



Spring 2007

Exploring The Role of Technology in the Educational Resilience of African American Male Students

Reginald Dennis Leseane

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**EXPLORING THE ROLE OF TECHNOLOGY IN THE EDUCATIONAL
RESILIENCE OF AFRICAN AMERICAN MALE STUDENTS**

by

REGINALD D. LESEANE

(Under the Direction of John Weaver)

ABSTRACT

African American males, as a group, are labeled at-risk of not acquiring the basic academic and social skills needed to function in today's society. Many of these students simply drop out of school and later find themselves incarcerated in the prison system of America. Educational resilience has been identified as a key component of students that stay in school and participate in their learning. This mixed method study explores what role technology, used in educational setting, plays in the educational resilience and community formation of African American males.

The study revolves around a technology infused, three phase intervention for twenty 9th and 10th graders. The phases are: (a) a workshop that will focus on introductory computer applications, (b) a workshop focusing on the teardown and rebuilding of the PC, and (c) a video and music production workshop. Each workshop will last approximately ten hours. At the end of the intervention, focus group interviews will be conducted to gather feedback on participant use of technology, learning, community formation, self esteem and self efficacy, and also resilience.

Using the theoretical framework of educational resilience, three research questions will be addressed.

1. What role does technology play in the formation of community?

2. What role does technology play in the educational resilience of at-risk students?
3. What are the conditions that impede or contribute to educational resilience?

Technology facilitates activities that encourage community. The expectations of using some newer technologies made the participants eager to learn, share, and help one another. Sharing sites of interest, a sense of success, confidence, and pride helped to construct an engaged environment.

An opportunity exists to expand the role of technology and take advantage of the holding power that is clearly evident as seen in the increasing use of ubiquitous personal technologies. Educational resilience can be enhanced by using technology to create links to the lived situations students and maybe even provide a means to economic gains.

Technology can help create successful educational spaces that build and create interest in topics while also providing the means to bring relevance to the classroom activities of our students.

INDEX WORDS: Educational Resilience, Self Esteem, CRT, Community, Technology, At-Risk

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A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in
Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

2007

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Electronic Version Approved:
May 2007

DEDICATION

To my mother, Lillie mae Shuler, who raised 5 children and worked two and sometimes three jobs to provide food and shelter for them. Much of my success stems from the work ethic and perseverance you have demonstrated all of your life. I hope that you see that the completion of this paper is very much attributable to what you instilled in me.

To my wife of now 29 years, Carlotta I could not have done this without your support and patience. This is just one of the accomplishments you have enabled me to pursue and achieve.

To my children, Anton, Latika, Cameron, and Raymond, thanks for your understanding and remember our deal—it's your turn now.

ACKNOWLEDGMENTS

I have made many friendships during this journey. I want to thank all of my colleagues and classmates for supporting and encouraging me to continue during the difficult times. Mollie Sparks our rides to Statesboro together are cherished. And thanks again for driving when my Achilles tendon was ruptured. Dr. Catherine Gilbert, our discussions over coffee were immensely helpful.

Thanks very much to all of the students that agreed to participate in this study. I really appreciate your candor and willingness to help me in my quest. I also want to thank all of the parents and school administrators for allowing me to carry out the study.

And lastly I want to sincerely thank my dissertation committee. My Major Professor, Dr. Weaver, you gave me the freedom, assistance, and support to complete this dissertation. Thank you Dr. Nettles for providing support and invaluable guidance during this venture. Thank you Dr. Morris for pushing me while also supporting my travels through this process. And thank you Dr. Rogers for accepting a phone call from a stranger and sharing your advice on this doctoral program and then later agreeing to serve on my committee.

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CHAPTER 1

While the living thing may easily be crushed by superior force, it none the less tries to turn the energies which act upon it into means of its own further existence. ... As long as it endures, it struggles to use surrounding energies in its own behalf.

John Dewey (1916)

LOCATING THE CURRICULUM STUDIES FIELD WITH THE TECHNOLOGICAL

Pinar, Reynolds, Slattery and Taubman (1995) described curriculum as “an extraordinarily complicated conversation” that at some point becomes “a verb, an action, a social practice...” that “becomes the product of our labor, changing as we are changed by it” (p. 848). Questions abound as to what is curriculum, legitimate knowledge, or relevant research. The intent of this dissertation is to be a part of the conversation in the curriculum studies field because it does not view technology simply as a collection of fatalistic tools or techniques. In fact there is some discussion as to whether technology has become a social system unto itself since it has become embedded in our bodies and cultural lived situations—this will be explored further in the text. Pinar et al, described technology as "any system of practical knowledge" and that "the development and employment of hardware has been secondary to the employment of technological schemes for instruction and learning" (page 705). Behavioral psychology, Piagetian developmental psychology, cognitive psychology, and later cognitive science are representative of some of the technological schemes that drove much of the curriculum of the day. Much of the discourse on the use of technology and the curriculum have been centered around various schemes. This study employs both in a sense, the technological scheme (a three phase intervention) and the use of hardware and software. The influence of technology on the curriculum has been broad, continuous, and often very contentious.

The question though has been in what direction is the curriculum going. Pinar et al, described the discourse surrounding the integration of technology into the classroom. Integrating computers into the curriculum posed four general problems as they saw it: (a) the availability and cost of computer may widen the educational gap between the wealthy and economically disadvantaged, (b) courseware may be purchased without input or experience consideration of teachers, (c) teachers may find they know less about the computer than students, and (d) there is a risk of using scarce funds to acquire ineffective courseware. Though an unwavering support for technology by teachers was mentioned, it was also noted that there tended to be an "uncritical" and overly enthusiastic use of computers in the classroom (p. 714). Many of us have experienced this as colleagues and students are subjected to endless slideshows that supposedly represent the importance of having technology in education. C.A. Bowers (cited in Pinar et al, 1995) concern that the human experience was being manipulated to coincide with the capabilities of computer technology and that the "real crisis of our time is not the lack of data or computer literacy, but rather the lack of moral and spiritual development..." (p. 715), is a shared concern for any serious educator. The uncritical adoption and use of anything technological can have severe consequences. C. A. Bowers (2001) also listed modern technology and science as oppositional to an eco-justice curriculum. He explicated this reasoning "although modern technology and science have made many genuine contributions to improving the quality of life, the fact remains that they provide the basis for extending the industrial model into all areas of food production..., human production, thought and communications, and education" (p. 415). He also rejected the idea of having more computerization in an attempt to spur sharing of native culture. Here he

argued that "cyberspace is no place for tribalism" (Bowers, 2000, p. 182) stating that while computer networks are useful in maintaining the lines of communication for indigenous people, the ability of technology to transmit cultural traditions is questionable. Macdonald (cited in Pinar et al, 1995) joined the fray noting the value and presence of technology and then forwarded the argument of Bowers when he stated that "technology will eventually be transcended by humanity (p. 217). Tanner (cited in Pinar et al, 1995) also addressed the growing use of technology in education, acknowledging its positive potential but then described the possibility of dangerous negative effects on humanity. Pinar et al listed a number of curricularists that opposed the perceived dehumanizing technology and scientism present in our society including "Macdonald, Huebner, Kliebard, Eisner, Greene, Berman, and Klohr" (p. 184).

Huebner (1967) wrote about the scientific possibilities as technology (air pollution, mass transportation, mass communication, and space exploration) changed the world and at the same time create social problems. Many of us participate in this dichotomy in our daily commute to work, we need our vehicles but at the same time recognize that we contribute to the ecological violence on our planet. Huebner (1996) brought attention to his idea that teachers are blind to the moral dimensions of what they do and that teaching is a moral activity. He supported this argument by suggesting that the language of education tends to address those problems that are solvable through technical means while neglecting others. Macdonald (2001) offered a view of curriculum theory that took into account the technological and scientific. He stated "scientific methods provide us with technical and utilitarian control through technique, critical methods with emancipatory praxis through critical reflection, and with aesthetic,

moral and metaphysical meaning through mytho-poetics” (p. 60). He goes on to explain that antagonism in the curriculum field is caused by a failure “to realize that all three methodologies participate in the larger hermeneutic circle” (p. 60). His views attest to the complicated questions involved in the conversation of curriculum. Others associated technology and curriculum to the use of metaphors to bring meaning and understanding (Kliebard, 2001). Kliebard argued that without the use of metaphors, models and theories could not exist because they direct research, create symbolic language, provide a framework for the collection and interpretation of data, and also help in making a question more visible than without it. Again the complicated conversation is thrust to the fore of the curriculum discourse. An interesting viewpoint is the technology of morality that Appelbaum (2006) puts forth in his discourse of the next generation of curriculum workers. Here he describes a generation of new curriculum theorists that have “jobs teaching methods courses, attend professional development school meetings, and theorize articles for publication...” (p. 7). The questions he raises are sanguine in that the field should ask if it will recognize difference even if it is contrary to the master narrative of the day.

Lisa Delpit (1988) addressed the call for more technological solutions to curriculum as shortsighted and dismissive of the cultural context that many economically disadvantaged children find themselves as it relates to technology. Fine and Weis (1988) also addressed the plight of poor people and their relationship with technology however technology was simply viewed as a tool for state-sponsored surveillance. Apple (in Apple and Weis, 1983) acknowledged the notion of technical surveillance but added the concept of technical control of curricula forms which then lead to the deskilling and

eventual reskilling of teachers. Eisner (2005) explored the relationship of the whole body to thoughts of efficiency using measurement technologies. His main argument is that the school best serves students when it "reflects a holistic orientation to education" (p. 17) and take into account the intellectual, social, and emotional domains. Eisner (2002) related curriculum to an increasing pull toward technicized cognitive culture that devalues art because "science was testable; the arts were a matter of preference" (p. 6). He saw technology as facilitating a push for uniformity that dismissed the form and content of everyday phenomena and curriculum. Ferneding (2002) also addressed technology in relation to the body. A focal point of her argument is that there exist a need to abandon the simplistic view of technology as a tool and "recognized how we are constituted by and within our technological innovations" (p. 63).

Maxine Greene (in Dimitriadis and McCarthy, 2001) talked about the possibilities of curriculum as the merging of technology and popular culture create new "mediascapes" (viii) – especially for those defensive about canons and a one-dimensional tradition. Dimitriadis and McCarthy (2001) further illustrated the mixing of culture, curriculum, and technology as "pedagogical task are ever more insistently being taken up in the sphere of culture (film, television, the Internet, computers, games, music, art, and fiction) outside of the classroom proper (p. 15). In a writing about digital imaging, Weaver (2005) attempted to move the argument of technology as a limiting feature of mankind to "how humans are using technology to enhance their ability to interact in the world and create a world that is more artistic in it's capabilities" (p. 5). Shutkin (2004) looked at technology that enabled virtual communities as a method to resist actions to totalize and assimilate communities while erasing difference. This stance tended to be in

opposition to C.A. Bowers argument against technological tribalism. In their “Manifesto for Instructional Technology”, Dwight and Garrison (2003) acknowledged and endorsed the need for students to become producers “creative co-authors, responsible for adding content to a dynamic, living organism” (p. 717) – this is easily transported to curriculum theory.

Ted Aoki (as cited in Pinar and Irwin, 2005) detailed three different waves technological he has witnessed over the last twenty five years. Most of these, (the slide show projector, TV, etc) he listed as monuments to an overly technocized curriculum. He linked instrumentalism with the linguistic nature of our world and further described the instrumentality of language as a tool that could be encoded and decoded to allow humans to express preexisting thought.

The writings above illustrate the complexity of the discourse of curriculum and technology. Technology and the technological are viewed with both admiration and disdain. Some point out issues dealing with the control, manipulation, surveillance, and dehumanization of mankind. Others see the possibilities of using the technological to construct democratizing spaces – especially for the disadvantaged.

The Study

Students that are unlikely to graduate or acquire the basic academic and social skills needed to function in today's society are labeled "at-risk" (Brown, 2000). Other socioeconomic attributes are often used to define this group including: poverty, education level, experience, and limited English-speaking skills. Minority groups, especially black males, have a higher percentage of students in this at-risk category (National Center for Education Statistics [NCES], 2006). Data from the NCES (2006) showed that blacks had

a dropout rate of 10.9% versus 6.3% for whites. Hispanics feared the worst with a dropout rate of 23.5% and Asians had the lowest percentage of 3.9%. Although this represents a decline of 10.4% between the years of 1972 through 2003 for blacks, the rate is nonetheless too high. Critical Race Theorists (CRT) would say that class and gender though necessary are not sufficient alone to account for the varied disparities found in the lives of black people in America and indeed around the globe (Ladson-Billings and Tate, 1995). Cameron McCarthy (2003) used the term nonsynchrony to describe how class, gender, and race interacted to form varied outcomes across a time spectrum. For some blacks the mix of gender, class, and race can sometimes form a lethal cocktail of circumstances.

Reflecting on my childhood, I would surely have been a part of this group of at-risk African American males. Now I find myself in the latter stages of an educational journey distant from the predicted outcomes for someone raised in public housing projects, on welfare assistance, in crime-ridden neighborhoods, and also having a ghost dad—a father not in the household. What is it that enables individuals to not only survive but also achieve some measure of prosperity and academic success when real and perceived barriers seem to appear around every corner? For African Americans it may be a learning process that continued from a time of severe oppression and brutality based on race that allows one to bend but not break. As a young teen I became interested in electronics and built AM radios that connected to the ground wires on telephone poles. I became involved with the Boy Scouts, sports teams, and enjoyed star gazing with an inexpensive telescope, read comic books and created simple digital electronic circuits advertised in the comics. It is also during my early years that the word responsibility

became a glaring reality. Because my father shared no responsibility raising me or my four younger siblings, my mother often worked two or more jobs. This situation left me to be responsible for changing diapers, cooking dinner, and seeing that the house was somewhat clean. Through it all somehow school was never boring, in fact it became a place to forget our situation and learn and do new things. Now that I have some experience teaching in higher education I see many students who have survived and achieved though coming from much dire communities and socio-economic situations than I.

Though not often attributed to the black race, we have been remarkably resilient, responding to oppressive forces and creating successful communities only to later have Jim Crow laws and other racist practices have them destroyed or severely impaired. Resilience, a term borrowed from the medical and epidemiological domains has been used to describe educational successes by at-risk students. The Oxford dictionary defines resilience as the act of rebounding or springing back, or being elastic and having the power of resuming the original shape or position after compression or bending. Resilience emerged in the research of risk and how people adapt and cope with stressors (Haggerty, Sherrod, Garmezy, & Rutter, 1994). Much of this research is rooted in epidemiological and medicine as researchers sought to discover how people coped with trauma or high-risk situations while maintaining an adequate level of psychological competence. Educational resilience formed as the concept was transported to the educational domain to describe students that overcame adversity or bounced back to attain levels of success in their academic endeavors. Teaching at an historically black college or university (HBCU) and being able to share experiences with students and

observe their interaction informs my understanding and validates my embracing of the resilience concept.

A major component of resilience is the idea of protective factors. Haggerty et al., (1994) grouped protective factors into three categories: (a) individual attributes, (b) supportive family, and (c) environmental support. Three types of resilience phenomena identified by Haggerty et al., are good outcomes from high-risk situations, sustained competence, and recovery from trauma. Self-esteem and self-efficacy are examples of individual attributes identified as leading to enhancements in attaining or sustaining resilience. Caring parental, sibling, and extended family members contribute to the supportive family category. Churches, civic organizations, business community support, as well as a safe and healthy community enhance the environmental support and therefore the resilience of students. Despite the negative impact of generational racism, black communities continue to survive. The stratification and upward mobility of segments of the black community may have contributed to the eventual weakening of black communities around the nation—no pillars to support the communities.

Data from the US Department of Justice and the NCES show that African American males are dropping out of school and going to prison at an alarming rate. Almost 10% of black males in prison have an 8th grade or less education, while approximately 34% of black males had some high school but had not attained a diploma (Harlow, 2003).

Combined, this accounts for 44% of black males inmates. The tentacles emanating from this problem may cause irreparable damage to African American communities and our society as a whole unless action is taken to increase the educational resilience of these students and encourage them to stay in school. We see the effects of this problem and

others in city after city in the US. Ironically, often the blight, dilapidated housing, and jobless youths on corners are often on or close to streets named MLK Boulevard.

Research has linked technology to enhanced learning (Bottge and Hasselbring, 2002; Pugalee, 2001; Sullivan, 2002), increased self-esteem and self-efficacy (Brown, 2000; Laffey, Espinosa, Moore, & Lodree, 2003), as well as the creation of communities centered around learning (Maor, 2003; Goldberg and Finkelstein, 2002). Motivating students to learn and enhancing the learning environment continues to be challenging. Bottge and Hassellbring (2002) reported on the use of instructional video that simulated real life experiences and how it enhanced student problem solving skills as well as encouraged cooperative group environments. This report noted increased individual initiative toward learning and increased motivation and performance among students involved in the study. Sullivan's (2002) study focused mainly on online learning environments. The data led to an interesting finding that may help African American males. In the study one of the participants stated, "there is no stereotyping or bias" (p. 139), while another participant commented on the possibility of uninhibited learning opportunities and having more time to think and respond. Pugalee (2001) studied the effect of technology on the learning of low achieving students and found that technology helped them to conceptualize problems much better and encouraged them to participate in the construction of their own knowledge.

One hundred and eighty seven pre-kindergarten African American students from low socio-economic status backgrounds were included in a study by Laffey et al., (2003) that explored whether information and communications technology (ICT) could enhance learning, improve behavior, and increase self-esteem and self-efficacy. The results

showed students receiving ICT training outscored companion groups in assessments, were more engaged, and had less behavior problems. Brown (2000) also reported on issues dealing with technology and at-risk students. Major themes included access equity and going beyond drill and practice as key in promoting self-esteem and self-efficacy. Another important idea mentioned was that technology would either decrease or increase the gap of student life chances and depended on access and relevant use of technology. This idea needs to be pursued to ensure that access to technology or the lack of relevant technology related experience does not hinder the future possibilities of at-risk students.

Goldberg and Finklestein's (2002) study showed technology assisted in the creation of learning communities and increased the feeling of community between faculty and student. The study also showed faculty tended to be more enthusiastic and students expected more in a collaborative spirit. Maor (2003) looked at the role of teachers in developing interaction and community in an online environment. This qualitative study looked at both teacher and student inputs and suggested that while newer technologies could provide significant advantages to diverse groups; it was the teacher's role to ensure quality and vigor. A major point was made that suggested concerns should be focused on how technology could build and sustain learning versus simply focusing on numbers or growth rate of the programs.

Technology has been an integral part of my educational experience. Beginning with my early years building AM radios, watching the stars through a telescope and now teaching technology related courses, it permeates my daily routines. It may be that technology even has a greater impact on at-risk students than other populations. This

may be explained by the general lack of access to relevant technology by at-risk students giving them a bigger initial gain than those already at a higher level of usage when new technology is introduced. In general, technology plays an increasing role in the everyday life of all students—at-risk or not. However, I believe we must reach and expose educational oriented technology to at-risk students earlier in their life experiences. We must also be on guard to expose attempts to prevent or hinder access based on race. Cell phones are quickly becoming the ubiquitous communications device of all generations and enable the continuous two way transfer of multimedia information. Students are using cells as alarms to wake up for school, to discuss projects and homework, and yes even to pass along test answers. However, an underlying theme is an apparent paradigm shift where power and knowledge can be equated with information access and manipulation. The powerful no longer need to possess the knowledge or information, just have the access and ability to change it into a profitable form. The representations of power and free flow of information can have positive as well as negative impacts. In a recent radio interview, music mogul Russell Simmons blamed the gangsters of government and inattentive parents for letting young people have access to inappropriate music and images portraying the black community in a “get rich quick or die trying” manner (Peppers, 2006). Though sympathetic to black music entrepreneurs succeeding in America, we can not ignore the influence and holding power of lyrics and images showing hard black men and scantily clad women as something to ascend to. Lyotard (1984) addressed the changing paradigm between information, knowledge and power when he wrote “...it is common knowledge that the miniaturization and commercialization of machines is already changing the way in which learning is

acquired, classified, made available and exploited” (p. 4). He went on to state “the producers and users of knowledge must... possess the means of translating into these languages whatever they want to invent or learn” (p. 4). We see this daily as our students use technology in unsuspecting ways. For example, cell phones quickly became flash lights when the power went out in the building during a night class. This changing relationship between power and information results in the understanding that “...the growth of power, and it is self-legitimization, are now taking the route of data storage and accessibility, and the operativity of information” (p. 47). These technological changes go beyond methods, hardware and software. They seem to have become social subsystems unto themselves, forming pockets of interconnected communities around the globe – e.g. myspace.com and facebook.com.

The technology of racism was nearly perfected in America—methods created, codified, and then normalized to preserve a dominant societal position. The technology of racism can be illustrated by looking at several historical events that were created to manipulate white fear and pride to create an atmosphere of hate and blame against blacks. In Wilmington North Carolina during the late 1890’s blacks comprised a majority and controlled much of the local legislature along with the white republican mayor (Thomas, n.d.). This did not sit well with some whites and a concerted campaign was started to reclaim or recreate white supremacy and black subservience. In 1898 stories were circulated about black men, white women, rape, and how white men needed to be more protective of their women. As Ida B. Wells discovered many of the stories of rape had simply been consensual sex that once discovered became too much for white pride. Rebecca Felton, the wife of a US congressman became instrumental in promoting white

women's rights while encouraging the lynching of black men accused of rape (Pinar, 2001). It seems her motive of stopping the rape of white women by white men led to the use of a surrogate—the black male. Her speech at Tybee Island incited white males to protect their woman from the black male brutes which allowed “white southern guilt conflated with white impotence and rage over losing the war” (p. 445) to strike out legitimately at blacks.

The technique was successful, many black businessmen and their establishments were destroyed and all of the black political leaders were either killed or run out of town. A new mayor and city council were put in place over night. Later the creation of a “grandfather clause” made it virtually impossible for blacks to vote legally since it required them to know how to read and write or prove that their grandfather had voted previously. The technique later spread to other cities and states around the nation with similar results. The riots of 1906 in Atlanta, the riot of 1921 in Tulsa, and the Red Summer of 1919 all had tinges of racism and the exploitation of sex to achieved or maintain white supremacy in a changing society. The Red Summer of 1919 however, did have another dimension that had been missing—black men fought back. Black men became a threat, a militant and malcontent that continues to manifest itself today. Poster (1996) wrote about the need to reevaluate how we approach and understand newer technology because “as long as we understand the Internet as a hammer we will fail to discern the way it is like Germany” (p.205). Technological methods and devices should be viewed for their potential to create—a sort of poesis of world affairs.

No longer can we simply view technology and technological changes as tools to use, we should begin to recognize the social interconnection abilities inherent in many

newer technologies. Along the same vein, Heidegger (1977) addressed issues surrounding interrelationships of technology in our daily lives. In particular he stated “Thus we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it” (p. 4). He went on and stated “So long as we represent technology as an instrument, we remain held fast in the will to master it” (p. 32) and therefore it makes us “...utterly blind to the essence of technology (p. 4). Technology has melded into our internal and external environments in sometimes unseen and unnoticed ways. Technological changes now influence (directly and indirectly) how we feel about and see others, our selves, and our environmental surroundings. We are now often bombarded with video images of robberies, high speed chases, cheating lovers, rape suspects, and the occasional abusive nanny—giving an imitation or hyper reality view of communities. The African American community though often a laggard in the adoption of technology has nonetheless been creative once adaptation occurs. Though seen as obscene by some, the RAP and video music industry have produced millionaires from one time thugs and dope dealers. The images produced are sometimes seen as part of the continued decline of American culture and exploitative of at-risk and black communities.

The changing economy, makeup of inner-city communities, and continued societal ills (such as racist policies and practices) are contributing to an increasing number of at-risk students in our schools – especially the inner-city black male. Increasingly schools and parents are going outside of traditional means to enhance the educational resilience of these students. The site chosen for this study is one such intervening institution that is providing last chance opportunities for black males unable

to attend public schools due to behavior or other problems as well as those who need smaller class sizes to be successful or just prefer an all African American male environment. The school was formed in 1993 by a local church to address the growing number of African American males encountering problems in the public school system. The school is located in the city limits of a large southeast county and currently serves approximately 120 students in grades 2 – 12. The county is in a state that has the 4th largest population of public school African American males in the United States (Holzman, 2006). However, the county has the 4th worst graduation rate nationally of African American males. Schools such as these deserve and need the support of the entire community.

Statement of the Problem

African American males are dropping out of school at an alarming rate. Once out they often end up in the juvenile justice system. Newscasts across the nation are filled with incidents of at-risk males being led in shackles to prison after being accused of or committing sometimes horrendous crimes. This is especially true for African American males. Is there the will to help these at-risk youths before they are seen on the evening news? The founders of the chosen site of this study objected to the term at-risk in favor of “boys who deserve more”. However, the term seems to be very applicable to the average African American black male growing up in America. Stemming from racism, the systemic neglect, crime, drugs, poverty, and lagging educational achievement threaten to make the African American male if not an endangered species, then surely an ignored and suppressed one. According to the Bureau of Justice Statistics almost 75% of state, 59% of federal, and 69% of local jail inmates had not completed high school (Harlow,

2003). The report also cited academic problems, behavior, or loss of interest as a reason given for dropping out by 35% of local jail inmates. Surely this is a problem that can not be ignored by a caring and progressive society. Programs, interventions, and action must be taken to stem the flow from dropout to incarceration status for our young and vulnerable students.

Low self-esteem and self-efficacy are often lacking in non-resilient African American males who find themselves in an educational deficit dilemma in their school years and beyond (Borman and Overman, 2004; Edwards, 2000). Students must be taught they have value and to expect more than their current situation may predicate. Learning to master skills associated with technology and becoming producers not merely users may be the catalyst for some to find their way in this difficult and seemingly uncaring world where race and skin color can often become predictors of how much one can achieve.

The results of these problems manifest themselves in unsuspecting ways; African American females are now embracing and sometimes encouraging others to marry outside the race because of the dwindling number of black males graduating from college. Of course this is only an issue for those black women desiring to marry a black man. A report by the Schott Foundation for Public Education listed the graduation rate for African American males in high school at 41% nationally (Holzman, 2004). The graduation rate for African American males in Georgia was listed at 33%, which is 20% less than white males. In the county where the site is located, only 21% of African American males graduate with their cohort versus 40% for white males. For some black males the problem and associated perceptions extends into their after school years as they

find that black females are often chosen for managerial-professional positions at a higher rate – 24% versus 17% respectively (Cose and Samuels, 2003). For many black professional women the debate has become whether to “settle” for black men that may be educationally, economically, and professionally “several steps beneath them” or look for companionship across the racial aisle (Cose and Samuels, 2003). Maybe this is the end game, the way out. Instead of a chunky stew, we create a real melting pot of assimilated people and cultures.

Recent studies revealed that interracial marriages in general had increased and was more likely to occur among the higher educated (Lobe, 2005). Though black men have traditionally married white women at a higher rate, black women have recently been found to object much less to dating white men than in previous decades. Cose and Samuels (2003) also reported that 47% of black women between 30 and 34 have never married which may be a result of the general lack of educationally prepared and financially stable black men.

Participants in a study embracing a rites of passage program showed self-esteem and self-efficacy increased substantially which helped to develop the educational and empowerment capacity of at-risk males aged eleven to fourteen (Harvey and Hill, 2004). Rites of passage programs for African American and other minority groups have become popular throughout the United States including (a) Baltimore Rites of Passage Kollektive, (b) HAWK Federation, (c) West Dallas Community Centers, (d) Kabaz (Black Jewels) Cultural Center, (e) Concerned Black Men Inc., and (e) African American Women on Tour (Fleming, 1996). Concerned Black Men Inc. bills itself as a Manhood Training Program based on five principles: (a) economic intuition, (b) leadership, (c) health and

physical fitness, (d) cultural awareness, and (e) academic competence. I believe the principles address many of the underdeveloped qualities in at-risk African American males. Lane Community college in Eugene Oregon offers comparable content in its Summer Rites of Passage program for African American and Asian students (Cunningham, 2002). The program's initial success led to the introduction and funding of two additional rites of passage programs for Native American and Latino students. A technology rich learning environment can help attract and sustain learning among at-risk students (Floyd, 1996; Ford, 1994; Jarrett, 1997; Rutter, 1999). The ability to attract, maintain and inspire the interest of at-risk students is one of the many attributes of relevant technology used in education. Jarrett (1997) suggested that access to resources and creating opportunities for success are crucial to the development of students with sufficient self-esteem and self-efficacy. Relevant technology can afford students with the opportunities needed to become successful, both as students and professionals. The key is to not be afraid to try new things to encourage and challenge students and also maintain their interest.

Technology can facilitate a constructionist learning model where delivery is reinforced, freedom to act is enhanced, and learning in a nonlinear manner is promoted (Winn, 2002). Pugalee's (2001) study of low performing students showed the use of technology assisted in the construction of knowledge and enhanced student participation in their own learning. Many of us have seen how students use technology to construct their own view of the world. Chat rooms and Instant Messaging (IM) technology enable students to create online personas which may enhance their view of themselves and connect with people outside of their community or create expanded new communities.

Unfortunately, sometimes this view of reality is strewn with dangers as we see almost daily reports of young children being preyed upon by older adults, feeding the phobic fear of technological advances.

Resilience indicators are seen as positive outcomes from students that have higher self-efficacy, self-esteem, and support from community and family. Dede (2000) described the ability of technology to allow teachers and learners to “thrive on chaos” and facilitate authentic learning conditions. Research has shown that African American students can be encouraged to learn from and teach others through the use of technology (Kornreich, Fazio, Arndt, Austin, & Gresen, 2001). The hopefulness of technology to reduce the educational gap prevalent among African American students is enhanced through equitable access to technology. Thriving on chaos and providing authentic and relevant learning opportunities are essential elements of teacher understanding. Interventions that provide authentic and purposeful learning opportunities improve the resilience of at-risk students (Krovetz, 1999). Krovetz (1999) goes on to state that schools do not promote resilience and also that many students find classroom learning irrelevant. In a study of principal and teacher reflections on the resilient student, Genevieve (1997) discovered data that supported Krovetz’s viewpoints. In this study respondents indicated that up to ½ of their surveyed population was found to be at-risk and needed positive guidance, goals, and planning for the future. Genevieve (1997) further cited the apparent resilience enhancing capability of opportunities to participate in community activities.

Perhaps unmotivated students have a deep feeling that “the classroom is for learning the course, not for discovering what courses within” (Doll, 2000, p. 77). Can

technology present a defense against literal seeing and allow creative and constructive spaces for learning? Somehow community and technology must be leveraged to help at-risk students sustain their educational and psychological resilience. For me, that meant becoming involved in sports and joining the military. I was able to learn a new language and operate successfully in this new social space while gaining the technical skills and education that would serve me in life after military service. Surprisingly this service enhanced my resilience and helped to uncover a voice. Pinar (1994) addressed this desire to fend off loss of self to theory when he wrote “recognizing one’s complicity in the maintenance of oppressive social structures is work contiguous with discovering one’s own voice, one’s own language and views of others, and discovering in phenomenological terms, the “things themselves” (p. 70). My perspective has become one of action, to not only see and acknowledge a problem but to go out into the community and “do something” to help improve the lives of poor and oppressed community members.

The problem of poor academic performance and low self efficacy in African American male youth must be addressed in order to decrease academic failure, difficulty fulfilling social roles and expectations, and lastly preventing incarceration.

Purpose of the Study

The purpose of this study is to explore the role of technology in the educational resilience of “boys who deserve more”, specifically African American males. There are two sub-purposes within this study. One is to explore technology that promotes the creation of community by allowing students to connect with one another and to see if resilience is enhanced. The other is to explore how technology could affect the learning

of at-risk students. Using the theoretical framework of educational resilience, three research questions will be addressed.

1. What role does technology play in the formation of community?
2. What role does technology play in the educational resilience of at-risk students?
3. What are the conditions that impede or contribute to educational resilience?

Overview of Methods

A combination (mixed method) of a qualitative case study and quantitative survey will be used in the design. The case involves a second chance school for at-risk black males. The participants are twenty 9th and 10th graders entering the third nine weeks of the school year. Data will be gathered using qualitative focus group interviewing and participant observation methods as well as written survey instruments. Participants will take a resilience (hardiness) and the Rosenberg Self-Esteem surveys after the intervention. Observations will be conducted throughout the intervention to provide a richer set of information for the study through the creation of field notes. At the end of the intervention, focus group interviews will be conducted to gather feedback on participant use of technology, learning, community formation, self esteem and self efficacy, and also resilience. The intervention is composed of three different phases. The first phase: (a) a workshop conducted by two senior Computer Information Systems female interns that will focus on introductory computer applications, (b) a workshop that I will conduct focusing on the teardown and rebuilding of the computer itself, and (c) a workshop conducted by a senior Mass Communications major male that will focus on video and music production. Each workshop will last approximately ten hours. Participants will meet at an off site location on Fridays for the workshops.

Qualitative data will be inductively analyzed and interpreted. Sample selection will be non-random and purposeful which is consistent with qualitative design (Merriam, 1998, p. 8).

Significance of the Study

Resilient students find ways to cope with the daily stressors of their environment and go on to become productive resilient adults. Americans and African Americans in particular have proven to be highly resilient and resourceful. Research has shown that students that have a relevant curriculum and opportunities to participate and succeed increase their self-esteem and self-efficacy, which in turn enhances their resilience (Borman and Overman, 2004; Edwards, 2000; Floyd, 1996; Malloy and Malloy, 1998). Race specific curricula could be the key for academic success. Though studies have attempted to identify the individual attributes of a resilient student, specific applications designed to increase and sustain resilience are scarce (Henderson and Milstein, 2002; Rutter, 1999). Everyone in the educational community may gain from the practical application of this study, especially those working with African American males. Community members wishing to intervene and help at-risk students in a relevant and lasting manner may garner important insights. School administrators and teachers may also find more creative links to the community to provide relevant, out of the classroom instruction for students that will attract and sustain learning opportunities.

This study also contributes to the literature dealing with resilience by linking the use of technology in promoting key components of resilience. Very little is mentioned in the research on resilience that deals directly with the use of technology. This study will also add to the literature associated with educational technology, community formation

and learning. Lastly, it is hoped that the intervention will provide an opportunity for these young men to experience an authentic learning opportunity that affords the ability to participate and construct knowledge.

Limitations

This study only explores African American males in the 9th and 10th grades at a particular school and time and as such does not necessarily describe or predict other populations in other schools (Marshall and Rossman, 1999). The individual reader will have to determine the transferability and caution must be observed when attempting to generalize. This case study will also be limited by my interpretive, observational, and interview skills and biases. As such it will be subject to my sensitivity and integrity (Marshall and Rossman, 1999).

Qualitative studies rely on the researcher as the primary instrument through which all data and resulting findings are filtered (Merriam, 1998). Caution must also be observed because this study does not attempt to watch for or measure other interactive phenomena that may impact the participant's resilience both positively and negatively. Lastly, I am an African American black male that has interacted with groups from the site in the study. This may influence their interaction with me. The study may also be influenced by my personal experiences and bias towards the potential for technology to increase resilience and my hopefulness to enhance the potential for success of these young African American males.

Outline of Chapters

African American males are in a very tenuous position. Our prisons and jails are becoming the University of Consequence – one that houses and educates generations of

our young people. As we seek to stem the tide and hold back the flow of African American towards incarceration, maybe using technology and other means of interventions can help in their education. This dissertation will explore the role of technology in the education of at-risk students, particularly African American males. The study will use the educational resilience framework which is composed of internal and external influences. The problems that we hear almost daily concerning the plight of African American males tends to be directly related to the educational resilience of these students. In general terms, action geared toward encouraging students to stay in school and graduate is critical. The concept of resilience and the eventual merging of resilience with the educational domain to form educational resilience creates a framework to explore various methods of enhancing student educational resilience. Internal and external factors contributing to resilience as well as the linkage with technology, community, and overall learning will be discussed. Factors that led to my interest in this topic and some of the effects of non resilience on African American males and their communities are also discussed. The discussion continues with a look at the purpose, methodology, significance, and limitations of this study.

Chapter 2 is the literature review which will explore topics from the resilience, community, CRT, and technology domains. Though somewhat distinct in many ways these four areas are connected and can be explored to see if a measure of protection is forged for African American males in their educational and professional quest. CRT leads in this chapter and is dispersed throughout. CRT theorists posit that race does matter and is both influenced and influences how people interact in their daily lives. The trek leading to resilience as an attribute of students was described by Richardson (2002)

as a succession of waves. These waves began with an attempt to merely discover the resilient qualities and ended with a view of resilience as an innate quality that motivates one toward self actualization and reintegration after disruptive phenomena. However this view may overlook internal and external pressures that may hinder the educational resilience of at-risk students. The discussion continues and talks about how resilience merged with education to form educational resilience.

The role of technology and its long involvement within education will be explored in this chapter. In looking at technology, I will explore some of the influential people and legislation that shaped the way technology is used in education today. Of course technology played a major role in the education of African Americans in the early period of American schooling and continues to do so today in many respects. The importance, role, and educational use of technology are debated on a continual basis. Dimitriadis (2001) pointed out that students today often use technology in ways that perplex adults while giving birth to new meaning and understanding of exactly what technology is capable of doing.

I end this chapter with a view of community and learning and how community can be used to help educate at-risk students, if the will exists to do so. Fusing technology and community can create new meaning for student learning while allowing students a voice and freedom to explore and create. Though challenged as a viable tool alone, technology when deployed with deliberate thought can allow students to construct learning that is relevant and sustainable.

Chapter 3 looks at the research design and methods used in the study. The purpose of this study is to explore the role of technology (through an intervention) in the

educational resilience of at-risk African American males. The study included two sub questions: (a) what role does technology play in the formation of community, and (b) what role does technology play in the learning of at-risk students.

The site chosen is an education institution for African American males and functions as a second chance school for young men that can no longer attend the public school system.

The school is located in the city limits of a large southeast county and currently serves approximately 120 students in grades 2 – 12. The state has the 4th largest population of public school African American males in the United States; however the county where the study takes place has the worst record in the state and 4th worst in the nation

(Holzman, 2006). The US Department of Justice reported that academic problems, behavior, or lost of interest were given as the main reasons for dropping out by 35% of local jail inmates nationwide (Harlow, 2003). Holzman (2006) reported that the graduation rate for African American males in Georgia at 33%, versus 53% for white males. His report also listed the county where the site is located as having only 21% of African American males graduate with their cohort versus 40% for white males.

The design of this study will include both qualitative and quantitative data (mixed method design). The goal is to have a richer, thicker, and more expressive view of the lived experiences of the participants in the study. Focus group interviews and participant observations will be used to better understand the student's situation in their lived environment and promote their voice in the study. A resilience or hardiness survey created by the Hardiness Institute and the Rosenberg self esteem survey will be given to each participant during the study. Toward the end of the study focus group interviews will be conducted to add the participant's voice and get a fuller understanding. Using a

mixed method design will allow the data to “inform and support” each other (Miles and Huberman, 1994, p. 310). The mixed method design will also enhance triangulation efforts throughout the study.

Findings and analysis will be the focus of chapter 4. I will attempt to arrange the findings of the study into categories or themes that result from the analysis of the collected data. Merriam (1998) indicated that this process should include quotes from interviews or field notes that support each finding. The interviews, observations, and survey data will be used to make meaning. The iterative process of collecting, consolidating, reducing, and interpreting data to make “meaning or understanding or insights constitutes findings (Merriam, 1998, p. 178). Merriam (1998) also described the development of categories as a process “reflecting the purpose of the research” (p.183) and coming from the researcher, participant and outside sources.

The use of extended, unreduced text (field notes), recordings, or observations can be difficult to order and make meaning (Miles and Huberman, 1994). The remedy is to create displays that are focused, permit viewing of full data sets in the same location, and are arranged to answer the research question. As stated earlier the quantitative data will be displayed to better inform and support the qualitative data and vice versa. Merging the findings, insights from relevant literature, and my own experiences to provide a coherent analysis will constitute this chapter. The purpose of this study is to explore the role of technology in the educational resilience of at-risk African American males. This chapter will illustrate to what extent this role was evident.

At-risk students that graduate from high school tend to be very resilient, especially when challenges surrounding their backgrounds are considered. The way

students construct and experience community enhances their feelings of community within their surroundings. Technology when harnessed in relevant ways may prove to be invaluable to the educational resilience of at-risk students. Students already use technology to widen and validate their community and social resilience. The merging of technology and community to enhance educational resilience of at-risk students may provide the tool or hook to attract and maintain student's interest in education.

Chapter 5 will attempt to connect some of the broader discussions and current situations with this study, the plight of African American males, and curriculum. General observations, specific occurrences, and my personal reflections on the various topics will be provided. The interactions of CRT, technology, community, and resilience will be discussed as it relates to African American males.

CHAPTER 2

While the introduction of computers into the classrooms and the provisions of access to the Internet will not in themselves, raise test scores (let alone simplify the lived complexities of education), there are educational possibilities associated with the developments that portend a culturally different future.

William Pinar (2004)

LITERATURE REVIEW

Overview

This study is guided by literature from the CRT, resilience, community, and technology domains and how they coincide, relate to at-risk students, and help inform the complex conversation called curriculum (Pinar et al., 1995). The last two or three decades has seen a great deal of research literature on resilience and lately the educational resilience framework has emerged. This literature review will look at the four domains mentioned above using authors from various domains and perspectives.

Race to Critical Race Theory

Conversations of race, racism and whether either is still relevant in American society continue to evoke heated arguments. In the educational arena, questions linger as to whether the persistence of economic inequities and the educational achievement gap between blacks and whites can be explained by the impact of race and racism in our schooling system. Hacker (2003) pointed to the continued economic inequity of black men even though they may have achieved comparable education and vocation experience. Strangely, black women tend to earn comparable (often higher) pay with comparable education as white women. Hacker goes on to state “black Americans get

jobs only after white applicants have been accommodated” (p.119). Anecdotally, many blacks might cite their daily experiential knowledge as proof positive that racism exists and impacts their lives negatively. This constructed concept called race is “complex, dynamic, and changing” (Pinar et al., 1995, p.316) over time depending on the socio-political and economic situation of world societies.

Jordan (1974) offered an historical meaning of black as associated with Africans. “In England perhaps more than in southern Europe, the concept of blackness was loaded with intense meaning...Black was an emotionally partisan color, the handmaid and symbol of baseness and evil, a sign of danger and evil” (p. 5). This concept did not necessarily translate into slavery, but it did signify a different sort of trading partner initially. This trading partner was ugly, unclean, and born with “disfigured lips and nose” (p. 6). Africans became the “social mirror” (p. 22) that allowed Englishmen to set themselves against “radically contrasting qualities of color, religion, style of life, as well as anomaly and a peculiarly potent sexuality” (p. 25). Jordan suggested that as adventurers ventured into and sought to profit from the new world, the idea of the African as slave emerged. To some in America the racial concept of black is forever linked to slavery and is now often times collapsed to include people of color from diverse populations of the world. However the meaning associated with being black does not always begin and end with skin color. When looking at the history of the US however, one can say the underpinnings of the American industrial and our modern day capitalist society were based on black slaves and the concept of privilege based on racial systems. Ironically the first black Africans to land in America around 1619 were thought to have arrived as indentured servants and not slaves. These people would have served their time

and then become freed men and it is unclear how they would have been affected by the codified slavery statutes, which did not appear in the colonies until between 1640 and 1660 (Bennett, 1962). The affect of these statutes though have had a particularly heinous sticking ability in that slavery was viewed as perpetual, in the sense that it was often thought of as hereditary, so that even his children are “infected with the Leprosie of his fathers bondage” (p. 31).

Watkins (2001) noted that slavery helped shape and entrench economic and social privilege that depended on racial subservience. He listed Arthur de Gobineau as one of the early intellectual racists (p. 25). Gobineau argued that the white Aryan race was the mother of all civilizations and devised a hierarchy of race that included: (a) Caucasians at top, (b) Yellow, and then (c) Black, an energetic but easily enslaved people at the bottom (p. 26). Carolus Linnaeus classified humans by race in 1735 using skin color as a major characteristic (p. 27). His categories were White, Black, Red, and Yellow; whites were innovative and keen while blacks were lazy and careless. Interestingly Johann Blumenback introduced the term Caucasian to represent the beauty of Mount Caucasus and “oran-outangs” to describe blacks—putting this group with monkeys.

In 1799 Charles White went as far as to suggest blacks were of a different species – somewhere between whites and apes (Watkins, 2001). His proof centered around characteristics such as hair, size of sex organs, and body odor, to name a few. Other racist scientists wrapped themselves around scholarly and scientific studies to legitimize slavery and the debasement of the black race. Dr. Samuel Cartwright even suggested that the physical requirements of slavery would help improve the bodily functions of blacks and ward off the “disease of the mind that led some to want to run away” (p. 29). Two

very important scientists that "Americanized" and provided a means of rationalization for the apartheid system in the southern United States were Louis Agassiz and Samuel Morton (p. 32). Together they founded questionable quantitative data suggesting the cranial capacity of blacks were less than whites, which fed white supremacist thinking throughout the world.

Delgado (2001) divided civil rights activists into idealist and realist camps. Idealists are those that hold racism and discrimination as matters of thinking and attitude. Idealists posit that race is socially constructed; therefore racism can be purged by removing some of the wrongs and images that perpetuate racism. Those in the realist camp believe that words and attitudes are important, but material things must be included in the discourse for realist. Believing that racism is the vehicle by which privilege, status and wealth are distributed, realists take into account the prevailing economic, international, and labor conditions one is residing in.

From an educational viewpoint, scientific racism, gave credence to notions of social subservience based on race and allowed for the acceptance of something different and lesser for "others". After all, blacks were freed from slavery and given all the intellectual material they could handle (Watkins, 2001). Critical race theory approaches education, and the current situation that many blacks and Latinos students find themselves in from a perspective that does not negate the importance of race in America and the pernicious impact of racism, and other institutional and structural policies that in some form continue to persist even now.

CRT evolved from the discourse of critical legal studies and as a response to the perceived ineffectual multiculturalism movement (Ladson-Billings and Tate, 1995).

Ladson-Billings and Tate's (1995) article moved the discussion dealing with race and racism from critical legal studies into the educational realm. Their arguments centered around three propositions: (a) race continues to play prominently in the inequity present in the American schooling system, (b) society in America is based on property rights, and (c) the confluence of race and property rights can provide a lens to better understand social and educational inequities along racial lines. These argument attempts to expand the discourse of addressing inequity in schooling that before hand looked solely at class and gender characteristics. Addressed head on, Ladson-Billings and Tate (1995) stated that class and gender "... taken all together, did not account for the extra ordinarily high rates of school dropouts, suspensions, expulsion, and failure among African-American and Latino males" (p. 51).

An interesting argument raised in the article is curriculum as a property rights issue. By linking curriculum to property rights and "property values" the stark divisions between quantity and quality of school can be examined and explained. Pinar et al., (1995) argued that race and the metaphors used to create meaning have resulted in massive suffering and oppression while giving structure to the majority view, "including the American school curriculum and curriculum field" (p. 316). Duncan (2005) carried this theme further stating that "racist epistemologies are deeply embedded in the meaning making structures that inform the naturalization of oppression and the normalization of racial inequity in public school" (p. 102). Making the point that CRT theorists espouse, Pinar et al., (1995) stated that "any comprehensive theory of curriculum must include race and its concepts..." (p. 319). Informing the discourse dealing with race through the inclusion of "one's own reality" or "voice" (p. 56) is a central theme for CRT theorists

and invaluable for researcher and reader. Duncan (2005) went on and asserted that CRT encourages and adds a sort of ethical scholarship and multiple consciousness to the discourse on schooling and equity.

Taylor (1998) wrote that CRT provided "oppositional scholarship" (p. 122) that provided context to the discussion of race, while also challenging the white narrative as being the norm. Taylor goes on to call into question the neoconservative call for a colorblind society and presented a theme that tends to run through CRT discourse. The theme is the idea of resistance to black progress when a perceived or real personal cost is exacted -- "one that is in opposition to their position of power and privilege" (p. 124). This concept of "interest convergence" asserts that whites will tolerate and advance the interest of blacks when it is in their own best interest (Taylor, 2000, p. 542). The move to appropriate, modify and then use notions of fairness (unfairness) to their advantage illustrates this concept. The move to look at affirmative action in education and employment as unfair and taking something from them is an example. When the relatively short duration of freedom, and even shorter period of pseudo equality, that many people of color have had, whites and some conservatives now argue that "we've done enough" (Taylor, 2000, p. 542). The tangible affects of constructed concepts such as interest convergence and property value of whiteness can be used to provide effective analytical and reasoning tools to better understand schooling, equity, and curriculum issues around race (Dixson and Rousseau, 2005). The urge "to believe that any advances blacks may make will be at white expense" (Hacker, 2003, p. 26) must be replaced with an understanding of equity and shared empowerment.

It seems there's a concerted effort to right past wrongs, with subsequent efforts to make right those wrong as sufficient. This leaves room to address the lack of educational equity as something created by blacks – effectively blaming blacks for everything after some untold date in the past. Duncan's (2005) analysis led him to theorize "That racially signified normative -- evaluative notions about the backwardness of black children and youth inform the subjective and objective dimensions of their experience in schools in ways that undermine their capacities" (p. 102). Similar to the concept of "two-ness" proposed by Dubois, Duncan (2005) argued that using narratives of people of color, inform the scholarship discourse and brings "multiple consciousness" (p. 106) to the fore. Hatcher and Troyna (in McCarthy and Chrichlow, 1993) stated "if racism is to be tackled effectively, the conditional status of the categories must be challenge by alternate frameworks that provide people superior and more plausible explanation for the way things are" (p. 111). Maybe the way in which we see things requires refocusing and going beyond the simple hypothesis of contact and "...schools therefore need to find ways in the curriculum to help children to engage with how race works in their lives" (p. 124). We must find ways to connect race, conflict, and diversity with curriculum and resist affixing blame to victims on either side of the fence.

Blame Game

As has been noted, textbooks now point out that surviving slavery took a skill and stamina that no other race has been called upon to demonstrate. Yet this is not what is usually recalled. Rather, there remains an unarticulated suspicion: might there be something about the black race that suited them for slavery?

(Hacker, 2003, p. 19)

Sayings of the past continue to reverberate today in the discourse of race. When the discussion of black males is murmured, one often hears that things will improve if "they are willing to remain within the boundaries of acceptable behavior" (p. 23). Apparently the wearing of braids, dreads, and sagging pants are indicators that black males have wandered outside of acceptable behavior.

How do we fix the problem? Why do we see unequal outcomes? Solorzano and Yosso (2001) argue that these questions are often answered from a deficit view that blames the individual and ignores the affects of structural, societal, and institutional roadblocks. Genetics and culture are taken to task as models, often used to explain the educational plight of African-American males. The genetic deficit model reflects a fatalistic view that is deterministic and unchangeable. The more widely used model (cultural) assumes family structures and values inhibit "educational and occupational achievement" (p. 6) of blacks. They go on to challenge deficit models in order to bring forward the "strengths within students of color and communities" (p. 7). Solorzano and Yosso (2001) argue that unequal outcomes are being blamed on students of color instead of institutional policies and societal frameworks. Cameron McCarthy (2003) called for a re-examination of whiteness studies and teacher education to address race issues. One main argument is that many teacher education programs are operationalized in a vacuum and distant from the real world.

Teaching and Schooling

In a report submitted to the commissioner of education in New York State, several black educators advanced the view that minority pupils have "been the victims of an

intellectual and educational oppression, due the Euro-American monocultural perspective” that dominates most school curriculums. (Hacker, 2003, p. 196)

The colorblind society that some seek, essentially requires assimilation by minorities. CRT looks to embrace culturally centered pedagogy, using race as a central figure in achievement (Parker and Stovall, 2004). African-American males have become a symbol of a failing American educational system. Many will point out that these failures overshadow the successes. However, those in the CRT camp do not view the reported failures as reason to become unengaged and give up on the plight of African-American males (Stovall, 2005). CRT narratives allow for the inclusion of personal voice in an increasingly objective leaning field.

Solorzano and Ornela’s (2004) study demonstrated how African-Americans and Latino students were underrepresented in advance placement (AP) courses throughout the California public school system. This lack of access to AP courses denied these students the automatic GPA points that could lead to college and university advantages. The report cited minority students were three times more likely to be in classes for educable mentally retarded students than whites and were more likely to be enrolled in general and vocation educational tracks.

Delgado (2001) wrote that the myth of inferiority surrounding blacks arose in the slave trade. What is this strange and decentering thought process that allows someone to assume an air of superiority simply by looking at someone? What is it that enables a person to expect you to give way to their mere presence when waiting in line or going through a door? And even more so, how is it that some are even predisposed to grant these notions as an obvious right even today? This affliction that continues in different

parts of the world is described by Fine (as cited in Fine, Weis, Powell, & Wong, 1997) as whiteness. Fine and Weis (1998) relate this concept to black males stating “The political and “daily” construction of the black male as useless, dangerous, and lazy injects paralysis into the black community, at the same time as it encourages whites who wish to imagine their salvation in their whiteness, not in their class position, to imagine all that is wrong with American society to be linked with the African American male” (p. 36).

The concept of privilege based on racial systems is particularly damaging because it gives a false sense of reality in one sense and tightens the knot around entire African American communities in the other sense (Powell, as cited in Fine et al., 1997). Powell argued that the underachievement of blacks is the result of both black and white knotted strands that work in unison to produce unwanted outcomes. From Powell’s viewpoint academics are often discussed through a discourse of potential for whites and a discourse of deficit for blacks. The point was that white students are often “supported, empowered, and affirmed...while black students are burdened with the rumor of inferiority” (p. 4).

Fine (as cited in Fine et al., 1997) picks up on this strand and states “people of color accumulate deficits, but...whites adolescents and adults accumulate benefits” (p. 57).

The interesting assertion that Fine makes – when given a choice some students of color will “chose their place” (p. 59) – is one that is troubling. Fine wrote about a school in Alabama where all of the whites were in advance courses and all of the blacks were in standard courses. The eye opener is that many of the blacks cited that they had chosen the standard courses on their own, even though this would have made their success in college harder if they chose to go to college. This system of protecting whiteness had tacit support from the school and seemingly from the uninformed black community. The

appropriation of victim hood and ascribing much of their changed economic situation on blacks is another method of protecting whiteness. Fine cited that blacks were used as scapegoats to “buffer the pain, protest the loss, and still secure the artificial place of whiteness” though much of the loss and pain stemmed from global capitalism and other political decisions distinct from racial considerations. Still Fine asserted that whites’ cling to a badge of whiteness despite the class based political environment of today. Following this thread, CRT would posit that though some whites are innocent of personal racist activities, they do "Benefit from dominant group membership" (Taylor, 2000, p. 554) in ways that have become normalized in American society. CRT lends itself to critiquing the use of deficit models that often omit the lived experience voices of African-Americans (Yosso, 2005). In fact, Yosso cites deficit thinking as the "most prevalent form of contemporary racism in US schools" (p. 75). Yosso (2002) also challenges the very purpose of education to emancipate and empower as an institution that often oppresses and marginalizes. Deficit models omit the cultural capital that African-Americans bring with them into the dominant society and form negative ways of participating in the discourse. Apple and Weis (1983) state the “primary purpose of free public education in an industrial society is to sort students for positions of labor and management, ... and to make them docile and productive workers...” (p. 119). Dixson and Rousseau (2005) insisted that a call to action must accompany CRT projects. They go on to cite that this action must include the "qualitative and material improvement" of environments supporting African-American males. Taking a line from Malcolm X, CRT according to Dixson and Rousseau, should engage in an “any means necessary” (p. 22) tact to address the many problems present in educating students of

color. Duncan (2002) goes even further and states "The poorer and more wretched blacks become, the less white people will empathize with them" (p. 90), continuing to blame those that are often victims of policies and practices that benefit them -- the majority society—and forgetting the failed liberal ideology that is stuck within the status quo realm.

Whether intentional, systematic, or happenstance blacks historically have been "filtered into lower educational tracks" and then became the "unfortunate victims of this mis-education" (Saddler, 2005, p. 41). The education that some blacks are relegated to may well confine them to vocational fields and damage their ability to critique their position in society. Citing that "only 33% of blacks are enrolled in college preparatory courses, compared with 52% of Asians and 40% of whites" (p. 44) Sadler also reported that over 60% of fourth grade African-American students versus 25% of whites had below basic reading scores. He also pointed to similar statistics in mathematics and the finding that these trends continued for the most part throughout the remaining school years.

Cameron McCarthy (2003) calls into question teacher education programs and the concept of whiteness when analyzing the systemic failure of African-American and Latino students. In particular he critiqued academic articles dealing with "whiteness" that played down the power of race. McCarthy's concept of nonsynchrony suggests that gender, class, and race all converge to produce outcomes that vary according to the "complex and constantly changing social context of the modern world in which we live" (p. 132).

Similar to the marginalization of cultural knowledge provided by students of color, faculty of color sometimes are subjected to a form of "epistemological racism" (Dixon and Rousseau, 2005, p. 12) when scholarship on race is presented. This effectively provides a system of silencing the voice of faculty of color. The idea of color blindness within schools can lead teachers to ignore the race related underachievement of African-Americans and Latinos. Lynn, Johnson, and Hassan (2000) addressed the teaching aspect of black males by suggesting that African-American male teachers are committed to blacks and understand better the nuances and context of their lived situation. Specifically the case study showed the positive possibilities when a school's mission and the teachers beliefs and educational philosophy of emancipation align harmoniously.

Omni and Winant (in McCarthy and Chrichlow, 1993) wrote that racial domination can be achieved through the use of coded subtext or merely denying the existence of race. Michael Apple (in McCarthy and Chrichlow, 1993) stated these are "...attacks that ignore the oppressive realities of these people's lives in and out of schools. It ignores the fact that for many chronically ill poor school districts, after years of "benign neglect" the fiscal crisis has gotten so severe that textbooks are used until they literally fall apart" (p.124). Apple viewed these issues of race and schooling as one of property rights versus person rights. One where entry into social relationships are predicated either by possession of property or simply by belonging to the social collective. He goes on to suggest that the past association of equality with the oppressed or disadvantage has been redefined to mean having individual choice under a free market. So now it is one's choice to achieve or (underachieve), simply another way to blame

victims. We see the other (the oppressed, poor, and invisible) as lazy, immoral, and wasting handouts that sap the resources of our economy.

Sleeter (in McCarthy and Chrichlow, 1993) argued that trying to educate white teachers about racism is inadequate because they bring a framework of race largely constructed by life experiences and vested self interests. Having a majority white teaching force in a racist multicultural society is problematic and needs changing. The term "at risk" emerged in the discourse to define those not meeting the new standards in testing. Racial inequities are explained by white teachers through the use of two strategies: (a) colorblind or (b) labeling students of color as immigrants. This makes it easy to link students with mediated images of “dysfunctional families and communities, lack of ability, and motivation” (p. 162).

Resilience

Resilience is rooted in the epidemiology and medicine domains though in the last decade the term has been borrowed by educators looking to describe at-risk students that have overcome adversity to succeed educationally (Borman and Overman, 2004; Floyd, 1996; Genevieve, 1997; Krovetz, 1999; Malloy and Malloy, 1998; Nettles and Robinson, 1998). Rutter (1999) described resilience as the steeling effect that strengthens resistance to hazards. Others describe resilience in terms of outcomes associated with academic, social, and emotional competence (Nettles, Mucherah, & Jones, 2000). Progressive researchers have sought to move away from previous deficit models to those of strength and achievement in the resilience discourse (Henderson and Milstein, 2002; Waxman et al., 2003). Genevieve’s (1997) and Krovetz’s (1999) definition of resilient children included having social competence, problem solving skills, autonomy, and a sense of

purpose. However, Krovetz did suggest that schools do not promote resilient students. McMillan and Reed's (1994) study found that the most successful teachers of resilient students were respectful, caring, good listeners, patient and honest. Still others have connected resilience to the flow theory and link it to the by products of goal centered choices and commitment (Parr, 1998). Ford (1994) viewed resilience as an individual and culture specific phenomena that was not one-dimensional or fixed. This view depicted a resilient individual as one that was persistent, competent, flexible, and motivated. Masten and Coatsworth (1998) also mentioned the possibility of environmentally and culturally specific factors influencing resilience. My life experiences including my involvement with sports, joining the military, and benefiting from the strength and support from my grandmother support Masten and Coatsworth's finding.

In his discussion of resilience and schools, Sagor (1996) likened resilience to the antibody that wards off disease and links competency, belonging, and self-esteem as key components. Several factors have been identified as essential for the resilient functioning of individuals in stressful situations. These protective factors are derived from a variety of sources.

Protective Factors

Miller (1999) listed individual characteristics, supportive family, and useful external community support as key protective factors. In this study a positive racial identity was also described as a possible protective agent and that attempts at assuming a raceless identity could promote depression and anxiety. Gore and Eckenrude (as cited in Haggerty et al., 1996) described two general categories of protective factors: (a) personal

factors, which included health status, temperament, self-esteem and self-efficacy; and (b) environmental resources, which included family and community support.

Counter to protective factors, Genevieve's (1997) study identified several at-risk factors including substance abuse, truancy, suspension, expulsion, poor parenting, and poverty that tended to be prevalent among at-risk populations. These are some of the traits educators and parents seek to reduce or at least counter in their students. Malloy and Malloy's (1998) study described four processes for developing resilience in students: (a) reduction of negative outcomes, (b) reduction of negative chain reactions of risk, (c) establishing self-esteem and self-efficacy, and (d) the availability of relevant opportunities. Extending the concept internally, Parr (1998) suggested that resilient students act in self protective ways and operate along a dependence, interdependence, and autonomous continuum. Caring and support, high expectations, and opportunities for meaningful participation were listed as three protective shields in Fox's (1994) discussion on the role of schools in developing resilience.

In helping to have these protective factors materialize for students some researchers seek to identify the alterable characteristics of students and then hopefully develop action plans to affect change (Garnezy, Masten, & Tellegen, 1984; Waxman and Huang, 1996). Doll and Lyon (1998) suggested that schools are potentially the best protective factors for at-risk students. Others such as Krovetz (1999) argue against this idea and seek the active involvement of community and family. Over time resilience theory has evolved and morphed into a multidisciplinary view encompassing diverse domains and perspectives.

Phases of Resilience Inquiry

Richardson (2002) identified three waves of resilience inquiry leading up to the current interdisciplinary view of the term. The first wave of inquiry, according to Richardson, sought to discover the resilient qualities of people and was described as a phenomenological attempt to describe and identify resilient qualities in individuals as well as the support resources available. These included attributes like self-esteem, self-efficacy, and support systems. The second wave, the resilience process, gave birth to a model that described the disruptive and re-integrative process that individuals must choose between when coping with stress, change, adversity, or opportunities. This change to process identification allowed for the identification, fortification, and enrichment of factors that enable resilience. The last wave (innate resilience) was depicted as a postmodern multidisciplinary approach to identify and uses forces that could motivate individuals toward self actualization and resilient reintegration. Richardson (2002) went on to offer a simple and direct description of what resilience theory is, “the growth or adaptation through disruption rather than just recovery or bounce back” (p.313). Richardson also highlighted what he maintained as the universal spiritual quality of resilience when he stated “the forces that empower and drive an individual to succeed embrace the semantic variance and validates the unique academic paradigms whether that force is called chi, collective unconscious, energy, oscillation, motivational force, neuropeptides, spirit, human essence, or resilience” (p. 317).

Shift to Educational Resilience

Educational resilience theory emerged as researchers sought to explain the successes of at-risk students despite the internal and external barriers. Many different

variables were looked at to help explain and identify attributes of resilient students. Malloy and Malloy's (1998) study of three rural schools and twenty algebra teachers found that instructional practices that encouraged flexible solutions plans, created enthusiastic atmospheres, and a collaborative spirit increased the ability of students to defy the odds and achieve. Edwards' (2000) concept of a moral classroom community supported Malloy and Malloy's finding of collaborative learning and flexibility but also added that relevant high expectation and the general ethical and caring support for students increases their resilience. Floyd's (1996) study of African American high school seniors also identified the need to have high expectations, collaboration, and relevant participation opportunities. This further highlighted the importance of a supportive family and community – especially the mother. Floyd (1996) also suggested that some teachers look at academic failure within the African American community as the norm and that students may develop a learned helplessness foci which promote a perceived feeling of powerlessness and limited coping abilities. In a comparison of African American high achievers and non-achievers, Pollard (1989) found that non-resilient non-achievers tended to believe there were no payoffs for educational achievement. This group of non-achievers also developed an anti-educational connotation whereby educational achievement was perceived as requiring a crossing over. When students find themselves separated from friends and sometimes family educationally, they may question their “difference”. This is amplified when courses and activities are segregated. Oftentimes when educational achievement is put on display it is somehow associated with not being black or crossing over. Sadly, at the same time activities associated with sports, dancing, and singing are praised and seemingly appreciated more. Padron,

Waxman, and Huang (1999) observed in their study that resilient students attended to teacher instruction more and were generally more satisfied with the school and instruction.

Miller (1999) suggested that culture plays a significant role in the resilience of students. His study suggested that positive racial identity can help provide protective resources. Harvey and Hill's (2004) study of a "rites of passage" program for African American males found that educational empowerment was enhanced through the promotion of positive cultural activities. Interestingly, Ambler's (2003) study of Native Americans provided more evidence that positive cultural education and factual discussions of adverse external influences can help students develop pride and resilience. In a comparison of seventy five resilient and seventy five non-resilient students, Waxman and Huang (1996) suggested that ability should not be the focus of student learning and motivation but their alterable characteristics that could lead to resilience. Their study also contradicted other studies that suggested that homework completion was a significant variable in educational resilience and pointed out the inherent flaws of attempting to identify any single attribute as significant because of the interdependence and interaction of multiple attributes. Self-efficacy and self-esteem are identified as key elements of educational resilience, and technology literacy can be key in developing these attributes within students.

Technology in the American Education System

In this section I will give a brief account of the history of technology in education, followed by an account of technology and African American students and then end with a discussion of community, learning, and technology. The PC revolution—in one form or

another—continues to influence and dominate most technical and even some pedagogical aspects of education. The impact of this revolution is in constant flux. While there are numerous technological devices that have impacted the way we educate people in America, none has had a more substantial—and I think suspect—effect than the PC. Technology has always played a major role in the formal education of modern man. The introduction of paper and writing instruments and later mass produced books led the shift in how and who became educated. Technology use also included methods, not only tools or machinery. The systems approach and social efficiency methods of employing scientific study were all technological tools use in education—though their value or appropriateness are heavily debated. There are many people that significantly influenced the use of technology in education. There were also critical legislative movements that supplied the much needed funding to promote the use of technology and training in the American education system.

Several key legislative actions supported the formation of vocational schools in America during the early 1900's. None was more important than the Smith-Hughes Act of 1917. This law was signed by President Woodrow Wilson and appropriated more than \$7 million dollars through 1926 (Davis, n.d.). This law also created a federal board of Vocational Education and required states to create local boards (Davis, n.d.). Later the Vocational Act of 1963 was introduced by Carl Perkins, a strong proponent, which authorized over \$800 million for 1970; \$1.6 billion for 1990 – 95; and has subsequently been reauthorized and signed by successive president's (Davis, n.d.). In 2000 five industry experts appeared before the House Subcommittee on Early Childhood, Youth and Families. The topic was technology in American schools and

organized with hopes to provide insights that would help prioritize funding. Tony Lee, from Apple Computers stressed the need for a 1 to 1 ratio of student to PC and also training for teachers (Hudgins, 2001). I think most can see the in your face agenda in this statement; however it illustrates the influence of technology and industry in our school systems. We now see schools and colleges around the nation that require each student to have a laptop when entering.

One area where one can readily see the introduction of technology, tools, and machinery into education was the trade, industrial, and vocational schools. Then, like now, there is controversy on their worth. Charles Eliot after previously denouncing the practice, commented that manual training had its place in the curriculum and was rightfully introduced, but he also stated that trade schools should be used to address specific manual labor skills needed for the maintenance of life needs (Kliebard, 1995). The use of manual training in the curriculum also played a significant part in the education of Blacks and Native American Indians. But, as argued by many, the attainment of a skill does not always translate to long term economical advantages (Kliebard, 1995). After the civil war, the education of the newly freed slaves drew much attention and controversy. Should they be educated to then become enemies of those that enslaved them? With the formation of the Land Grant colleges and industrial schools, the controversy continued and the prevailing argument was to “let us have, therefore, not colleges but schools to teach the technique of industry and make men learn by doing” (DuBois, 1932). The manual training movement infused the use of technology into the curriculum. This movement later became Industrial Arts, which led to Vocational and Technical schools. Linked to the training of engineers in its early years, Manual Training

had a certain appeal to those who thought “learning by doing” would promote better learning from students (Kliebard, 1995).

The 1876 Philadelphia Centennial is often cited as the defining moment in the history of vocational and industrial education (Foster, 1994). This site was where John Runkle the president of MIT supposedly viewed a Russian exhibition that illustrated a way to teach some of the very practical skills he sought to teach at MIT (Kliebard, 1995). He later went on to propose this type of instruction in the general educational system. All of this ties into the philosophy that calls for making learning relevant to students by incorporating real life experiences in the curriculum.

G. S. Hall was a key proponent of the idea of manual (motor) training being a portion—if not dominant part—of the educational system. Kliebard (1995) wrote “Hall boasted that he could do virtually every kind of farm work and that, based on his training in German schools, he could bind, guild, and cover a book; make shoes and a broom completely, do a little glass blowing, plumbing, and gold beating. Such activities served the purpose of training the muscles and training the will at the same time” (p. 36). In contrast William T. Harris thought that schools should provide only one service and that should be to pass on the great Western cultural heritage and leave industry, and other institutions to handle the rest. Harris outright opposed specialized vocational training and thought it an imperative that the school system resist the encroachment of the industrial society into education (Kliebard, 1995). C. M. Woodward on the other hand was an avid defender of technical training and tried to assure the old guard that manual training was not a substitute but an addition to the current curriculum. In 1901 he gave the following statement that gave direct insight into his feeling on the subject.

It is easy to see the source of a widespread prejudice against technical training. The history of civilization has been the history of masters and slaves, of castes, of contempt for labor and for all useful arts. Every one of the technical professions has its beginning in the crafts and the present technical experts and engineer had as a prototype a man in overalls, with horny hands and a soiled face, who presided over some enginery which was not authorized by the ancients and which at best was generally regarded as ungentleel (Woodward, 1901).

As stated previously the education of Blacks, Native Americans, and immigrants played a major role in the growth of vocational education in America. Schools were formed to bring them into the mainstream both morally and economically. W.E.B. Dubois however, was not sure of the value of teaching trades to blacks. He thought the teaching of trades were not beneficial in the long run for blacks as it diminished the intellectual training needed and society would nonetheless not allow them to take advantage of this training by hiring them into the trade firms (Kliebard, 1995). In fact Dubois was not pleased with what the traditional colleges or Industrial Arts colleges had given to the freedmen of the south. Dubois (1934) suggested that though he was at times a defender and critic of the college, that there seemed to be a number of “plain fools” getting into the Negro Colleges. His point being that some were graduating with means to make money but not know what to do to protect, grow, and pass on this wealth and knowledge to others.

Educating African American Students

Though there have been a number of programs developed to provide better access and educational experiences to minorities in America, blacks continue to lag behind whites in testing outcomes and have a higher dropout rate (Kronholz, 2003; NCES, 2006). Some suggest that many of these students simply become adjusted to a system of memorizing and then regurgitating information without ever understanding the topic beyond the surface. Still others link this to teacher efficacy and resource issues (Cahill and Skamp, 2003).

Many students are opting out of their current schooling conditions. Numerous reasons are batted about as to the reason for this flight from institutional learning. Though the dropout rate is significant among all students, the dropout rate for at-risk students is especially troubling (NCES, 2006). Why are so many students of color deciding that the traditional education system does not provide an equal return for the investment of their time in the American schooling system? Are we as professional educators somehow failing these students? Or are these students simply failing themselves and relying on the images and dialogue of popular culture to provide the education they find most valuable—that of everyday life? Is there a way to reinvigorate ourselves and our students to invest the time necessary to make learning a worthwhile and achievable endeavor?

The questions above form a subset of many that attempt to get at the problems in educating minorities in America. Many blacks feel they are locked in a failed system that has defined them and now relegate their children to a national “at-risk” status (Welch & Hodges, 1997). Technology for some has become the answer for reforming our

educational systems. In large part society has traditionally turned to technology to solve many social problems. The rapid development and spread of technology into all facets of our lives has made its inclusion in our educational system an imperative; causing angst among teachers as they contemplate the integration of technology into their courses and the changes and risks it will surely bring.

Liston (2001) suggested that teachers reduce the threat in teaching and increase the risks because they then demonstrate an externally imposed versus internally accepted challenge. Teachers reduce the threats involved with teaching by realizing and promoting the knowledge and experience students bring into the classroom. This can open the door to a somewhat chaotic environment but it encourages taking chances. Risk could then become an attractive component of teaching and learning with technology benefiting those African American students increasingly at the periphery of our society. Reducing the threats and increasing the risks could allow us to embrace the “sites of imaginative collaboration, places to examine the partiality of knowledge and knowledge making, places to consider the best insights and methods of varied discourses” (Wear, 1997, p. 97).

Can't Run, Can't Hide

Teachers are often faced with a sometimes perplexing dilemma. This dilemma is often framed around the “what” and “how” to integrate technology into the curriculum, while also dealing with the fast changing face of technology (Mair & Gambill, 1996). For many this dilemma is encapsulated in technological literacy (Dusic & Yildirim, 2000). They find they can't run nor can they hide from the fast encroaching technological cloud of change and uncertainty. The knowledge and technology for

creating a rich, sophisticated, and effective teaching system is available for those with the appropriate resources. However, historically middle and upper class Americans have opposed measures to better educate blacks which often included opposing the use of taxes to better maintain and fund inner city schools (Pinar, 2001). Ironically this opposition is sometimes fervent even though funds targeting blacks were frequently diverted to the suburban middle class schools. Research has shown that technology is most effective when it is integrated into everyday classroom practice and into the curricula as a whole (Brown, 2000). Technology rich classrooms can open a whole new world for at-risk students both academically and socially. Technological structures can provide the bridge for reaching at-risk students and helping them avoid the trappings that inevitably ensnarl generations to low income second class citizenry.

Drill and practice has become the designated tools of choice when educating at-risk students (Brown, 2000). This may produce students who either can't think constructively for themselves or internally recognize contradictions in everyday life. They are in school but are being told what to think and what to do— similar to an indoctrination. Pinar (2004) wrote that “These structures should be directed not at seeking the unity of all knowledge but at mapping the diversity, the ways of knowing, so that one can find a bridge” (p. 156). Students are often instructed to do things that are good for them academically. But sometimes the link or bridge is missing and they find what they are doing is disconnected from their lived experiences. Reynolds (2003) stated “Perhaps that is the way our children experience the present day curriculum and the world, too—they find themselves following a road constructed, paved, and planned by what is “outside” them” (p. 42). This may be part of the reason students rebel or simply

ignore classroom instruction. Infinito (2003) stated that the becoming of self is meant to resist forces that attempt to conform it to societal norms enabling human freedom.

Webber (2003) also shared this theme and wrote “Without the necessary experience of freedom, students will be unable to function in American society without the false sense of security provided by the school’s reaction to violence” (p. 13). Freedom is such an important concept but many teachers and parents are afraid to let students fully explore this phenomenon. Incorrigible, behavior problem, good student, bad student are all used sometimes to make the life of the teacher easier while relegating a “different” student to menial labor and a substandard education. The following statement by Fine and Weis (1998) speaks to much of what is currently thought out loud by many though still unheard.

We are looking at and with a generation who has been asked to test the limits of human coping. We hear them stretched beyond where anyone should be asked to stretch, and we hear enormous reserves of resilience and creative survival skills. We, and they, speculate on the consequences for their children (p. 13).

Gay (2000) describes a technological system called the Multicultural Literacy Program (MLP) that uses a variety of group arrangements and social settings to help African Americans and other minority groups improve their learning. Some of the components include learning centers, peer interactions, and cooperative learning groups. Gay (2000) went on to cite a program that employed a practice with feedback model which introduced African American students to cooperative learning and provided techniques on how to be successful. Interestingly some literature points to the conscious

or unconscious nurturing of poor academic behaviors such as dependence, manipulation, and flight from learning for the gap in learning achievement (Bok, 2003). Others suggested that it may be the internalization of black intellectual inferiority rumors (Welch and Hodges, 1997). It may be that the school culture itself propagates these rumors. The common use of drill and practice instruction is being replaced with computer aided drill and practice. Students are being sent to the technology center where limited teacher guidance is provided. The role of these technology sites has become an edutainment site (Okan, 2003). McKenzie (2000) coined the proliferation and use of technology designed to aid educational goals but providing little or no rigor, value, or thought processing as “technotainment”. In addressing his concerns about the entertainment focus of technology in some settings, Reynolds (2003) wrote “Education today seems more concerned with accomplishing world-class technological competency than it does with creating a community of citizens who are discussing the implications and possibilities of education” (p. 69). However if used effectively “it might allow for the engagement in the dance of life” (Reynolds, 2003, p. 69). Parents use technology to baby-sit and placate their children putting them at-risk of over consumption, excessive exposure to consumerist advertisements, and hyperreality views of the world. Is it any wonder that the “click, click” of the remote in being linked to attention deficit disorder in our children.

Webber (2003) addressed this blind use of technology when she stated “When we leave the room where the television is housed, it could care less, because television’s power lies in its indifference to human desires” (p. 38). In many cases this is then reinforced and reproduced in the classroom. Overwhelmed by conduct problems, over

crowded schools, self-efficacy issues, and students that see beyond the boundaries we set, progressive teachers are turning to a variety of technological advances to cope. Some of these include: Interactive TV (ITV), computers, handheld wireless devices, and new methods of engaging and teaching. Whether technology will work in the classroom will continue to be decided by the teachers in the classroom (Brown, 2000). Researchers are also looking at the promise of hypertext and hypermedia instructional technologies to provide an exciting, bold, original, and creative educational opportunities (Dwight and Garrison, 2003).

Method in the Madness

At-risk students are highly vulnerable to early school failure especially during times of increased pressure to raise standards and produce better learning outcomes (Laffey et al., 2003). The appropriate mix of technology and curricular instruction can facilitate an engaging and successful academic experience for at-risk students. The creation of environments where students form learning communities that enable the sharing of information between students instead of exclusively from teacher to students can be achieved with the effective use of technology (Kornreich et al., 2001).

Technology can also facilitate the response to different learning styles often exhibited by at-risk students. Students of color often times are more communal and interactive in task performance (Gay, 2000). Dimitriadis (2001) wrote, "As I will demonstrate, young people today are using contemporary media to define themselves and to map their daily lives in ways that often confound adults" (p. 35). Though initially thought of as faddish, these technologies allow at-risk students to express themselves in ways that many adults find perplexing. Some see this as a schism between in school and out of school

curriculum and the unofficial curricula (Dimitriadis, 2001). However, this also allows “educators to creatively and humbly attempt to engage the complex lives of young people” (Dimitriadis, 2001, p. 7). To rescue these at-risk students from societal pressures and themselves we have to be willing to embrace technologies that allow us to better understand and relate to our students. Technology along with media interpretive skills could allow at-risk students to find their way through the milieu and illuminate their journey through the educational process and beyond.

African American students can find their voice through the use of technology. “The issue of voice seems closely related to the question of whose knowledge is seen as legitimate or valuable and informs dominant discourses” (Viruru, 2002, p. 152). Embracing technology in the classroom can allow African American students to experience the power and freedom of acquiring a voice in their educational travels. Daspit (as cited in Daspit and Weaver, 1999) wrote that “an emancipatory praxis must be informed by the experience and voices of the disempowered” (p. 166). Dimitriadis (2003) stated that “notions of at-risk youth— notions that typically put social issues in the background in favor of psychological ones—have proven itself to be particularly ill-equipped to deal with the lives, experiences, and needs of disenfranchised, minority youth” (p. 8). Laffey et al’s. (2003) study found that low socioeconomic status students exposed to a technology intervention were less likely to have behavior problems while also improving their learning significantly. Pinar (2004) insightfully added “While the introduction of computers into classrooms and the provision of access to the Internet will not, in themselves, raise test scores (let alone simplify the lived complexities of

education), there are educational possibilities associated with these developments that portend a culturally different future” (p. 135).

Technology must be freed from bounds of traditional metaphysics and build on its ability to further communications, authority, knowledge, power, and critical pedagogy (Dwight and Garrison, 2003). It is time to fully embrace the possibilities of technology in the classroom and allow students that may fall prey to socioeconomic disparities to fully participate in the dance of life.

Community and Learning

During the fall semester of 2003 a senior student became the subject of conversation between a colleague and I. The student was not doing well at the time and had failed previous courses taught by both of us. Further inquiry showed this student had taken most courses twice and others as many as four times before attaining a passing grade. Because he had invested significant time already, we wanted to help facilitate his progression versus suggesting he change majors. Consultation revealed he did not study much, therefore it was suggested that he create a weekly planner. Several revisions later produced a viable study plan that also included regular visits with all of his professors. The good news is that he began to show progress in all classes, however this was short lived and he quickly went back to old habits and silent sailing.

Numerous questions arise from the scenario above; an important one is how to prevent students from languishing unnecessarily in a sea of failure and course repeats or ultimately dropping out. Of course one can say the student is showing an enormous amount of resilience. However, many like him simply change their major or drop out. Is there a way to create support systems that afford students the resources needed to be

successful and give teachers better ways of identifying and addressing the academic needs of troubled or at-risk students earlier? Developing community and warning systems could be indispensable for institutions trying to retain and recruit students, especially if they are considered at-risk (Reisberg, 1999). Fusing teaching, community, and technology can help identify students at-risk and lead to a transformation of at-risk environments to communities of learning where the achievement of academic goals are increasingly attainable and educational resilience is enhanced.

At-Risk Students

Students arrive on our campuses and school grounds with differing degrees of preparation for education. Many students quickly adapt, develop personal learning alliances and progress without major intervention from teachers and administrators. But what happens to students that are not prepared, have no learning alliances, or find it difficult asking for help? These are the students who find themselves at-risk.

Interestingly students are often criticized for not possessing higher level thinking skills by the very ones that subject them to less rigorous teachings. Johnson (1998) raised similar concerns and stated that high expectation, adapting to different learning styles, and taking creative measures to encourage practice, review, and active learning would benefit at-risk students. Meeting students where they currently reside academically is a commonly heard though rarely followed maxim. Researchers have found that math students who received contextualized instruction outperformed others and were more apt to be able to transfer knowledge to other areas (Bottge, 1999). An obvious but often overlooked principle, teaching is not telling, rings true especially in diverse settings (Perrone, 1997). Evidence has shown that many students in at-risk environments may

succumb to the “Matthews” effect (Waxman, de Felix, Anderson, & Baptiste, 1992).

This principle asserts that at-risk students often fall farther behind because they are systematically subjected to an inferior and ineffective curriculum, while students not at-risk accomplish at higher and higher levels.

Much of the writings surrounding communities of learning are imbedded in the theory of constructivism. Here we rely on the pedagogy of allowing students to create knowledge through shared responsibility and experiential activities. Waxman (as cited in Waxman et al., 1992) stated that constructivist approaches to learning are important for at-risk students because it requires the learner to become an active participant. Waxman goes on to suggest that if the teacher and student cannot find ways to share the necessary knowledge then comprehension will undoubtedly be impaired. Observations and experience with a successful classroom support this idea of cooperative and community learning environments. Saracho and Gerstl (cited in Waxman et al., 1992) and Haskell (2001) stated that many minorities exhibit a learning style that is dependent on the sharing of information in a social and cooperative environment which may help learners transfer knowledge, a desirable but often illusive outcome.

Community of Learners

A community of learners is one in which the teacher and students actively participate to create an environment where all students are actively engaged and differing speeds of learning is respected (Omrod, 1999). Omrod also listed constructivism, peer tutoring, and collaboration as key components of learning. Responsibility for individual and peer learning is an important element. Sumara (1996) wrote that communities must not be seen as simply places where communication is shared but also as places where

individuals are bound to a common good or goal. Gay (2000) noted a trend toward the use of collaboration, cooperation, and community in educating marginalized students and pointed out that collaboration as a problem solving technique and cooperation as a learning style are two key pedagogical trends within many minority communities. Unfortunately as Haskell (2001) suggested, in many cases the lack of community and a persistent competitive focus in our society often plays against the achievement of minorities.

Goldberg and Finkelstein's (2002) study found that the networking of students with teachers improved the feeling of community and connection among students. In similar fashion Smith (2003) stated that learning communities fostered new ways of looking at the roles of students and teachers. Smith noted that learning communities rely on experiential and reflexive practices which enhance social and academic development. Course content, pedagogy, and learning are all intertwined and can promote a community of scholars of both faculty and students over a sustainable and longer period of time (Minkler, 2002; Schoem, 2002). This extended academic relationship was seen as an invaluable and intangible benefit often not given further inquiry.

Myers and Simpson (1998) wrote insightfully that when schools do not see learning as experience based intellectual construction and do not facilitate the creation of learning experiences for students they miss the reason why they exist. They also pointed to a key ingredient of learning: students are also creators of learning. Constructivist communities make active learning a shared responsibility comprising students and teachers while fostering freedom for individuals to explore, reflect, and participate in hands on experiential learning (Sandholtz, Ringstaff, & Dwyer, 1997). Technology

enhanced communities of learners help bring together a broad spectrum of diverse students and thereby help all in the community.

Technology as Sites of Community

Not only can technology help those in the community, for some, technological spaces “are” (virtual) communities. Myspace.com has come on to become the meeting place for many people of all ages, nationality, and socio-economic status. Wilbur (as cited in Porter, 1997) wrote about virtual hot tub parties, crashing on the couch of someone you have never met, and human machine interfaces that have become normalized in our society. When logged into Myspace one can travel from house to house, city to city, or indeed around the world with a click of the mouse. The network of relationships allows users to meet and greet and form bonds that sometimes can only survive in this computer mediated space. Watching and listening to my son as he finds a “tight” young lady in his Myspace that looks like someone from a rap video, I notice the excitement as he sends a message to them—actually twins—though he would probably not have approached them in person. He then immediately gets on his cell to call his boys and they track the images down. These technological community spaces give their users a free token to ride the network, visiting and communicating, while (re)creating communities along the way.

Foster (as cited in Porter, 1997) stated that “community, then, is built by a sufficient flow of “we-relevant” information” (p. 25). Though once seen as spaces ideal for those unable to walk, talk, or express themselves in the flesh, community spaces created by technology have sprung up around the globe as the communities to belong to. With access virtually guaranteed to anyone with a computer, these communities form

meeting places for like minded people across traditional boundaries. Increasingly people see images from around the globe and want to satisfy adventurous desires. The attraction of these sites of community may be explained by this quote, "...Place is security, space is freedom: we are attached to the one and long for the other" (Healy, as cited in Porter, 1997). We must learn to deal with and resist framing technology in ways that prohibit true possibilities from emerging. Heidegger (1997) called this "Enframing" (p. 23) and described it as "the way in which the real reveals itself...(p. 23).

Technological Fusion

Technology sometimes is seen as a magic wand that will somehow render the current achievement disparities among at-risk students nonexistent. Technology for technology's sake without sound pedagogical and epistemological foundations can make the situation worse (Maor, 2003; Marra, 2002; Reynolds, Treharne, & Tripp, 2003; Winn, 2002). Cuban (as cited in Sandholtz et al., 1997) suggested that technology in general, or more accurately its misuse, is causing many of the problems. However, there is evidence that technology when used constructively has many redeeming attributes including helping to increase enrollment and retention (Merrill, 2004). Building and sustaining communities of learning using technology and the ability to tailor and personalize learning is a central focus of many educators (Kornreich, Fazio, Arndt, Austin, & Gresen, 2001; Rigou, Sirmakessis & Tsakalidis, 2004).

Davies (2004) stated that many of the boundaries surrounding knowledge building and the chronology of delivery are being dismantled due to the increased use of technology in education. This complements Palma-Rivas' (2000) statement that the dynamics of the class are often changed with the introduction of technology, allowing

students to gain more control over their learning. Winn (2004) stated that technology when used appropriately supports constructivists learning and offers unprecedented freedom to act. Newer technologies expand the breadth and depth of delivery (Dede, 2000; Pugalee, 2001; Sullivan, 2002; Winn, 2002). Virtual communities, modeling, and visualization tools allow learners and teachers to thrive on the chaos surrounding increased freedoms to create (Dede, 2000). Bottge and Hasselbring's (2002) study showed that scripted video had positive effects on creating shared learning for problems encountered in and out of the classroom as well as increasing collaboration, motivation, and academic achievement. Matthew (1997) found that the use of electronic text, digitized speech, and discussion helped students to activate prior knowledge, enhanced comprehension, and challenge critical thinking. Martin (2001) looked at how video based supplemental instruction (VSI) could be used to enhance learning and concluded that VSI helps students to not only understand but also transfer knowledge.

Johnson (as cited in Waxman et al., 1992) argued that alternate forms of instruction using multimedia may allow at-risk students to better access and use knowledge because it increases the ability to offer instructions in a context created by students and teachers. Johnson noted that students from at-risk populations performed better at institutions that use cooperative learning or preventive and remedial tutorials which integrated technology to assist instruction and learning.

Summary

The concept of educational resilience is used to describe those students that have overcome disadvantages and stressors in their life to achieve academically. The internal and external protective factors that enhance student's ability to bounce back become

important when seeking to solve or mediate some of the educational problems we now see in the United States. Technology can be one of those enhancing contributors to student's resilience. This can be especially true in the African American community where an achievement gap continues to plague and demonize its members. New technology allows all of us to become content producers and communicate in a new language that is engaging and exciting. Our students are already using this technology to form pockets of communities within their larger space. Technology and community should be explored to find ways to build the educational resilience of students—especially those considered at-risk.

The next chapter will look at the methodology of this exploration. Information on the site, participants, and the intervention used will be shared. The design of the study along with the data gathering tools will be discussed.

CHAPTER 3

Quantitative and qualitative inquiry can support and inform each other. Narratives and variable-driven analyses need to interpenetrate and inform each other. Realists, idealists, and critical theorists can do better by incorporating other ideas than by remaining pure.

Miles and Huberman, 1994, p. 310.

METHODOLOGY

Overview

This chapter looks at the research design and methods used in the study. The purpose of this study is to explore the role of technology (through an intervention) in the educational resilience of at-risk African American males. The study included three sub questions: (a) what role does technology play in the formation of community, (b) what role does technology play in the educational resilience of at-risk students, and (c) what are the conditions that impede or contribute to educational resilience.

Similar to questions in curriculum theory, advocates of quantitative and qualitative research have often retreated into isolated camps. This study however utilizes a mixed method approach that attempts to bring concepts of both camps into play. Johnson and Onwuegbuzie (2004) argue that mixed method research is “a research paradigm whose time has come”. Mixed method research is not an attempt to replace either method but hopes to use both to help uncover the realities of the participants in this study. Like Johnson and Onwuegbuzie I believe mixed method research can be helpful in certain situations. Reynolds (2006) adds to the conversation “...no methodology can

be privileged or even temporarily employed with total security and confidence, yet none can be eliminated totally out of hand” (p. 45).

The site chosen is an education institution for African American boys and functions as a second chance school for young men that can no longer attend the public school system. There were several reasons given for the placement of these young men outside of the public school system: (a) a desire for a smaller group learning environment, (b) dismissal from public school for behavior problems, or (c) a belief that a school geared toward African American males in particular would enhance academic success. Formed in 1993 to address the growing number of African American males encountering problems in the public school system, this non public school became an outlet to prevent students from dropping out and then ending up in the juvenile justice system. The school is located in the city limits of a large southeast county and currently serves approximately 120 students in grades 2 – 12. The county has a population of over 10,000 public school African American males (Holzman, 2006), and collectively the state serves over 290,000 public school African American males. The US Department of Justice reported that academic problems, behavior, or lost of interest were given as the main reasons for dropping out by 35% of local jail inmates nationwide (Harlow, 2003). Holzman (2006) reported that the graduation rate for African American males in Georgia at 39%, versus 54% for white males. His report also listed the county where the site is located as having an estimated 25% of African American males graduate with their cohort versus 46% for white males.

Research Design

The design of this study included both qualitative and quantitative data (mixed method design). The goal is to have a richer and more expressive look at the participants in the study. A qualitative case study is often used to capture data not easily gleaned from mere facts and numbers. Focus group interviews and participant observations were used to better understand the student's situation in their lived environment and promote their voice in the study. A resilience or hardiness survey instrument created by the Hardiness Institute and the well known Rosenberg self esteem (RSE) survey were given to each participant during the intervention. A Computer Attitude Questionnaire (CAQ) survey was also given that is intended to capture the participant's feelings and prevailing attitudes toward computer technology. At the end of the intervention focus group interviews were conducted to add the participant's voice and get a fuller understanding. During the interviews an individual technology inventory was also captured.

The intervention is composed of three phases. Phase 1 is a workshop conducted by two senior Computer Information Systems female interns. They focused on introductory computer applications, the internet, and email. I conducted phase 2 and focus on the teardown and rebuilding of the computer itself. Working in pairs the participants completely disassemble a working computer and then reassemble the computer to see if it still works. During this phase I recorded my reflections of the workshop after each meeting. Phase 3 is a workshop conducted by a male senior Mass Communications major that focused on video and music production. Participants were given the opportunity to create a video or music project or a combination of the two and have it saved on DVD. I took this opportunity to observe and take field notes of the participants.

Each workshop lasted approximately 10 hours. Participants met Friday's on the campus of a local university where I am currently employed.

The “defining characteristic of a case study ...” (Merriam, 1998, p. 27) is in the setting of bounds. This study only looked at a single group of participants selected from the research site for a definite period of time. This study consisted of an interpretive research orientation versus a positivist or critical orientation. The interpretive orientation looks at education as a process and not necessarily as a stable phenomenon (Merriam, 1998). This lent a sense of lived experience and personal voice to better inform the study. From a CRT perspective, the inclusion of personal voice and exploring the lived experiences of African American males from strength versus deficit model fit within the overall purpose of this study. A qualitative case study allows me to view the world that students construct for themselves and in their own voice. The case study method also allows for some flexibility to change as insights and situations within the case emerge.

Merriam (1998) listed five types of qualitative research commonly found in education—basic or generic, ethnographic, phenomenology, grounded, and case study. The case study was identified as being (a) intensive, (b) holistic, (c) comprised of a single or bounded system, and (d) able to be combined with any of the other qualitative research types. Process, context, and discovery are key components of a case study. This research focused on these components and seek to find out how technology is involved in the lived experience of the participants.

Two quantitative survey instruments were utilized in this study. A hardiness (resilience) and self-esteem survey instruments are used to enable a more complete

picture of the participant's situation within the study. These tools were used in conjunction with observations and the voice of the participants to inform this exploration.

Researcher Role and Bias

The researcher in a qualitative study is considered the primary instrument for gathering and analyzing data (Merriam, 1998). This infers the injection of human qualities that can both enhance or possibly hinder a study. My role included being a participant observer, interviewer, and providing my reflections during the study. Because the qualitative research method of this study was filtered through my life experiences and sense of reality, caution must be taken to both understand and accept the concept of multiple realities. The challenge is to illustrate and demonstrate the personal views and predispositions of the researcher while not unduly influencing the study (Marshall and Rossman, 1999).

I am an African American male that has lived on the periphery of the American dream and now by some standards living within it. I am a home owner trying to ascend into the professional ranks and the father of 3 young adults that have either already graduated or are now in college. However, I have experienced many of the injustices that bear weight on many African American communities and African American males in particular. I have grown to expect action from myself and others who bear witness to the tragedies that occur generation after generation to the poor and disempowered around the world. In fact my wife and I are in the process of adopting my three year old nephew, whose parents are struggling with alcohol and drug addictions. In opening this window to my personal self my biases and predispositions may become apparent to the reader. I

do empathize with and seek action to make change in the lives of these young men. However, I intend to let the collected data inform and lend voice to this study.

Sample Selection

Twenty young men were selected to participate in the study. Ten are 10th graders and ten will be from the 9th grade. The principal of the school selected the participants and was not given any criteria for inclusion or exclusion. The site has a total of one hundred and twenty four students in grades 2 – 12. Currently there are nineteen 9th graders and sixteen 10th graders being served at the site. Through a telephone conversation the principal indicated that the participants were selected based on their potential to gain from the experience as well as being able to conduct themselves well away from the site. One difference that stood out from public school policies is the use of corporal punishment within the school in the study.

Data Collection

The choice of what to include as data rests solely with the researcher (Merriam, 1998). While this study will mainly consist of qualitative data, some quantitative data will be collected. This study then will be a blend or mixture of qualitative and quantitative data (mixed method). Participation in the setting, direct observation, in depth interviewing, and analyzing documents and cultural material are the four primary methods that form the core of qualitative studies (Marshall and Rossman, 1999). From Merriam's (1998) viewpoint qualitative data collection is mainly concerned with three different collection types: (a) interviews, which give us direct quotes from people about their feelings, opinions, and knowledge; (b) observations, provide detailed descriptions of

activities, behaviors, and actions; and (c) documents, allow for the extraction of excerpts, quotes, or entire passages from conventional and electronic documents.

The resilience survey (Personal Views Survey III) is an 18 item instrument that is composed of 3 subscales and an overall hardiness or resilience score. The three subscales are commitment, control, and challenge. Commitment is the general commitment that is generated in daily life activities. Control is the extent to which someone feels in control of their environment. Challenge looks at whether change in our lives is viewed as a debilitating disruption or an opportunity to overcome. This particular study will however focus on the overall resilience (hardiness) score. The Hardiness Institute (2000) reported the internal consistency of the instrument to be adequate for its purpose (.70 to .75 for commitment, .61 to .84 for control, .60 to .71 for challenge, and .80 to .88 for total resilience) and reliability over 3 and 6 months at .58 and .57 respectively. The scale has 4 ranges: (a) not true at all, (b) a little true, (c) true, and (d) very true. Examples of the questions include “by working hard you can achieve your goal” and “it bothers me when my daily routine gets interrupted”.

The Rosenberg self esteem scale is a widely used instrument to assess a persons general feelings about themselves. The instrument is composed of a 10 item Likert scale using strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD) scales. Items 1, 3, 4, 7, and 10 are scored as follows: SA=3, A=2, D=1, and SD=0. Items 2, 5, 6, 8, and 9 are reversed scored using this method: SA=0, A=1, D=2, and SD=3. The higher the total score, the higher the individual self esteem is reflected. The Rosenberg self esteem scale was originally developed in 1960 and tested using 5,024 high school juniors and seniors from 5 randomly selected schools (The Morris Rosenberg Foundation, 2005).

The scale has high reliability and has a test retest correlation of .82 to .88 and a Cronback alpha ranging from .77 to .88.

The computer attitude questionnaire (CAQ) is a 4 point Likert scaled self report questionnaire composed of 65 items. The instrument is designed to measure attitudes or feelings and not achievement. The CAQ is composed of 8 subscales and 3 paired comparison sets. The 8 subscales are: a) Computer Importance [CI], b) Computer Enjoyment [CE], c) Motivation / Persistence [MP], d) Study Habits [SH], e) Empathy [EM], f) Creative Tendencies [CT], g) School [SC], h) Anxiety [AN]. Reliability for the 8 subscales ranged from $r=.72$ and $r=.89$ using Cronbach's Alpha. These correspond to internal consistency reliability ratings of respectable to very good (Knezek and Christiansen, 2000).

The open ended focus group interviews were conducted toward the end of the intervention. The focus of the questions were geared toward eliciting a free flowing discussion that explores participant ideas on: (a) community formation (e.g. What types of communications technology do you use most often?), (b) learning (e.g. If you could invent or buy a piece of technology to help you learn, what would it be?), (c) self efficacy and self esteem (e.g. How can technology mastery skills help you in the future?), (d) resilience (e.g. Why have you decided to not drop out of school) and their relationships with technology.

Types of Data Collection

Participation is seen by some as an essential element of qualitative studies that allow the researcher to hear, see, and experience what the participants see and do – to experience their constructed reality (Marshall and Rossman, 1999). As a participant, a

certain amount of immersion is expected in order to experience this reality. I have worked with these boys for over three years and have visited the site on multiple occasions.

The common recording instrument associated with observation data is the field note (Marshall and Rossman, 1999). Merriam (1998) distinguished the recording of field notes through observation from interviews in two ways: (a) observations take place in the natural setting versus a planned location dedicated for interviewing and (b) observation data is first hand instead of a second hand account of the environment gained through interviews. This study was conducted in multiple settings both on the University campus (in multiple locations) and at the home site of the participants. Merriam (1998) went on to describe some potential pitfalls with this technique of data collection in that human perception can be highly subjective, selective, and therefore potentially unreliable. Marshall and Rossman (1999) described interviewing as a conversation used to uncover the participants views while honoring the framing and voice of the participants. This study used focus group interviewing which placed the participants in a more comfortable setting where their opinions and comments can be framed around the comments of and interaction among their peers. This method allowed for a more natural and relaxed setting as compared to a one to one interview (Marshall and Rossman, 1999). The key to getting good data from an interview is to ask good questions. Merriam (1998) listed three types of questions to avoid: (a) multiple questions, (b) leading questions, and (c) yes-or-no questions. Merriam (1998) also categorized 4 types of questions in general that could elucidate good responses: (a) hypothesized, (b) devils advocate, (c) ideal position, and (d)

interpretive. These suggestions will be used to construct the interview questions for the participants.

Important and often times critical information can be gleaned from documents already in existence. This ready made source of data provides the opportunity for unobtrusive means to collect data (Merriam, 1998). Accuracy, authenticity, and relevance were listed as possible strengths / weaknesses of existing documents. Electronic documents will also be used in the study. Taped interviews, various video recordings of participants, and participant generated projects will be included. Some of the site documents will also be used to collect background and demographic data. Survey data will be gathered in the study to better inform and possibly substantiate qualitative data. Marshall and Rossman (1999) described surveys as offering advantages especially when the research is trying to obtain quantitative data on a particular problem or population. The surveys used target hardiness (resilience), self-efficacy, and self-esteem of the African American males in the study.

Data Analysis

Marshall and Rossman (1999) viewed qualitative data analysis as a “messy, ambiguous, time consuming, creative, and fascinating process” (p. 150) that brought structure and order to the mass of collected data. Merriam (1998) described this process as a “mysterious metamorphosis” (p. 155) where the researcher retreated with the mounds of data to return later with findings, similar to that of a butterfly emerging from the cocoon. This mysteriousness of the process encouraged me to use the advice and model recommended by Miles and Huberman (1994) to conduct my analysis of the data. Miles and Huberman (1994) described data analysis as consisting of three phases: (a)

data reduction, (b) data display, and (c) conclusion drawing and verification. This represents an iterative process that I used to make meaning of the collected data.

Data Reduction

Selecting, focusing, simplifying, abstracting, and transforming the data composes the act of data reduction (Miles and Huberman, 1994). This process can actually start before data is collected. This is an iterative process that continues until the researcher is able to “sharpen, focus, discard, and organize data and produce a meaningful interpretation of the data that reflects the reality of the participants.

Data Display

My study will include focus group interviews, observations, video recordings, and participant generated electronic documents (presentation, music, and video). This can present a serious problem if I become overwhelmed with seemingly related but unconnected data. Miles and Huberman (1994) defined a display as an “organized and compressed assembly of information that allows for better understanding and follow-up action. Because my research is grounded in the idea of action, it fits perfectly.

Conclusion Drawing and Verification

This phase of the analysis begins with the inception of the research idea. Though the researcher hopefully seeks to maintain an open minded approach, ideas concerning possible conclusions are already present in our minds. Miles and Huberman (1994) wrote that noting patterns, explanations, and propositions all start at the beginning of data collection. They go on to suggest that conclusions should be tested or validated otherwise you may just provide an interesting story of “unknown truth and utility” (p.11).

The problems that African American males encounter are serious and potentially life threatening, even over generations. In this study I have to be vigilant to not overly weigh the impact of technology as an enhancement to their educational resilience. The possibility that the intervention by itself may help to encourage the young men will also need to be taken into account.

The next chapter (chapter 4) provides the meat of the study. Here is where the voices of the participants will be listed. Results from the interviews, resilience and self-esteem surveys will be displayed and later analyzed to discover emergent themes.

CHAPTER 4

FINDINGS AND ANALYSIS

This chapter will include the data collected during the study arranged in a way that helps to transform data into information. Merriam (1998) indicated that this process should include quotes from interviews or field notes that support each finding. The interviews, observations, and survey data will be used to make meaning. The iterative process of collecting, consolidating, reducing, and interpreting data to make “meaning or understanding or insights constitutes findings (Merriam, 1998, p. 178). Merriam (1998) also described the development of categories as a process “reflecting the purpose of the research” (p.183) and coming from the researcher, participant and outside sources. Though I must remain open on the method of data display in the chapter, Miles and Huberman (1994) give an example of a conceptually clustered matrix that may allow for a organized and coherent ordering of interview responses. They went on to offer a general warning against incorporating too many questions. This may lead to the development of multiple displays that reflect the main areas of the study—resilience, community, and technology. Participant voices will be included in the analysis section to help address the research questions..

The use of extended, unreduced text (field notes), recordings, or observations can be difficult to order and make meaning (Miles and Huberman, 1994). The remedy is to create displays that are focused, permit viewing of full data sets in the same location, and are arranged to answer the research question. As stated earlier the quantitative data will be displayed to better inform and support the qualitative data and vice versa. Data is derived from several sources including: a) Resilience (HardiAttitude) survey, b)

Rosenberg Self Esteem Survey (SES), c) Computer Attitude Questionnaire, and d) Qualitative interviews and questionnaires.

Findings

The Hardiness Personal Views Survey (PVS) is composed of 18 items and is used to measure resilience. A sampling of the questions and selected responses will be looked at and the general resilience score will be compared to a normative scale designed by the originators of the survey instrument.

Also to get a better feel for the responses since the algorithm is proprietary, selected questions will be grouped and the responses explored. The survey has 3 sub groups and an overall resilience score. Table 1 summarizes the results. The commitment subscale ranges from a low of 9 to a high of 18. The average commitment score for the group was 15. Commitment is defined as the belief that being involved with others and events provide the best chance of finding what is personally worthwhile. Control ranges from 5 to 11 and has an average of 8. This subscale reflects the belief that one can influence the outcome of ongoing events. With a range of 9 to 15, challenge reflects the degree to which one believes that growth in wisdom comes from both positive and negative learned experiences. The average challenge score was 11. The general resilience score that is derived from the three subscales ranges from 25 to 42 with an average of 34 for the group.

Table 1

Comparison of Resilience Scores

<i>Resilience Scores</i>				
<i>Students</i>	<i>Commitment</i>	<i>Control</i>	<i>Challenge</i>	<i>Resilience (HardiAttitudes)</i>
Participant Averages	15	8	11	34
*Resilience Averages	12	10	10	32
SD	3	3	3	7

Note. * The Hardiness Institute

The group score for the participants in the study were closely matched and within the norms and standard deviation (SD) obtained by the originators of the instrument. The norms resulted from a random study of approximately 3,000 adolescents and 10,000 adults ranging between 15 and 74 years of age (The Hardiness Institute Inc., 2006). The participants had a higher commitment (15 vs. 12) and also a higher challenge score (11 vs. 10). The only score in the subscales that was lower as measured by the resilience scale was control (8 vs. 10).

Resilience scores in the 40% to 60% range are to be interpreted as average in the courage to cope effectively with changing and stressful situations (Hardiness Institute, 2006). This correlates to a raw score between 30 and 35. Scores above or below this 30 to 35 range indicate an individual with sufficient or insufficient resilience as measured by the instrument. A summary of the group scores that fall within and outside of the averages is listed below in Table 2.

Table 2

Breakdown of Resilience Scores

	Number	Percentage
Less than 30	1	9 %
Between 30 and 35	6	54 %
Greater than 35	4	36 %

In order to get a closer look at the survey responses and how they may reflect the attitudes of the participants, I have grouped selected questions in a way that may prove useful. Table 3 displays the questions in these groups and a summary of the responses.

Table 3

Selected Questions from the Resilience Questionnaire

		Not at all True	A little True	TRUE	Very True
Q1	By working hard, you can always achieve your goal.	0	1	3	6
Q5	Most of what happens in life is just meant to be.	0	1	3	4
Q6	When I make plans, I'm certain I can make them work.	0	4	4	2
Q7	No matter how hard I try, my efforts usually accomplish little.	3	4	3	0
Q11	Trying your best at what you do usually pays off in the end.	0	1	4	5
Q2	I don't like to make changes in my everyday schedule.	5	3	1	1
Q4	I am not equipped to handle unexpected problems.	5	4	1	0
Q13	It bothers me when my daily routine gets interrupted.	4	2	1	2
Q16	Changes in routine provoke me to learn.	2	5	1	1
Q9	Most of the time, people listen carefully to what I have to say.	1	2	5	1
Q10	Thinking of yourself as a free person just leads to frustration.	4	5	1	0
Q17	Most days, life is really interesting and exciting for me.	0	3	6	1

The computer attitude questionnaire (CAQ) showed lower scores in each category when compared to a study conducted by the originators of the instrument (Table 4). The measurements for the eight subscales computer importance [CI], computer enjoyment [CE], motivation / persistence [MP], study habits [SH], empathy [EM], creative tendencies [CT], school [SC], and anxiety [AN] show a difference ranging from a low of .25 in MP to a high of .91 in EM. The comparison study included 2,884 seventh through twelfth grade participants from the Allen Independent School district in Texas as a part of the KIDS project during 1999 and 2000 (Knezek and Christiansen, 2000).

Table 4

Comparison of CAQ Subscale Means

Computer Attitude Questionnaire Participant Means							
CI	CE	MP	SH	EM	CT	SC	AN
3.16	3.26	2.97	3.04	2.86	2.98	2.23	3.11
National Study Means							
3.81	3.89	3.2	3.34	3.77	3.48	2.62	3.97
Difference							
.65	.63	.25	.3	.91	.5	.39	.86

Note. Knezek and Christensen. Refining best teaching practices for technology integration: KIDS project findings for 1999 – 2000. Institute for the integration of technology into teaching and learning.

The participant's mean group score for the Rosenberg self esteem survey, displayed in Table 5, were in line though slightly higher (32.1 vs. 29.9) than a similar study that looked at students in non-mainstream schools. These scores also fell within the standard deviation of the national study.

Table 5

Comparison of Rosenberg SES means

Rosenberg SES			
Self Esteem	Mean	SD	Range
	*29.89	5.71	13 – 40
Participants	32.17	3.99	24 - 38

Note. *Conner, Pyrazli, Frerrer-Wreder, & Grahame. The relation of age, gender, ethnicity, and risk behaviors to self-esteem among students in non-mainstream schools. *Adolescence*, 39, 457- 473, Fall 2004.

Selected questions from the focus group survey are included below. The data in this area is composed of descriptive information only.

Question 1: How many hours per week do you watch TV?

Table 6

Number of Hours Spent Watching TV

	Number	Percentage
None	1	7%
1 – 3	0	0%
4 – 6	4	31%
7 – 10	4	31%
> 10	4	31%

Question 2: How many hours per week do you play video games?

Table 7

Number of Hours Spent Playing Video Games

	Number	Percentage
None	5	38%
1 – 3	1	7%
4 – 6	2	15%
7 – 10	3	23%
> 10	2	15%

Question 3: How often (on a weekly basis) do you communicate with others in the group?

Table 8

Number of Times They Communicate With Each Other

	Number	Percentage
None	2	15%
1 – 3	6	46%
4 – 6	3	23%
7 – 10	0	0%
> 10	2	15%

Question 4: How often (on a weekly basis) do you phone to talk about school work?

Table 9

Frequency of Phone Calls Concerning School Work

	Number	Percentage
None	10	77%
1 – 3	1	7%
4 – 6	1	7%
7 – 10	1	7%
> 10	0	0%

Question 5: How many email accounts do you have?

Table 10

Number of Email Accounts

	Number	Percentage
None	3	23%
1	6	46%
2	1	7%
3	1	7%
4	2	15%

Question 6: How often (on a weekly basis) do you use email?

Table 11

Frequency of Email Usage

	Number	Percentage
Never	5	38%
1 – 2	4	31%
3 – 4	1	7%
Daily	3	23%

Question 7: What TV shows do you watch?

Table 12

TV Shows Watched by Participants

	Number	Percentage
HBO, BET, MTV	10	77%
News, Sport	1	7%
Doctor 90210	1	7%
Anything on	1	7%

Question 8: Do you have a PC at home?

Table 13

Percentage of Participants with PC's in the Home

	Number	Percentage
Yes	8	72%
No	3	27%

Note: does not indicate internet access

Student Profiles and Self Descriptions

In this section selected demographic and survey data along with self descriptive information is used to provide a profile of the participants. Not all members completed the self descriptive portion of the data collection. The design of the study did not restrict participation of any member with the exception of the maximum number and school administrator requirements. The participants were selected by the school principal and accompanied by two teacher / counselors to my location on each visit. In order to conduct the study the needs of the school administrators were accommodated which meant frequent changes because of disciplinary actions, absenteeism, and other non school related causes—e.g. parole violation. This led to some participants not completing all portions of the study. Though several follow-up visits were made at the site to fill in the gaps, all the data was not collected because of the cited reasons for absences. This study will include the data of all participants even though they may not have completed all phases of the study due to personal or school issues. The participants were transported to my site on Fridays for a two to three hour session.

Table 14

Clevon's Descriptive Profile

Name	Clevon
Age	15
Lives With	FM
Grade	10
Grade on Initial Entrance	5
Works	Y
PC at Home	Y
Personal Cell Phone	Y
Email Accounts	None
Rosenberg SES	33
Resilience (Hardiness)	

Commitment	16								
Control	7								
Challenge	13								
Resilience	36								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		3.29	3.11	2.89	2.80	3.10	2.54	1.75	3.13

Clevon is 15 years old and lives with his grandmother. He self described himself as "BKA [better known as] young groovy" and his health as "lovely and great". His likes are "money and gurls" and dislikes fake people and bald headed girls. He sees his future potential as becoming a truck driver or music producer. The most important people in his life are "grandma and the rest of my family". He likes "being clean" or being well dressed and if he could be someone else that person would be him but with more money. He stated he does not care what others think of him when they see him. His favorite technology is the Playstation 2 and he has attended this school since he was in 5th grade. Both his resilience and self esteem scores are above average when compared to the national study averages. These scores are also higher than the participants group mean score. His computer importance [CI] score is above the group mean score at 3.29 but still below the national study means of 3.81. His computer enjoyment score is also below the group average at 3.00. Clevon's control subscale score is below the group and national means.

Table 15

Terryl's Descriptive Profile

Name	Terryl
Age	17
Lives With	SP

Grade	10								
Grade on Initial Entrance	9								
Works	N								
PC at Home	Y								
Personal Cell Phone	Y								
Email Accounts	None								
Rosenberg SES	24								
Resilience (Hardiness)									
Commitment	14								
Control	6								
Challenge	11								
Resilience	31								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		2.71	3.00	2.56	2.7	2.6	2.46	1.75	3.00

Terryl is 17 years old and has been at the school for 2 years. He is in good health and likes “video games, females, and cars”. He sees himself becoming a millionaire and says his family members are the most important people in his life. If he could grow to become someone else, that person would be Bill Gates. He believes people see a “nice looking guy” when they see him. His favorite technologies are cars, computers, and television. Terryl’s resilience score is average but his self esteem score as measured by the Rosenberg SES is significantly lower than the averages. His computer importance [CI] score is one of the lowest in the group at 2.71 and his computer enjoyment [CE] score is also below the group average at 3.00. His control subscale score was also low when compared to the group and national means.

Table 16

Dwayne’s Descriptive Profile

Name	Dwayne
Age	15
Lives With	SP
Grade	10

Grade on Initial Entrance	8								
Works	N								
PC at Home	Y								
Personal Cell Phone	Y								
Email Accounts	1								
Rosenberg SES	33								
Resilience (Hardiness)									
Commitment	9								
Control	5								
Challenge	11								
Resilience	25								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		3.57	3.67	2.67	2.90	2.40	2.92	3.00	2.88

Dwayne's resilience score is below the average but his self esteem score is above average when compared against the national and group averages. In fact his overall resilience and individual commitment, control, and challenge sub scores were the lowest of the group. Dwayne was one of the quieter participants in the group. He indicated that he watched more than 10 hours of TV weekly, played video games 7 – 10 hours weekly, used email weekly, and possessed a cell phone. He did not provide his GPA or the self descriptive questionnaire. His computer importance and computer enjoyment subscale scores were higher than the group means though still lower than the national study. His score of 5 on the control subscale was the lowest of the group.

Table 17

Michael's Descriptive Profile

Name	Michael
Age	17
Lives With	SP
Grade	11
Grade on Initial Entrance	
Works	Y
PC at Home	N

Personal Cell Phone	Y								
Email Accounts	2								
Rosenberg SES	32								
Resilience (Hardiness)									
Commitment	18								
Control	9								
Challenge	9								
Resilience	36								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		3.57	3.78	3.00	3.00	3.60	3.23	2.25	3.75

Michael is in good health and likes video games, soccer, and talking on the phone. He sees himself becoming a plastic surgeon one day and declared his family as the most important people in his life. He “doesn’t care to be anyone else” but does want more money. He says he doesn’t care what other people think about him and indicated that the Xbox 360 is his favorite piece of technology. Michael’s resilience score is above average and his Rosenberg SES score is slightly below the group average though higher than the national average. His computer importance and computer enjoyment scores are above average when compared to the group and slightly lower than the national study.

Table 18

Khalil’s Descriptive Profile

Name	Khalil
Age	17
Lives With	FM
Grade	11
Grade on Initial Entrance	10
Works	Y
PC at Home	N
Personal Cell Phone	Y
Email Accounts	4
Rosenberg SES	34
Resilience (Hardiness)	
Commitment	16

Control	11								
Challenge	15								
Resilience	42								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		2.57	3.33	2.89	2.90	2.70	3.15	1.50	3.50

Khalil is 17 years old and likes to “rap freestyle” and “chill with his homeboys and girlfriend”. He dislikes “people with attitudes, young dumb girls and people who aint got control over their lives”. He indicated he would one day own a paint and body shop and also become a real estate agent. The most important people in his life were his little brothers and nephews, and his sister. He stated he would want to grow to become a “more successful me. I don’t want to be nobody but Khalil”. Khalil was a little more expressive about what other people see when they see him. He stated “ People can think whatever about me when they see me but I don’t care, cause nine times out of ten they are wrong. See you can think whatever about me but I know who I am and how I carry myself”. His favorite technologies include computers, music players, and television. Both resilience and Rosenberg SES scores are above average. In fact his resilience SES is 10 points higher and the Rosenberg SES 5 points higher. His computer importance score is one of the lowest in the group but his computer enjoyment score is above the group mean and close to the national study mean. His resilience score and all subscales were among the highest in the group.

Table 19
Desmond's Descriptive Profile

Name	Desmond								
Age	15								
Lives With	FM								
Grade	10								
Grade on Initial Entrance	9								
Works	N								
PC at Home	Y								
Personal Cell Phone	Y								
Email Accounts	None								
Rosenberg SES	34								
Resilience (Hardiness)									
Commitment	15								
Control	8								
Challenge	11								
Resilience	34								
Computer Attitude Questionnaire	CI	CE	MP	SH	EM	CT	SC	AN	
	3.14	3.00	2.67	2.70	2.90	2.85	2.00	2.88	

Desmond's resilience score is in line with national averages. His Rosenberg SES indicates a score almost 5 points higher than the average. Desmond listed his GPA as a "B" while also indicating that he watched 15 hours of TV per week and played video games an average of 5 hours weekly. He indicated that he never uses email and never uses the phone to talk about school work with his peers. Desmond has a PC at home and a personal cell phone. However he did not complete the self descriptive questionnaire. His computer importance and computer enjoyment scores were lower than the group means. His control subscale score was also lower than the national study means though the same as the group mean. His motivation and persistence score was also lower than the group and national means.

Table 20

David's Descriptive Profile

Name	David								
Age	17								
Lives With	B								
Grade	11								
Grade on Initial Entrance									
Works	N								
PC at Home	Y								
Personal Cell Phone	N								
Email Accounts	3								
Rosenberg SES	33								
Resilience (Hardiness)									
Commitment	16								
Control	6								
Challenge	11								
Resilience	33								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		3.14	3.33	2.78	3.20	2.30	2.62	2.75	3.63

David is 17 years old, in decent health, and likes different kinds of foods and playing video games. If he could become someone else that person would be Bill Gates. He wants to become a video game designer and stated when people see him they see “my father and a successful person”. His favorite technologies are computers, cell phones, and television. Both scores for resilience and self esteem are within the national averages. However his control subscale is below the group and national study average. His computer importance score is slightly below the group means while his computer enjoyment score is slightly above the group mean. Both scores however are below the national study mean. His motivation and persistence [MP] score is also below the group and national study means.

Table 21

Marion's Descriptive Profile

Name	Marion								
Age	16								
Lives With	SP								
Grade	11								
Grade on Initial Entrance									
Works	N								
PC at Home	Y								
Personal Cell Phone	Y								
Email Accounts	1								
Rosenberg SES	38								
Resilience (Hardiness)									
Commitment	17								
Control	10								
Challenge	11								
Resilience	38								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		2.29	3.11	2.89	2.80	2.00	2.69	2.50	3.00

Marion describes himself as a “great and overall person”. He dislikes haters and likes money and girls. He sees himself as an entrepreneur starting a chain of stores. His desires for the future include being himself but with more money stating “it really doesn’t matter what other people think of him”. Family is the most important thing to him and the computer is his favorite technology. Both the resilience and self esteem scores for Marion were above the averages. Marion’s computer importance score is the lowest in the group and well below the national study means. He also has the lowest empathy [EM] score among the participants. His computer enjoyment while not the lowest in the group is below the group and national study means. A control subscale score of 10 puts Marion at the average of the national study and above the group mean score of 8.

Table 22

Stephon's Descriptive Profile

Name	Stephon								
Age	16								
Lives With	O								
Grade	11								
Grade on Initial Entrance	8								
Works	Y								
PC at Home	N								
Personal Cell Phone	Y								
Email Accounts	1								
Rosenberg SES	0								
Resilience (Hardiness)									
Commitment	12								
Control	8								
Challenge	10								
Resilience	30								
Computer Attitude Questionnaire	CI	CE	MP	SH	EM	CT	SC	AN	
	3.00	3.33	3.00	3.20	2.20	2.62	2.25	3.25	

Stephon stated “I think when people see or look at me, they think of me as just another Black Human on earth”. He dislikes haters, likes women and sees himself as a truck driver in the future. He indicated his “grandmother and others” as the most important people in his life. When asked if he had anything else to say he wrote “I’m a REAL NI**A !!!” His resilience score is within the norm scores but four points below the group average. Stephon’s computer importance and computer enjoyment scores (3.00 and 3.33 respectively) are both below the group and national study averages. However, his motivation and persistence score is slightly above the group mean but still below the national study average. His control subscale score is the same as the group mean and below that of the national study.

Table 23

Marvin's Descriptive Profile

Name	Marvin								
Age	17								
Lives With	B								
Grade	11								
Grade on Initial Entrance									
Works	Y								
PC at Home	Y								
Personal Cell Phone	Y								
Email Accounts	1								
Rosenberg SES	28								
Resilience (Hardiness)									
Commitment	14								
Control	8								
Challenge	12								
Resilience	34								
Computer Attitude Questionnaire		CI	CE	MP	SH	EM	CT	SC	AN
		2.86	3.22	2.67	2.80	2.90	2.77	2.50	3.25

Marvin's self esteem score is slightly below the group average but his resilience score is above average. At 17 years of age he is one of the older participants. He has a job and lives with both of his parents. His scores for computer importance (CI) and computer enjoyment (CE) were below the group average but not the lowest of the group members. Marvin's attendance in our sessions was sporadic. He did not complete the self descriptive questionnaire. His motivation and persistence score was below the group mean. The control subscale score of 8 equaled the group mean score but was lower than the 10 indicated on the national study.

Analysis

There were three research questions: a) what role does technology play in the formation of community, b) what role does technology play in the educational resilience of at risk students, and c) what are the conditions that impede or contribute to educational resilience. In this section I will attempt to make meaning of the data obtained and correlate it with data previously presented to address the research questions.

What Role Does Technology Play in the Formation of Community?

The feeling of community among the participants was not very apparent at the surface. This is important because in many cases the lack of community and the persistent focus on competition while in the classroom often plays against the educational achievement of minorities (Haskell, 2001). When asked if anyone lived in the same neighborhoods the answer was “no”. When asked do you talk to anyone in the group, the answer again was “no”. The communications technology that a majority of the participants identified with most was the television. In fact, more than a third indicated they watch more than 10 hours of TV per week. I suspect that the actual number is much higher. Only one participant indicated he did not watch TV at all, though he did indicate that BET was a show he watched. There is a distinct and all too often common disconnect among some students that seek to improve themselves academically but on the other hand can not seem to resist the holding power of TV. Rap video and (un) reality shows – to name a few—have supplanted the sage discourse handed down by elders in the family and teachers in the classroom to become sites of community. The fast pace of our global society that often requires both parents to work or single parents to have 2 or more jobs has enabled the holding power of television to become the guardians or givers of truth to

many of our young people. What is valued as knowledge by some of these young men sometimes revolves around what rappers are feuding over, when the new CD will hit the streets, or who is “kickin it” it with whom.

If we are to have an impact in helping these African American males realize their dreams, we must find ways to bridge this gap by challenging sometimes prevalent assumptions of what information or knowledge is valuable. When given the opportunity to use the music and video editing equipment the two ideas that overwhelmingly resounded within the group were to make a rap video and a basketball related clip. Not only must we encourage their desire or interest to capitalize on technology, we must also become active coaches and participants in their learning by demonstrating and guiding them to realize the many opportunities in their immediate and distant future. Educational institutions must realize that their purpose is to emancipate and empower and not perpetuate programs and ideals that oppress and marginalize (Yosso, 2002). A significant part of this can be accomplished by listening and encouraging them to become producers and not merely consumers and to form shared communities that provide growth as well as protective boundaries. The hyper-reality view of the world that television portrays is much like the video gaming world; you can get short term satisfaction and maybe even bragging rights but unless there is underlying substance, beside the brief break from reality it eventually leaves you empty and with little prolonged value.

More than 50% of the participants played video games 4 or more hours per week. Most (80%) of the participants identified as having a job indicated they did not play video games at all. Distance from one another and their lukewarm feelings toward rules

(mostly about the absence of girls and corporal punishment) set within the school itself; I suspect did not help the feeling of community. Clevon's reasoning as to why the feeling of community seemed diminished was expressed with this statement "some acting lame, two-faced, just certain people". He seemed to really only get along with one of his peers (David). When asked what would improve feelings of community among the group, David responded by saying "parties, but the parties I go to they cannot". David was one of the older members of the group at age 17 and acted a little more mature. Collaboration tools based on technology can help create and enhance communications and cooperative activities that foster community. These African American males need opportunities to communicate outside of the school with their peers and others that have their best interest at heart. Seventy two percent of the students indicated there was a PC at home. Twenty three percent of the participants indicated that they did not use e-mail, while 46% indicated they only had one e-mail account. More than a third or 38% of the respondents stated they never used e-mail, while another third indicated usage anywhere from three to four times per week to a daily basis.

My initial thought into the lack of community feelings among the students and apparent lack of communications or bonds with or without the use of technology may be explained by the lack of persistent access and relevant uses of technology in their curricula and their dispersed neighborhoods. Brown (2000) touched on this concluding that research had shown that technology is most effective when integrated into everyday classroom activities and the curriculum as a whole. This is not an indictment of the school as resource funding at the site is very scarce, in fact a colleague and I have identified an organization that may fund a library / media center that can help improve

this aspect of the school curriculum. During the intervention the students were given hands-on training on web page development, the tear down and buildup of PCs, and also how to create short video productions. During all of these exercises they were eager to learn, share their results, and help others.

These hands-on, interactive, and sometimes creatively challenging tasks also provided an opportunity to capture the excitement and attention grabbing possibilities of technology. While creating their web pages, the participants were first put at ease to find out how relatively easy it was to produce a simple web page. They then explored their ability to add graphics and multimedia files found on the internet as well as mixing different color schemes and object found locally. The topics of some of these pages included items such as the latest Nike shoe, male and female rappers (mostly female), video gaming sites, cartoon sites, and a few I love me sites. Here again the participants demonstrated an ability to learn new things, be creative, and help in each others learning. Saracho and Gerstl (cited in Waxman et al., 1992), Haskell (2001), and Omron (1999) talked about the learning style of minorities that is sometimes dependent on the sharing of information in a social and cooperative context that could help in the transfer of knowledge. This was clearly observed as more knowledgeable students became the sages, but once the bits of information were exchanged students quickly retreated into creative solitude to finish their web pages. All of the students were observed both sharing and asking for help while constructing their websites. These constructivist communities made learning an active and shared responsibility between students and teachers while fostering freedom to explore, reflect, and participate in hands on experiential learning (Sandholtz, Ringstaff, & Dwyer, 1997).

During the disassembly and reassembly of the PC's session most of the participants were eager to get started. They were gathered together in an adjoining room first where I briefed them on safety cautions and what they would actually be doing. A few seemed more interested in talking to or looking at the two female interns. After stressing the need to adhere individually and watch out for one another again, I felt confident that everyone had the basics. Once in the room where the PC's were located the participants removed their watches, rings, and chains that hung outside of their shirts without me saying anything. Several participants reminded others of this requirement so they could all get started, displaying a sense of shared community. After a quick visual inspection they were put in groups of two, given a screw driver and assigned a PC. Several students dove right in unscrewing the case, while others looked at me for guidance. Clevon was illustrative of the disinterested participant but nonetheless he followed directions; on the other end Josh was inside of the case and unscrewing cards before I could remind them of static electricity precautions. The exercise illustrated how excitement and interest can lead to genuine learning opportunities as they began to ask about the function of the various cards and components inside the PC. I was pleasantly surprised when the students were told it was time to go and they started to clap. This was a first for me and afterwards, to be honest, I was a little intimidated because I wondered if this type of spontaneous response could be incited again.

This day also showed me how tiresome and chaotic (though rewarding) activities of this sort can be. It was a very hectic day and I was physically and mentally drained (it was only a two hour session) and I looked forward to having them leave and then being able to relax in my office. As I reflected on the days exercise, the return of one

participant remained prominent in my thinking. He had spent some time in jail for a parole violation and had missed the previous weeks visit. He was wearing gold teeth (grills) on his top teeth and as he walked out I asked him why he came with those. He jokingly responded that on the next visit he would have tops and bottoms grilled out, “all ten of them” he said. I wondered whether he would make it or succumb to the trappings of his environment. Were my biases surfacing, possibly so, but as a parent of 2 sons and now adopting another, I understand the difficulties that lay in the path of this young man. Will anyone take the time to get beyond the grilled out edifice of this young man? Khalil said “the reason why we is the way we is...because if somebody already give a description about you and everybody knows and everybody follows up with it...you going to start following up with it yourself”. Herein lays my dread, the young man will fit the description of someone that is not valued, often feared, and sometimes shunned by his own community. Or as Jordan (1974) wrote, seen as “...the handmaid and symbol of basement and evil, a sign of danger and evil” (p. 5) and used as the “social mirror” (p. 22), to contrast what is constructed as good and bad.

Another participant put his PC together in minutes with only a few minor problems. His partner let me know that his father worked on PC's. I asked “Is this easy for you” and he said “yes, I just want to learn how to download and setup now...you know music, movies”. He walked up next to me later and asked if he could take a computer class here at the university. I told him he would have to be enrolled but encouraged him to apply after he graduated. Another participant displayed excited pride after having put the PC together and have it work, but more importantly he was proud to be recognize by his peers and being engaged in the dance of life while using technology

in his education (Reynolds, 2003). The feeling of community felt through accomplishment was evident after just our first meeting in this session.

The video / music production session proved to be very interesting to the students. On our walk over to the Mass Communications building excitement was in the air. We entered through the control room that housed the mixing and editing boards. The boys gazed intently at the large mixing boards with what looked like hundreds of knobs, push buttons, and sliders. We then entered the “set” which had a raised stage with chairs that looked like a talk show would be held there. This room was full of stage lights, cameras, and other pieces of stage equipment. Some of the students got behind the cameras while others assumed positions on the stage and still others stared at the monitors that displayed the stage area. After the participants were introduced to Professor Franklin and Mr. Cherry, they were shown three short video clips created by seniors in the Mass Communications department. Professor Franklin and his student Mr. Cherry would lead this portion of the intervention. The participants talked about each clip afterwards and debated which was the better one. The students were then split into two groups, shown the portable video cameras they would be using, and told they would be responsible for creating a short video based on a theme they created.

The first group eventually decided they would create a video around the song Fly by Kanye West and use a basketball player with little confidence as the theme. The second group was very disorganized but one young man (Khalil) assumed leadership and came up with the idea of creating a rap video using a song by Bob Marley as the theme. He also asked Monica and Shakera, two of my female interns, to appear in the video as dancers. Over the next couple of sessions I stayed with the group shooting the basketball

video. I observed students working and collaborating in what looked like organized chaos. As ideas flowed and members directly involved in a particular scene were filmed, the others were getting in as many games as possible. Interestingly it all seemed to work. When they were asked to clear the court for a shoot or change players for a particular scene amazingly everyone capitulated to the person giving directions. The main scene became problematic for the group when the student that was to dunk the ball could not quite get it right. After several attempts failed, they decided to hold him up in the air and shoot him from the chest up as he dunked the winning basket. Though chaotic at times, bits of community were observed as students assumed leadership roles, took on assigned tasks, and generally cooperated to get a mutually accepted job done. This community was not simply a place where communication was shared, but also a place where individuals were bound to a common good or goal (Sumara, 1996).

Shakera described her observations of other group project this way “They were excited from the onset. They had all these ideas and visions of how they wanted the video to look, what type of music they wanted, and even where they wanted to shoot the video”. These participants displayed an enormous amount of teamwork, collaboration, community, and leadership skills. They were able to construct a story line using a basketball, video camera, and their ideas. These tasks allowed the students to create something that was culturally relevant and exposed them to some of the behind the scene actions necessary to produce some of the videos they watch on a daily basis. The efficacy and esteem of the group was visibly enhanced.

I believe this is an area that schools can capitalize on and provide more engaging and community building opportunities for African American males. This research

question will remain an area to be revisited for further study and possible implementation of strategies and other interventions to help in their schooling. Second Life, an online virtual simulation world provided another opportunity to observe the community building power of technology. During the initial introduction to Second Life, excitement and anticipation were evident as the students talked about building their avatars and acquiring virtual property. A power outage curtailed this venture until our next meeting. Though short lived the interest and attention gathering abilities of the game could be harnessed to provide connections to real life situations. Though not as prevalent as it could have been initially, the use of technology did encourage increased feelings of community among the participants. The ability to provide social and academic spaces for these African American males through the use of technology provided glimmers of what could and should be.

What Role Does Technology Play in the Educational Resilience of at Risk Students?

Technology facilitates activities that encourage community. The expectations of using some newer technologies made the participants eager to learn, share, and help one another. Sharing sites of interest when creating web pages and helping those less familiar with the use of technology and engaged environment. Sharing a sense of success, confidence, and pride helped form community among the students while building their virtual communities in Second Life provided opportunities to explore and share. A poetic description of this is the statement by Healy (as cited in Porter, 1997) "...Place is security, space is freedom: we are attached to the one and long for the other" which may reflect the sense of excitement of the young men.

Due to resource issues the participants have had minimal exposure to educational technology. Linkages to technology within their curriculum and the possibilities can influence and enhance their creative and exploratory senses, leading to increased educational resilience. The measures in the CAQ indicated the participant's feelings about computer importance (CI) and computer enjoyment (CE) were lower than the average in a similar study completed in a school district in Texas. The participants acknowledged their sense of the importance of computers in their educational future, as one stated "isn't it true that it is a must to have...it's a must to have a laptop in college". One of the most salient points along this line came from Terryl in answering a follow-on question that concerned what could be done to help African-American males learn. He simply stated "grab attention...like having pizza". On this day I provided pizza to show my appreciation of them. In relation to technology we could have the word pizza replaced with other words or phrases, e.g. electronic portfolios, video communications, or creating DVDs. Clevon seconded this concept of providing relevant and interesting ways of learning stating "... more interesting classes, like police brutality, something like Tupac says". Referring to the rapper Tupac's signature style of creating lyrics and story lines that reflected the lived experiences of many inner city youth. Someone interjected "we should have classes on sex". Khalil joined the chorus stating "yes we should have classes on sex, this part and this part, on all". Unanimous consensus was heard around the room and Khalil continued "but instead we have classes on gym, we have classes that really we don't need in the future, that we really aren't going to need unless you are certain...you know unless you majoring in something that you really going to need it in, let's see social studies... because we aint really doing nothing but learning about

something that happened long time ago...you won't use it unless you are teacher”.

These cries for relevant educational experiences should not go unheeded. Laffey et al's., (2003) study found that behavior and learning improved when technology interventions were used with students from low socioeconomic backgrounds. Floyd's (1996) study of African American high school seniors also showed that relevant participation opportunities and collaboration were key ingredients in developing educational resilience. The infusion of relevant technology based interventions into the curriculum of African American males has been proven to provide a link to educational resilience.

Each of us desires relevancy in our lives, yet for some reason we sometimes forget about this universal characteristic when it comes to educating our students. An offshoot of this forgetfulness is students that become zombies in our classrooms or worse dropouts. These students were interested in things that affect them in either real or perceived ways. Police brutality, sex, technology usage, and even a pizza can become stimuli for engaging students in curricula related discourse. The evolving technological realm can be harnessed here to engage students at many different levels. The simple word processor can be used to create electronic portfolios, storybooks, diaries, daily blogs, shared meeting sites, multimedia stores, web pages, and countless other sites of interest. “Community, then, is built by...we relevant information (Foster, as cited in Porter, 1997, p. 25), that is allowed to flow undeterred. The use of “we relevant” information can be used to build interest and excitement, thereby leading to increased educational resilience.

At a basic level Khalil indicated how technology can be used as an important communication / collaboration tool when homework or study difficulties are encountered.

In response to a question about cell phones he stated "I'll be able to...like if I had a situation in which I was stuck some way...I got my cell phone to call somebody and be like hey I need dis and dis and dis". The creative tendencies of the group were readily evident though the measures on the CAQ were lower than the cited study (2.98 versus 3.48). Their response to questions about the invention or purchase of technology to help them learn included: a) cloning themselves, b) using a hologram, and c) teleportation device. The clone comment did elicit some laughter as one participant stated "why you want two stupid ones". Other comments flowed around the room. The hologram and teleportation devices I believe were being used in the context of not having to be physically in place (at the school) while learning. However, I did hear a few comments about teleporting into the girls dressing room. Clearly there were some participants that were interested in the science fiction realm, though I believe this to be an extension of their involvement with gaming to some extent. In fact though all of the students seemed genuinely interested in becoming a part of the Second Life virtual world, there were at least two participants that intuitively knew how to maneuver within this virtual world. As I guided the students through the installation, configuration, and then building of their avatars, I found my avatar was being virtually toyed with—sometimes in a sexual manner. It later dawned on me that the avatar that was having fun with me was being manipulated by one of my participants. Within minutes this student was flying around in Second Life and acquiring virtual properties. Other students and eventually I gathered around him to see if we could learn something. I have learned that teaching and learning can be a rewarding and reciprocal endeavor if one is open. It quickly became evident to me that these young men were very interested in this virtual world and that if harnessed it

could be used to generate genuine teaching and learning moments concerning economics, power, community building, or life itself.

The comment by one participant that he liked the idea of having robots to "think for me" and "do my homework" did provoke a challenge from Khalil, who stated "that might just say you can't make your own decisions, might as well say you are little kid again". This comment showed the extent to which many students want relevant activities that are challenging. They do not want a watered down curriculum that stunts their academic growth or decision making faculties. Josh's creativity and ways of understanding led to this statement concerning creating new technologies "something to help me stay alive – pause – forever". In the background affirmation and suggestions of changing their minds to this way of thinking became unanimous. Contrary to some who believe African American males do not care whether they live or die, these African American males were concerned about their mortality, community and environment. They want to live and experience the wonders of the world, much like everyone else. One of the interns summed it up in her view stating "My overall assessment of the group is that they are a group of boys that simply needs guidance and motivation. Their backgrounds or households may be lacking of positive influences, but I think with some direction they would eventually become successes". I share this sentiment though not all of the students lacked positive influences in their home.

One participant's statement describing how technology helps with history assignments because "sometimes people may not feel like reading books all the time – just go to the computer – look back at what year – people", may be troubling to some. But here is where the role of technology can be leveraged to supplement reading and

writing assignments. Technology does have a holding power that can help the delivery of topics and concepts that may go unexplored otherwise. One theme that was consistent throughout the study was the expectation that technology would lead to a better financial situation. Khalil stated "one thing I want technology to do for me is to pay some bills...That's what I want it to do for me." For these young men the reality of life often revolves around being able to "pay some bills". Acquiring financial freedom had become a theme in many of their comments and how technology could help them to gain employment and enable a sense of manhood and self worth. Some saw technology being the engine that enables them to gain access to the economic powers needed to survive. Monica shared her observations and interpretations "...they were eager to learn something interesting that they might be able to "adopt" as a skill so that they could use it to make money in the future. It seemed like they wanted to somehow find something that they are good at so they could use it to "move up" in the world (make money, move out of the hood, or go to college)."

They have also recognized the impact that technology has in many facets of our evolving global economy. Clewon stated technology mastery skills could help "get me a job" while Josh stated "it could help me keep my job". If nothing more these participants understand that education is important. For some technology is important as a means of achieving their educational goals or gaining and maintaining employment. An opportunity exists to expand the role of technology and take advantage of the holding power that is clearly evident in the increasing use of ubiquitous personal technologies. Their educational resilience can be enhanced by using technology to create links to their lived situations and maybe even provide a means to "pay some bills". Technology can

help create successful educational spaces that build and create interest in topics. It can also provide the means to bring relevance while in the classroom to the lived situations of our students. For the participants, the ability of technology to grab and hold attention while also providing opportunities to gain financially were in the forefront of the possibilities and possibly instrumental in enhancing their educational resilience.

What are the Conditions that Impede or Contribute to Educational Resilience?

The participants in the study showed that there are hopes for success, whether that entailed becoming an engineer, a plastic surgeon, or a truck driver. The question then is what can be done to minimize the conditions that could lead to a diminished educational resilience for African American males. The questions and the participant's responses on the resilience survey (Table 3) may provide some valuable insights. The responses to the first set of questions (Q1, 5, 6, 7, and 11) provide a contradictory outlook on their life chances of being successful. While all indicated they believed in a work ethic to some extent (Q1), they also indicated they thought they had little control over their life outcomes (Q7). Maybe this can be explained by seeing how things can be (e.g. nice car, home, and relative security) but being immersed in the reality of those in and around their communities. These African American males must not only be told of possibilities of their future, they must be supported by providing relevant opportunities and guidance to discover the possibilities within.

This journey of discovery can prevent or at least provide a means of recovery from those conditions that seem to perpetuate disastrous outcomes. In a discussion about the toughest things they had to do while in school someone blurted "listening to Mr. Martin", another chimed in and said "avoiding getting beat", then a chorus started

mentioning many of the common phrases heard daily, resisting peer pressure, drugs, and getting into trouble at school. And then Clevon said something that highlighted the seriousness of the situation. For him, he had to learn to not steal, but not from stores—he alluded to sticking up people. Surprisingly this was done using a fake BB gun, he stated “stealing, I had a fake BB gun”. Laughs of incredulousness went around the room. Then he stated “it looks real though and when pressed in your back...give me all that son...it feels real”. What would it take for him to graduate in the school of life to carrying a real gun and possibly hurting others or himself? This is coming from a 15 year old young man that lives with and helps take care of an ailing 78 year old grandmother.

This particular young man and his lived situation illustrates the dichotomy present in how young African American males are seen, represented, and regrettably sometimes express their discontent. This young man is being educated in the streets as well as the school. To look at him you would see a young soft spoken teenager that communicates intelligently and comfortably. Prolonged observations and conversations reveal older life experiences than the 15 years he has lived. These young African American males need and I believe want interventions, caring people, and opportunities that can help them to attain their dreams and avoid the negative trappings that are so easily accessible. Upon hearing this story some may say he is on his way to the prison university. My experiences lead me to believe he can come to realize a different future. I played with real guns as a young teenager and fortunately the only person that was hurt was me. I carried that bullet in my back in the tenth grade and did not have it removed until after several years in the military. The bullet was removed but the physical and emotional reminders remain. For those that believe or pretend that education starts and stops at the

school door, life will only disappoint and create more chaotic scenes that could hinder the positive possibilities of our youth.

David provided some insight into conditions that may ameliorate negative situations in the lives of these young men. He stated that “if I drop out of school, one my mama will kill me, two my daddy will kill me. If I drop out of school I won't be able to be...won't be able to work on computers”. This connection between supportive family or community members, expectations of success, and thoughts of positive future potential are immeasurable and immensely important. I know many individual and civic organizations that provide help and services in this area. The problem though persists due to interactions of many complex issues. Teen pregnancy, failing and sometimes unjust schools, incarceration, and dying inner city economic centers are just a few concerns that interact to help produce conditions where our children become lost at a crucial time as they transcend to adulthood.

The second grouping of questions (Q2, 4, 13, and 16) indicates that the majority of these participants are accustomed to change and to some extent are able to extract life's learning from these disruptions. Their response to whether they were equipped to handle unexpected problems (Q4) did indicate a certain amount of uneasiness. While half indicated they were equipped the others were not as sure of themselves. Their response to whether change provokes them to learn (Q16) was encouraging and shows the resilient nature of the group. Only two respondents answered the question negatively. This may also be illustrative of the general family support structures of the participants. The vast majority of the participants live with a family member or single parent. In a discussion about family or community support, Khalil talked openly about what

motivates him. Though somewhat different from my own situation, I readily identified with his statement that “well what keeps me out of trouble is negative motivation, [where from] my mama”. After a moment of silence he continued:

” Some things, you know, some things, your parents can tell you, you can look at and say what ever, and then some things she say and go out of line with, you look at, you probably look at...you ain't supposed to say anything like that, you know what I'm saying...for instance, your parent ever looked at you and say they would kill you or when you grow you are not going to be nothing or amount to nothing, you're going to be locked up or dead before you get 18. That's what motivated me to stay in school, to be the best person, cause when I'm rich, when I'm on TV and I'm in my mansion and I'm just going at it big and I'm laughing back at everything I've heard and I'm looking back I am like huh, look at me now. That's why.”

In an unexpected way we can see the importance of positive influences on young black men and how in some situations young people can pull understanding from negative disruptions, turn them around, and succeed. He now lives with his older sister who along with an inner resilient strength, provides the base of his support. Khalil's experience also challenges the deficit models often used to engage African American males and offers an alternative to bring forward the “strengths within students of color and communities” (Solorzano and Yosso, 2001, p. 7).

Michael indicated his job provided support in his life. This response generated some laughter initially. He continued “You know, if my parents are having trouble, they

say don't worry about it, its going to be all right". This support from the external community, along with individual characteristics and supportive family, is listed as a key protective factor by Miller (1999). I was a little surprised – not really – when someone stated “man you must work with a bunch of white people”. When a follow up question was asked inquiring whether skin color mattered, Khalil responded “in my opinion it really doesn't matter, but who would you rather have supporting you a Caucasian or someone from your own race”. This underscores the importance of having positive role models in these young men lives that look like them and can identify with their lived situations. Others also suggest that African American male teachers are more committed to blacks and understand the nuances and context of their lives (Lynn, Johnson, & Hassan, 2000)..

The third grouping indicates that students expect and are being listened to for the most part. The troubling area here is that there is a significant number that do not seem to feel they are autonomous beings with choices and inputs. Thinking of yourself as a free person is for many the driving force to becoming a self reliant, free thinking, and autonomous person. Yet when asked whether thinking of themselves as a free person leads to frustration, 60% chose true or a little bit true for their response. This response could have something to do with the strict dress code, behavior rules, and corporal punishment that is a part of the makeup of this site. Genevieve (1997) and Krovetz (1999) cited autonomy and a sense of purpose as key characteristics needed to develop resilient students. Krovetz even suggested that schools hinder rather than enhance educational resilience. Hopefully this attitude reflects the rules and codes of the school they attend and is not an indicator of how they truly feel about their life chances. Having

an emancipatory praxis that is informed by the experiences and voices of these young men can only enhance their feeling of autonomy (Daspit, as cited in Daspit and Weaver, 1999).

The last question (asking whether life is interesting and exciting most days) is one to build on and enhance the educational resilience of students. Using technology to provide relevant links and opportunities between school curriculum and the lived situation of these African American males might prevent students like Clevon from graduating to the prison university. I looked forward to seeing these students on Friday's. Overtime I saw in these students a willingness and desire to learn. But I also saw and experienced a reluctance to be lectured to for lengthy periods on topics that they were not allowed to share fully with their own experience and knowledge. These African American males need and deserve dynamic and interested teachers that are willing to learn from the students and adapt the curriculum to fully engage them in meaningful dialog and relevant tasks. Johnson (1998) linked high expectations, adapting to different learning styles and taking creative measures to encourage practice, review, and active learning as benefits to at-risk students. Fusing technology in the discourse and tasks in my view can provide the bridge or link to sustained teaching and learning. Myers and Simpson (1998) stated that learning is an experienced based intellectual construction that schools must realize if they are to meet the reason they exist. If not, more second chance schools like the site in the study will emerge to deal with the fallout (dropout). Dede (2000) spoke to the increased ways of teaching and learning that allows us to thrive on chaos in the classroom. These increased freedoms are inherent in the use of technologies like virtual communities, video music production, PC assembly and disassembly, and

numerous other readily accessible technologies. Uncaring or elderly parents or guardians, societal pressures to emulate what is white, and living up to the negative views placed upon them all can detract from educational resilience. On the other hand supportive family (mother, father, brother, sister, uncle) and other environmental resources (work mates, friends) as well as internal characteristics (the will to succeed) are immeasurable in fortifying educational resilience.

An area for further study may be the overall low score for the group on the control subscale of the resilience questionnaire. Though the group score was above the mean of the national study, when looking at the control subscale score, it was lower for the group and may be an indicator of feeling they have little influence on the course of their lives. In conjunction with looking at how much control these young men feel they have over the outcomes of their lives, it may be useful to try and distinguish between those with academic versus behavior problems. The effect of having corporal punishment as an integral part of the school experience may also provide a relevant issue to explore.

CHAPTER 5

Ours is the double and dynamic function of tuning in with a machine in action so as neither to wreck the machine nor be crushed or maimed by it.

Dubois (p. 71)

CONCLUSION

Introduction

The 2006 State Report Card for public education published by the Schott Foundation (2006) paints a bleak and uncertain future for a generation of black male students. In the state where the study was completed black male students are suspended and expelled at twice their expected rate when overall population is considered. While white students are disproportionately enrolled in gifted / talented programs, black students are disproportionately classified as mentally retarded. Nationally 3% of black males are classified as mentally retarded. This is a 300% over classification from statistical expectations and is responsible for the estimated 20,000 black male students classified as mentally retarded. Over two thirds of the black male students in the state where the study was conducted do not attain the basic reading level in grade 4 and the county where the study took place has the lowest graduation rate of black males at 25%. In summary

“Over-classification as Mentally Retarded, under-classification as Gifted/Talented, under-representation in Advanced Placement classes, disproportionate out-of-school Suspensions and Expulsions combine to limit educational opportunities and reduce achievement levels for African-

American students, particularly male African-American students” (Schott Foundation, 2006, p. 14).

It seems the consensus in America is that blacks—especially black males – are incorrigible and do not warrant the support and economic resources needed to help alleviate the problems.

Racing the Other

Blacks living in the south learned that consensus often meant they would suffer at the hands of the majority based largely on the color of their skin. Consensus and quiet appeasement encouraged the promulgation of Jim Crow laws throughout the south. These laws destabilized, disenfranchised, and literally destroyed black communities around the country. There was a sort of consensus based on race that encouraged and otherwise led to the acceptance of some of the most violent acts against human kind in American history. During this time blacks likely believed as Lyotard (1994), that “consensus has become an outmoded and suspect value” (p. 6). He went on to suggest that the link between the “idea and practice” of justice and consensus be broken.

The distribution of educational resources continues to provide angst for those seeking their fair share. The idea of a fair society and the reality as practiced is often foreshadowed by race. Some believe the hyper-real view of race as seen in our highly mediated world is very influential though overly skewed. “It is increasingly television and film, more so than the school curriculum, that educate American youth about race” (McCarthy, p. 138, 1998). This sentiment was supported by Khalil when in his view “there is a whole bunch of people that dropped out and made it rich...TI, GeeZee, Outkast”. While it does not specifically deal with race, it does point to the abundance of

African American rapper images that are looked at by our youth as models of success to emulate. Unfortunately it provides an unreal view of the possibilities for most African American males and can harm their sense of self if their goal is not realized. Moreover if education is seen as an unnecessary burden then their future possibilities could be irreparably damaged.

Resilience and a sense of self reliance seems to be a part of the answer for many young black males. “It could help me keep my job”, a statement by Josh describing how technology could help in his professional career, resonated within the group as a thoughtful but brief pause engulfed the participants. These young men want to be self reliant and are aware of the importance of being technologically competent if sustained success is to be realized. However, the interactions of race, gender, and class continues to be predictors of success in America. The justice systems – in its current form – continues to foreground the future as more and more black youth are indoctrinated into our system of jails and prisons. Monica described the young men as some with little support living in a “very negative environment” and others that “live in an average environment” but want to portray a “thug or bad boy image”. Can technology help in the education of black youth? Or will we simply give up, forget, and ignore generations of youths to come? Self efficacy and self esteem are key components for developing and maintaining educational resilience. New media and technological innovations may provide the link to enhancing the self efficacy and self esteem of African American males while in school and beyond. In response to a question asking what he thought others saw when they looked at him, Stephon simply said “...just another Black Human on earth”. This simple statement was encouraging because I saw in the statement a desire to just be

and not be concerned with racial stereotypes. At the same time it was alarming because sometimes, as my oldest son learned, to let your guard down and expect the world to view you in non racial terms could invite disappointment and disruptions to ones resilience when you are abruptly made aware of your otherness.

Three Strikes then???

Our society has its ways of reminding the “other” that they are different and that they should not forget their place. My oldest son was recently arrested and taken to jail for driving with a suspended license. Evidently there was an unpaid parking ticket that caused his license to be suspended and an illegal lane change led to the traffic stop. After we bailed him out about eight hours later, we talked and I thought about the three other times he had been stopped. The first time was on suspicion of having drugs while driving our SUV less than a mile from our home. The second time was on suspicion of committing a pedestrian robbery while walking with a friend in the downtown area, though he was at least a foot taller than the suspect and wore dreads, again totally different from the close crop hair of the suspect. The third stop was for swerving while driving where he found himself surrounded by at least 3 police vehicles with lights flashing. Well they had finally succeeded in putting him in the system. His picture is now available on the Internet and he is a common statistic. When he went to work the next day his supervisor said "oh I got stopped for the same thing. But they let me go on the condition that I would not drive until I got the problem straighten out". She was a middle age white woman which led us to question whether race played a factor in his being stopped in the first place and ultimately going to jail? I looked online to see his picture on the sheriff's web site where the vast majority of those booked that night were

black. Several days later while listening to NPR radio I heard a respondent say, you would think white people didn't drive if you went to traffic court. This is the part of the curriculum that some want to ignore, pretend it does not happen, or simply state “you must have done something to get treated that way”. Some may say this is simply apart of the black experience and to just get over it. I believe the support my son gets from his family enhances and strengthens his resilience and provides a foundation from which he can competently navigate the negative experiences and mitigate the influences that could otherwise lead to a path of destruction or incarceration. Michael said “my job” provides support in troubled times. After hearing some laughter he explained that “people” on the job encouraged him when things were not going well between his parents. This illustrates how simply connecting with these young men can provide the needed support base. Though teachers are already pushed to concentrate on state and sometimes federal testing mandates, we must find ways to engage our students on all levels—including the personal if necessary.

The “negative motivation” that Khalil spoke of represents the internal resilient characteristics that must be supported and enhanced. Some African American males like Khalil rise up from potentially destructive life circumstances that could otherwise consume them in despair and anger. He later stated “my mom brought up 5 (children) too but she kicked us out at 15 or 16”. This alone must add a sense of necessity to the purpose of helping to educate and support these young men and not classify them as throw aways. Haggerty et al's., (1996) assertion that protective factors consisting of individual attributes and supportive environmental resources ameliorate the negative

influences is supported by the lived experiences of Michael and Khalil. Voices from the past reiterate the need to address these persistent problems.

Past Voices

Today it is important to share experiences with other black males in the community and help them prepare and deal with the real world. Can we afford to devalue black males like a penny and throw them away as valueless members of our society? I believe some in our community feel valueless—as if they do not matter. How can one learn to value a society when they can be targeted, harassed, and treated different because of the color of their skin? On the other hand, how can we nourish the resilience of our black community members and provide a means for them to stay in school to learn in spite of the difficulties of life in modern day America. If Dewey (1967) is right and a student through “the responses which others makes to his own activities he comes to know what these mean in social terms” (p. 20), then the curriculum is both inside and outside of the school grounds. And we must not disregard or ignore the practices and institutional roadblocks based solely on race that inform the relationships of student, teacher, and community.

Race can often play a critical role in how a student perceives their lived situation as well as the expectations of the broader community – especially in the educational arena. Khalil attempted to articulate his feeling on the influence of race when he stated “they got us thinking that, you know, you might as well say the government is the reason why, you know who he is, the reason why we...we is the way we is, because if somebody already give a description about you and everybody knows that everyone falls out with it, you going to start following with yourself”. His message was simply that African

American males are sometimes all painted with the same thug brush which then causes some to act the way they are treated. His often candid and thoughtful remarks should lead any caring teacher to embrace and support young men like him. His use of the word government I think shows his perception that this racial stigmatization is institutionalized. Unfortunately, some may not get beyond the words and sentence structure that Khalil and others like him use to express themselves—labeling him as being from the hood or urban America. Though his speech is typical of the hood or urban America, it does not reflect his intellect or ability to learn.

In 1988 Cameron McCarthy challenged the mainstream assessment of inequality of minority schooling as one mainly of educability. Underachievement was consequently explained through deficit models describing cognitive ability, family structure, and child rearing capabilities. The model tended to provide a framework where victims could be blamed and the majority culture could then wash their hands of guilt. Apple and Weiss (1983) would suggest that the economic, political, and cultural social spheres interact with race, class, and gender to produce fluid and distinct results. This can be readily seen as different races are viewed and treated differently based on socio-economic status and the like. Dubois (1932) alluded to this very issue decades ago when he spoke to the question of what and how the children of the freed slaves would be educated. His argument was that neither the industrial schools nor colleges had been totally successful in preparing the Negro to become leaders or prosper using their economic powers. "The matter of man's earning a living, said the college, it is and must be important, but surely it can never be so important as the man himself" (p. 61) and "fill the heads of these children with Latin and Greek and highfalutin' notions of rights and political powers, and hell will

be to pay" (p. 62) became illustrative of the two curriculum orientations. One orientation looked to expand the knowledge of the freed black men while the other staked out the position that too much enlightenment could lead to violent tension. Then as now the question of curriculum for blacks is still relevant today. Can we find ways to educate black males in ways that allow them to think critically of their place in this world while also providing means to gain and use their economic and creative powers? Education is sometimes cited as the vehicle to true freedom and prosperity. Today we see how those under-educated do not have access to this vehicle and lack the freedom and prosperity of others. Dubois cautioned that many educated Negroes had not fully "comprehended the age in which they live" (p. 63). He mentioned the organization of industry, the dominant super organizations and the influence of these organizations on democracy, religion, education, and the social philosophy of the time. Dubois even goes as far as to call some graduates fools and suggested that they eliminate those from higher education who were there simply because they had the money or their parents wanted them out of the house.

Though a bit extreme in some ways the message, as I see it, is that black communities must assume responsibility and act in concert with those forces willing to help while actively intervening, circumventing, and resisting against those forces designed to hold back access and empowerment. This form of resilient support is both powerful and empowering. Khalil hit at the heart of black communities assuming responsibility stating "in my opinion it really doesn't matter, but who would you rather have supporting you a Caucasian or someone from your own race". Miller (1999) suggested that culture plays a significant role in the resilience of students. His study suggested that a positive racial identity could be an important protective resource. At

least in Khalil's view, African Americans should step up and provide a face that looks like them in a supporting role.

Globalization, immigration, and the shrinking barrel of domestic resources will disproportionately pressure black communities and possibly assume the role of Jim Crow laws of the past—creating barriers to economic and educational resources. In deciding what should be taught and how it should be taught we should be mindful of Dewey's (1967) belief that "...true education comes through the stimulation of the child's power by the demands of the social situation in which he finds himself" (p. 20). Teaching and testing black students without considering the relevance to their lived situation invites students to tune out. It would seem that this type of teaching and curriculum would wear down the resilience of students instead of insuring a certain modicum of fortitude and resilience. A bit of truth that has been reinforced while teaching and especially while working with the black males in the study, is that I really do not know everything and when I open up, I can be a fairly decent teacher and learner. By exposing them to some common and newer technologies the young men were able to explore, learn, and also teach. Again Dewey (1967) informed my thinking when he stated "The child has his own instincts and tendencies, but we do not know what these mean until we can translate them into their social equivalents" (p. 21).

Not everyone subscribed to the technology is all good mantra. Terryl's skepticism emerged when he stated "I really think technology is going to be the root of the earth's destruction". He also showed his dismay at others when he said I "walked to the store one block away...people be looking at me like I'm crazy". For him technology was both good and bad and he recognized that the misuse or overuse of technology could

have negative consequences. Reynolds (2003) addressed this very issue when he wrote “Education today seems more concerned with accomplishing world-class technological competency than it does with creating a community of citizens who are discussing the implications and possibilities of education” (p. 69). They were connected and aware of their environment. These young men were not only able to teach me new words, phrases, and meanings attached to technology I use professionally on a daily basis, but they also could appreciate the unwanted occurrences from its use. Josh stated it’s (technology) “making us weaker on the body”. The simple creation of a rap video and basketball commercial showed that there is meaning in their lives if only we open our eyes, they just need help from us to expand their view of the world.

Gay (2000) argued that some teachers approach teaching and curriculum from a cultural blindness that insists on a Eurocentric and empty slate framework. She also argues that the current mindset is one that starts from deficit models that encourages blaming the victim and is more akin to correcting and curing versus educating” (p. 24). She goes on to suggest that we should avoid enforcing learned helplessness and instead try to build from their strengths, capabilities, and prior accomplishments. Gay also argues for the use of culturally authentic, human experienced based, and contextualized subject matter skills. “There ain’t nothing else to do” a statement from Terryl, describing why he has not dropped out of school, hopefully will become the exception and not the rule for African American males. The truth as expressed by some of these participants is that going to school is just a necessary evil, something their parents or guardians expect them to do. There is little excitement or attachment to learning. But the possibilities were evident when they were given the opportunity to explore and assign their own

culturally authentic meaning to assigned tasks while using technology. Gay noted that direct connections between the lived experiences of students and the curriculum could be very critical toward academic mastery skills, interest, motivation, and time on task—an area where relevant technologies can be used effectively. The message for teachers is to try and embrace new technologies like Second Life, video and music production, or just simple things like PC assembly and disassembly. I found that simply allowing the students to see “inside the box” gave them a sense of value and a desire to learn more.

Pennies on the Road

When I run through the streets of my surrounding neighborhood I often come across pennies. Distorted, discolored, deformed, scratched, bent, and sometimes flattened, but yet always recognizable as a penny. Over the years I began to collect these “road” pennies and store them separately from my other coins. These were special coins to me. I always made time to slow down or stop to pick them up as long as I was not endangering my life. After my runs I would proudly show them to my wife, who simply gave a glance and then I would put them away until the next run. Sometimes I would find three or more at a time and other times none at all. While thinking about this writing and the students I have come across, those pennies became a symbol of how we treat and value (devalue) some students of color – especially the African-American male. They are simply viewed as throwaways, something that is inconsequential if lost. I rarely find silver coins and more rarely do I find more than one in a day, but I can always count on the road penny. It is very similar to almost always finding a black male in a low performing class—and almost always among a group. It is almost impossible not to

think of race when considering the situation blacks find themselves in economically and academically.

On a recent run after a night of heavy rains, I found several shiny pennies. It reminded me of the light that was shown on New Orleans and other areas of the Gulf Coast after hurricane Katrina. Though these pennies were shiny, I thought of the uncovering. Events have a way of exposing the plight of the unwanted, forgotten, and yes un-forgiven. Un-forgiven for merely being here in America and being poor. Statistics abound frame these issues surrounding race, class, and gender but we have become so accustomed to these situations that some believe there is nothing to be done. Are we not all equal and able to bounce back, “buy” anew, and resume the American dream?

Cameron McCarthy (1998) suggested that modern-day technologies can promote positive and negative sentiment from mainstream America. One of his center arguments is "that contemporary film and television play a critical role in the production, coordination, and channeling of suburban resentment and retributive morality on their central target: the depressed inner-city" (p. 17). He goes even further and suggested that “violence and resentment have become the “coping strategies of white middle class actors” (p. 141). Khalil’s statement asserting “...the government is the reason why we is the way we is...” attest to this feeling of having resentment channeled at a group of people. These strategies must be re-channeled to provide real understanding, less blame, and a willingness to help all people in America. The sheer number of males being left behind should prompt a second glance and then real action to alleviate the pain where

applicable and provide possible answers to the question whether blacks can continue to be as resilient as they have been in the past?

Tech Moves

Technology can open a door to transformative knowledge that remains covered for many African American males. Lyotard (1994) addressed this idea of transformation and new channels and stated that knowledge would “become operational, only if learning is translated into quantities of information” (p. 4). The main point here is that if learning is not translatable into information that is relevant then it will be abandoned as unusable knowledge. Khalil’s answer to what schools could do to help African American males learn touched on the problem. He knowingly stated “...because we aint really doing nothing but learning about something that happened long time ago...you wont use it unless you are a teacher”. Putting teaching points into contemporary context is extremely important versus the methodology of simply repeating the canon as we learned it. It is unfortunate, but many might subscribe to the idea that technology in schooling is merely a game where resources are being used in sometimes unethical ways. It may be that technology does not provide the aesthetic value, justice, or truth that some seek but a single word trumps all—efficiency. Lyotard (1994) described this as a “technical move” (p. 44) requiring less energy than other alternatives. One of those alternatives may be to accept the challenge of teaching those that need it the most and resisting deficit models. Moving away from deficit models could allow teachers to discard blame and accept students that display their otherness by wearing dreads, sagging pants, or grills on their teeth. It has become efficient to discard these other students and concentrate on those that conform to images of what is considered right (white) in our society. Technology

has been used in the same efficient manner in some settings. We are using new technology to make old technology better—for the teacher. This goes counter to encouraging and exploring the possibilities of technology. Technology can be used to “grab attention” or create “more interesting classes” as Terryl and Khalil stated respectively. Creative spaces can then be carved out to allow culturally authentic learning activities to flourish.

While looking at technology we must remember that technology encompasses more than pieces of equipment and supportive software. Sometimes technology is embodied in the way societies create methods and systems to structure their everyday living spaces. In days not too distant technological methods were devised to enslave and then deny basic rights to groups of people based solely on skin color. Early racist scientist used scholarly and scientific studies to legitimize the treatment of blacks, some even suggesting that the strenuous activities involved with slavery actually provided more benefit than harm (Watkins, 2001). These technological ways of thinking continued on into educating the newly freed slaves, as methods were devised to provide something less for the others. CRT theorists hope to bring and maintain race at the fore in hopes of negating the institutional and structural policies that create technological systems of oppression. Pinar et al., (1995) acknowledged these systems of racial inequality arguing that race and the metaphors used to create meaning have resulted in prolonged suffering and oppression. If not used in relevant ways within the curriculum, technology will hide contemporary systems that could lead to continued suffering and oppression. Although Dewey gave preference to first hand and natural experiences

versus those that were mediated and technical, as hard as we may try we can not disconnect the computer mediated world we live in.

Resilience, Technology and African American Males

Heidegger (1997) informed us that in searching for the essence or meaning of technology that our understanding of this relationship will continue to be hindered as long as we “conceive and push forward the technological, put up with or evade it” (p. 4). And he goes on to say that when we deny technology or think of it as inconsequential, then we become “utterly blind to the essence of technology” (p. 4).

Technology is a way of revealing or leading to the truth (Heidegger, 1997). The word technology comes from the Greek word *techne* which not only describes the activities and skills of the craftsman, but also the arts of the mind and fine arts (Heidegger, 1997). The young men in this study were able to use technology in this way and help reveal to me that they could learn, maybe not all at the same rate and same time, but learn nonetheless. They were able to use their minds and creative skills and fuse them with technology to create a *poiesis* of reality relevant to their lived experiences – a resilient reality. Heidegger (1997) continued and wrote that this revealing “reveals whatever does not bring itself forth and does not yet lie here before us, whatever can look and turn out one way and now another” (p. 13). Whatever may look, dress, and talk like the other and presumed to be doomed to educational failure may become the highly sought after CEO or simply the loving, caring, responsible father and husband. The challenge succinctly stated is whether we will accept the challenge of teaching. Heidegger described modern technology as a challenging “which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such” (p.

14). Is this not a similar question proffered to educators of African American males? To rephrase the statement – the use of modern technology in education is challenging and asks humankind to accept the reasonable posit that we use it to help inspire and advance the learning of our young people.

He explained further that the “challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up is, in turn, distributed, and what is distributed is switched about ever anew” (p. 16). This is the power inherent in all educators as they seek to transform the lives of people and give them the power to make new and meaningful changes in their students lived situations. When situated within the discourse of technology, curriculum, and the educational resilience of African American males, for me Heidegger’s statement best describes the potential:

“In this way we are already sojourning with the open space of destining, a destining that in no way confines us to a stultified compulsion to push on blindly with technology or, what come to the same thing, to rebel helplessly against it and curse it as the work of the devil. Quite to the contrary, when we once open ourselves expressly to the essence of technology, we find ourselves unexpectedly taken into a freeing claim” (p. 25).

I see embedded in Heidegger’s essay “The Question Concerning Technology” a question examining our relationship with technology and curriculum. For me the question is not so much whether technology is a determinant of mankind’s evolutionary track, but whether we can truly appreciate, accept, and use the transformative holding

power of technology to help educate and liberate our people. Heidegger's (1977) statement that the essence of technology is not necessarily the technical shapes my understanding that technology is one of many interconnected means of connecting with our young people. When technology is seen as a part of the curriculum we may be able to connect the lived experiences out of the classroom to those activities and experiences inside the classroom. Educating African American males using strength based models enhances the curriculum while lending a voice to their individual and community experiences.

The relevant use of technology, not being afraid to try new things, and as Jarrett (1997) suggested, providing access to resources and creating opportunities are crucial to the development of educationally resilient African American males. Interventions that provide authentic and purposeful learning opportunities also play an important role in improving the resilience of at-risk students (Krovetz, 1999).

Critical race theorist arguments center around three propositions: (a) race continues to play prominently in the inequity present in the American schooling system, (b) society in America is based on property rights, and (c) the confluence of race and property rights can provide a lens to better understand social and educational inequities along racial lines. These argument attempt to expand the discourse of addressing inequity in schooling that before hand looked solely at class and gender characteristics. Ladson-Billings and Tate (1995) stated that class and gender "... taken all together, did not account for the extra ordinarily high rates of school dropouts, suspensions, expulsion, and failure among African-American and Latino males" (p. 51). This leads to the assumption that blame for the condition of many African American males must not rest solely with

the African American male, but with the broader socio-economic and societal conditions that many find themselves in.

Prior to creating their music / video production, the young men were tasked to come up with an impromptu mock interview skit for a fictitious show called "Talking Heads". After a short overview of what was expected they were broken up into groups of three to four participants. Three students were taken into the control room to operate the audio / video recording aspect, which they seemed to enjoy immensely. The focal point is that all except one of six different skits included either a Rap or sports star. Lil John, Lil Scrappy and other Rap artists were emulated during the interviews. Blunts (marijuana) were passed around, hats and dark shades were worn, simulated sensations of being high, as well as the occasional reference to the bling and exploitation of women were acted out on the stage. One young man did decide he would be Judge Mathis and was very creative and animated throughout the skit. During the playback of the video all eyes were on the monitors around the room as they watched themselves on the screen. This event dovetailed into some of those broader socio-economic and societal conditions that influence our youth. These young African American males instinctively gravitated to what their lived experiences exposed them to. Rappers and sport stars that do not represent the experience they can expect or the resources they have access to become the role models. Almost 80% of the participants indicated they watch HBO, MTV, and BET television shows and the influence is apparent in dress, speech, and awareness. The one young man that portrayed Judge Mathis did provide some relief and hope that other aspirations were possibly in the thinking of the young men.

How we try to fix the problem and address the occurrences of unequal outcomes will determine whether African American males respond. Solorzano and Yosso (2001) argue that addressing these problems from a deficit view blames the individual and ignores the affects of structural, societal, and institutional roadblocks. Floyd's (1996) study of African American high school seniors identified the need to have high expectations, collaboration, and relevant opportunities along with a supportive family and community. Students must believe that they are not viewed as failures when entering the classroom but as potentially successful persons with a support structure. Technology can support the underpinnings of a curriculum designed to engage and perpetuate a desire to learn among African American males. The opening quote to this chapter by Dubois shapes my thinking of a technology infused curriculum. Simply demonizing technology or using it blindly without trying to understand its essence can only lead to further deterioration of our schools. However, if we harness the holding power of new technologies then meaningful change in the education of African American males may become a reality. The quote is a reminder that while we may try to master the science and technology of our society, we cannot forget the human spirit. Somehow we must recognize those challenges and help our students discover the possibilities in their journey.

Contrary to Dubois's statement that educated black folk do not comprehend fully the age in which they live, I believe we , as most Americans do, are aware of the problems but have not fully galvanized in an actionable manner to effectively contend with the varied issues. On the first day of the intervention and after introductions were made, the participants were asked to share what their futures held for them. Dreams and

ideas flowed around the room; basketball player, music mogul, lawyer, engineer, technician, nightclub owner, and restaurant owner bounced off the walls in the classroom. By aiding in the development of community, educational resilience, and enabling conditions that thwart the negatives of the environment, technology when used in relevant ways can help these dreams come true. A call to action should become a priority to transform the school to prison pipeline to a school to college pipeline. Dixon and Rousseau (2005) endorsed this call to action but included the qualitative and material improvement of environmental forces that support African American males.

Malloy's (1998) study described four processes for developing resilience in students: (a) reduction of negative outcomes, (b) reduction of negative chain reactions of risk, (c) establishing self-esteem and self-efficacy, and (d) the availability of relevant opportunities. I believe educational resilience is a process that is either enhanced or disrupted during our life journeys. Ninety percent of the African American males in this study possessed a high amount of resilience, as measured by The Hardiness Institute survey instrument. These students must be collected, one penny at a time, cared for and nourished to enable a future of positive possibilities. A curriculum infused with technology may just be part of the answer.

Curriculum Studies: Hope and Possibility

In "what is curriculum theory", Pinar (2004) described some of the preoccupations that curriculum theorists encounter. One of those is "how one teaches... but not in terms of devising a technology of what works, not as a form of social engineering designed to produce predictable effects..." (p. 20). He goes on to suggest that it is not the pursuit of high test scores but "the cultivation of original thought – that

that constitutes curriculum theorists aspirations for the process of education"(p. 20). This study, I believe, touches on these ideals. Multiple methodologies were used along with an intervention composed of multiple phases that allowed the participants to use their experiences mixed with their interests to construct something new and relevant to their live situations. This very point was later explicated by Pinar "to educate the public suggest that we teach popular culture as well, not only as a pedagogical lure to engage students' interests, but through the curriculum, to enable students to connect their lived experiences with academic knowledge, to foster student's intellectual development and student's capacity for critical thinking" (p. 62). Here I suggest that technology – specifically those newer technologies now prevalent in the lives of young people – is a major component of popular culture. Though generally embraced, Pinar recognized the ability of technology to diffuse and democratize but warned that computers should not become the mirror where we project prejudices that are private in nature or excessive national pride.

Pinar also cited intellectual technologies that could support the complex conversation of curriculum by creating infrastructures of communications where students and scholars of curriculum studies can meet and share ideas. Curriculum studies, I believe is a view of hope, something that "keep the field alive for us" (Reynolds and Webber, p. 17). I choose "to live and research in the middle, in spaces that are neither terroristic nor nihilistic, neither exclusively political nor exclusively technological" (Reynolds and Webber, p. 16). My hope does not dismiss the sometimes devastating impact of globalization and marketplace corporate dominance brought on by technology. But it does recognize the possibilities of the technology infusion curriculum. I also do

not dismiss the ecological and social dangers possible through a “techno-utopian and functionalism” (p. 59) thought process.

As we move toward other possibilities, maybe we can see that technology is not just a tool but also a “complex sociocultural process that acts to shape processes of the communication and relational knowing” (p. 60). I see possibilities for enhancing the curriculum of African-American males, and "if we are unable to address a discourse of possibility, therein lies the answer to" (p. 61) many of the questions in curriculum studies. In discussing the next generation of curriculum workers Pinar et al (1995) stated that those in the theoretical wing of a field must not pretend that their work is inherently superior to the institutional or applied research and that such work should not mean an outright rejection of ideas from other fields. They went further and stated “our work with sources will mirror the mediations and transformations that characterize educational experience” (p. 853). When having the discussion on technology and curriculum studies this statement embodies a concept that should be remembered and embraced “...curriculum is a hybrid interdisciplinary area of theory, research, and institutional practice” (p. 865). Inclusion not exclusion leads to hope and possibility.

In “Expanding Curriculum Theory” Reynolds and Webber (2004) conclude the volume with a very salient message. While reserving and preferring the expansion of curriculum “through dis/positioning and lines of flight” (p.208), closing down experimentation, multiplicity, and possibility should not be a feature of the field.

Alternatives for Schooling African American Males

Considering the predicament that many African American males find themselves in educationally, the call has come to take action. The question concerning the relevance

of schooling has become a central theme in African American households around the nation. As more and more black boys are disproportionately expelled from school, classified as mentally retarded, and ultimately jailed, alternatives to schooling have surfaced. The alternatives that I am referring to does not mean the same as alternative schools, which often means warehousing black males labeled as incorrigible or having behavior problems. There are many code words for these systems of warehousing like, court schools, detention schools, day treatment and educational centers, and second chance schools (Gable, Bullock, and Evans, 2006). These institutions let students know they are being housed and are sometimes being punished. Others look at the rapid growth of these types of schools as a way to exclude students from participating in their learning while sinisterly promising inclusion (Dunbar, 1999).

In some cases the violence students inflict and receive while being schooled becomes the driving force for creating alternative schooling methods. The participants in this study were in an institution that used corporal punishment as a method of control and discipline. This very fact may be part of the reason that only one graduate has gone on to attend college since its inception. After all if being punished physically is associated with schooling then schooling probably becomes something you endure when forced and avoided when given a choice. For Paula Penn-Nabrit, restoring and then protecting the self esteem of her sons meant home schooling (Powell, 2007). Penn-Nabrit decided on the curriculum, made decisions on what subjects would be taught by her or her husband, and contracted out the others. All three of their sons were later accepted into Ivy League schools. Though this example proved to be successful, this is not one of the avenues available for the majority of economically disadvantaged African American families.

Holistic schools that prepare students for life versus academic achievement may be another avenue to explore. Using technology to forge learning tailored to the individual needs of students maybe another viable option. If students have a say in what and how they learn then they may be more interested in continuing the learning process. However technology enriched schooling alternatives vary in structure and form. Smaller community based schools that incorporate the experiences and expertise of its members may prove beneficial. Of course this would take serious cooperation between local and state governments and the community. But the possibility of enhancing the self esteem and self efficacy of African American males warrants the risks. This idea could also incorporate rites of passage concepts that include afro-centric ideas of manhood. Becoming a man, a responsible man, and an educated man I believe has appeal and holding power if embraced and supported by those involved in the formative years of African American males.

The question of whether schooling is necessary at all for African American males requires exploration. For me the answer is pragmatic in nature. We see the results of those not being schooled now – increased incarceration. The realities of the world are that without a basic education—in many cases advanced education—African American males will be relegated to menial jobs and second class citizenry. Until the dance of life as we know it changes, we have to find ways to encourage African American males to remain engaged in some form of schooling and education. Again, technology may be apart of the answer.

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APPENDICES

APPENDIX A

FOCUS GROUP QUESTIONS

Community Formation:

1. What types of communications technology do you use most often? (phone, tv, email, IM, etc)
== Youtube, myspace, facebook ==
2. Who do you communicate with most?
3. What things do you communicate about?

Learning:

What type of technology do you use to help understand or study your school lessons?

What type is more helpful to you?

If you could buy or invent a piece of technology to help you learn, what would it be?

What subject does technology help with the most?

Efficacy / Esteem:

Prior to this intervention, did you feel competent using technology? What kinds?

Do you feel competent with technology now?

What kinds of things can you do now that you could not before?

How can technology mastery skills help you in the future?

Resilience:

Why have you decided not to drop out?

What are your 3 greatest strengths?

What is the toughest thing you have had to do while in school?

What are your goals for the next 3 years?

Who are the people that support you in achieving your goals?

What skills have you acquired that will help you reach your goals.

Final Question

Given the following statistics (see below) what are your initial thoughts?

Incarceration Rate of Black Males
of Black males in Jail vs College
Grandmother's raising kids

Drop out rate
Earning Capability

APPENDIX B

SURVEY QUESTIONS

Please circle or write the appropriate response for each item.

USERNAME_____ (ex. Stp000)

How many hours per week do you watch TV?	None 1-3 hours per week 4 – 6 hours per week 7 – 10 hours per week More than 10 hours per week
What TV shows do you watch?	
How many hours per week do you play video games?	None 1-3 hours per week 4 – 6 hours per week 7 – 10 hours per week More than 10 hours per week
What video games do you play?	
Do you have a personal cell phone?	YES NO
How often do you communicate with others in the group?	Never 1-3 times weekly 4 – 6 times weekly 7 – 10 times weekly More than 10 times weekly
How often do you phone to talk about school work?	Never 1-3 times weekly 4 – 6 times weekly 7 – 10 times weekly More than 10 times weekly

How many email accounts do you have?	1 2 3 4 More than 4
How often do you use email?	Never 1 – 2 times Weekly 3 – 4 times Weekly Daily

Demographics

Age:

Grade:

What grade were you in when you initially entered St Paul's:

(Circle One)

Living with: Both Parents Single Parents Family Member Other

Do you have a Cell Phone: YES NO

Do you have a PC at home: YES NO

Do you have a job: YES NO

APPENDIX C

RESILIENCE SURVEY

Logon ID _____

	PVS III-R Test Items	Not at all True	A little True	True	Very True
	<i>In General....</i>				
1	By working hard, you can always achieve your goal.	0	1	2	3
2	I don't like to make changes in my everyday schedule.	0	1	2	3
3	I really look forward to my work.	0	1	2	3
4	I am not equipped to handle unexpected problems.	0	1	2	3
5	Most of what happens in life is just meant to be.	0	1	2	3
6	When I make plans, I'm certain I can make them work.	0	1	2	3
7	No matter how hard I try, my efforts usually accomplish little.	0	1	2	3
8	I like a lot of variety in my work.	0	1	2	3
9	Most of the time, people listen carefully to what I have to say.	0	1	2	3
10	Thinking of yourself as a free person just leads to frustration.	0	1	2	3
11	Trying your best at what you do usually pays off in the end.	0	1	2	3
12	My mistakes are usually very difficult to correct.	0	1	2	3
13	It bothers me when my daily routine gets interrupted.	0	1	2	3
14	I often wake up eager to take up life wherever it left off.	0	1	2	3
15	Lots of times, I really don't know my own mind.	0	1	2	3
16	Changes in routine provoke me to learn.	0	1	2	3
17.	Most days, life is really interesting and exciting for me.	0	1	2	3
18	Its hard to imagine anyone getting excited about work.	0	1	2	3
	Copyright, The Hardiness Institute, Inc.				

APPENDIX D

ROSENBERG SELF ESTEEM SURVEY

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

- | | |
|---|-----------|
| 1. On the whole, I am satisfied with myself. | SA A D SD |
| 2.* At times, I think I am no good at all. | SA A D SD |
| 3. I feel that I have a number of good qualities. | SA A D SD |
| 4. I am able to do things as well as most other people. | SA A D SD |
| 5.* I feel I do not have much to be proud of. | SA A D SD |
| 6.* I certainly feel useless at times. | SA A D SD |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | SA A D SD |
| 8.* I wish I could have more respect for myself. | SA A D SD |
| 9.* All in all, I am inclined to feel that I am a failure. | SA A D SD |
| 10. I take a positive attitude toward myself. | SA A D SD |

APPENDIX E

COMPUTER ATTITUDE QUESTIONNAIRE (CAQ) V5.14

Computer Attitude Questionnaire

Name: _____

This survey consists of 6 parts. Within each part, read each statement and then circle the number which best shows how you feel.

SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Part 1

	SD	D	A	SA
(1) I enjoy doing things on a computer.	1	2	3	4
(2) I am tired of using a computer.	1	2	3	4
(3) I will be able to get a good job if I learn how to use a computer.	1	2	3	4
(4) I concentrate on a computer when I use one.	1	2	3	4
(5) I enjoy computer games very much.	1	2	3	4
(6) I would work harder if I could use computers more often.	1	2	3	4
(7) I know that computers give me opportunities to learn many new things.	1	2	3	4
(8) I can learn many things when I use a computer.	1	2	3	4
(9) I enjoy lessons on the computer.	1	2	3	4
(10) I believe that the more often teachers use computers, the more I will enjoy school.	1	2	3	4
(11) I believe that it is very important for me to learn how to use a computer.	1	2	3	4
(12) I feel comfortable working with a computer.	1	2	3	4
(13) I get a sinking feeling when I think of trying to use a computer.	1	2	3	4
(14) I think that it takes a long time to finish when I use a computer.	1	2	3	4
(15) Computers do not scare me at all.	1	2	3	4
(16) Working with a computer makes me nervous.	1	2	3	4
(17) Using a computer is very frustrating.	1	2	3	4
(18) I will do as little work with computers as possible.	1	2	3	4
(19) Computers are difficult to use.	1	2	3	4
(20) I can learn more from books than from a computer.	1	2	3	4

Part 1

SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Part 2

		SD	D	A	SA
(21)	I study by myself without anyone forcing me to study.	1	2	3	4
(22)	If I do not understand something, I will not stop thinking about it.	1	2	3	4
(23)	When I don't understand a problem, I keep working until I find the answer.	1	2	3	4
(24)	I review my lessons every day.	1	2	3	4
(25)	I try to finish whatever I begin.	1	2	3	4
(26)	Sometimes, I change my way of studying.	1	2	3	4
(27)	I enjoy working on a difficult problem.	1	2	3	4
(28)	I think about many ways to solve a difficult problem.	1	2	3	4
(29)	I never forget to do my homework.	1	2	3	4
(30)	I like to work out problems which I can use in my life every day.	1	2	3	4
(31)	If I do not understand my teacher, I ask him/her questions.	1	2	3	4
(32)	I listen to my teacher carefully.	1	2	3	4
(33)	If I fail, I try to find out why.	1	2	3	4
(34)	I study hard.	1	2	3	4
(35)	When I do a job, I do it well.	1	2	3	4

Part 2



SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Part 3

	SD	D	A	SA
(36) I feel sad when I see a child crying.	1	2	3	4
(37) I sometimes cry when I see a sad play or movie.	1	2	3	4
(38) I get angry when I see a friend who is treated badly.	1	2	3	4
(39) I feel sad when I see old people alone.	1	2	3	4
(40) I worry when I see a sad friend.	1	2	3	4
(41) I feel very happy when I listen to a song I like.	1	2	3	4
(42) I do not like to see a child play alone, without a friend.	1	2	3	4
(43) I feel sad when I see an animal hurt.	1	2	3	4
(44) I feel happy when I see a friend smiling.	1	2	3	4
(45) I am glad to do work that helps others.	1	2	3	4

Part 3



SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Part 4

		SD	D	A	SA
(46)	I examine unusual things.	1	2	3	4
(47)	I find new things to play with or to study, without any help.	1	2	3	4
(48)	When I think of a new thing, I apply what I have learned before.	1	2	3	4
(49)	I tend to consider various ways of thinking.	1	2	3	4
(50)	I create many unique things.	1	2	3	4
(51)	I do things by myself without depending upon others.	1	2	3	4
(52)	I find different kinds of materials when the ones I have do not work or are not enough.	1	2	3	4
(53)	I examine unknown issues to try to understand them.	1	2	3	4
(54)	I make a plan before I start to solve a problem.	1	2	3	4
(55)	I invent games and play them with friends.	1	2	3	4
(56)	I invent new methods when one way does not work.	1	2	3	4
(57)	I choose my own way without imitating methods of others.	1	2	3	4
(58)	I tend to think about the future.	1	2	3	4

Part 4



Part 5

(59) Which would you rather do? (circle one of each pair):

- | | | | |
|----------------------|----|----------------------|----|
| (1) read a book | or | (2) write | 59 |
| (1) write | or | (2) watch television | 60 |
| (1) watch television | or | (2) use a computer | 61 |
| (1) use a computer | or | (2) read a book | 62 |
| (1) read a book | or | (2) watch television | 63 |
| (1) write | or | (2) use a computer | 64 |

(60) Which would be more difficult for you (circle one of each pair):

- | | | | |
|----------------------|----|----------------------|----|
| (1) read a book | or | (2) write | 65 |
| (1) write | or | (2) watch television | 66 |
| (1) watch television | or | (2) use a computer | 67 |
| (1) use a computer | or | (2) read a book | 68 |
| (1) read a book | or | (2) watch television | 69 |
| (1) write | or | (2) use a computer | 70 |

(61) Which would you learn more from (circle one of each pair):

- | | | | |
|----------------------|----|----------------------|----|
| (1) read a book | or | (2) write | 71 |
| (1) write | or | (2) watch television | 72 |
| (1) watch television | or | (2) use a computer | 73 |
| (1) use a computer | or | (2) read a book | 74 |
| (1) read a book | or | (2) watch television | 75 |
| (1) write | or | (2) use a computer | 76 |



Part 6**Part 6**

SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

		SD	D	A	SA	
(62)	I really like school.	1	2	3	4	(77)
(63)	School is boring.	1	2	3	4	(78)
(64)	I would like to work in a school when I grow up.	1	2	3	4	(79)
(65)	When I grow up I would not like to work in a school.	1	2	3	4	(80)
(66)	Do you use a computer at home?	1 <= yes		2 <= no		
(67)	Do you have World Wide Web (WWW) access at home?	1 <= yes		2 <= no		

(End)

Thank you!

CAQ Ver 5.14
4/97

APPENDIX F

INSTITUTIONAL REVIEW BOARD (IRB)

Georgia Southern University Office of Research Services & Sponsored Programs		
Institutional Review Board (IRB)		
Phone: 912-681-5465		Administrative Annex
		P.O. Box 8005
Fax: 912-681-0719	Ovsrigh@GeorgiaSouthern.edu	Statesboro, GA 30460

To: Reginald D. Leseane
2 Windfield Court
Savannah, GA 31406

CC: Dr. John Weaver
P.O. Box 8144

From: Office of Research Services and Sponsored Programs
Administrative Support Office for Research Oversight Committees
(IACUC/IBC/IRB)

Date: August 24, 2006

Subject: Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered: **H07003**, and titled **“Exploring the Role of Technology in the Educational Resiliency of African American Male Students”**, it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

This IRB approval is in effect for one year from the date of this letter. If at the end of that time, there have been no changes to the research protocol, you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,

Julie B. Cole
Director of Research Services and Sponsored Programs

APPENDIX G**MINOR'S ASSENT FORM****COLLEGE****DEPARTMENT****MINOR'S ASSENT**

Hello,

I am Reginald Leseane a graduate student at Georgia Southern University and I am conducting a study on technology, resilience and African American males. Resilience in this study refers to the ability of African American males to bounce back from adversity and become successful educationally.

You are being asked to participate in a project that will help me learn about technology and how it may help African American males become more resilient in school. If you agree to help, you will complete two written surveys and participate in one focus group interview session at the end of the project. The written surveys should take about 15 minutes total and the focus group interview session should last about 1 – 1/12 hours.

You do not have to help me with this project. You can stop helping me whenever you want to. If you do not want to participate you can do so without any fear of reprisal. You can refuse to help me even if your parents have said yes. You also have the right to refuse to answer any question at any time.

None of the teachers or other people at your school will see the answers to the questions that I ask you. All of the answers that you give me will be kept in my locked office, and only I or people helping me will see your answers. We are not going to put your name on the answers that you give us, so no one will be able to know which answers were yours.

If you or your parents/guardians have any questions about this form or the project, please call me at 353-3142 or my advisor, Dr. Weaver, at 912 681-5252. Thank you!

If you understand the information above and want to help in the project, please sign your name on the line below:

Yes, I want to help in the project: _____

Child's Name: _____

Investigator's Signature: _____

Date: _____

APPENDIX H

PARENTAL INFORMED CONSENT

COLLEGE OF EDUCATION

DEPARTMENT OF CURRICULUM STUDIES

PARENTAL INFORMED CONSENT

Dear Parents,

My name is Reginald Leseane. I am currently a graduate student at Georgia Southern University working on my Doctor of Education Degree. I'm interested in the academic resilience of African American males and how technology based interventions can help enhance their resilience. Resilience in this study refers to the ability of African American males to bounce back from adversity and become successful educationally. Research has shown that purposeful and relevant interventions can increase the educational resilience of African American males and keep them in school. This study will explore the role of a technology based intervention and student educational resilience. The study will be conducted between July and December of 2006.

This letter is to request your permission to allow your son to voluntarily participate in my research study. Participation is voluntary and participants may withdraw their participation at any time. Your son will be asked to complete two surveys designed to measure their resilience and self esteem. The surveys will take about 30 minutes in total to complete. Participants will also be asked to participate in a focus group interview at the end of the project. Participants will not be asked to include their names on the survey so responses remain anonymous. I am requesting your permission to use your child's responses to survey questions to assist in completion of my project. None of the teachers or other people at your son's school will see the answers to the surveys. All of the answers will be confidential and will be kept in a locked drawer in my office. You also have the right to refuse to answer any question at any time.

Your son's participation and name in this study will be kept strictly confidential. There are no risks in participating in this research beyond those experienced in everyday life. St Paul's Academy for Boys principal, Mrs. Williams, has approved this study. This study will be beneficial to all involved and provide much needed research in this area which may lead to the formulation of additional interventions. If you would like a copy of the results of this study, you may indicate your intent below.

Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant or the IRB approval process, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-486-7758.

Let me thank you in advance for allowing your son to participate in this study. The results from this study should allow St Paul's Academy and others in the community to benefit from other interventions designed to help African American males.

Attached you will find two copies, one copy for your records and the other copy should be returned to me via you son.

Title of Project: Exploring the role of technology in the resilience of African American males.
Principal Investigator: Reginald Leseane, P.O. Box 20359 Savannah, GA 31406, 912 353-3142,
reginald.leseane@savstate.edu

Other Investigator(s): N/A

Faculty Advisor: Dr John Weaver, P.O. Box 8144 Statesboro, GA 30460, 912 681-5252,
jweaver@georgiasouthern.edu

Parental Permission

I, _____ give permission for my son to participate in this study.
(Parent's Name)

I, _____ do not give permission for my son to participate in this study.
(Parent's Name)

Parents signature: _____ Date: _____

I, the undersigned, verify that the above informed consent procedure has been followed.

Investigator Signature

Date

Parents,

If you wish to receive a copy of the results, please indicate by sending me your address and I will mail you a copy when the project is complete.

Sincerely,

Reginald D. Leseane