly to get them a better idea at least with what the story was describing.

This was an example of how technology could be used to expose students to things beyond their normal surroundings. He also stated that PowerPoint presentations were used to provide visuals and videos were used to visually describe what could not always be described with words alone.

Technology is...being used in my classroom with [the students] because I prepare for as much as I can in advance by having PowerPoint [presentations] that help explain certain things. Videos, they help explain certain things as it relates to the topic.

He also described how the use of technology had aided in his reading instruction.

In addition to that, I use technology with my small reading groups, especially the ones who are ... at-risk readers. I like to record them reading and then play it back for them so they can hear themselves read...I like to allow students to hear themselves reading. So I tend to record students and play it back for them so they can get used to hearing the way they sound when they're reading because sometimes they don't know. Another low tech [activity] that's not necessarily a computer that I use to help with [reading] as well as recording them is...a whisper phone. The whisper phone...allows the student to listen to themselves read. It's almost like playing telephone with the styrofoam cups where you're hearing yourself. You're listening to yourself read and that's another [application]...even though it's not necessarily a computer, it's still a technology that students can use in order to enhance their reading.

Although Mr. Sanders felt that the use of low technology strategies during reading instruction had improved his students' reading skills, he was not using technology as an empowering agent. The techniques of taping struggling readers and also using a whisperphone to allow the students hear themselves as they read were some examples of

these low-tech uses. He stated that even with the use of low-tech solutions students had found benefits in their instruction. With these small types of technology use, he was instructing with technology but did not use the technology as an empowering agent because it did not encourage an analysis of social settings or allow for cooperative problem solving. Additionally, the recordings served as incentives for practice with reading fluency. He also used the audio features of technology to help with this as well.

So I incorporate as much as I can with them as far as technology and maybe even on a computer, they take the story test. Many hear the treasure stories that are in a reading. They can take a test on a computer with it in addition to the main test that we take every week. But with them taking on the computer, they get to get points for and they get stars if they pass. So that benefits them as well.

It actually enhances their desire to read because they know that at some point during the week, one day during the week, I'm going to record them and so they look forward to learning the story.... so that then when I play it loudly with the speakers or I put on the headphones .... it will get them to listen to themselves, read and turn the pages as they listen to themselves read. So that's helpful.

When planning how to use technology, Mr. Sanders stated that let the standards drive what he did in the classroom.

Well, I approach it by obviously looking at the curriculum and seeing exactly what topic or skill I want to focus on. Then from that point I look at is there a way to make...use technology in an interactive way that the students can really be engaged in. I usually try to find, on any particular topic, a video...a short video of some sort that speaks to that skill or concept. I try to find interactive video games...educational video games on the computer so that there's yet another opportunity for them to learn the skill or concept.

With the advent of the new Common Core standards there was a focus and more emphasis on non-fiction reading. Mr. Sanders began this implementation with the assigned text reading about wolves. In addition to the vocabulary review prior to reading

he drew analogies and connections at the conclusion of the reading. For instance, he asked the children to make a connection between the wolf pack and families and how they cared for each other. He also made a connection with his travels and how he was able to experience an area such as the one described in the reading when he visited Alaska the previous summer.

### Empowerment in the Classroom

Research states (Ladson-Billings, 2009) that in order to be able to have an empowering classroom environment, it is important for instructors to be involved in civic activities and socially minded. Kenneth was involved in Global Affairs Council of Great City. This organization has members from every sector of Great City from corporate businesses to education and they represented several nationalities. Through this organization Mr. Sanders had participated in many discussions about social, economic, and political affairs and how that would affect Great City with ideas on how they can improve the lives of others.

So anything that's going on currently is always a second opportunity to see how it impacts Great City or what we can do to have an impact on the lives of others abroad. It doesn't matter what the topic is -- immigration. Wherever it is that's out there currently, there has been a discussion about an organization and what people can do in order to have an impact and change the lives of others for the better.

It also allowed him to interact with people of different backgrounds. This area was where he felt that the students of Ladson were at a real disadvantage. He felt that they would learn more about other cultures if they were exposed to more diversity in either their school or community. He felt that it could help to expand their visions and understandings of different things.



The students here, in my opinion, have a limited view of different cultures. They have a limited awareness of other cultures. Sometimes when I explain things about other cultures or one of these stories about other cultures, it doesn't always connect. So I have to constantly bring in even more resources or artifacts to really help them [and] explain what that culture is like.

So I think that tends to be a drawback sometimes but knowing that here, [there] is just primarily one ethnic group is not necessarily a bad thing. I just think that it could be enhanced through a diverse population in a flash.

Unfortunately, Kenneth did not see that technology had value in providing these opportunities to his students. Not only could he use the resources he spoke of, he could have also developed technology projects to have students explore the different cultures virtually or interact with other schools with different cultures through email or video chat. In these ways, technology could have helped to bridge this gap and by not addressing it he missed a chance to reduce the digital divide as well as create an opportunity for students learn more about the world around them. While he recognized that cultural awareness was critical component in education, he did not use all of his resources to provide his students with the awareness he sought for them.

In Kenneth's classroom, it was difficult to readily see the empowerment of the students. However, with his business background, he described empowerment in business terms. When asked about empowerment and what it looked like in his classroom, he described a community where the students knew their role.

It looks like students being classroom managers doing their different jobs routinely and doing it well. It looks like when students get through their assignment they know how to go to center activities and use them either independently or partner with small groups.

In using the term managers and jobs he is acknowledging that the children have ownership of their role and responsibility. This was observed through student supply

managers handling materials and distributing them appropriately. However, within this description he does not mention technology as a part of these activities. However, he had mentioned that AR was an activity that students were able to complete independently should they finish an assignment early. The use of the small groups and classroom roles was a sign of empowerment and could be guided into a way that students developed responsibility for themselves. While he did not feel that students should use technology until they had mastered basic skills, he did acknowledge its benefit in helping students experience things they would not see in their community.

I use technology to expose them to different cultures. Some of the [featured] stor(ies) ... have ... authors and characters of different cultures. So what I do is I then bring out additional images from a computer. Or if I know of another short story or a fable that features that particular culture, I'll bring that out as well.

This exposure to additional cultures helped to broaden the student's horizons and allowed them to gain an appreciation for those different than themselves. In fact, Kenneth tended to think about the cultures of others and how it was beneficial for students to be exposed to the differences for their growth. This may have been tied to his involvement in World Affairs Council of Great City, which allowed him to have interactions with dignitaries from all over the globe. He also felt that since the school was predominantly of one culture the students missed something because they did not know how to interact or learn about other cultures in a positive way because there was very limited interaction with other cultures. He stated that technology could be used to bridge these gaps. "I use technology to expose them to different cultures. Some of the story themselves have featured authors and characters of different cultures. So what I do is I then bring out additional images from a computer." This idea was important to him, as he was civic minded and enjoyed thinking about ideas and how he could work to make

a difference. He shared how he helped his students to become globally aware by emphasizing the importance of recycling and Earth Day.

Well, I encourage them to get involved when we talk about recycling with them, when we talk about Earth Day and recycling and so forth and of course I make sure that they not only do recycling within their own home but also within their community. I talk to them about where trash and waste and so forth goes and we talked about and how we preserve -- when we talk just mostly about taking care of the things that we do have or the things that we're given and not destroy things and how they basically need in their own home and within their community and where would they be going.

Through this discussion, he showed his students why everyone must do their part to make sure that the citizens care for the community. Alerting the students to the need to care for their community and to be involved is a way that students can be empowered through the education process. Aside from larger community issues, Kenneth also took interest in the students' outside activities and would attempt to tie that information into their daily lessons.

Many of the students already come here and participating in after school programs as well as cheerleader and optimist football and they share with me their stories of things that they do being a part of those things. I like to tie in anything that they talk about which is something that I do weekly ... with the kids, especially like -- today is Monday, I like to ask the children, "What did you do over the weekend?" when I do my small groups. And then that gives me information when I'm teaching to incorporate something that they share it with me into the list. So that's what I do.

Through making the personal connections Kenneth was showing his students that he was invested in their education as well as their personal lives. He wanted the students to feel that school was another part of their life and it was connected to the "fun" parts such as football and cheering. This fit well with his belief that school was about learning social as well as academic skills.

I am big on tying in social responsibility with all that we do in the classroom. I always do my best to tie in the social connection no matter what topic because as much as social studies has to deal with people and relationships, good and bad, but mostly good in how and why we cooperate, why we make agreements, why we work together. So I try to tie that in a lot to everything that we do.

Mr. Sanders consistently used these connections to increase student engagement in the lessons and let the students know that he was invested in their education as an overall part of their life. So, while Kenneth had limited examples of technology as an empowering agent within his classroom he did exhibit ideas of empowerment through his high standards, responsibility for student education, and educating about community involvement.

### Summary

Kenneth Sanders was a second grade teacher who found a way to empower his students to become leaders in the classroom. He believed that while he had the students in his classroom, he would do what he could to instruct, mold, and prepare them for what they may face in the future. He believed that technology was important but that the way that it was used was not the ideal use and instead teachers should strive to use it in ways that would involve students in more critical thinking activities. However, this type of use was not always prevalent in Kenneth's class. He used classroom managers and cooperative groups to allow students to help each other and take ownership in their learning. He also found it important to discuss larger issues that affect the students' communities such as recycling that they could have an impact. Through his community minded spirit and encouragement of students to do the same, he showcased a type of empowerment for the future citizens. He also used technology in a way to expose

students to different cultural experiences such as rural areas with cotton fields. Mr. Sanders in his aspirations to be a “great teacher” focused on mastery of standards and students being more than ready for third grade.

### Epilogue

At the conclusion of the school year, Kenneth like the other participants was required to reapply for another school in the district. He opted to try for another environment and chose to teach at a more racially diverse school, which was also in a higher-income area. He indicated that he wanted to try something different and see how different it would be to teach students who were not as needy as the ones he had taught the previous few years. As it turns out, the new administrator at Mr. Sanders’ school was the same one that had been at Ladson his last year.

## CHAPTER 8

### CROSS - UNIT ANALYSIS

The purpose of this case study was to identify and describe the instructional strategies of elementary school teachers who implement technologically enhanced lessons in low-income African American populated schools in an urban southeastern school district. Throughout the study I sought to uncover and understand the instructional strategies of technology using teachers who worked with low-income African American students at Ladson Elementary School. I also explored if and to what extent they used technology as an empowering agent in their classrooms. Additionally, I examined why they chose to use technology as a part of their classroom instruction

This chapter presents a cross case analysis to showcase the common threads and themes that emerged from the data as well as a discussion of the results and areas of further research as indicated by the results of this study.

The guiding question was:

What are the instructional strategies of three elementary school teachers who consistently implement technology-enhanced lessons in an urban school populated by predominantly low-income African American students? The questions below focused the study:

1. How do teachers within the structure of the overall classroom instruction use technology with their students?
2. How is technology used as an empowering agent for and by teachers with their students?

### 3. Why do these teachers use technology in their classrooms?

The previous three chapters described the participants, their learning environments, classroom instruction, technology use, and empowerment ideas. Within each of these chapters, there was emphasis placed on whether or not there were empowering agents present in the classroom instruction, particularly through the use of technology. These empowering agents included instructional strategies, types of technology use, and general teacher attitude toward their instruction. Examples of these strategies were sought with the classroom instruction and environment with each participant. The three participants in the study, Ericka Jones, Dionne Baker, and Kenneth Sanders, all had been teaching the same length of time between six and ten years. The demographic information for the teachers can be seen in Table 1 in Chapter 3.

The remainder of this chapter identifies how the participants' instructional strategies and practices answered the research questions. Throughout the chapter the questions are listed as headings with the emergent theme explanations following each of the subheadings.

#### Using Technology as a part of Instruction in an Urban Elementary Classroom

Ladson was a school rich in technology. Each participant had access to similar technology within the building and their individual classrooms. This included six to eight Linux thin client computers and an interactive white board. Additionally, Ladson was equipped with two computer labs, an iPad cart and iPods for teachers to reserve. However, participants' use of these tools was varied somewhat. Table 4 below details the technology that was used by each participant within their classroom instruction.

Table 4:  
*Technology Used – Basic to the classroom*

Participant	Promethean Board	Videos	Word Processing	Presentation Software	Story Tapes
Ericka	X	X	X		
Dionne	X	X			X
Kenneth		X		X	X

Table 5:  
*Technology Used – Extra Resources*

Participant	Accelerated Reader	Study Island	Other Websites
Ericka	X	X	X
Dionne	X	X	X
Kenneth	X		

Since peers, parents, and/or administrators recommended each participant based on questionnaires, it was assumed that each of the participants was a technology user. However, the recommending personnel were not informed as to what was defined as an effective technology user, nor, were they told that the person should use it consistently. For example, while each of the teachers in the study used technology in their classroom for instructional purposes, it was in varying degrees. The degrees ranged from majority student-centered use in Ericka's room, to predominantly teacher-centered in Kenneth's room. The participants discussed their use of technology within their classrooms and described what this looked like as well. They all saw definite benefits in technology use



and seemed to believe that it was especially beneficial to their students because often they did not have exposure to some of the concepts being discussed in class.

Technology use was a necessary piece of the instructional process and often used to embed student interests into lessons.

Participants were asked how they plan for technology integration in their lessons.

Ericka responded that she started with the Promethean flipchart to begin her lesson outlines. She indicated that she could not plan without technology and knew her students enjoyed it as much as she did.

Well, I pretty much use the Promethean board just to setup the structure of my lessons for...like, when I'm presenting a new thing I have a Promethean flipchart to like guide me. Then I do...like, I might Google the topic and find interactive games for them to use, or the interactive software that we have for the students like Study Island. I incorporate that into my lessons.

In beginning with the technology, Ericka was relating to Gorski's (2009) thoughts on how technology is useful in preparing students for critical thinking. She was aware that technology was beneficial not only because her students enjoyed using it but also it helped them to engage in the content cooperatively through groups and critically both of which are described as components in empowerment. On the other hand, Dionne and Kenneth began with the standards in mind and then began the search for interactive activities to integrate with the information. Specifically, Dionne and Kenneth mentioned reviewing the standards and then searching for videos and/or other interactive content – related websites to find additional ways to present the material being taught.

I just really focus on the standard, and then once I decide which standard needs to be taught that week then from there I'll think of ways...okay, if I want to have a center, what will help the children really grasp the concept technology wise. So look for websites, look for flipcharts. (Dionne)

While this is a positive way to address the lesson, it may not be the best way to incorporate technology into an empowering school environment. This is interesting in understanding and uncovering the participants' beliefs about technology integration. Ericka saw the technology piece as integral to her planning so much so that she began her outline with the Promethean software. She used the standards to guide her topics, but her planning was done with the technology that she would use with the class. This was evident in her lessons because all of her lessons had some form of technology involved in them. This included Promethean flipchart activities, websites, or word processing activities. At some time or another during the lesson, there was a piece of technology used and generally by the students. As described in the theoretical framework, she saw technology as a way to involve the students in cooperative groups, critical thinking and other student centered activities. On the other hand, Dionne and Kenneth spoke about using the standards and then looking for resources. They saw technology as important, but not essential, to their lessons. Their lessons showcased this. There were times when technology was not used in their lessons, and they were just as effective. Ericka's actions began to reach Gorski's (2009) ideals in using technology seamlessly to encourage critical thinking and empowerment while Dionne and Kenneth's technology integration practices were not quite developed enough for them to approach Gorski's transformative levels. In other words, Ericka was using technology to build critical thinking skills but she did not do so with the sole purpose of preparing students to handle social issues.

By far, Ericka was observed using technology most consistently in her classroom instruction. She described a variety of websites that she used regularly and how they were embedded into her lessons on various subjects including dictionary skills (dictionary.com), webquests (Smithsonian for Kids, National Gallery for Kids), or

resources for students to create poetry books using word processing software. This showcases that Ericka knew it was important for students to be able to use technology later in their schooling as well as life. Similar to other research (Schloman, 2004), she could not be certain that the students used technology at home educationally so she focused on its use for research and other educational purposes at school. Likewise, she created and assigned things that would broaden students' viewpoints and also worked in their areas of interest, which was essential to critical pedagogy. On the other hand, Kenneth spoke a lot about technology use but did not exhibit his beliefs in practice. He enjoyed its use on a personal level, but did not seem too adept at transferring this to his instruction. His use of technology was not student-centered and did not fit in the realm of empowering agents for students. Additionally, his use of teacher-focused instruction differed from Niederhauser and Stoddart's (2001) findings that many K-2 teachers are centered. While he did use technology to teach and explain content, the students did not consistently, nor frequently use it to construct or enhance their education. This was not an example of empowerment as defined by critical pedagogy (Sleeter & Bernal, 2004), multicultural education, or empowering school environment (Banks, 2009a). Dionne, however, was consistent with her statements concerning the need to do whatever was best for her students, whether that involved technology or not. On a personal note, she enjoyed technology and saw its benefits however she did not appear to be an avid user like the other participants. Dionne, by having the students in mind, was consistently keeping their needs and interests at the forefront of her plans leading to a naturally student-centered environment. This type of environment is what Lee (2005) explains is important to having minority students excel. Lee (2005) further explains that if children, especially minority children, relate to the learning they are more prone to want to learn

and tune in to the learning process. Dionne implemented this ideal with technology and sometimes without technology to make sure her students related to the learning and then built from that point. Ericka also kept student interests and culture at the forefront of her planning to be able to embed them into instruction. While Kenneth thought the use of PowerPoint presentations would be a good way to have the students express their knowledge and manipulate it in a new and interesting way, he did not task them with their creation. This sheds light on his view of his students not being ready for creative uses of technology as a student centered activity. By not allowing his students to create their own PowerPoint, he maintained control of the classroom and the outputs they produced instead of allowing the students to express their choice and vision in their own PowerPoint presentation.

On the other hand Dionne and Ericka welcomed student-centered activities. For example, each used the Promethean board on a consistent basis as an interactive white board with students often navigating and completing activities on it. They either designed their own flipcharts, which were like interactive PowerPoint presentations where students could move different features on the page, or downloaded previously created ones from sources on the Internet. Several sites have resources that are compatible with the Promethean board ActivInspire software that the teachers in Great District used. Ericka and Dionne used their Promethean boards with most of their lessons as a teaching tool, student interaction device, and presentation display. Dionne thought the use of the Promethean board was beneficial because it allowed her kinesthetic learners the ability to move around and interact with the content. She stated her students respond well to

Anything that's kinesthetic, hands on, and repetitive. Once they get the repetitive tasks going then I'll go ahead and build upon [that knowledge] and do the more higher-level things because I want [them] to have a level of success before throwing ...[higher level content] at them. I don't want them to be hurt. (Dionne)

Additionally, Ericka used her Promethean board to have students interact with websites where the students would select their responses using the ActivPen on the Promethean board instead of using the mouse attached to the computer. However, Kenneth used the board primarily as a projector to display his PowerPoint presentations. There was not any observed student use of the Promethean board.

The use of the Promethean board by students allowed the students to have some control of the learning process. In Ericka and Dionne's classes they were able to manipulate and test hypotheses by navigating the board and also collaborate with classmates on possible answer choices. While they did not choose the content they were learning, they were able to be flexible in how they answered the questions and were able to move about in the process. The use of movement in elementary schools is important to helping students stay alert and also a way to reach learners who need to need to physically manipulate something to understand content. By using the Promethean board the teachers were involving the cooperative groups and student interests aspects of CRP into their instruction.

However, there were many missed opportunities with the teachers. They did not allow for student creativity in the student creation technology products. Only Ericka referred to student created items in her instruction through the use of Poetry books, but even this is a lower level task. In order to lessen digital divide and provide more importance on the need for technology there needs to be more emphasis on the use of

technology for student creation purposes and to that end the technology use was not as beneficial as it could have been.

Technology was used as a way to encourage reading.

The participants indicated enthusiasm towards the use of the reading program, Accelerated Reader (AR). Renaissance Learning, the parent company for AR, describes the tool as a reading management tool that helps teachers to manage student literature interests and reading levels (<http://www.renlearn.com/ar/howitworks.aspx>) so they can guide students to appropriate books. Critics (Biggers, 2001) of the tool are skeptical of its stated benefits, especially its claim of improving reading comprehension. While the participants in this study did not state or indicate that they thought the tool increased reading comprehension, it is still a touchy topic to many who are not sold on AR's true benefits. One reason, I believe, that the teachers were not completely sure of AR's ability to test on reading comprehension strongly because they often used the tool Study Island which had its own passages and Coach books or created their own questions to be used with an assigned reading. They did, however, use Accelerated Reader on a regular basis as a way to emphasize and encourage pleasure reading in their classrooms. Incentives are an innate part of the AR program with students earning points for good scores on their book quizzes. The teachers built on these incentives to further encourage reading in their respective classrooms. Some examples of these included posters indicating the number of words read and running total of points earned per students displayed outside of the classroom doors. Ericka documented the number of words students read throughout the year on a chart outside of her classroom. This was computed by the AR program, which includes a record of the number words in each book a student and places it in a student record when he or she quizzes. Ericka rewarded the students with stars for different

increments of words read. Kenneth kept a poster outside of his door indicating the number of points earned by each student as computed by the book quizzes taken. Additionally, he kept a running log of the books read the students by posting pictures on the wall of as a way to celebrate and advertise the books that his students had read. These rewards were a way for the teachers to use extrinsic motivation to hopefully ingrain in the students to importance of reading and build a lifelong learner. The tool was both empowering and disempowering because it was beneficial at providing the students a way to exercise independence in completing the quizzes; yet, it limited the books that the students may choose from and also may have de-emphasized the need to want to read for the sheer pleasure of reading. When the tool is phased out of use in secondary schools, there is a question as to whether or not the students will still have the desire to read if they are not being rewarded for doing so. Also, the tool as a management system does not prepare the students' for the comprehension, synthesis, and evaluation tools they will need when they are evaluated using standardized tests in secondary school or more importantly when they are creating an argument for social change. So, while this was a common tool used in the study, without reinforcement in classroom instruction it was not an effective method of helping to prepare for reading to learn, inform, and empower.

Additionally, Kenneth and Dionne referred to what they termed as “low tech” tools, such as tape recorders, to help their students. These took the form of book tapes with the textbook stories recorded to help their students with their reading skills. They each indicated that they also audio recorded their students reading aloud which helped increase their reading ability and desire to read because the students enjoyed hearing themselves read. These low-tech tools, while, not complex were still innovative methods

of involving students in their learning and speaking to their interests thereby using some of the aspects of culturally relevant pedagogy in their instruction.

Dionne and Ericka consistently used their thin client computers to allow students access to various websites. Most frequently, the students used the website programs, *Study Island* and *MyTestBook*. These sites were designed to help prepare their students for the state assessment given every spring. The websites were both prescriptive and standards aligned to allow for individualized help and teacher intervention when needed. While the websites were preparation for high stakes test they were also tied into the specific daily lessons the teachers prepared. This could be seen as a remediation tool and thereby deemed as an inappropriate use of technology, but, with the prescriptive nature of the program it was there was somewhat more of a focus on specific student needs, which helped the programs, become more student-focused lightly aligning it with the student-centered work associated with culturally relevant pedagogy.

Videos and Internet were used as a way to expose students to different ideas and concepts.

Ericka, Dionne, and Kevin described using instructional videos to enhance their lessons. The videos were from different sources but were primarily found on the Internet although, some were downloaded from the local public broadcasting site. As the participants described, videos helped concepts come alive to the children and enhanced daily lessons. They were also used as a tool to provide additional background information for the content being taught. This was because it gave the students an opportunity to see and hear about the content as opposed to only reading or talking about



it. Kenneth and Ericka also described that they were able to instantaneously pull up pictures or videos of an item of interest and provide students with access to the new terminology or concept. Kenneth described how he was able to show students pictures of cotton using his iPad, while Dionne explained that providing another way for students to experience content often helped her students to grasp it better. By making the content real to the students, the participants were able to provide them an opportunity to see something new and use it as something to build on. This agrees with Shor's (1992) view of empowering education because allowing students to build background knowledge increases their ability to connect to new information and have a basis to learn to appreciate new things and ideas. While they may not agree with the idea, having had the experience to view content from a different perspective widens children's (and adults') worldview, which helps them to become better global citizens (Banks, 2009). This aligns with the transformative type of instruction that he emphasized in his levels of multicultural education instruction. The use cultural competence to start with familiar cultural ideas and build helped the teachers to better reach their students and have them buy into their own education.

#### Empowerment Prerequisites: Technology Uses and Instructional Strategies

An empowering agent is a form of "instruction that encourages and creates a way for students and teachers to better themselves beyond school education through critical analysis of social settings, cooperative and collaborative problem solving and involvement of community." Some of the items that typically characterize empowering agents include "high standards, assertive, instructionally minded administrators, parental

involvement, and assumed responsibility by teachers and the principal for education of all students” (Banks, 1991, 2004; Duncan-Andrade & Morell, 2008).

Empowerment may take the form of students having input into curricular aspects. It may mean that students feel they are able to discuss and impact their community through their instruction and involvement in community affairs. Students that are involved in empowerment education ideally are involved in all parts of curricular planning for that course (Shor, 1992). While this may not be completely possible in a public elementary school because of the state and federal guidelines set forth by AYP, but it begins with a teacher that has value in this type of education and has developed the same qualities they want the students to have. Examples of this include a classroom where the student voice is encouraged, through discussion, multiple viewpoints of a solution and the ability to question the inequities of society and more particularly their classroom dynamics (Shor, 1992). For a teacher, this means that they feel comfortable expressing their feelings to administration and implementing democratic practices in their classrooms. Teachers may also feel that they can impact change within the school and/or the district to become more equitable and have more impact on the students’ education as needed in an empowerment education setting. But, if this is not the case then students may not see this type of teaching in their classrooms. Likewise, school administrators in an empowerment environment are able to best make the decisions to impact the students they teach and this means preparing them to participate democratically in society and allow them the curricular decisions that are of interest and purpose to the students. A happy union between empowerment and education exists when the teachers, administrators, and students have created a place where cultures are valued, and teaching of the dictated curriculum is cultivated through student interest and democracy (Shor,

1992). However, within Great District, it was difficult to exercise this empowerment because of the transition occurring in the district.

The tenets of empowerment in the context of social justice and civic participation were not transparently noticed from the participants. However, on a deeper level each of the participants was making preparations for their students to be able to address social justice at a later point should they so desire. They were laying the building blocks for the students to be able to address the inequities of the community. So, while the participants did not answer questions about empowerment in ways that specifically addressed the definition presented for empowering agent in Chapter One, they did address critical prerequisites with technology use and general classroom instruction. These ideas are presented in this section.

Technology was used as an empowering agent to expose students to other cultures, ideas and experiences.

I examined how technology was integrated in classrooms that involved students in problem solving or preparation for civic and community involvement. In addition, I paid attention to the way instruction and technology were characterized by high standards and buy-in of all stakeholders including parents, teachers, and administrators in the education of the students of Ladson ES. An example Ericka's instruction was the use of webquests to allow her students to explore various ideas using Internet sites such as exhibits in the Smithsonian. The webquests provided students an opportunity to locate and critically analyze information to obtain answers to the posed questions in the activities. The other prevalent use of technology as an empowering agent was in the exposure of students to other cultures including African and Caucasian. In general, the cultures were ones that

students did not have access to in their normal daily interactions. For instance, Ericka used videoconference as a tool to expose students to different cultures. Through this experience, students were able to discover and discuss similarities and differences in their cultures and each other while providing students in Africa and those in Ericka's class a broader worldview. Through webquests, newsletters, center work and other class assignments, Ericka also encouraged collaboration and problem solving and technology use. The teachers also found benefits in using technology in a way that would provide opportunities for students to experience things they could not otherwise experience. Technology took them to Africa and allowed them to talk to other students and showed them how cotton fields looked as they blew in the wind. Additionally, the teachers used technology to help students to become leaders by helping and assisting their classmates. The exposure to different cultures satisfied a curiosity the students to know how other people live and what their interests are which allowed them to compare and contrast the cultures through class discussion. Class discussion is a critical component of empowerment education as touted by Shor (1992). This type of discussion is something that Ericka fostered through her videoconference experience. Her experience was similar to what other researchers found when their students also engaged in a videoconference, that it helped to expand their viewpoints and gain a new appreciation for cultures different than theirs (Lambert & Sanchez, 2007). In helping students to expand their worldviews the teachers were allowing the students to learn to appreciate other cultures and, empowering them to form their own opinions not the ones usually handed down from mainstream textbooks.

Teachers use empowerment strategies to prepare students for the world ahead of them through high expectations of success.

When the teachers' instruction was separated from technology use, there was more evidence of empowering agents in their classroom environments. Ericka, Dionne, and Kenneth expressed their desire for the students to be successful inside and outside of their classrooms. This great desire for students' success is a key element of an empowering school environment (Banks, 2004) as well as culturally relevant pedagogy (Ladson-Billings, 2005). Through their expressed desire to have their students succeed, the participants demonstrated that they were heavily invested in the job of instructing students. While the goals set for the students varied from being able to speak for themselves to preparation for the next grade level, each teacher worked so that their students would be ready. It was the participants' collective expectation that the students would be successful within their classrooms both academically and socially.

Dionne set small goals for her students such as being able to speak to her in the hallways. She knew that through the constant support, praise, and encouragement she provided students, they would grow to speak not only to her but also to others concerning their needs and desires. This was an important component to being able to one day speak to others about injustices in their community. Dionne also encouraged her students to think about their futures and how they did not have to stop with what they could readily see. Kenneth saw this as important as well; he "maintained ... high level ...expectation[s] for the students and [did] not allow them to use their social status...[as] a hindrance or a crutch in learning." He did this because he "believe[d] all the children can learn and ... rise to the occasion and overcome obstacles just as much as anyone else." Kenneth, Dionne, and Ericka wanted their students to be aware that there was more available to them than they could see so they provided the vision to them through comments and expectations. The participants tried to instill in their students the belief

that they could do anything they wanted. But, the students would have to work for each of the small goals they set. Ericka shared this sentiment about helping students become prepared for the future:

I'm making sure my kids become better people so they can become more productive adults. So that they see other things outside of what... I can provide them with other things to know and than what's happening at their house. That's what my teachers did for me when I was growing up and I think that's our job... to empower them with more than what's happening at their house.

Ericka showcased that part of her job, as a teacher, was to prepare her students for the world ahead of them. She understood this role and took it seriously as did Dionne and Kenneth believing that lack of exposure to ideas outside of the students' immediate community limited the students' world views, so they worked to provide opportunities for them to learn about other cultures when they could. The participants saw too often that students let the environment define them. Therefore, they worked for students to receive exposure to ideas, cultures, and opportunities outside of their immediate neighborhoods and envision their future using technology and other resources. In doing so, they empowered them to think outside of school and their neighborhood to visualize a bigger picture where they could have an impact on the greater society.

Empowering agents are a way to build ownership and responsibility for learning environment and community.

Each of the participants viewed empowerment differently, which explains why it was portrayed differently in each classroom. While none of the participants specifically addressed what I defined as empowering education such as community activism or social action, they did exhibit some of the other characteristics such as high standards, showcase

of the value of cultural differences, and concern with the academic needs of students. Kenneth spoke of students doing what they were tasked with as far as in a job aspect. This could be viewed as either empowering or disempowering because it gave the students responsibility but may not have been based on student interest or choice, which are key components of empowerment. Additionally, the atmosphere in Kenneth's room was not as empowering as the others because it was clear that it was a teacher-centered environment where he controlled the majority of the discussions. Ericka, on the other hand, embraced more of the student voice in her classroom and the students were able to think and discuss in groups through their cooperative groups and other activities. She also allowed for students to have open discussions about their personal thoughts and experiences through her book talks. This open dialogue is important in allowing the students to see that their teacher values their culture and experience and is able to learn from them, just as the students are able to learn from her as the teacher. Having education become a two-way street is emphasized both in empowering education by Shor (1992) and culturally relevant pedagogy (Ladson-Billings, 2009). Finally, Dionne showcased her views of empowerment by embracing the whole child and finding that space to teach on an individual basis. Partly because she dealt with so few students and partly because they had such different needs she was able to reach them at different levels. Dionne knew that she needed to empower the students to make choices, use their voice and discuss their issues so they felt valued and important as people. If she got the students to value themselves and their ability to learn, then her job of helping them to learn became a little easier. Dionne found that her students had been disempowered previously because they were viewed as slow or "less than" the average students. So, she often had to help them overcome that and empower them to know that they could learn.

Dionne spoke of and used many resources to help her in this process from student interest in technology (websites, Promethean board), to buddies, to encouraging student dialogue with her about daily activities.

Additionally, a factor that Kenneth and Dionne saw readily as a part of the students' empowerment was the community and parental support that was available. Dionne viewed the parental support as apathetic and somewhat fearful of change. In her recollection she stated that the parents need "a new mindset...[and] have to change." She saw this being trickled down to her students and thus worked to overcome this negative disempowering force as she empowered them become active participants in their learning. On the whole, she viewed the community as a factor she had to overcome to reach her students. While, in contrast, Kenneth saw that there were problems with the community but he viewed his students' parents as supportive of his efforts. In both cases, however, they knew that there were resources that needed to be provided to the parents to help them to be able to assist their children should they choose to be involved.

The use of routines and procedures in Ericka, Dionne, and Kenneth's classrooms worked to help the students experience responsibility and ownership of their activities and environments. Kenneth's use of classroom managers showcased one of the ways he helped students prepare for future work and careers. He knew that students would have to take responsibility for their work environment so he began that process by having them take care of their classroom. While, Ericka instilled in her students the confidence to be "able to defend their knowledge anywhere in Great City."

The most important of these was that they needed have "responsibilities for their own learning" because they were the only ones that could guarantee that they would learn (Dionne). The participants also knew that they needed to "maintain [a] high level of



expectation for the students and not allow them to use their social status [as] a hindrance or a crutch in learning” (Kenneth).

In Ericka’s class, it was not unusual for another student to help a classmate at the same center with any questions they may have. Ericka often commented that she preferred for the students to ask a group member before asking her for assistance so that they learned to rely on each other. This was essential to building a community of learners knowing that each student is responsible for each other’s learning and that we are all in this together. Ladson-Billings (2009) indicated that it was imperative that students feel comfortable in their learning environment. This was a goal of the teachers in this study to ensure that the environment was a pleasant one in which to learn.

The participants believed that for students to be successful in the next level of schooling certain skills were necessary. Ericka recognized confidence in one’s knowledge and abilities as being one of these critical skills. She wanted her students to be proud of who they were and where they came from. This was readily evidenced in her reinforcing in them the ability to justify their solutions and answers to questions. Ericka, like the other participants, knew that the students’ view of the world was skewed by their community. However, she wanted them to know they were just as prepared as anyone else. As a part of her preparation with her students, she would help them understand and value the differences as transformative multicultural education proposes but also wanted them to know that what they contributed was just as relevant and pertinent to others. She would often relay:

Yes, people are different. Yes, people have different amounts of money. Yes, people have been in different places. But they’re confident; they’ve accepted where they are, who they are and they’re just ready for the next challenge.... they can get along with other people, that’s...important.  
(Ericka)

Erica, Dionne, and Kevin saw empowerment as building on to the child's character through confidence, increased self-esteem, and responsibility. These attributes needed to be instilled into the student. These items are also important as skills that would be needed for students to later tackle social action issues in their schools and/or communities as espoused by Duncan-Andrade and Morrell (2009). Kenneth saw the expressed need for student responsibility, and he prepared his students for this with the use of classroom jobs and managers.

[Empowerment] looks like students being classroom managers doing their different jobs routinely and doing it well. It looks like when students get through their assignment they know how to go to center activities and use them either independently or partner with small groups.

While this does allow for students to have ownership of their assigned task, it does not necessarily allow for students to either analyze social settings or allow for problem solving. The classroom jobs fostered building of community in that all have a role to play in our communities. While he did not term it empowerment, he did have a high regard for his students' success. Kenneth saw it as his goal to prepare students for the next grade. In his interviews and other conversations, he discussed the use of technology as a critical thinking tool and as a means to help students develop these types of skills. However, there was a deep contradiction between what was observed in his class and what was said in his interviews. He mentioned that he believed part of the reason that technology could not be used to build critical thinking skills was because his students were lacking so many basic skills.

I'd rather have students use technology based upon the basic skills that they learned in school to manipulate technology more so than have the technology...versus having them respond to technology in a form of a question or more of a question/response type game or a type of thing like

that. I'd rather them use more inquiry skills as it relates to technology more than constructive response or just choosing A, B, C, or just would like things to be more them using their knowledge to use technology (Kenneth)

However, I do not see this as an appropriate response. In contrast, students in need of basic skills are in most need of resources to help them build critical thinking skills. In fact, I would challenge him to try an inquiry type project with his students and see if the students exceed his expectations. Research (Duncan-Andrade & Morell, 2008; Ladson-Billings, 2009) has shown that when students are engaged in critical thinking activities they will have to master basic skills in the process so that they are able to engage in the higher level task. The engaging task makes this not only necessary but desirable for the students in the quest to reach the end goal. The level of engagement is so much higher than normal that they will gain more knowledge and invest more energy into its successful completion. Thereby, they will learn more in the process and be able to apply the information in a different setting. Even though, Kenneth spoke of the higher thinking order uses of technology the technology observed in his class was that of teacher-led presentations. Kenneth's depiction of empowerment did not fit completely with the ideas of the other participants.

The rationale that students need exposure shared by all participants could be seen as being in line with the deficit view of poverty made popular by Ruby Payne in her work *A Framework for Understanding Poverty* (2005). This means that students in poverty situations are lacking in ability or desire or in Payne's theory students from low-income areas are in need of what is termed as cultural capital so that they can "rise" to the level of the standard middle-class norm. The idea that low-income students do not have their own culture of value or that it should not be valued in the educational system is also a

part of this theory. In contrast, the exposure the participants referred to was not specific to middle class ideals or norms instead it was things kids would not normally have seen in most instances (i.e. cotton growing in a field, students from other countries or continents, Alaskan animals). Its exposure was necessary for the students to gain access and context for the particular content being taught at the time not to be accepted into mainstream America. Furthermore, exposure to ideas like cotton growing in a field is most likely foreign to most students who do not live in a farming community, which is the majority of the United States. Therefore, unlike Payne, the participants did not blame the students nor lower their expectations for success because of the students' circumstances; but instead built from what they did know and used technology resources to provide the background information needed. In fact, the teachers accepted how the students came to them and embraced what they brought academically and socially and built upon it. The participants encouraged the students to be confident in who they were affirming their culture in the process. Thereby, further contrasting Payne's deficit model, the participants allowed the students to be in an empowering classroom setting. They recognized that because of their neighborhood, they had not experienced different things; but they did not dwell on that instead they built on what they did know and valued the new experiences that they could share with the class and teachers in the learning community.

Overall the teachers believed that it was important to prepare the students in ways that would allow them to be successful outside of school. Ericka did this by instilling confidence in her students. Dionne encouraged and praised her students for trying; and Kenneth instilled a work ethic in the students that would prepare them to take responsibility for whatever their future held. These are important steps in beginning the

steps of creating empowered citizens. Being able to speak confidently to anyone and have knowledge of what it takes to get things accomplished is important to being able to participate in society as an empowered citizen.

### Technology Choices and Rationales

In determining the teachers' rationale for using technology, I found it difficult to separate their reasons for using technology from the type of technology used in their classrooms. Since, in describing and detailing what tools they used, I also described why the teachers chose to use a particular tool. By this, I mean that the teachers chose to use different types of technology for various reasons so a lot of what was referenced in the first question directly ties into their rationale. Therefore, some of the themes are similar to those of the ways that technology is used in the classrooms. For example, the participants chose to use AR reading program. The rationale for using it was to encourage reading; however, this was explained in detail earlier in this section. So, in this section I will attempt to uncover findings that differ somewhat from what has already been presented.

The types of tools chosen by the participants were heavily ingrained into their belief systems. This can be seen from Ericka's use of Study Island. Since she was committed to having her students perform well on the state test she was constantly providing them with test preparation activities. Likewise, Kenneth was adamant about the importance of reading as an educational tool. He would often comment that if students did not know how to read in third grade it would be a problem. Therefore, he was insistent on using any measure to help the students to be able to read and comprehend so he used AR as a tool to encourage continual reading. Overall, Ericka,

Dionne, and Kenneth used technology because they saw how students responded to it and knew that it was beneficial in the learning process.

Teachers believed technology increased student engagement and enthusiasm for learning

Each of the participants saw the benefits of technology in their classroom; yet how they chose to integrate it within their classrooms was significantly different. The students looked forward to it and were motivated to learn when it was being used. These findings as a rationale of technology use were in line with several scholars' work (Dermody & Speaker, 2002; Frederick, 2007). As research (Chisholm, 1995a; Dermody & Speaker, 2002; Ertmer et al., 1999; Frederick, 2007; Page, 2002) states major benefits of technology are that it increased student engagement and improved student behavior as well. In this study the participants agreed that they enjoyed using technology because of the increase in engagement. In this way the study confirmed these studies.

The teachers indicated that a major benefit of technology was that it provided a way to keep the students engaged and motivated. As Ericka stated, "I can tell their level of excitement and their level of engagement definitely increases when I plan using technology." The participants indicated they tried to incorporate some technology into their daily lessons to keep the students interested. Dionne went on to state that students' brains were wired in such a way that they are looking for technology to keep them engaged because they want things to change quickly.

I'm reading a book and they're saying the kids are digital minded and their minds are changing every day because they're so exposed.... It's processing stuff and so with me just talking and lecturing all day, nothing is new. Nothing is happening. But the technology has all these different visuals. It keeps them engaged so I just have to learn how to change with the times.

The students were interested in technology and the use of it not only increased student engagement but it let them know that the teachers were responsive to their needs and interests as participants in the learning community.

Teachers believed technology could be used to enhance reading instruction.

Ericka, Dionne, and Kenneth made concerted efforts to find ways to include technology to help students increase their reading ability. In fact, many of the teachers at Ladson ES from my observation regularly used technology to help with reading instruction and motivation. Ericka and Kenneth tied the use of AR into incentives through recognition outside of their classroom to encourage pleasure reading as well as help with the struggling readers. They found that public praise of the points earned in the AR program helped encourage students to read more so they both had posters posted outside of their classrooms with student point tallies. Dionne and Kenneth also indicated that they used technology to help students increase their reading fluency through the use of pre-recorded stories. They also recorded the students as they read aloud so that they could play back the recording and listen to themselves. With their use of prescriptive tools such as *Study Island* and *MyTestbook.com*, Ericka and Dionne saw technology as an opportunity to provide extra resources customized to the students' specific academic needs including reading comprehension. The programs provided a way for the teachers to quickly and easily provide differentiated content that specifically addressed the child's area of weakness. This finding is not completely aligned to the empowerment as defined in the theoretical framework because of its leaning towards remediation software. However, since it was prescriptive and teachers used a variety of tools to help with reading from AR to tape recorders the teachers were keeping student interests in mind.

Dionne and Kenneth stated that the students enjoyed hearing themselves read and would often practice prior to the recording thereby using some intrinsic motivation to read on their own. Since interests were involved in some of the technology selection there were aspects of CRP; however not empowerment per se.

Underlying their own desires to meet the students' needs, there was the expectation of the building administration that teachers would use the technology in the building. While there was a clear expectation for technology use by the administration, none of the study participants mentioned the building administration as a reason to use technology.

### Summary

In this section, I have examined each of the sub-questions and presented the themes that have emerged from each of them. The teachers used a variety of technology tools and applications in their classrooms and for a variety of reasons. While each was equipped with the same types tools, Ericka and Dionne used more of them such as their Promethean boards and additional websites with students than Kenneth. However, all three participants expressed and displayed a use of the reading program AR. This difference in use could be attributed to different beliefs about technology and different styles of teaching. As for the teachers' reason for using technology, they saw it as a way to increase engagement and motivation as supported by several studies (Chisholm, 1995a; Dermody & Speaker, 2002; Ertmer, et al., 1999; Frederick, 2007; Page, 2002). Additionally, the types of empowerment that were present in the classrooms was presented and compared to research and each participant. The participants used different words and actions to describe the same idea that they wanted their students to be



successful outside of their classroom so they provided what they believed were the tools needed to be an active citizen. These included the ability to share their thoughts with confidence, persevere in whatever they were doing, and take responsibility for their work and actions. In the next chapter, I will present a discussion of these findings and indicate areas where future research may be needed with regards to the intersection of technology and empowerment.

## CHAPTER 9

## WHERE ARE WE NOW? A DISCUSSION OF THE FINDINGS

*“The function of education is to teach one to think intensively and to think critically.”*  
*“Intelligence plus character - that is the goal of true education.”*  
*(King, 1947)*

As I began this study, I sought to understand what urban teachers did differently with low-income African American students. Most importantly, I wanted to understand what teachers with technology were doing differently and how instruction was implemented in their classrooms. The desire to understand whether the specific needs of low-income African American students were being met through technology and my vision of empowerment education drove me to this study. Upon review of my findings, I realized that while I sought out to observe technology integration practices what I actually observed was more technology use than integration. This is because the teachers did not have instruction that seamlessly included technology as an integral piece of their lessons. Some of the instructional practices that I observed were indicated as best practices for teaching African American students. While there was some progress, there is also a lot of room for growth.

In chapters five, six, and seven, the participants’ instructional strategies, technology use, and empowerment practices were described and documented. Chapter eight presented a cross-case analysis of the themes that emerged from the sub-questions. I begin this chapter by examining the emergent themes from the guiding research question. The following question guided my research: “What are the instructional strategies of three elementary school teachers who consistently implement technology-enhanced lessons in an urban school populated by predominantly low-income African American students?” Teachers used technology in conjunction with several instructional

strategies as an empowering tool to prepare students for their future through exposure, confidence, and increased self-esteem. In this chapter, I will continue to elaborate on emergent themes and provide a discussion of the findings along with indications for future research.

### Answering the Question

What are the instructional strategies of three elementary school teachers who consistently implement technology-enhanced lessons in an urban school populated by predominantly low-income African American students?

At the outset of the study, I thought I would see clear examples of empowerment education implemented with and without the use of technology. I believed that students would be empowered and were being exposed to multicultural empowerment tenets. However, what I found was different from what I first believed. What I found were three teachers implementing instructional best practices – cooperative groups, differentiated instruction, modeling, providing multiple opportunities for practice, and allowing for student discussion. The difference that occurred was the technology integrated into the some of the lessons and some of the instructional material specially selected based on the background of the students. Additionally, the teachers were using technology to fill learning gaps such as cultural awareness, reading deficiencies, or other things that may have hindered students from learning the material. Since the teachers used some of the ideals of teaching multicultural children both with and without technology, this study showed some differences between the three teachers studied and teachers who work with middle-income and/or majority ethnic background students. However, it was not enough to overcome the digital divide or empowering education was truly evident. Additionally,

since the majority of the work was test preparation opportunities for developing critical thinking skills necessary for 21<sup>st</sup> century learning were not provided.

I watched over the course of several months as the teachers provided opportunities for students to grow in different ways as citizens. The teachers allowed students to work cooperatively in pairs or small groups to learn how to help each other with assignments and technology use. Dionne, Ericka, and Kenneth also allowed the students to have independent practice on their assignments after lessons were modeled for them. While these are typical instructional best practices (Marzano, 2003) they are also specifically important in the instruction of African American students (Ladson-Billings, 2009) because they are aligned with the types of activities she defined as key components of effective teachers of African American students. Ericka's instruction provided opportunities for critical thinking through WebQuests and story logs. But, overall, there were limited critical thinking examples of instruction using technology with African American students, and this is an area where further research is needed. The teachers also presented questions and situations where the students could learn about environmental issues and how they influenced their local environments. For instance, Kenneth discussed with his class the importance of recycling and what can happen if we do not recycle. The connections the teachers demonstrated between local, national, and global ideas were another example that Ladson-Billings (2009) strategies. However, two of the practices detailed by Ladson-Billings (2009), the belief that knowledge is continual and recycled and that excellence is something that takes student diversity into account, were not readily evident in the observation of the participants. While the teachers were not overtly passionate about a particular content area they were passionate about their students learning and mastering content in general and being successful in their

classrooms. The passion came through in their efforts to reach them where they were and their commitment to helping them in any way that they could.

In terms of how they were able to integrate technology with multicultural students, the participants were able to address most of the facets: (a) cultural awareness, (b) cultural relevance, (c) culturally supportive environment, and (d) equitable access (Chisholm, 1998). However the major items, instructional integration and instructional flexibility, were not consistently implemented in the classrooms. So, while the teachers found ways to use technology at times to showcase different cultures, there was not a clear view of students consistently using technology in all classes.

In sum, the teachers did some things differently and some things the same as all good teachers. However, in terms and context of this study the teachers taught with their students in mind. Ericka, Dionne, and Kenneth designed their lessons to involve some technology and used it alone and in concert with other strategies such as cooperative grouping, modeling, class discussions, hands-on activities, and independent practice to empower and prepare their students for their futures outside of their current classrooms. The empowerment that was detailed in the study was shown by a combination of factors including use of the technology, routines and procedures of the classroom, and general classroom instruction. But, they were not the prototype teachers that either Ladson-Billings (2009) or Chisholm (1998) detailed in their work. Nonetheless, they seemed effective with their students based on their students' engagement level and the administration expectations of general instruction at Ladson ES.

Question 1: How do teachers within the structure of the overall classroom instruction use technology with their students?

The teachers used technology in a variety of ways to meet the needs of their students including as an interactive tool, way to prepare for standardized tests, and to expose students to other cultures and ideas. In examining the types of strategies the teachers were using in their classrooms, I was also addressing the issue of the digital divide and how their choice of instructional strategies and technology integration impacted it. The idea of the digital divide in terms of technology use was presented in the literature review as the “new digital divide” since access to computer technology was approaching equity. The ‘new digital divide’, therefore, examines the type of use of technology in different situations either high versus low-income or minority versus majority ethnic group. In this study, the use of technology was examined in a low-income African American context versus a middle or high-income majority ethnic context.

The technology use in this study ranged from remediation tools to critical thinking activities. Examples of remediation activities consisted of use of the *Study Island* and *MyTestBook.com* websites since these were used primarily to prepare students for the state test in the spring. The tools also served as a method of review of previously learned material. However, these tools were not the typical “drill and kill” activities normally associated with remediation as an add-on to the regular lesson (Becker et al., 1999; Lowe et al., 2003; Warschauer et al., 2004). Their specific prescriptive nature provided students with specialized help geared to their area of need. Additionally, the teachers provided individualized intervention, based on the students’ performance on different activities, as needed by monitoring *Study Island* and *Mytestbook.com*. Since the teachers

worked to make sure the activities were aligned to the content being taught and at the appropriate level of rigor, this differed from blindly assigning material to keep students busy (Inan, Lowther, Ross, & Strahl, 2010). However it is still remediation use, so it confirms the research, that the most common use of technology in low-income schools is drill or remediation. This primary use of technology as a remediation activity widens the digital divide and supports the literature because it does nothing to provide students with the technology production skills needed for greater society (Becker, et al., 1999; Lowe, et al., 2003; Warschauer, Knobel, & Stone, 2004; Warschauer & Matuchniak, 2010).

By primarily participating in low-end uses of technology, the students are relegated to being consumers of technology where they simply receive information instead of actively producing new information. This is disheartening because students need to be exposed to computers in ways that allow them to problem solve in situations so that they will have the skills to retrieve, analyze, and produce informative solutions using the problem solving skills necessary for future work in the democratic society (Gorski, 2009, Pacific Policy Research Center, 2010). Research (Warschauer et al., 2004) indicates that students lack many of these skills necessary to be prepared for the secondary and college education as well as the workforce. These skills, many of which are 21<sup>st</sup> century skills (Network; Pacific Policy Research Center, 2010) such as information and media literacy, creativity, and critical thinking, can be obtained through technology use and collaboration. But, students are not provided necessary opportunities to experience technology as producers of knowledge through access to the critical thinking components of technology use. As educators, part of our purpose is to prepare students to be able to learn, work, and participate in society. If the type of experience students have received with technology is limited during their schooling, then the skills

students receive are limited as well. Additionally, the pool for the workforce and leaders of the next generation are also decreased.

There were some critical thinking uses of technology such as the WebQuest activities in Ericka's classroom. The use of the Promethean board, an innovative practice that is becoming more prevalent in schools, can build higher-order thinking skills but only when students are tasked with creating a flipchart as well as just using or manipulating. Unfortunately, these only begin to touch upon the type of skills that students need to be obtaining to be able to use technology effectively within the 21<sup>st</sup> century. For instance students need to be able to use technology, not only to create, but also to communicate, collaborate, and innovate. The best ways to integrate all of these items is through problem or project-based learning (Pacific Policy Research Center, 2010). The study showed that while teachers are making strides towards embedding critical thinking activities with technology use, there were greater indications of remediation uses of technology albeit it in a more sophisticated format.

Since the teacher is the person that is ultimately in control of what goes on in the classroom (Ertmer, 2005; Ertmer et al., 1999; Gorski, 2009), it is evident that the teacher has a lot of input into the quantity and, more importantly, the quality of the technology use and integration in the classroom. While the digital divide is derived from systemic disparities such as racism, sexism, and classism that trickle down into the classroom, the teacher has the power to overcome these disparities with a choice to implement technology in ways that empower and prepare students for the future. But, unfortunately, that was not seen enough here. Teacher beliefs about pedagogy, technology, and students all have an effect on whether or not technology will be used in the classroom (Ertmer et al., 2005). In order to overcome the digital divide, teachers will need to be a major area



of focus since they have one of the greatest access points to children and the great opportunity to decrease it through their choice to integrate technology in the classroom. Students need experience with technology in many different areas as a productivity and educational tool (Ching et al., 2005). This allows students to see technology in a positive light as a learning tool that enhances and engages them in educational tasks. Too often students in low-income minority areas are not exposed to effective technology integration due to lack of teacher comfort or teacher belief of its benefit. There must be a way to influence the teacher so technology can impact students in educational as well as recreational or social ways especially those that may not have that type of influence away from school. The alternative to effective technology is ineffective technology use and in the case of low-income students the more often it occurs the digital divide is exacerbated.

While teacher choice to use technology is critical in the decision to use technology, there also needs to be a system of support for teachers to encourage its use. A structure that consistently supports the teacher when trouble arises would be beneficial to helping and ensuring that the technology is used consistently. For instance, Reinhart, et al. (2011) found that in higher-income schools on-site technology facilitators resulted in more students completing higher-level activities with technology and achieving better technology integration. Within Great District, technology specialists were assigned to multiple schools and often had multiple sets of responsibilities, from technician to evaluator, at the schools. Perhaps a model such as the one suggested by Reinhart, et al. (2011) where schools have their own technology facilitator whose sole responsibility is technology integration would make a huge impact. This person is not a technician and not responsible for tool-based trainings. This model would have been more beneficial to the teachers of Ladson and would help the overall implementation of technology in most

schools. This would have shifted my role some, but I can see where I could have been of more benefit to them and had a bigger impact on the type and amount of technology used in the classrooms.

Question 2: How was technology used as an empowering agent for and by teachers with their students?

Empowerment education, as I defined it, is designed to provide low-income African American students with the opportunity to learn in a way that allows them view their culture positively and analyze the power structures that seek to lessen or marginalize it. It has as its goal to emphasize enhancing and refining critical thinking skills and community activism. This type of empowerment was informed by the work of Shor (1992), Duncan-Andrade & Morrell (2008), Ladson-Billings (2009), and Banks (2009). They assert, albeit in different ways, that the more that students are aware of the power structures around them, the less likely they are to be dictated by them. Students do not need to be shielded from the inequities in their community, instead they should be challenged by them and what better place to do this than in schools. Part of a teacher's role should be to prepare students for the "real" world where, unfortunately, everyone does not believe all are or should be equal to each other and prepare them to see this and know how to work within the system to create more equity and try to establish a norm of equality. In an effort to see what this looked like in action, especially with young children using technology as a tool, I chose to look for this type of empowerment instruction.

Throughout the study, I was looking at not only instructional strategies but also if and how they were implemented with empowerment. Empowerment with technology is a means of culturally affirming students and also making the learning more relevant to them (Chisholm, 1995). In particular, empowerment speaks to how students are prepared and able to address and participate in the democratic arena. Unfortunately, within this study there were limited examples of empowerment and especially empowerment with technology. The fact that there were limited examples of empowerment technology could be a result of the teacher beliefs. For instance, Kenneth thought students needed to master basic skills to manipulate and complete more complex activities. But, without actually attempting the complex assignments with the students, it is difficult to know whether or not they could handle the higher-level tasks he was envisioning. High expectations are a component of CRP, but if there are not any actions that build on these expectations the students will not be able to rise to them. So, while he stated he had high expectations for his students he did not exhibit them in all aspects of his instruction. Without following through on these expectations he was actually disempowering his students because they were not able to develop the skills to meet them. Low expectations as well as reduced technology use are often ways that students are disempowered.

Part of teaching is stretching the students to their limits so that they will be able to do more than they thought they could. If the teacher within the classroom is not doing this, then there may not be another person who will outside of school. This is part of the idea of empowerment that seeks to make education a transformative experience (Gorski, 2009; Banks, 2004). Creating and allowing for a transformative experience is critical to empowerment (Gorski, 2009). Additionally, ensuring that technology is culturally relevant ensures more interest in the technology project itself (Scott, Husman, & Lee,

2011). This helps the students to see what is problematic in their community while increasing their desire to do something about it proactively. The teacher has to be active in this process. In this study, that did not happen extensively. It may not have occurred for a variety of reasons – age of the students, teachers, or the culture of the school and school system at the time of the study.

In my theoretical framework of empowerment, I stated that I would look for ways that students were “challenged, empowered, and allowed and encouraged to critically analyze the world around them.” From this perspective, students in this study were provided limited opportunities to experience parts of this empowerment, specifically, being challenged and allowed to analyze the world around them but only to an extent. I did not observe where students explicitly discussed what they saw as problems in their community with or without technology on a consistent basis. In the elementary grades, having a truly transformative experience may not be possible, but it is possible for teachers to create the structure that can lead to it. The structures present in my study were cooperative groups, global discussions, and teachers as facilitators. This was not enough, though. Technology with empowerment is a growing area of study; however, most of these studies are focused on secondary schools or teacher education programs (Marri, 2005a, 2005b). In elementary schools the technology piece with empowerment was limited and consisted of videoconference and pen pal type activities centered more on multicultural exposure and awareness than social justice as is consistent with other studies (Brand, Harper, & Picciotti, 2011; Lambert & Sanchez, 2007; Shandomo, 2009). Especially prevalent, is that there is a lack of this type of instruction with the youngest students.

The teachers each had a deep commitment to seeing their students succeed and were empowering agents in their classrooms. Fueled by their own high expectations for success and their desire to see their students aspire for more than they could see for themselves, the teachers set high expectations for their students. Setting high expectations aligns with the literature on impactful of instruction of multicultural children (Ladson-Billings, 2009). The way that the teachers chose to address high expectations was somewhat varied. Dionne did this through consistent praise and encouragement while Kenneth insisted that his students aim for mastery in their studies through review and practice with materials. However, in all cases it was evident that the teachers were expecting their students to succeed and knew that this would prepare them for the world outside of school. Additionally, the teachers, like Ladson-Billings (2009), saw the learning environment as a community where they took an active part. Ericka and Dionne saw their roles as facilitators; while, Kenneth saw his role as the teacher and in charge of the community. But, they all believed that their classrooms were communities and all the students were a vital part of it. However, the participants did not showcase some of the other characteristics of effective teachers such as the belief that knowledge is continual and recycled, excellence is something that takes student diversity into account and passion for content.

Dionne, Ericka and Kenneth knew that the students would need specific skills and characteristics to be able to tackle the social problems they would face in their futures so they started in their own small ways to prepare them. Kenneth prepared them for responsibility on the job; while, Ericka concentrated on their ability to confidently speak and justify their ideas. These tenets can be seen as social justice components of empowerment as espoused by (Duncan-Andrade & Morell, 2008). These components

include items such as the opportunity to democratically participate in community, question and critically analyze texts and course content, but also being part of an environment that affirms culture and increases awareness of social inequities (Banks, 2009a; Chisholm & Wetzel, 2001; Duncan-Andrade & Morell, 2008; Ladson-Billings, 2009).

### School and School District Factors

In order for teachers to teach empowerment, it is vital for them to be empowered and act in empowering ways. However, that was not always the case in this study. Throughout the study, Great District experienced many changes starting with hiring a new superintendent the summer before the start of the study. As previously mentioned, there were also several schools that received new administrators including Ladson. The staff was informed of this change during the week of pre-planning activities and was adjusting to the shift in leadership throughout the year. The teachers had been subject to investigators and interrogations about the school performance on the statewide tests the previous three years as well. These items and more may have impacted the teachers' ability to teach as freely as they normally would have. As a result some of the results of the study may have been affected by the shift and change in attitudes and beliefs of the administration as well as the skepticism of the staff with the new leadership. Since they did not know the expectations of the new administration, the participants may have felt that they had to prove themselves and not take too many chances for fear of reprimand. They may have been more willing to take a few chances or experiment more with their instruction had they had a clear understanding and handle of the administrations' expectations.

Question 3: Why do these teachers use technology in their classrooms?

The study complements the literature on teacher beliefs (Ertmer et al., 1999). The participants in this study all believed in the benefits of technology use and therefore found ways to integrate it into their classrooms on various levels. While Ericka and Dionne found ways to interactively integrate the tools and also use remediation tools with their students, Kenneth continued to prepare the students with basic skills so that they would be able to manipulate the technology in a way to showcase their critical thinking. His statement that “I’d rather them use more inquiry skills as it relates to technology more than constructive response or just choosing A, B, C, or just would like things to be more them using their knowledge to use technology” showcases his belief that he would like to have students create and construct using technology. He continues this with the statement that his second graders should be able to “create power points”, “type on the computer”, and “create story boards” (Kenneth), but his actions discounted this statement because I did not observe any such use. His lofty technology beliefs were a stark contrast to the expectations he held for his students, which could be seen as disempowering. He speaks of empowerment and how technology fits in this picture, yet his practice negates all that he describes. Unfortunately, this type of belief and practice conundrum is something that has been seen before (Judson, 2006). In efforts to address this type of problem, consistent monitoring and support would be helpful to allow the teacher to practice and make mistakes in a safe environment. Professional development scholars (Beckett et al., 2003; Lawless & Pellegrino, 2007) indicate that on the job support and coaching is the most effective way to ensure that technology integration or most any new practice is implemented.

Ericka and Dionne's beliefs aligned with their technology use and classroom environment. This was due to their innate beliefs about how a class should run and student empowerment seemed to be a natural fit to their beliefs. Ericka believed that the classroom should be student-centered because she had instilled in her students the knowledge that "they need to take ownership of their learning in [the classroom] to make it effective". Therefore, she constructed her lessons to allow for this. Dionne had modified student focused lessons because she believed her students needed a little more guidance in their learning but there were still clear instances where she was more of a facilitator than a teacher. Their use of independent student-driven technology use showcased their beliefs that students must do the talking and thus the learning to gain benefits of the classroom instruction. While Kenneth spoke of a collaborative teaching environment, his actions showcased a teacher-centered environment with him providing consistent instruction and direction on task completion and subsequent steps to solutions. His students seemed to primarily rely on him for answers to questions and additional assistance, which does not completely align with the constructivist behavior needed for interactive technology integration (Niederhauser & Stoddart, 2001) which, consequently, was not observed in Kenneth' classroom. However, because all three participants saw technology as an important and integral tool they implemented it as a part of their regular instructional routine. These beliefs about classrooms being student – centered showcased that they addressed the best practice outlined in culturally relevant pedagogy. Ericka also took this a step further in regularly implementing cooperative groups within her lessons. In cases where teachers did not necessarily see technology as important this may not be the case. Earlier work in teacher beliefs about technology focused primarily on its use and integration and how the beliefs impact this (Ertmer et al., 1999). This study served



as reinforcement to the teacher beliefs literature that beliefs relate to technology integration practices and more so tie into a teacher's deep-rooted pedagogical frameworks. Teachers who are primarily student-centered will implement technology in this way to support their pedagogy whereas those who are teacher-centered will also use technology to support their teacher controlled classroom.

A new avenue into investigating how technology beliefs and integration practices impact the way that technology can be used for empowering students and to infuse multicultural education has been provided by this study. In my theoretical framework, I addressed several themes of empowerment laid out by foundational works of Banks (2004), Duncan-Andrade and Morrell (2008), Ladson-Billings (2009), and Gorski (2009). Specifically, I addressed how they discussed ways to prepare for and allow students to see the injustices of the world around them and work to address them. While this was a goal of mine to observe in the classroom, it came in a picture different than I was expecting. The teachers attempted to implement empowering ideals with technology in different ways. For instance Dionne's belief in the need for students to be able to speak for themselves showcased that she was constantly thinking of the future and what the students needed. She embodied the best of technology use and empowering agent in this study because she knew what to do with technology and general instruction to prepare the students for the battles ahead. Ericka had the technology piece together and parts of instruction, but she did not necessarily feel empowered; therefore, she had difficulty in providing that experience to her students. Finally, Kenneth was empowered and spoke of it quite eloquently but did not put any of his empowerment actions into practice in this classroom either through technology or general classroom instruction.

The differences present in this small school indicate that there may be a larger problem to be addressed in preparation of teachers to teach with empowerment.

### Ideal Situation for Technology with Empowerment

The previous sections described the results in terms of what was observed and what could have been improved or enhanced based on the results of the study. In this section, I will look at what could have been and what I ideally would like to have seen. An overview of my empowerment view can be seen in Figure 6.



*Figure 5: Components of Empowerment*

Imagine the benefit if students were able to learn in the way that is best suited for them and had the power to challenge and analyze situations within their school and community. This includes the use of culturally relevant content, technology, inquiry through problem and project based activities, community activism, reflective teachers, critical thinking, and high expectations overall. These components ideally work together to create an empowering environment for students. While there is study with CRP and some of the individual components of empowerment listed above, it is limited with technology. Frederick's (2007) dissertation study on transformative effects of technology with Black students shows that with cooperative learning, empowerment, and technology learning is made engaging, relevant, and fun for students embraced the ideas of empowerment but they were each separate cases in particular schools. Additionally, Scott, et al. (2009) found that students also enjoy technology projects that are culturally relevant to them. But, this is not prevalent. Some of the components such as high expectations, critical thinking, and reflective teachers should be an essential part of teaching but too often it is not done due to various other responsibilities and roles of teachers. Additionally, as a component of the critical thinking and problem solving, teachers can engage students in community activism. These components do not have to be and should not be taught in isolation, as that would diminish the effects of the empowerment.

As I reviewed my findings, I noticed that my view of empowerment as seen above is much broader than teacher views. I have touched on one aspect of this area but there is still room for further study and how it works in elementary, middle, and high school classrooms in various contexts. This area has not been addressed much in mainstream

research and needs to be so low-income African American students have an opportunity to learn in an environment that may be better suited to the way that they learn.

A strategy that can help in the implementation of empowerment education is the use of cooperative groups. Cooperative groups are necessary to implement the problem solving, community activism, CRP, and critical thinking that I am proposing for the ideal case. Ladson-Billings (2009), Gorski (2009), and Banks (1991) all indicate that American minority groups (Latin Americans, African Americans, and/or Native Americans), especially African Americans work best when they are allowed to cooperate in groups. Additionally, Gorski (2009) and Banks (1991) identify competition as a Western ideal that does not mesh with African American cultural ideals, which focus on community and “we” over “I”. To this extent, the teachers did not emphasize or engage in competition between groups in the classroom. The only competition that was seen was internal to the individual students as they sought to better their performance on a previous assignment. This included the teacher working as a cooperative piece in the classroom since it was a community where everyone was part of the learning process. Unfortunately, the majority “White male” power system has created a competitive environment that is based on test scores, course placements, and other items that serve to separate students rather than have them work together (Gorski, 2009).

Technology integration and tools used in the ideal situation would involve a number of things: more technology support, technology tools used for critical thinking skills, transformative experiences, limited remediation, and innovative teachers. Additionally, the use of technology for students to collaborate on research or problem based learning would allow them among other things to use Web 2.0 tools to speak to each other, share ideas, and create projects without being in the same physical location.

Essentially, students should be able to branch out from the curriculum to explore the views and voices that are not traditionally shared in the mainstream curriculum about African Americans, i.e. those of African slaves, African Americans in the Revolutionary or Civil War, Blacks with different views of the civil rights struggles, Black inventors, or artists. The possibilities are endless, but we have to spark the interest by creating the opportunity. Classes for pre-service and in-service teachers on embedding and using technology for culturally relevant pedagogy would aid in the implementation of these types of projects. Students, then, can produce videos, e-posters, blogs, or songs to present their findings. Not only would this be effective and beneficial technology use, the students would be using 21<sup>st</sup> century skills of collaboration, critical thinking, and media literacy and learning more about themselves.

We also need to limit the use of remediation technology use. Remediation is important and a necessary resource, however, it should not be the focus or typical type of technology used in our schools. Schools focused on the mastery of “basic skills” often lose sight of the larger picture in creating citizens. Not only do students need to learn traditional “basic skills” of reading, writing, and arithmetic; I argue that they also need to learn the basic skills of cooperation, collaboration, civic and environmental responsibility, appreciation/benefit of cultural diversity, and critical analysis of society that are rooted in 21<sup>st</sup> century skills and CRP (Ladson-Billings, 1995; Pacific Policy Research Center, 2010). These two types of basic skills do not have to be separated and should not exclude one for the benefit of the other. More importantly, students need to be able to integrate all of these “basic skills” with technology skills. These “basic skills” are essential to working in and with the community and society at large and are critical to the success of both low-income and high-income students. The second set of basic skills with

technology can serve to bridge the divide caused by classes, races, and power because knowledge is accessible to all who know how to obtain, analyze, and most importantly use it for the equality of all.

Finally, teachers in empowerment education schools would be reflective and community activists and social justice minded (Shor, 1992), at all grade levels. This is because they are essentially first responders to the achievement and technology gaps by providing access and opportunities to children. Teachers should actively engage students in discussions about problems or issues and expose them to ill-structured problems within the school or community. All students would be encouraged to develop solutions throughout their educational careers. Students would complete activities that involve technology and are culturally relevant. It also takes the form of place-based education where students learn outside of the school walls, take on environmental issues, and look at the social injustices of the communities where they live by exploring the power structures or classism and racism that placed them there. Gruenwald (2003) makes the case for critical pedagogy of place that combines critical pedagogy and pedagogy of place to allow for this examination of environment and community in the quest for social justice. This should be combined because students are told by white society their communities are poor or marginalized but that is based on white standards of wealth not the community's values, which is a problem. Some ideas to explore further to have a larger impact include replicating it in different contexts and settings to see what the impact of instruction is with other African American students, schools where there is more ethnic diversity, and also in schools where there is more socioeconomic diversity. Allowing students to analyze, question, and research these structures will help them to

define their own view of wealth that promotes their culture and community to provide a new source of knowledge.

Where do we go from here? Implications and Limitations of the study

Our 21<sup>st</sup> century learners are surrounded by technology. Its use is critical to survival in today's world. As I began this study, I addressed the fact that much of the work on integrating technology and multiculturalism has focused on older populations primarily secondary and post-secondary students. I wanted to know if this type of integration was seen in elementary cases. In elementary schools, there has been work with technology and culture (Frederick, 2007; Scott, Husman, & Lee, 2010) and CRP and social justice (Leonard, Brooks, Barnes-Johnson, & Berry, 2010) This study has opened the doors to this investigation and provided insight on how students are provided the building blocks to be able to later tackle the social injustices that are impacting them and provide the basis for empowerment scholars. Duncan-Andrade and Morrell (2008) detail that students need to be able to address authority figures to present their ideas and problems with current conditions. The rationale behind this is that the hegemonic systems that have effectively disempowered them because they are low-income and African American will present themselves as "authority" figures. Students need to start while they are young to question why they are where they are and how that can change. Not only question it but also actively work towards the change. This is being done in pockets (Frederick, 2007; Scott, Duncan-Andrade & Morrell, 2008; Leonard, et al., 2010). But not for all students and why not?

They continued on to indicate that students should be able to provide possible solutions to these problems. In order to do this they must speak confidently which was

what Ericka and Dionne were working towards. However, there is very little research that deals with the steps educators need to take to lay the foundation for students to be able to tackle these social justice issues. This study provides a basis for more research in this area.

The results of this study provide an impetus to begin to understand how empowerment can look in an elementary school setting. However, there is still a need for more study in different contexts. This will provide more data on the strategies being used and the viability of each within an elementary school with younger students.

Additionally, to ensure that teachers see the benefit for empowerment and technology integration it is imperative that ongoing training take place to allow teachers to have a safe place to practice. Research in the area of professional development (Beckett et al., 2003; Lawless & Pellegrino, 2007) states that new practices can only take impact with consistent on-going support. For instance, in the work of McShay (2005) it was found that a double infusion model of multicultural education and technology helped teachers to be able to infuse more of each in their instruction. But he knew that it was

“a challenge for prospective teachers to envision how technology can be used to support the learning goals of critical multicultural education and, conversely, how critical multicultural education can be used to support learning within a technology context” (McShay, 2005, p. 432).

Additionally, literature in the area of 21<sup>st</sup> century skills (Pacific Policy Center, 2010) also calls for a need for students to be able to communicate and collaborate with global partners. This requires them to be able to understand and appreciate the issues that are going on around the world as well as their communities to make connections and create solutions. The study indicates that there is a need for further study in the areas of empowerment with technology, teacher training, and empowerment in all schools and



especially elementary schools.

### Teacher Training with Multicultural Education and Technology

As we examine how we attain more teachers who are able to integrate technology and use it to address multicultural issues the methods used to train them must be examined. There seems to be a gap in the literature in addressing ways to train in-service teachers, especially in this area. Ertmer and Offenbreit-Leftwich (2010) addressed part of this issue when they looked at why some teachers do not use technology at all in their work. Particularly they sought to understand how teachers could see that their work would be effective without using the 21<sup>st</sup> century tools that students would be expected to use in the workplace. So, they concluded that the definition of effective teaching must be changed to include technology integration and until teachers embrace and own this change will they realize the effect of teaching students to use technology. Likewise, students will need to know how to operate in a multicultural society that may seek to put them down or make them feel as lesser citizens because of their background. So, we need students to be able to use technology in empowering ways but how do we get them there. An important part of this puzzle is the teachers.

The work of Judson (2006) and McShay (2005) examined how this can be done within the context of pre-service teachers. For instance, McShay (2005) described the use of a double infusion model where the teachers received doses of technology in their multicultural education course. Likewise, the teachers were also exposed to items within the technology integration course that pertained to multicultural education. These samplings of courses were intended to help the teachers learn more about themselves, others, and their communities. The experiences were critical in preparing teachers to be

more accepting of different cultures and their contributions and then in turn to provide the opportunity for their students to experience other cultures and understand their viewpoints and analyze situations through various lenses (Banks, 2009). Through these enlightenment sessions, it was hoped that the pre-service teachers would not only be more aware but more inclined to teach in a way that embraced both multicultural education and technology integration. While the design of and McShay's (2005) study was for pre-service teachers, similar techniques could be used and adapted for in-service teachers. A critical omission of this study was that it did not extend to dealing with actual students. Providing pre-service teachers with the opportunity to work on a long-term empowerment type project with students would not only provide practice but also showcase the rewards of this type of instruction. Furthermore, embedding technology into the process provides avenues that may not be feasible given time or monetary constraints to accomplish but allow us to do. But, we cannot stop with just low-income children because empowerment is more than overcoming power structures it is also examining why they exist. So, high-income predominantly white classrooms need to have opportunities to experience other cultures and learn how their status may impact those different from them. So, how do we prepare them to instruct in this way? Leonard, et al. (2010) suggested more modeling would be beneficial to ensuring implementation of CRP and also social justice is practice of teachers. Ladson-Billings (2000) suggests helping teachers to be more reflective about their own culture. Additionally, But neither of these suggestions is a cure all and only ongoing support and study will help it to become common practice.

What exactly does empowerment with technology look like? Is there a clear picture?

While there is research in the area of using technology to help students reflect and promote higher order thinking skills, the combination of technology and multicultural education particularly the empowerment aspect is still limited (Frederick, 2007; Leonard, et al. 2010). This study provided some indications of empowerment with technology through WebQuests, specialized remediation, specific research areas, videoconferences, and visual references to new content resources. However, there seems to be a need to further refine and define the picture of empowerment with technology specifically in an elementary school. The little research that does exist is focused on pre-service teachers and preparing them for their first teaching position (McShay, 2005; Stevens & Brown, 2011; Wassell & Crouch, 2008;). When performing a search of citations on the work of Stevens and Brown's (2011) study on use of blogs in the instruction to teach and expose students to critical multiculturalism the subsequent citations were related to blogging in teacher education and not the other portion of the discussion - multiculturalism. Therein lies a problem and need. There are examples that showcase elementary students learning more about their culture through tools such as pen pal programs (Shandomo, 2009). When technology is integrated into these methods teachers would be able to receive more feedback and learn from their peers quicker. However, the teachers did involve the second graders in research about Zambia and other African countries through the use of computers and other library resources. These students were empowered to learn about another culture and think differently about a culture they previously knew little about. However, these examples are few and far between. So, where do we go from here?

Teachers have shown improvement in integrating technology in limited instances within pre-service courses designed to intentionally integrate the two themes. However,

more effort needs to be focused on in-service teachers as well as pre-service so that all students have an opportunity to experience an empowering environment with technology integration. Through the results gathered in more studies a clearer picture of empowerment with technology can be garnered to cultivate more relevant training for in-service and pre-service teachers.

A clear picture of empowerment with technology will allow teachers to better identify peers in their buildings who exhibit this quality. Peers identified effective teachers to be participants in my study, but technology was not considered an important part of their effectiveness where it should have been more essential in the participant search. Ertmer and Offenbreit (2010) claim that there should not be a difference between effective teachers who use technology and those that do not in the 21<sup>st</sup> century because use of technology is not an option in the 21<sup>st</sup> century and I agree with them. Further research should serve to examine more concrete examples of technology uses in different contexts particularly when infused empowerment ideas. For example, when I was able to view other teachers' classrooms as a part of my job in Great District I saw technology integration that was more indicative of the empowerment I thought I would see with all of my participants. Perhaps, more explanation of what this looks like to the staff would have led to better recommendations by the staff.

Are teachers empowered to be empowering agents?

Another lingering question that remains is how are teachers empowered? In examining the power that teachers have we may also address the problem with their ability to implement social justice and other empowerment themes into their classrooms. Are they empowered to make curriculum decisions in their classrooms or are they

dictated by high stakes tests that students must perform well on so that they can measure student as well as teacher performance? With so much focus on high-stakes tests and the testing process, how much room is left for teachers to impart important lessons on social justice and empowerment, particularly in elementary grades? Likewise, if teachers do not feel empowered to make curricular adjustments how are they to impart empowerment ideals to their students? Duncan-Andrade and Morrell (2008) stated that it was important for the instructor to be a part of the sociopolitical community in order to instruct their students for this, but if teachers do not believe they have power in the school, district, or community can we really expect them to be able to teach this ideal to their students. More importantly if they do have the opportunity make and learn from mistakes they will not be able to grow as reflective educators. They also refuted Payne's (1995) ideal that basic skills must be taught prior to critical thinking skills but this has to be taught, shared, and modeled consistently for teachers to see, believe, and embrace it. While the participants in my study detailed how they viewed empowerment in their classrooms only one, Kenneth, stated he felt empowered, as an educator, within the school building. However, there was limited evidence of empowerment in his classroom. So, does this affect the results? Absolutely. Duncan-Andrade (2008) and Gorski (2009) both assert that for teachers to teach in a way that espouses democratic involvement the teacher must be actively involved in these types of activities, but if the teacher does not feel that they can make an impact in the school then they will not be able to instruct in a way that imparts this to their class. This may have been a major factor with the uncertainty abundant in Great District during this study. If we could ensure the empowerment of the teachers would that not free them to then empower their students?

### Limitations of the study

This study was undertaken at one school location within Great District. After gaining access and planning the study, the changes described above took place that affected at least one participant's view of the school in a negative fashion. Additionally, since there was only one school involved in the study there were limited examples outside of this context, which could have informed the study more. Since I had been assigned to the school previously, I thought that I would have the type of participants that I desired, but I learned that observation for work and research are different and this affected the recommendations received as well as possibly the instruction in the classrooms.

### Summary

This study was undertaken because of a desire to investigate the technology use in urban environments, particularly with low-income African American students. As a precursor, I examined research involving current digital divide issues, multicultural education, and specifically empowerment themes within it in elementary schools, technology use in urban schools, and teacher beliefs about technology. The strategies used by the teachers with the low-income students included small cooperative groups, collaborative learning, modeling, hands-on activities and small groups with technology among other things. There was also used of exposure to other cultures and ideas as a way to allow students new experiences. Mostly, the teachers worked to encourage, praise and provide opportunities for the students to become prepared for their future. While this study has not closed any doors on research it has opened a few more areas of need. These include:

- More research on elementary empowerment in a different context
- Connection between empowerment and technology - what should it look like?
- How do we train teachers to be empowered and empowering?

### Our Goal

We, as educators, are entrusted to prepare our students to become civic-minded citizens ready to participate in our democratic society and use the tools required of them for their futures. This starts when they enter the schooling process as bright-eyed kindergartners and does not end. This can be done when we create an environment that values all aspects of their background - academic, ethnic, and socioeconomic - and builds upon that. Part of this value allows the instructor to teach the students to value others. It further empowers the students to proactively counter and fight against the injustices they see and face now and in the future with the tools that they learned throughout their schooling. But, unfortunately, all educators do not see this as their cause yet. Therefore, our work continues until all students have educators who value who they are and how they come to them as much as the content they teach them. For as Martin Luther King stated, "The function of education is to teach one to think intensively and to think critically. Intelligence plus character - that is the goal of true education (King, 1947)." Empowerment education embodies this statement fully.

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## APPENDIXES

## APPENDIX A

August, 2011

Greetings Parents:

My name is Crystal Cuby Richardson and I am a Learning Technology Specialist with Atlanta Public Schools. I am also a student at Georgia State University pursuing my doctorate degree. I will be observing some teachers at Walter White to collect data on instructional practices in the school. I would like your help in selecting the teachers. Please take a few moments to answer the questions below

**How do you define a good teacher?**

**Please recommend a good teacher(s) from this school?**

**To your knowledge, does this teacher use technology in the classroom?**

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August, 2011

Greetings Walter White Administrators/Coaches/Facilitators:

My name is Crystal Cuby Richardson and I am a Learning Technology Specialist with Atlanta Public Schools. I am also a student at Georgia State University pursuing my doctorate degree. I will be observing some teachers at Walter White to collect data on instructional practices within the school. I would like your help in selecting the teachers who may be asked to participate. To do this, please take a few moments to answer the questions below.

-----

How do you define a good teacher?

Please recommend a good teacher(s) from your school who uses technology?

\_\_\_\_\_

August, 2011

Greetings Walter White Teachers:

My name is Crystal Cuby Richardson and I am a Learning Technology Specialist with Atlanta Public Schools. I am also a student at Georgia State University pursuing my doctorate degree. I will be observing some teachers at Walter White to collect data on instructional practices within the school. I would like your help in selecting the teachers who may be asked to participate. To do this, please take a few moments to answer the questions below.

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How do you define a good teacher?

Please recommend a good teacher(s) from your school who uses technology?

## APPENDIX B

## Classroom Observation Protocol

Topics	Observed	Sample Comments/Visual Context	Memos
Student Groups			
Teacher as Facilitator			
Technology as extension of curriculum			
Cultural relevance			
Cultural Supportive Environment			
Equitable access			
Instructional Flexibility			
Instructional Integration			
Cultural Awareness			
Community based Assignments			

## APPENDIX C

*Interview #1*

1. Tell me about yourself (General demographic information)
2. How many years have you been teaching? How many at this school? (Demographic information)
3. What made you become a teacher? (Goals of teaching, what are their expectations of their instruction)
4. Describe the culture of the ideal school for students that you teach. (View of education - is it empowering just for schooling sake or education for life's sake)
5. What role does technology play in your instruction? (Beliefs about technology)
6. Do you believe that technology has a benefit for your student demographic? If so, how?
7. What are some of your beliefs? (Beliefs about cultural uses of technology specifically low-income AA)
8. What types of activities do you find are most beneficial to the students' academic development?
9. What types of activities do you find are most beneficial to the students' social development? (Critical pedagogy and social action)
10. What is your view of this school's culture?
11. What is your goal for teaching?
12. Do you participate in any type of community activities? If so, what type and how often?
13. Do you encourage your students to get involved in the community?

*Interview #2*

1. Why do you choose to use technology in your instruction?
2. How do you think the use of computer technology makes a difference in your students' learning?
3. How do you approach planning your lessons using technology? What types of things do you consider?

*Prompt*

*a. Co-plan with other teachers*

*b. Think about the content first and then technology*

4. What does empowerment look like in your classroom?
5. If you could change the teaching of low-income African-American children using technology, what would it look like?
6. How is your classroom environment designed? How does that influence your instruction?(i.e. how are groups chosen, why do certain students sit together)
  - a. Prompt on ways the teacher builds a classroom community
7. What is the most important factor in teaching African-American students? low-income students?
8. Is there any additional information that you would like for me to know about your instruction?

## APPENDIX D

Code-Filter: All\_  
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Software\ATLAsTi\TextBank\Instructional Strategies.hpr6]  
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Background Information  
Community (outside school) Culture  
Community of Learners  
Critical Thinking  
Cultural Awareness  
Cultural Relevance  
Culturally Supportive Environment  
Empowered Citizens  
Empowerment of Students  
Empowerment of Teacher  
Equitable Access  
Expectation of Success  
Family Involvement  
Instructional Beliefs  
Instructional Flexibility  
Instructional Integration  
Ownership of Learning/Education  
Parental Involvement  
Problem Solving  
School Culture  
School Purpose  
School Transition  
Student Computer Use - Instruction  
Student Computer Use - Projects  
Student Computer Use - Remediation  
Student Groups

Teacher - continuous learning

Teacher as Facilitator

Teacher Belief about Technology

Teacher comfort level

Teacher Encouragement

Teaching as a calling

Technology as an empowering agent

Technology Benefits

Technology Expectations

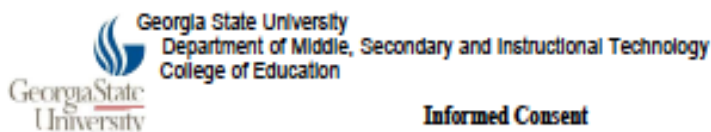
Technology Tools

Technology Use - Teacher

Understand Student Needs



## APPENDIX E

**Informed Consent**

**Title:** Instructional Strategies of Technology Using Teachers of Low-Income African American Students

**Principal Investigator:** Laurie B. Dias, Ph.D.

**Student Principal Investigator:** Crystal Cuby Richardson

**I. Purpose**

You are invited to participate in a research study. The purpose of this research study is to identify and describe the instructional strategies of teachers who use technology with low-income African American students. You have been invited to participate in this study because you either have been identified as a good teacher of low-income African-American students, an administrator of technology using teachers, or a support person of technology using teachers. Participation for teachers will require approximately 8 total hours of your time over a 3 – 4 month period for teachers and about 2 – 3 hours for administrators and other support staff.

**II. Procedures***Teachers*

For teachers if you decide to participate, you will be interviewed and observed by the student principal investigator. Over the course of the three months, your classroom instruction will be observed three - five times and you will participate in three - five interviews. The interviews will be conducted for the purpose of gaining information about your teaching style and philosophy, beliefs about technology in the classroom, and framework for instruction. Interviews will be conducted in-person and will be audio recorded for transcription purposes. You will have the opportunity to review the transcription and data analysis.

The first interview will be used to gather information about your instructional beliefs and philosophies. The follow-up interviews will be used to discuss observations and assignment choices. The classroom observations will entail observation of the use of technology, assignments given to students, types of questions asked of students and teacher interactions with students. There will be two - four scheduled observations and one unannounced observation where you will be observed for the items previously described at a time that will be unknown to you. Additionally, artifacts such as lesson plans and student assignment sheets will be requested and collected.

*Administrators and/or Support Personnel*

Administrators and/or support personnel will be interviewed one – three times to gain information about why technology is used in teachers' classrooms. These interviews will take place in-person and will be audio-taped. You will have the opportunity to review the transcription and data analysis.



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III. **Risks:**

If you decide to participate, you will not have any more risks that you would in a normal day in life.

IV. **Benefits:**

You may not gain any direct benefit from this study. However, identifying and describing instructional strategies for using technology with low-income African American students will provide insight into better ways to instruct in urban schools. It will also serve as a reference point to improve the teaching practices and provide additional resources to increase student learning and engagement in school.

V. **Voluntary Participation and Withdrawal:**

Participation in this research project is strictly voluntary. You do not have to participate. If you decide to be in the study and later change your mind, you have the option of leaving the study at any time without penalty. Additionally, you may also refuse to answer any question during the interview without risk or penalty.

VI. **Confidentiality:**

The findings will be summarized and reported in group form. You will only be identified by pseudonym. All information collected for this study will be kept confidential to the extent allowed by law. The data will only be accessible to the principal and student investigators. However, information may also be shared with those who make sure the study is done correctly including the GSU Institutional Review Board and/or the Office for Human Research Protection (OHRP). Whatever personal information is gathered during data collection will be deleted when the study is presented and/or its results published. The recorded and transcribed files will be kept in a password-protected directory on the student researcher's computer. The transcribed data may also be printed. Any printed copies of files will be kept in a lockable cabinet. References to people, places, or things that may be mentioned by you during the interviews or instruction will be replaced by pseudonyms to avoid identification of participation during the transcription process and final analysis chapters. The transcribed text as well as data analysis will be sent to you for your review and collaboration.

VII. **Contact persons:**

If you are interested in obtaining further information about this study, please contact Dr. Laurie B. Dias at 404.413. 8422 or [lbdias@gsu.edu](mailto:lbdias@gsu.edu) or Crystal Cuby Richardson 404.931.4183 or [ccuby1@student.gsu.edu](mailto:ccuby1@student.gsu.edu) If you have questions or concerns regarding your rights while participating in this study you may contact Dr. Susan Vogtner at 404-413-3513 or [svogtner1@gsu.edu](mailto:svogtner1@gsu.edu) in the Office of Research Integrity.



**viii. Copy of Consent Form to Subject:**

You will be provided with a copy of this consent form to keep. If you are willing to volunteer for this research project, please sign below.

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Signature** **Date** \_\_\_\_\_

\_\_\_\_\_  
**Principal Investigator** **Date** \_\_\_\_\_



*Consent Form Approved by Georgia State University IRB March 28, 2011 - March 27, 2012*