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Academic Hustle: Teaching African American Students In Online Educational Environments

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ACADEMIC HUSTLE: TEACHING AFRICAN AMERICAN STUDENTS IN ONLINE EDUCATIONAL ENVIRONMENTS

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by

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VITA

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ABSTRACT

The purpose of this study was to explore the influence of K–12 virtual school models on the educational outcomes of African American students. This study sought to (a) contribute to the growing body of research and literature on virtual schooling models, (b) enlighten stakeholders regarding K–12 African American students in a technology-driven paradigm, and (c) elucidate means to improve schooling experiences of African American students that lead to better outcomes. This study examined the impact of the relationship between virtual schools and the academic success of African American students in Kindergarten through Grade 12. Through this qualitative case study, current and former virtual teachers of African American students reported the benefits and challenges of using technology and online curriculum to support African American students. The data can serve as a research-based guide to determine if a virtual school option would benefit or hinder student academic growth and gains, based on the student demographics they serve.

ACKNOWLEDGMENTS

I would like to dedicate this doctoral degree to the many generations of my exceptionally strong African American ancestors who endured detestable acts of systemic harm, hatred, slavery, racism, sexism, discrimination, and death, so that I would have the right and opportunity to earn a college degree and have greater opportunities that they fought hard to have in their generations. Even though my ancestors did not live to see this level of progress, it is critical to know and understand that it is still a work in progress; I am forever grateful for their journey, struggle, and resilience that taught me what it means to take a stand and work hard for what I believe in. I have a voice, and I will be heard.

I must give honor to God, who is the head of my life. I am forever grateful for my relationship with Christ and how He has kept me, even when I did not deserve to be kept. As a young woman, I was blessed to have a God-fearing mother, who raised me in church and supported me in making sound decisions about my personal beliefs, without forcing doctrine on me and expecting me to comply to her beliefs, even though they aligned. My relationship with Christ is personal, as should everyone's who chooses to serve Him.

According to statistics, earning a college degree, let alone a Ph.D., should not be my portion, but as I sit here writing with tears rolling down my face, it is. I assumed that everyone with "Dr." in front of their names were medical doctors, and that could never be me, as I had no interest in the healthcare field. I remember very vividly when I met an African American woman, who attended career day at my high school, with "Dr." on her name tag. It did not seem

like she was a medical doctor based on the information shared at her booth. I asked her how she was able to be called "Dr." without a medical degree, and her eyes seemed to light up, in my opinion, as she sat me down to explain how it happened and shared how it was possible for me as well. I was thoroughly intrigued to know that I could earn a Ph.D. in a non-medical field and be considered an expert in my field. I had no idea what my expertise would be, but I knew it would happen. It has been my intention from that day forward, my senior year of high school at Roosevelt High School in Minneapolis, Minnesota, to make earning a Ph.D. a reality and using it to make a difference in an area I was passionate about. I cannot remember her name, but her face remains vivid in my memory, and I am forever grateful for the seed she planted in my spirit to help charge me forward.

I would also like to give a very special thanks to my mom, Kimberley Coleman, and my father, Jarvis Townsend (may he rest in peace), for making a love connection and birthing me. My father was loving, intelligent, handsome, confident, and a complete charmer. He will forever remain in my heart, and I know he is proud of me.

My mother is my rock and shield. I know I did not get to choose who my mom would be, but I know God must really love me, as He gave me the best mom any child could ask for. Yes, we have endured many trials and tribulations, but she protected me like a mother hen, showered me with an abundance of love, ensured I felt good about being my authentic self, and did not allow anyone or anything to interfere with our relationship. My mom has always been my number one cheerleader and taught me that no dream is ever impossible, so dream big, which I will continue to do. As an adult I am blessed to call her my mother, pastor, and best friend. This PhD is possible because of the amazing mother she has been to me. I am also grateful for her husband of 18 years, Donald Coleman aka Papa Don, who always refers to me as his daughter

and quickly corrects others when they attempt to refer to me as his step-daughter.

I was blessed to have a relationship and be considered the fifth generation at birth with my Great-Great Grandmother, Lillie Ellerbe, Great-Grandmother, Alice Otelia Jones, Gramma Verlina Rhodes, and my Mom, Kimberley Coleman. I was raised by strong women pioneers who shaped me into the woman I am today. My Great-Great Grandmother, Lillie, taught me the value of hard work and the importance of standing strong for what I believe in and demanding what is rightfully mine. My Great Grandmother, Alice, taught me the importance of being confident in who I am and doing what makes me happy. My Gramma taught me the importance of love, as evidenced in her commitment to foster children and offering those less fortunate with opportunities that many take for granted. She also taught me the art of hustle. My Gramma went back to school in her late 50s to earn her GED and later earned her associate degree. She always encouraged me to go after what I want and is living proof that it is never too late to go after what you want or feel passionate about. I have many remarkable change agents who have led, guided, and helped direct my steps while never diminishing my strong spirited will and mindset, which is not usually understood by others who do not know me.

I also must acknowledge my Aunt Mary and Uncle Jesse Higgins who were most like grandparents in my life and my Cousin Debra who is more like my aunt. They also taught me what unconditional love feels like and although we are all imperfect, there is something perfect in every connection that God blesses me with. They helped to raise my father and loved me enough to take part in raising me. I spent my summers with them in Chattanooga, Tennessee, and they gave me opportunities to travel the world and experience life through different lenses, that would not have been afforded to me otherwise. I was considered the “poor little rich girl,” as God placed many people in my life who loved me, saw something great in me, and felt

compelled to help me become the best version of myself that I can be.

Although I am an only child, I was raised as part of a village, which helped give me a heart for others and share what was shared with me. To my Great-Great Grandpa, Raymond Ellerbe, Great-Granddaddy, Jack Jones, Granddaddy Robert Earl Rhodes, Uncle Robert, Uncle Jake, Uncle Durmon, Uncle Tyrone, Uncle Raymond, Grandma Alberta, Aunt Ruth, Aunt Lillie, Aunt Sheila, Aunt Jennifer, Aunt Lil'Kim, Aunt Jenny, Aunt Henrietta, my BFF Tesha, and many, many more aunts, uncles, cousins, friends, and sister friends that I cannot begin to name one by one, thank you for always believing in me, expecting me to be great, holding me up in prayer, speaking positive things into my life, and loving me unconditionally on this journey called life.

Special thanks go to Dr. Steve Gruenert, my committee chair, Dr. Frederick Hinton, and Dr. Kandace Hinton who took on the great task of supporting me as committee members in the completion of my degree to achieve a dream I was determined to make possible, being officially called Dr. Tora Hope Townsend, without a medical degree. Thank you, Judy Barnes for the many cycles of APA editing and Dr. Rosiline Floyd for keeping me encouraged and ensuring I stayed on the path to completion. I am proud to be considered an expert in the field of education, as I am a firm believer that education is the key to ending poverty and allowing others to recognize and develop their God-given gifts and talents to make this world a better place in the capacity they are destined to do so.

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CHAPTER 1

INTRODUCTION

The United States, once the world leader in education and technological advancements, consistently trails its rivals on international exams as measured by Program for International Student Assessment (PISA). PISA (2012) found the United States ranked 31st in math literacy and 23rd in science among 15-year-old students. Although the United States spends more than any developed nation on K–12 students' education each year, educational stakeholders face a reality where 1.2 million students drop out of high school every year, and 70% of eighth-graders cannot read at grade level. Income and race-based education inequalities continue as home zip codes determine school assignments, which routinely assigns African American students to perpetually underperforming schools (PISA, 2012).

American society relies on schools to level the playing field for children born into different circumstances. "More than any other institution, schools are charged with making equality of opportunity a reality" (Duncan & Murnane, 2011, p. 7). However, contemporary statistics that deconstructed this notion revealed the majority of students from low socioeconomic backgrounds attend underperforming schools, and this contributes to the achievement gap or the difference in academic outcomes between Black and White students (National Center for Education Statistics [NCES], 2012). Attendance at underperforming schools increases the growing achievement gap as family incomes force historically underserved

African American students and students from low socioeconomic backgrounds to matriculate at schools where 50% of students fail to graduate from high school and over 90% never receive a college degree (NCES, 2010).

According to Jennings (2012), investments of billions of dollars and the introduction of myriad models including charter, small, and magnet schools have failed to effectively address the multiplicity and complexity of needs for contemporary students. Jennings (2012) concluded, "I believe that American school reform has not been bold enough or comprehensive enough to substantially improve public education. To create an equitable system of public education will require embracing emerging technologies" (p. 1). The opportunity of school choice, as well as state and federal policies that allow parents to choose where they send their children to school, as opposed to being assigned by zip code, are innovations of modern-day education reform. Increasingly, parents and other stakeholders feel magnet schools, charter schools, and more recently virtual or online schools have the ability to better serve low socioeconomic status (SES) and students of color who are zip coded, assigned, and restricted to failing public schools (Godwin & Kemerer, 2002; Viteritti, 2010).

Educational philosopher Dewey (1944) maintained, "If we teach today as we taught yesterday, we rob our children of tomorrow" (p. 197). Technology has revolutionized the world, emerging as an integral part of daily life, yet schools have slowly embraced the potentialities of it to increase stagnant academic outcomes. A few key strokes afford students access to a world of information, yet schools continue to primarily use teacher-centered models of instruction with today's students or generation text which fully embraces technology across race and socioeconomic lines (Pearson Student Mobile Device Survey [Pearson], 2013). According to Pearson (2013), Pew reported 95% of today's screenagers use the Internet, and 74% are mobile

Internet users. The study further concluded 73% use social networking sites, 75% own cell phones, and 66% use text messaging (Pearson, 2013). Yet, traditional school classrooms in high-poverty areas find most students sitting in the same rows of desks with limited access to ever-evolving technologies. Some researchers maintain that students actually have to slow down thinking from tablets to textbooks in these schools.

As stakeholders seek alternative methods of education to combat the perpetual failure of African American students, proponents of online learning maintain this vehicle provides the opportunity to bring about "reforms that have long eluded traditional public schools" (Tucker, 2007, p. 1). Virtual education advocates assert this innovative technology has the ability to change the traditional K–12 schools' system with the implementation of technology that allows interactions with teachers and peers and the flexibility needed for busy families (Dillon, 2011).

Virtual, cyber, and online schools provide curriculum and instruction using live synchronous and asynchronous sessions via Internet, usually with students at home and teachers at a remote location, sometimes in different time zones, and everyone is not required to participate at the same time. Across the country, online education has experienced phenomenal growth over the last decade (NCES, 2012). A major contributor to the achievement/opportunity gap is access to high quality schools and virtual schools which provide technology-based innovations that could help close this gap. Discussing the benefits of online learning, John Bailey asserted, "Virtual schools serve students at both ends of the bell curve—not just AP students but also those needing remediation" (as cited in Tucker, 2007, p. 3).

Background

Historically, society relied on schools to level the playing field for children born into different circumstances. "More than any other institution, schools are charged with making

equality of opportunity a reality" (Duncan & Murnane, 2011, p. 7). However, contemporary statistics that deconstruct this notion revealed that this technological disconnect failed to reflect the majority paramount importance of technology and may inhibit the future progress of these students from low SES backgrounds (NCES, 2012). It is widely known that despite billions of dollars and a multitude of interventions, academic outcomes of students for this population remain stagnant. Home zip codes determine school assignments and thus dictate these students attend chronically under-performing schools further contributing to the achievement gap despite empirical evidence revealing negative ramifications, within the difference of academic outcomes between African American students and their counter parts (NCES, 2012). Attendance at under-performing schools increases the growing achievement gap. According to the traditional school model, family incomes force African American students from low SES backgrounds to matriculate at schools where 50% of students fail to graduate from high school and over 90% never receive a college degree (NCES, 2010).

Over the last few decades, a myriad of education reform efforts have sought to increase educational outcomes for African American students. Attempts at education reform have yielded a multitude of solutions for improving schools including school leadership, teacher quality, standards, testing, funding, and a host of other issues (Tucker, 2007). Despite students' strong connectedness to the digital world and media environments and the potential of these systems to improve learning, U.S. schools, where students spend a significant percentage of their time annually, rarely incorporate this technology (Cramer & Hayes, 2011; Schuler, 2009). Schmidt and Cohen (2013) discussed the need to embrace emerging technologies for todays' teenagers and contended, "The traditional model of schooling appears to go out the window when tablets and technology enter the daily life of a school" (p. 1). In alignment, Lankshear and Knobel

(2006) argued for the integration of mobile and wireless technologies and new media into current school educational activities, as they transform and define new literacies in teaching and learning.

Statement of Problem

African American students continue to achieve lower academic outcomes in public schools. Reform advocates seek alternative models to serve these demographics. Discussing the merits of technology, N. E. Davis and Roblyer (2005) observed, "In just a decade, technology has gone from a tangential role in education to redefining what it means to be 'in school'" (p. 399). Fueled in part by social and pedagogical constructs (e.g., increased access and communication options) and in part by logistical ones (e.g., convenience and energy savings), virtual schooling has become a fixture of American education (Zandberg & Lewis, 2008). In its new technology plan, the U.S. Department of Education, Office of Educational Technology (2010) recommended that the nation's schools "design, implement, and evaluate technology-powered programs and interventions to ensure that students' progress through our K–16 education system and emerge prepared for the workplace and citizenship" (p. 12).

A critical need exists to examine alternatives, such as online school models, to increase the educational outcomes of this population as socioeconomics and race trap over 10 million or 20% of low income students in schools where 16% of students achieve proficiency in 8th grade reading, with an even larger gap in math (NCES, 2010). National Assessment of Educational Progress reading assessments yearly scores since 1998 reported that low-income, nine-year olds are a staggering three grade levels behind their higher income peers (NCES, 2012).

Educational stakeholders increasingly seek alternative school models to increase academic outcomes including virtual and charter schools. Online schools or virtual, full-time K–

12 schools, also known as cyber schools, offer classes to students in their homes by teachers at remote locations or teachers who work from home. Classes are held online with students usually joining from various time zones, but not everyone enrolled in a course participates at the same time. Discussing the benefits of online learning, John Bailey, senior program officer at the Bill and Melinda Gates Foundation and former director of the U.S. Office of Educational Technology asserted that virtual schools serve students "at both ends of the bell curve—not just AP students but also those needing remediation" (as cited in Tucker, 2007, p. 3).

Both charter schools and virtual providers are expected to improve student academic outcomes and increase graduation rates with less money and fewer resources (Miron & Urschel, 2012; Tucker, 2007). As stakeholders seek alternative methods of education, proponents of online learning maintain this vehicle provides the opportunity to create virtual classrooms, which brings non-traditional reforms that failed to be attained by brick and mortar public schools (Tucker, 2007). Although an increasing number of families are choosing online schools, in general, minimal research exists about online school models. The online model provides resources to students previously under-resourced for tutoring and extra support. This study examined the role of online schools and African American students. The intent of this study was to investigate African American students' success because of participating in online learning education models.

Statement of Need

Support for educational reform is at an all-time high with both the public and policymakers prompting charter schools as the most viable for meeting student needs. The public is calling for additional school choice models to support reform at the secondary level and preparation for 21st century workforce skills (Cavanaugh, 2009). One model with increased

support in enrollment is virtual schools. These Internet-based school models have increasingly become a choice for parents. Given the ways that "the information revolution and the Internet have drastically improved and changed the lives of Americans, the possibilities for improved educational benefits of online learning should be explored" (Lips, 2010, para. 13). By the end of the decade, black and brown children 18 years and under will be the majority in U.S. schools.

It is critical that a solution is reached to close the academic gaps, as many of the students will not be afforded opportunities to become contributing citizens within their communities and the world (Porter, 2012). Porter (2012) continued, "In the end, for school districts around the nation, the goal is not for our students to have to beat the odds, but rather to change the odds" (p. 1). Although African American students are increasingly enrolling in alternative school models, the literature is lacking in examining their experiences. The "number of students in full-time online schools is four times what it was a decade ago and grew by 50,000 to the current 250,000 in the last year alone" (Watson, Murin, Vashaw, Gemin, & Rapp, 2011, p. 5).

Minimal research exists regarding operational factors and costs, student demographics, educational outcomes, and how these schools are held accountable locally and nationally. Barth, Hull, and St. Andrie (2012) noted, "News organizations, rather than education researchers, seem to be taking the lead in investigating and reporting the effects of virtual schools" (p. 2). Even though very little evidence-based research exists to support the creation of effective policies for virtual schools, many states are creating and passing legislation to allow virtual schools in their states or are giving them unlimited growth once they are approved by legislation. The place of digital content in public education is, therefore, not a matter of debate; it is inevitable. The literature fails to address how technology and virtual schools can lead to either better or consistent academic outcomes.

According to K. Rice (2006), “A paucity of research exists when examining high school students enrolled in virtual schools, and the research base is smaller still when the population of students is further narrowed to the elementary grades” (p. 430). Simiarly, Cavanaugh, Barbour, and Clark (2009) reported despite 20 years of virtual schools, a research deficit exists. Molnar et al. (2014) stated that eight years after K. Rice’s assessment, there has been little progress in studying the virtual school model. These authors maintained that despite some improvement, there is scarce valid evidence around the impact of full-time K–12, virtual education models. Watson et al. (2011) quesitioned the lack of available reseach and data on the fastest growing model of schooling—online learning.

Although some peer-reviewed research exists that examined peformance and practices of online schools, Molnar et al. (2014) discussed how state governments, educational policy research institute organizations, and journalists are producing reports. Some question the legitimicy of the the research that mostly has been conducted by state governments. To date, the vast majority of the research has only compared virtual, supplemental K–12 supports with student performance in tradtional public schools (Barbour & Mulcahy, 2006). Barbour (2013) described this research as problematic only examining selective groups.

As stakeholders seek alternative methods of education, proponents of online learning maintain this vehicle provides the opportunity to create virtual classrooms, which brings about reforms that brick and mortar public schools have failed to attain (Tucker, 2007). Learning skills to compete in a global environment is crtical. Students from African American populations often find themselves disconnected from technology despite its presence in an ever-changing world (Tucker, 2007). Technology acts as a vehicle to enhance learning as transformative which provides these skills to all students.

According to Tucker (2007),

> An important trend in public education has gone largely unnoticed in the cacophony of policy proposals: the rise of a completely new class of public schools—"virtual" schools using the Internet to create online classrooms—that is bringing about reforms that have long eluded traditional public schools. (p. 1)

"The importance of online learning as a solution to educational challenges has increased the need to study more closely the factors that affect student learning in virtual schooling environments" (Cavanaugh, 2009, p. 4). Not only does a scarcity in research exist in general, but a research deficit exists in regard to the relationship between African American populations and online schooling.

Purpose of the Study

The purpose of this study was to explore the influence of K–12 virtual school models on the educational outcomes of African American students. This study sought to (a) contribute to the growing body of research and literature on virtual schooling models, (b) enlighten stakeholders regarding K–12 African American students in a technology-driven paradigm, and (c) elucidate means to improve schooling experiences of African American students that lead to better outcomes. This study examined the impact of the relationship between virtual schools and the academic success of African American students in Kindergarten through Grade 12.

Research Question

The question that guided this research was, "Do online learning environments provide the assistance K-12 African American students need to achieve academic success in public schools?"

Significance of the Study

This topic is significant as a research deficiency exists on the impact of virtual schools and, more specifically, virtual schools and African American students. Today's technology-driven economy demands an educated workforce. "The growth in the numbers of students learning online and the importance of online learning as a solution to educational challenges has increased the need to study more closely the constructs that affect student learning in virtual schooling environments" (Cavanaugh, Gillan, Kromrey, Hess & Blomeyer, 2004, p. 1). Families are increasingly enrolling their students in virtual schools that offer a reform alternative to traditional school models, therefore warranting an investigation into their experiences.

Limitations

Limitations of this case study were not known until it was completed. Limitations were discovered during the process.

Delimitations

1. This study included data from a variety of states in the United States with different policies and laws.
2. The study was limited to two curriculum/management providers with many schools.

Definitions

Charter Management Organization (CMO), according to the National Resource Center on Charter School Finance and Governance (n.d.), "is a non-profit organization that creates a group of schools with a shared educational vision and mission" (p. 1). The CMO provides administrative support to the individual schools.

Education Management Organization (EMO), according to Miron and Urschel (2012), is an organization (for profit or not for profit) that holds a binding contract to manage publicly

funded schools with an agreement to produce positive measurable outcomes within a specified period.

K–12 is the term used to describe the sum of primary and secondary education (Kindergarten to 12th grade school years).

K^{12}/K^{12}Incorporated is used interchangeably in reference to the first K–12 virtual curriculum provider founded in 1999 by Ron Packard to support parents, schools, and organizations that desire non-traditional learning options to the children they are responsible for educating and serving.

Low socioeconomic status (SES) identifies families who apply, qualify, and whose children receive free or reduced lunch, as determined by the government income poverty guidelines.

Public charter schools (charter/charter schools) are "autonomous public schools created by a contract between a sponsor, as a local school district or corporation, and an organizer, as a group of teachers or a community group, often with a curriculum or focus that is not traditional" ("Charter School," n.d.).

*Stigm*a is a mark of shame or discredit that may impact the way in which a person functions or attempts to survive in society.

Traditional public schools are schools that are "maintained at public expense for the education of the children of a community or district and that constitutes a part of a system of free public education commonly including primary and secondary schools" ("Public school," n.d.).

*Virtual school/online school*s are terms I used interchangeably to describe "an institution that is not brick and mortar bound. All student services and courses are conducted through

Internet technology. The virtual school differs from the traditional school through the physical medium that links administrators, teachers, and students" ("Virtual School," n.d., p. 1).

Personal Statement

My interest in this topic stems from my personal experience growing up as a poor African American girl classified as low SES living in a historically underserved school and housing district. I excelled academically and even beat the odds by performing well on state tests, but that alone was not enough for me to be afforded the same opportunities as my non-African American peers. Based on my zip code, I was forced to attend under-performing schools, but I possessed the ability to compete and excel with students who did not look like me or live in my same neighborhood.

In elementary school, my family moved a lot due to financial reasons, which also meant that I had to switch schools with practically every move. My family moved 13 times within a five-year time timeframe. I attended 10 different public schools in five years. During my high school years, I was placed in honors courses and was recommended for Advanced Placement (AP) courses, but the high schools I attended did not have a high enough demand, so all AP courses were cancelled during my high school years.

During my senior year of high school, my mother was concerned that I was going to drop out of school because it seemed like I never went to school. I was far from wanting to drop out of school, but I had earned all the necessary credits to graduate and my high school did not have any additional courses that I could take to maintain the academic rigor that I desperately needed and wanted to keep me engaged in learning. As a result, my mom received daily notifications that I was tardy and some days absent as I only had two classes, 3rd and 4th period, and then I left after lunch to work my second job. I had the academic ability to take AP courses that could

have counted toward college credits, but my public school (which was in the wrong zip code) did not have the resources to support my academic needs, which caused a deficit in my high school career and potentially could have hindered my desire to pursue post-secondary education.

According to statistics, as a poor African American girl from a single parent home living in the ghetto, I was supposed to fail, but I did not fail. Fortunately, I had a support system that saw my potential and helped push me to the next level when I had no idea what opportunities were available to me. I suppose some would say that I was lucky to have made it out, but I think of the many students just like me who fall into the statistics trap and never even reach for half of their full potential. Unfortunately, like many African American low SES students, I was not afforded exposure to many opportunities that school choice and virtual school options could have possibly provided to me during my K–12 career.

Virtual school options allow children to remain at one school, which also leads to greater academic gains based on sustainability and familiarity with any academic model. In addition, the course offerings provided in a virtual school model are nearly unlimited as students from different parts of a city, state, and world can come together and learn without any zip code barriers that often impede and stunt academic growth. My educational career has only included working in non-traditional schools, namely charter schools.

I developed an interest in school choice as I knew the great benefits that it affords students, much like myself, living in the wrong zip code with the potential to achieve more if only given the opportunity. I worked at an extended day college preparatory middle school, a hybrid-model virtual elementary, middle, and high school, and a fully virtual middle and high school model which served a diverse group of students from zip codes that included those which were typically assigned to under-performing schools in their districts. Even as states adopt

Common Core Standards to support the growing transient populations that impact schools, virtual school options create an even greater platform for consistency and opportunities for academic excellence and engagement at multiple levels.

I have a strong interest in technology, and I am an advocate for it in all aspects of life. Having worked in various urban school reform models as an educator and school leader, my desire to learn more about how virtual education could impact African American students became even more compelling to me. I do not have an opinion either way as to whether virtual schools are ideal for African American students, but I am aware that I may be seen as having a bias with my experiences and love for technology. I controlled for this possible bias when I collected information from selected participants and investigated research. As urban schools are ducking and dodging or trying every new silver bullet in hopes of being struck by the right one, children continue to suffer, and the academic gaps grow wider. Knowing the numerous ways in which the information revolution and the Internet have drastically improved and changed the lives of Americans, the possibilities for improved educational benefits of online learning should be explored. Championing the benefits of virtual education, some researchers (Lips, 2010; Moe & Chubb, 2009) expect it to positively transform American education. Cyber schools may be an ideal option for some students, but not all students (Center for Research on Education Outcomes [CREDO], 2015).

Summary

This study is composed of five chapters. Chapter 1 presented an introduction for the study, a statement of the problem, the purpose of the study, research questions, delimitations and limitations of the study, definition of terms used in the study, significance of the study, and a summary. Chapter 2 presents a review of the related literature through a historical overview of

education reforms impacting African American students and the prevalent academic gaps between their White peers. Also, school choice and recent research on virtual schools as it relates to African American students in grades K–12 is explored. Chapter 3 contains the methodology and procedures employed with the study. Chapter 4 discusses what happened during the case study. Chapter 5 wraps up all the information, discusses implications, and makes recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to explore the influence of K–12 online school models on the educational outcomes of African American students. Specifically, this study addressed how this model could decrease the educational opportunity gap and provide access to quality educational opportunities for African American students. This chapter examines the literature pertaining to the educational experiences of African American K–12 student populations and virtual schools. Initially, the chapter explores the experiences of African American students in traditional school models. Second, this review of relevant literature explains charter schools as a school choice model. The chapter then discusses impeders to charter school success. Third, the chapter shares literature on virtual schooling. Finally, the chapter explores virtual schools as a disruptive innovation in education to improve academic outcomes for African American students.

African American Student Populations in Public Schools

Many educational and social reforms have attempted to correct education inequities for students based on race and socioeconomic backgrounds. Beginning with the landmark case of *Brown v. Board of Education* (1954) that declared *separate but equal* practices unconstitutional, these efforts attempted to provide these students equitable educational opportunities. However, as multiple research studies concluded, the achievement/opportunity gap prevails as African

American student populations continue to struggle in public education. Sociologist James Coleman first authored the *Equality of Educational Opportunity*; also known as the *Coleman Repor*t in 1966; this report served as a benchmark for research on opportunity in education (Coleman et al., 1966). Contrary to previous research primarily about race, Coleman found that family social status and social status of the families of peers contributed most significantly to students' academic achievement (Reardon, 2011). More recently, Reardon found over the last quarter century, the achievement gap, defined as the gap in test scores and graduation rates, increased nearly 40% between children from low SES and higher-income families.

Based on these alarming statistics, researchers, policymakers, and educators sought ways to better meet the socioemotional and academic needs of low-income urban students in American K–12 education. Over a decade post the Brown decision, Coleman's research opened the doors for additional reforms, including bussing, as a practice to reduce school segregation. Over the next few decades, the federal government produced an array of silver bullets in education, in the form of reforms, with the purpose of fixing problems of educational disparities for African American student populations, such as civil rights acts that included No Child Left Behind, special education/IEP's, Elementary and Secondary Education Act of 1965s Title I, Office for Economic Opportunity's Head Start Program, and Excellence Act for All Children Act of 1999 (Iorio & Yeager, 2011; Ladd, 2002). More recently, reform efforts to combat these negative statistics have included school choice models via magnet and charter schools, which despite promise have failed to address a multiplicity and complexity of needs leading to the continuous gap.

The National Association for the Advancement of Colored People argued, "The promise of a quality education is an important civil and human right that has yet to be fully realized in the

American public education system" (Jim Crow: Now & Then, 2017, para. 7). Despite spending more on education than other countries, these investments have not translated into educational success (NCES, 2010). Data from the 2013 National Assessment of Educational Progress (NAEP), known as the Nation's Report Card, which evaluates students in math, reading, and science continue to show a need for improvement (National Center for Educational Progress, 2013). In general, despite spending 39% more per full time students than other countries, in 2015 in the United States, scores remained dismal. NCES (2016) found that only 36% of 4th grade students, 34% of 8th grade students, and 37% of 12th grade students scored at or above proficiency in reading. Like these scores, 40% of 4th grade students, 33% of 8th grade students, and 25% of 12th grade students scored at proficiency in math. These data were even more disturbing for African American students.

The Black Alliance for Educational Options (BAEO, 2015) reported, "The best way for us to create a road map for Black and low-income children's future is to identify their performance today" (p. 16). More soberingly, NCES (2015) found performance declined in 4th grade math and 8th grade reading and math from 2013 to 2015. The declines were even more troubling for low SES students and students of color.

- Since the 1990s, low-income students' fourth- and eighth-grade math scores have risen with every NAEP administration; between 2013 and 2015, however, their scores fell in both grades.
- Between 2013 and 2015, eighth-grade reading and math scores fell for African American students, the first time on record that scores have fallen among African American eighth-graders. (BAEO, 2015, p. 19)

> When compared to other races, Black and low-income NAEP reading scores are the lowest in the nation. NCES (2015) reported a mere 18% of African-American 4th graders reached reading proficiency, and only 19% reached proficiency in math. Eighth-grade African American students fared worse with showing 16% reading proficiency and 13% math proficiency. This is in comparison to 33% of White 4th graders. Billions of dollars and a multitude of interventions has not interrupted negative data as African American student's proficiency in language, reading, and math currently remains well below that of their White peers and sometimes falls below that of their Hispanic peers. In fact, data reveals that African American children lead in every negative statistic . . . low-test scores, low graduation rates, and high school dropout rates. (Blanchett, 2009, p. 373)

"Given these facts, the time is now for us to take action to educate Black and low-income children" (BAEO, 2015, p. 5).

Although the United States overall has achieved some academic achievement gains, the racial and socioeconomic achievement gap remains (Christensen, Horn, & Johnson, 2008; Reardon, 2011). The racial achievement/opportunity gap became evident through "standardized test scores, high school dropout rates, high school completion rates, college acceptance and retention rates" (Glass & Welner, 2011, p. 1). Although efforts to close the racial achievement gap over the years had small successes, studies continue to show the existence of academic achievement disparities between people of color and White people. In fact, according to an Education Trust (2014) report, "African-American and Latino students have made little to no progress in 12th-grade reading scores since 1994, continuing to lag behind White students" (p. 1). According to the report, "On average African-American and Latino high school seniors

perform math and read at the same level as 13-year-old White students" (Education Trust, 2014, p. 1).

> Discussing these disconnects, Amy Wilkins of Education Trust maintained,
>
> We take kids that start [high school] a little behind and by the time they finish high school, they're way behind, that's the opposite of what American values say education is about. Education is supposed to level the playing field. And it does the opposite . . . while many people are celebrating our post racial society . . . there is still a significant hangover in our schools. (Caperton & Whitmire, 2012, p. 208)

Educators cited the following causes for the disparity in performance:

- Lowered expectations for students of color.
- Growing income inequality and lack of resources in low-income school districts.
- Unequal access to experienced teachers.
- An increased number of "out of field" teachers instructing minority students in subjects outside their area of expertise.
- "Unconscious bias" by teachers and administrators. (Wiltz, n.d., paras. 5–6)

The opportunity gap for students of color and those from low SES backgrounds stem from these components.

NCES (2011) reported the national Black-White gap and the Hispanic-White Gap in math and reading assessments which is measured at the 4th- and 8th-grade levels widens in math as students grow older and show minimal to no changes in reading. The study further reported:

- in mathematics, a 26-point difference at the 4th-grade level and a 31-point difference at the 8th grade level,

- in reading, a 27-point difference at the 4th-grade level and a 26-point difference at the 8th-grade level,
- in mathematics, a 21-point difference at the 4th-grade level and a 26-point difference at the 8th grade level, and
- in reading, . . . a 25-point difference at the 4th-grade level and a 24-point difference at the 8th-grade level. (NCES, 2011, p. 17)

Similarly, Carter and Welner (2013) reported,

> For example, the average White 13-year-old reads at a higher level and performs better in math than the average Black or Latino 17-year-old. Similar outcome gaps exist for graduation rates, grade retention and course failure rates, and college preparatory course taking. (p. 15)

A major component to these issues is that these students primarily attend under-performing schools, which increases the growing achievement gap between poor students of color and their higher income peers (Reardon, 2011).

A critical need exists to examine alternative school models to increase the educational outcomes for populations historically identified as low SES and race traps over 10 million or 20% low income students in schools where 16% of students achieve proficiency in 8th-grade reading, with an even larger gap in math (NCES, 2010). The National Center for Education Statistics' NAEP Reading Assessments yearly scores since 1998 report low SES nine-year-olds are a staggering three grade levels behind their higher income peers (NCES, 2011).

Race, Economics, and African American Children

A litany of both school and home-based factors contributes to the enduring negative schooling experience of African American students. Race and socioeconomics determine that

African American students are more likely to attend high-poverty "public schools where more than 75 percent of the student body population receive free or reduced lunch" (NCES, 2011, p. 5). Attendance at low SES schools contributes to the fact that these students will most likely not graduate from high school and will have lower college attendance rates than all racial groups.

Several confluent definitions exist on what constitutes "at-risk" students. According to Study.com (n.d.), "an at-risk youth is a child who is less likely to transition successfully into adulthood" (para. 1). This success can include academic success and job readiness, as well as the ability to be financially independent. These are factors that are affected by student's outcomes in school. One of the major predictors of at risk status is poverty. Children reared in low-income situations struggle more frequently with the successful transition into adulthood. "The U.S. Department of Health and Human Services analysis based on 2008 census data found that household income significantly impacts youth outcomes" (U.S. Census Bureau, 2008, p. 2). Children reared in low-income families are more likely to be teen mothers or engage in gang activity and delinquent behaviors. Students from households that earned less than $35,000 represented just 10% of all the degrees awarded (Perna, 2016).

The Glossary of Education Reform (2017) defined at-risk students or groups of students as those who have a higher probability of failing academically or dropping out of school. Other school based at–risk factors include learning disabilities, low test scores, disciplinary problems, grade retentions, or other learning-related factors that could adversely affect the educational performance and attainment of some students.

According to the Glossary of Education Reform (2017), in most cases, "risk factors are situational rather than innate, a student's perceived risk status is rarely related to his or her ability to learn or succeed academically, and largely or entirely related to a student's life circumstances"

(p. 4). Several life circumstances contribute to the at-risk status of African American student experience, such as attending a low-performing, underfunded school that cannot provide essential services. Most African American students continue to attend underperforming schools (Darling-Hammond, 2010). The students are subsequently labeled underachievers and are accused of perpetuating the "pernicious" achievement gap (Jackson, 2011). Labeled at risk, these students attend schools with inexperienced teachers and academic outcomes. Thus, the school atmosphere contributes to higher rates of student absenteeism, course failures, and attrition. The current system of schooling inhibits the upward mobility of these students as poor education leads to poor job opportunities miring multiple generations in poverty (Carter & Welner, 2013).

The American Psychological Association (APA) examined research on socioeconomic status and issues in education and found that low SES children develop slower academically compared with higher SES children (as cited in Aikens & Barbarin, 2008). The APA reported academic challenges begin with early education. This creates the carousel of poverty as marginalized students receive an inferior education by scoring poorly on standardized test scores and other measures of children's academic achievement. These negative educational outcomes perpetuate the low SES of the community (Aikens & Barbarin, 2008).

The APA identified four factors of SES that directly impact academic outcomes: school environment, family resources, psychological health, and academic achievement. According to the APA, "Low-SES communities are less likely to have the financial resources or time availability to provide children with academic support" (APA Zero Tolerance Task Force, 2008, p. 853). Parental stress and children's initial reading competence is correlated with the home literacy environment, number of books owned, and parent distress (Aikens & Barbarin, 2008).

Although research indicated books, computers, and tutors create a positive learning environment, parents from low-SES communities cannot afford to purchase or finance these resources (Orr, 2003). The first three years of schooling are a critical time to learn the basic skills needed to tackle a more advanced curriculum, yet many who enter fourth grade struggle with reading (Colker, 2014).

The Annie E. Casey Foundation (2014) found that 80% of students from low SES backgrounds lack the needed early childhood skills. These numbers are worse in the minority communities where 83% of African-American fourth graders fail to meet proficiency standards, and 81% of Hispanic and Latino children fall short (Annie E. Casey Foundation, 2014). Early vocabulary skills are linked to economic backgrounds by age three; there is a 30-million-word gap between children from the wealthiest and poorest families. Nearly 34% of students from low SES backgrounds enter kindergarten lacking the basic language skills needed to learn how to read (Colker, 2014). According to Colker (2014), school aged students from low-income families have a vocabulary that is 25% smaller than those from wealthier homes. Once children with high-poverty backgrounds begin kindergarten, they are at least one year or more below national norms in reading and linguistic skills (Colker, 2014).

"When enrolled in a program that encouraged adult support, students from low-SES groups reported higher levels of effort towards academics" (Kaylor & Flores, 2008, p. 69). The improvements were all credited to the stable, nurturing, predictable learning environment, where good behavior was recognized more than bad behavior punished. The school environment contributes more to SES differences in learning rates than family characteristics (Aikens & Barbarin, 2008). The experience level of the teachers and the quality of teacher trainings correlates with how students perform academically (Gimbert, Bol, & Wallace, 2007). However,

schools that serve low SES students have the lowest to zero highly-qualified teachers and face the constant migration of highly qualified and capable qualified teachers perpetuating poor academic outcomes (Muijs, Harris, Chapman, Stoll, & Russ, 2009).

An abundance of research shows "that teachers with stronger credentials tend to teach in schools with more advantaged and higher performing students and, to a far lesser extent, that similar matching occurs across classrooms within schools" (Clotfelter, Ladd, Vigdor, & Wheeler, 2007, p. 1346). Clotfelter et al.'s (2009) study found that core classes in low SES middle and high schools are nearly twice as likely to be taught by non-qualified teachers, with many not holding degrees or teaching licenses in the subject areas they had been assigned. Middle and high schools with higher minority student populations are twice as likely to not have math teachers who are licensed to teach math or hold no math certifications. Low SES and high minority student body population schools have the highest number of teachers with minimal teaching experience and exposure to working with and supporting low SES and minority students. Data across states show that low-income students and minority students are saddled with disproportionate numbers of inexperienced teachers that have taught for three or fewer years. Factors that are shown to improve schools in low-SES communities are "a focus on improving teaching and learning, creation of an information-rich environment, building of a learning community, continuous professional development, involvement of parents and increased funding and resources" (Muijis et al., 2009, p.157).

Socioeconomic Status and Academic Achievement

Research continues to link lower SES to lower academic achievement and slower rates of academic progress compared with higher SES communities.

- Children from low SES environments acquire language skills more slowly, exhibit delayed letter recognition and phonological awareness, and are at risk for reading difficulties (Aikens & Barbarin, 2008).
- Children with higher SES backgrounds are more likely to be proficient on tasks of addition, subtraction, ordinal sequencing, and math word problems than children with lower SES backgrounds (Coley, 2002).
- Students from low-SES schools enter high school 3.3 grade levels behind students from higher SES schools. In addition, students from the low-SES groups learn less over four years than children from higher SES groups, graduating 4.3 grade levels behind those of higher SES groups (Palardy, 2008).
- In 2007, the high school dropout rate among persons 16–24 years old was highest in low-income families (16.7%) as compared to high-income families (3.2%) (NCES, 2008).

School Choice

After race-based reform policies failed to achieve goals, school reform advocates and other educational stakeholders introduced school choice models. School charters refer to a wide array of programs, including public charter schools, magnet schools, and voucher-sponsored private schools, that offer students and their families alternatives to publicly provided schools. The expectation for school choice was that giving parents the power and opportunity to choose their children's school would provide greater access. This concept would interupt the status quo whereas the quality of student's education was dictated by their zip code. Choice advocates contend deregulation and greater market control can restructure and improve education (Viteritti, 2010; Wohlstetter, Smith, & Farrell, 2013). A variety of school choice options exist today,

including tuition vouchers, private scholarship programs, and charter schools, which provide an alternative to the cookie-cutter district school model. Proponents of choice identified three advantages: (a) eliminates ineffective schools by promoting competition, (b) creates the opportunity to break the link between residential location and quality of schooling by giving parents the choice of public schools within the district or other districts, and (c) provides vouchers that would increase access to private schools or schools which adhere to the religious beliefs of the parent (Ladd, 2002).

Contrary to intent of school choice, which advocates expected to promote diversity and enhance learning, empirical data "suggests that, overall, choice options have neither fostered greater equity in educational outcomes nor stimulated improvement in non-choice schools" (Mickelson, Bottia, & Southworth, 2008, p. 23). "In practice, choice schools and programs are as segregated, and in some instances more segregated, by race and SES than the other schools in their local community" (Walberg, 2007, p. 4). Yet, despite high levels of segregation by serving primarily minority students and a multitude of impediments, one choice model charter school experienced success with historically underserved populations.

Charter Schools

Despite decades of reform efforts, the dilemma of how to prepare students with 21st century skills within the traditional school model remains. The era of school choice introduced significant changes to public K–12 education, opening doors to innovative charter school models that provided access to emerging technologies for African American students (Bauman, 2001). Educational stakeholders and political parties worked collaboratively in support of this effort to restructure public education (Wohlstetter et al., 2013). Charter schools are independent, open access, tuition-free public schools that must adhere to state and federal laws and regulations

pertaining to public schools. However, charter schools are afforded flexibility in operations in return for greater accountability requirements. In the basic charter model, the actual charter represents a written contract between the schools and the authorizing agents. The contract dictates the design of curriculum, pedagogy and operations, and standards of operations. Authorizing agents are usually universities but may also be school districts or the mayor's office, as in Indiana, and they hold four responsibilities: (a) review charter applications, (b) contract with the charter school, (c) ensure compliance, and (d) renew or not renew the charter school's contract based on school performance (CREDO, 2013). Authorizing agents may revoke the charter and close the school if the operator fails to adhere to the terms of the charter.

This transformative model reduces bureaucracies and policies to offer greater flexibility for innovation within public education. Released from collective bargaining agreements, charter schools possess the freedom to adapt curriculum and offer philosophies, missions, and visions aligned with a multiplicity of student needs (Dobbie & Fryer, 2011). Some innovative charter school models focus on supporting varying student interests and learning styles, including college preparatory programs, language immersion schools, and project-based learning (Gronberg, Jansen, & Taylor, 2011). Other models maintain a back-to-basics approach with an additional focus on increasing math and language arts skills or accelerating student achievement with extended school days and extended school years (Mead & Rotherham, 2007; Renzulli, 2005).

The charter model affords flexibility in school design, curriculum, and operations in return for additional accountability (Caitlin, Nayfack, Smith, & Wong, 2009; National Alliance for Public Charter Schools [NAPCS], 2013; Wohlstetter et al., 2011). The flexibility afforded this model offers nimbleness in adjusting to student needs not possible in a traditional school

model. Nelson and Miron (2005) described charter school operations as an autonomy - accountability bargain, whereas the reward for autonomy is curriculum and operations. Charter schools face strong levels of accountability as legislation regulates charter school oversight with dire consequences, including school closure, for failure to meet the expectations outlined in the charter.

Charter schools evolved from education novelties into powerful educational innovations which expand school choice options with "customized teaching and learning opportunities for teachers and students" and provide "universal access for students and public oversight and accountability" (Mead & Rotherham, 2007, p. 3). From community-driven beginnings, charter schools have emerged as models for quality public education. Buoyed by public demand and political and philanthropic support, charter schools now anchor education reform efforts. Lake (2013) and Grady (2012) argued charter school inclusion in additional legislation included in the American Reinvestment and Recovery Act of 2009 and the reauthorization of the Elementary and Secondary Education Act of 1965 cemented the expanding role of charter schools on public education.

Over two decades post-inception, although still controversial in terms of overall model performance, charter schools increasingly reflect higher rates of success with African American students. High-performing charter schools have shown some successes with African American students despite multiple impeders. These hindrances include politics, charter-funding laws, and the challenges of effectively serving primarily underserved students. CREDO (2013) found "enrollment and persistence in charter schools especially helpful for some students, particularly students in poverty, students of color, and English language learners (ELL), all of whom post significantly higher learning gains in both reading and math" (p. 34). An emerging body of

literature argued that attendance at a high performing charter school can significantly increase the educational outcomes of poor urban students, regardless of race or family income (CREDO, 2013; Dobbie & Fryer, 2013).

The NAPCS (2013) reported, "Over 500 new public charter schools opened their doors for the 2012–2013 school year. Compared with the 2011–2012 school year, an estimated additional 270,000 students are attending public charter schools in the 2012–2013 school year" (p. 1). The alliance attributed this growth in student enrollments to continuing demands for high-quality educational options. Stakeholders and funders agree a critical need exists to replicate and expand successful models, as the demand far exceeds the availability of high performing charter schools (Higgins & Hess, 2009; Lake, 2013). Stakeholders asserted this is demonstrated by over a million students on waiting lists for high-quality charter school seats (Higgins & Hess, 2009; Lake, 2013).

Propelled by the success of high-performing charter schools, quality charter schools now stand at the forefront of educational change (Dobbie & Fryer, 2013, Higgins & Hess, 2009; Lake, 2013). Public, political, and philanthropic organizations tout high-quality charter school expansion as the key to the reinvention of public education (Dobbie & Fryer, 2013). Despite these successes, high-performing charter schools only serve around 200,000 or 2% of historically underserved students. Although desperately needed, a multitude of impeders including charter school laws with inequitable funding distribution and capital finances hinder expansion (Grady, 2012).

Virtual Schools

Many educational and social reform efforts designed to close the opportunity gap have not achieved desired results. The well-documented academic achievement gap—the difference

in achievement between African American student populations and their counterparts—should be more precisely described as the opportunity gap as home zip codes dictate these students attend chronically underperforming schools. According to Provenzo and Provenzo (2009), the purpose of educational reform "is to realize deep, systemic, and sustained restructuring of public schooling" (p. 305). Over two decades later, the United States is still seeking a reform solution. In its infancy, charter schools were conceived as innovative models to transform public education. However, a multitude of impeders have lowered expectations and forced stakeholders to seek alternative models. Although some high-performing schools have found successes, the ever-changing and ever-increasing students who need a multiplicity of challenges remain. Although high-performing charter schools offer a proven method, expansion requires managing a multitude of impeders, namely funding and charter laws, while building on their succeses. Proponents maintain virtual charters schools have the ability to do both (Barbour & Mulcahy, 2009; Dessoff, 2009). Virtual charters use technological innovation to better serve student needs.

Virtual schools, also known as online learning, are teacher-led, Internet-based education with the teachers and students separated geographically. Most models use an online learning platform system using synchronous and asynchromous sessions with licensed teachers and provide a structured online environment to support student learning and engagement. "By allowing children to learn online and at home, cyber schools, cater to students with a variety of unique needs" (Barth et al., 2012, p. 6). Virtual models enable teachers to drastically change the entire school life exerience for children and parents with personalized student learning and extended learning beyond the traditional school day (Cavanaugh, 2009; Dessoff, 2009). Virtual schools offer new teaching methodologies, and the models often lend themselves to help best

support and guide teachers from an administrator perspective (Tucker, 2007). The online model provides resources to students previously under resourced for tutoring and extra support. Discussing the impact on the most challenging population, Porter (2012) posited the anywhere, anytime aspect of virtual and blended learning models has begun to bear fruit, particularly as far as African American male students are concerned.

In the past 10 years, online learning has moved quickly to the top of the K–12 public school education reform agenda with full-time virtual learning models being at the forefront. Virtual schools are being presented as a school reform model to expand school choice and school privatization, as well as an opportunity for investment with various educational entities. Virtual schools are not simply an opportunitiy for schools to broaden and enrich their curriculum course options for students that may or may not be available in their traditional brick and mortar schools. According to Miron and Urschel (2012), "With advocacy and lobbying by key providers, and with the support of national organizations advocating school choice, 30 states and the District of Columbia have created full-time virtual schools" (p. 7). A greater number of states have begun approving the use of online instruction for students attending public schools as an option for one or more courses within their traditional brick and mortar schools.

Currently, full-time virtual schools enroll nearly 250,000 students and are commonly established as public charter schools under the auspices of education management organizations that operate for-profit (Miron, Horvitz, & Gulosino, 2013). K^{12} Incorporated is the largest full-time virtual school for-profit company, with nearly 50 schools and over 65,000 students enrolled in public, private, and charter schools in 2010.

Molnar et al. (2014) described virtual education as "a focal point for policymakers interested in expanding education choices and improving the efficiency of public education" (p.

2) The Internet has profoundly affected most of everyone's lives and will increasingly impact schools. Virtual schools create new opportunities for students as technology opens the world despite backgrounds to unlimited access to education.

Anderson (2007) compiled the findings of a group of researchers who investigated online learning. In the book's forward, Raj Dhanarajan, Vice Chancellor of Wawasan Open University, maintained, "The ubiquity and multiplicity of human and agent communication, coupled with tremendous increases in information production and retrieval, are the most compelling characteristics of the Net-based culture and economy in which we now function" (as cited in Anderson, 2007, p. vii).

Just as the Internet has changed how one lives, the expectation is that virtual schools will change how school is done. Virtual schools offer a way to circumvent some of the challenges of traditional brick and mortar charter schools by providing cost-effective, quality educational access to all. Research has shown multiple benefits of online schools and online schooling, including increased access to high-quality teachers; personalized learning; increased flexibility for parents, students, and teachers; improved productivity and efficiency; and innovation (Cavanaugh, 2009; Dillon, 2011; Tucker, 2007).

Marchuk (2010) outlined the benefits of virtual schools:

> Online learning offers a multitude of benefits to students and their families in terms of academic enrichment and academic remediation and/or acceleration. Research has shown that online learning is academically effective and can provide meaningful alternatives for students who have a need for greater flexibility with their education due to individual learning styles, health conditions, employment responsibilities, lack of

> success with traditional school environments or desire to be working early at the college level. (p. 1)

Addressing the potential role of online schools in education reform efforts, Tucker (2007) stated,

> There has been no shortage of solutions for improving the nation's public schools. "School leadership, teacher quality, standards, testing, funding, and a host of other issues" have crowded reform agendas. But an important trend in public education has gone largely unnoticed in the cacophony of policy proposals: the rise of a completely new class of public schools – ''virtual" schools using the Internet to create online classrooms – that is bringing about reforms that have long eluded traditional public schools. (p. 1)

An Intel (2013) report concurred:

> As the world continues to shift from an industrial-based to knowledge-based economy, students must be prepared to successfully meet the challenges they will face as they enter higher education or a career. Districts and schools have the responsibility to teach students how to use prevalent technological tools to analyze, interpret and communicate information, thus enhancing the probability of each student succeeding. And it is not just individual student success that is at stake; the future of our communities, the economy and even national sovereignty is riding on getting education right. (p. 3)

Personalized Learning and Virtual Schools

As educators seek models to support a diversity of student needs, a major part of educational reform efforts increaslingly relies upon online learning to promote student academic achievement. "As opposed to charter schools—which today mostly function in parallel with traditional schools—supplemental virtual schooling experiences are by their nature integrated

and more like to influence the traditional system . . . and support broader improvements in teaching and learning practice" (Tucker, 2007, p. 17).

Discussing the potential impact of charters, Molnar et al. (2014) reported,

> Proponents argue that online curriculum can be tailored to individual students and that it has the potential to promote greater student achievement that can be realized in traditional brick-and-mortar schools. Further, lower costs—primarily for instructional personnel and facilities—make virtual schools financially appealing. Assumptions about the cost-effectiveness of virtual schools, coupled with policies that expand school choice and provide market incentives attractive to for-profit companies, have fueled a fast-growing virtual school expansion in the U.S. (p. 1)

The interactive nature of online learning uses multiple methodologies, which transforms student learning from expectations to explorations. A litany of research discussed the benefits of online learning, including, "simulations, manipulatives, online tutoring and tutorials offering student feedback which can increase performance, decrease failure, and provide students with visual and cognitive support they need to master abstract concepts" (Cavanaugh, Gillan, Bosnick, Hess, & Scott, 2005, p. 19).

Several scholars and educational analysts have examined the potential benefits of online learning for K–12 students. Christensen et al. (2008) shared evidence and views on how online learning will further revolutionize learning. Moe and Chubb (2009) showed evidence that virtual education will support the betterment and transformation of K–12 public education in the United States. In *Virtual Schooling: A Guide to Optimizing Your Child's Education*, education specialists Elizabeth Kanna, Lisa Gillis, and Christina Culver presented a parent's view on how online learning can benefit students and families (Lips, 2010). Based on Kanna, Gillis and

Culver's studies, (as cited in Lips, 2010) virtual education can improve education for children in a variety of ways, including increased student access to high-quality education and high-quality teachers. Virtual learning could allow students to have equal access to high-quality teachers and resources to meet their academic needs, as the student's schools would not be based on their zip code. Children would be exposed to high-quality teachers that are often lacking in certain areas based on lack of resources and funding in schools with high populations of low socioeconomic families. Children would also not have to experience teacher shortages which often robs children of taking advanced courses that would typically not be offered in their district schools such as physics, which is often not a course taught in economically-deprived school districts. In a virtual school model, children could take physics from a teacher in another state with children from other states, which is also a positive attribute as students are being exposed to healthy competition with children from different backgrounds, a necessary life skill (Lips, 2010).

According to *Online Education: A Consumer Awareness Report,* online learning provides new opportunities for individualization and personalization of learning (Michigan Virtual University, 2012). Benefits for students and families include flexible scheduling and location, access to highly qualified and specialized instructors, credit recovery, AP, and on-demand learning. From credit recovery to APs, students get the benefit of flexible schedules, which allows students to receive course content at their convenience. An additional student benefit outlined in the report included individualized pacing which matches their current knowledge and skill. The report further asserted flexible access to course content provides the opportunity for parents to monitor student learning and provide focused motivation and support for struggling students. The final benefit depicted by the report was that schools also benefit from increased availability and increased access to online learning options to meet the academic needs of their

students without hiring additional teachers, often a difficult task in subject areas with a shortage of highly-qualified teachers. In addition to offering personalized learning, virtual education can eliminate the mass standardization of all students within public schools (age/grade as opposed to academic levels or one learning style as opposed to differentiation) by offering custom curriculum paths and individual learning plans. This also allows for more accurate assessment and feedback on students' academic ability and progress. Parents will have specific information about their children to support them at home or seek additional resources to partner with the school in closing the achievement gaps of their children (Lips, 2010).

Students are no longer tied to a desk as virtual education can offer students greater flexibility in how and when they learn. Students would not have to conform to the traditional school hours, which generally occur sometime between 7:30 am and 4:00 pm Monday through Friday. Online learning also allows students to learn at their own pace and supports teaching them organization and personal accountability to stay on pace with their learning style and ability levels. Students who are transient would not have to disrupt their education due to a move; students involved in extracurricular activities could pursue their interests and remain engaged in their studies; teenage parents could work while their children are sleeping or when they have access to a babysitter (any time of the day). Virtual learning offers 24/7 access to education (Lips, 2010).

School-Based Factors and Teacher Quality

Over three decades ago, discussing the future impact of poor schooling and African American students, Bowman (1994) argued, "The inequities that prevent the educational achievement of these children may very well affect the social stability of the United States" (p. 1). Similarly, Smith, Clark, and Blomeyer (2005) argued, "This low level of education threatens

these students' economic and social integration into mainstream America" (p. 21). It was Smith et al.'s (2005) assertion that "this poor education creates a permanent underclass and severely compromises this country's ability to develop and sustain a well-balanced, pluralistic society that enjoys a high standard of living" (p. 21).

Opportunity gaps are confounded by factors that include poverty and lowered expectations. These gaps are compounded by the shift in American demographics which resulted in most African Americans being taught by teachers who do not share their racial or cultural experiences. This has created cause for concern as research shows that a student's race, ethnicity, cultural background, and other variables (e.g., poverty, assessment practices, systemic issues, lack of PD opportunities for teachers, institutional racism) significantly influence the student's achievement (Harry & Klingner, 2006; Orosco & Klingner, 2010; Skiba et al., 2011). Because of these perpetuating gaps, educational stakeholders continually seek alternative methods of closing the gaps to increase student achievement. Multiple research studies concluded that a major component in these achievements gaps are cultural incongruence between educators and students (Berry & Candis, 2013; Gay, 2000; Jackson, 2011; Ladson-Billings, 1995).

The developmental changes of adolescence (ages 10–14) are challenging to most children as they face changes which dramatically affect their self-image, identity, behavior, school-related adjustment, and long-term choices and outcomes (Rice & Dolgin, 2005; Roeser, Eccles, & Sameroff, 2000). For some youth, the changes associated with this stage of development are accompanied by an increased risk of experiencing emotional, behavioral, and school-related difficulties (Gutman & Midgley, 2000; Roeser et al., 2000). These changes are compounded for African American youth, youth from low-income backgrounds, and youth with behavioral

problems as they are all more likely than other youth to experience difficulties during early adolescence (Commission on Behavioral and Social Sciences and Education, 1993; Connell, Spencer, & Aber, 1994; Jimerson, Egeland, & Teo, 1999). African American at-risk youth are bombarded with the challenges of adolescence while combating the stressors of race and often poverty. African Americans and people with lower SES transition into adult roles at earlier ages than Whites and African Americans with higher SES. African American youth experienced a multitude of school-based disparities including being more than twice as likely as White students to experience corporal punishment, school suspensions, and school expulsion (APA Zero Tolerance Task Force, 2008; Rodney, Rodney, Mupier, & Crafter, 1999).

BAEO (2015) argued,

> If we want to change Black students' outcomes in higher education, we must change what they learn in pre-K–12 education, particularly in math, science and reading. If we fail to do so, our students will be locked out of colleges and jobs that require higher-order thinking skills. (p. 20)

Today's technology-driven global society demands an educated workforce. Yet, a perpetuating achievement gap continues to exist between African-American students and other races. Education deficits adversely affect future quality of life from job opportunities to healthcare. For African American students, these gaps begin with a lack of access to quality early childhood education, and once in school, these students lack access to highly prepared and effective teachers (Carter & Welner, 2013; Darling-Hammond, 2010).

Although conversations about race remain hard for most, in education student race matters, as demonstrated by African Americans who trail their White counterparts in virtually every measure of academic achievement taken at every level of schooling (Singleton & Linton,

2006). Data show African American students' proficiency in language, reading, and math currently remains well below that of their White peers and sometimes fall below that of their Hispanic peers. African American children lead in every negative statistic: low-test scores, low graduation rates, and high school dropout rates (Blanchett, 2009). Multiple research studies concluded that a major component in these achievements gaps is cultural incongruence between educators and students (Berry & Candis, 2013; Gay, 2000; Jackson, 2011; Ladson-Billings, 1995).

Virtual learning opportunities are not only beneficial to families and students but also to teachers and the teaching profession. Finding and retaining quality teachers seems to be a constant struggle for school systems. "Online learning not only provides many more options for these districts in terms of being able to offer courses where teacher shortages might exist but also does so in a way they see as affordable" (Picciano & Seaman, 2007, p. 28). Additionally, "small rural districts have smaller student populations so if they are able to find teachers in high demand subjects, the small number of students that might enroll in their courses would result in…higher per course costs" (Picciano & Seaman, 2007, p. 29). Online schooling mitigates the issues of schools hindered by budgetary constraints and the shortage of quality teachers in the much-needed fields of math and science to provide access for their students (Rice, Dawley, Gasell, & Florez, 2008).

Virtual education provides teachers greater flexibility in their teaching practices, methods, and teaching and support hours. Virtual education has the potential to expand the teacher talent pool by allowing non-traditional teachers to reach non-traditional students in a capacity that generates increased learning and engagement. Also, teachers who are parents could balance career and family with fewer stresses that often cause teachers to leave the profession.

This flexibility also allows students to have access to teachers and direct online instruction during non-traditional hours, which meets the needs of a variety of students (Lips, 2010).

In terms of virtual learning, the nature of Internet increases student access to high-quality and highly-qualified instructors (Dessoff, 2009). According to Tucker (2007), "Access to rigorous courses and highly qualified teachers for all students—no matter where they live—is one of the promises of virtual education" (p. 5). Stakeholders, including education researchers, analysts, lawmakers, and advocates for reform, promote the necessity of more learning and instructional time to increase educational outcomes, and the flexibility of online courses allows students additional time (Rocha, 2007).

Picciano and Seaman's (2007) survey of K–12 administrators identified offering courses not otherwise available at the school; meeting the needs of specific groups of students (i.e., special education, gifted and talented, athletics) by offering AP courses, minimizing student schedule conflicts, and allowing students the opportunity to retake previously failed courses are benefits of online learning. Online schools and online courses afford students with disabilities, athletic abilities, and academic overachievers or underachievers the flexibility of effective schooling at their convenience (Rice et al., 2008).

Brian Gill with Mathematica stated student engagement, low teacher-student contact time, and high student-teacher ratios attribute to academic challenges in virtual charter schools. The findings show reasons of concern that virtual school models might not be effective for student academic achievement (Mathematica Policy Research, 2015). States allowing virtual schools to operate need to create and enforce policies to address the concerns with virtual schools' lack of learning gains for students enrolled. Based on academic findings, restricting charters from operating virtual schools or constructing very specific and measured provisions for

virtual charter schools may prove beneficial for students (Mathematica Policy Research, 2015) According to the National Education Association, online courses offer transparency as the "curriculum, the teacher's daily lesson plans, the interaction in the classroom are all on display" (National Education Association, 2012, p. 6). The report argued this mode was easy to observe, evaluate, and assist teachers.

Transforming How We Do School

The principle of this model challenges the notions about schooling and the policies that govern public education. Molnar et al. (2014) reported, "Virtual schools force us to reconsider the limits of educational conceptions of time, like class periods, grade levels, six-hour school days, and 180-day school years" (p. 1). For the last two years, the National Education Policy Center (NEPC) has produced a report which examined politics, performance, policy, and research evidence for virtual schools. The 2014 report found "311 full-time virtual schools enrolling an estimated 200,000 students were identified; 67% of the identified students were enrolled in charters operated by EMOs. In 2011-12, the largest for-profit operator of virtual schools, K^{12} Inc., alone enrolled 77,000 students" (Molnar et al., 2014, p. 1).

As the academic and psychosocial needs of students have increased, funding for innovations such as online learning and charter schools has failed to increase. Schools continue to struggle to meet these challenges as complex issues, such as fiscal concerns, increased diversity, global forces, and societal demands, warrant changes in American elementary and secondary schools to provide more effective learning. Because a critical need exists for flexibility in schools, online learning is experiencing expansive growth to meet student needs better (Cavanaugh, 2009).

Increased Access

Historically, American students' learning opportunities have been limited and shaped by constructs beyond their control, including race, socioeonomic backgrounds, and zipcodes. Despite legislation, desegregation, restructuring, and a multitude of other interventions, disparities in educational attainment by race and SES backgrounds remain. Home zip codes dictate poor students attend chronically underperforming schools despite empirical evidence of negative ramifications. Virtual or online learning can transform education by expanding "educational opportunities of American students, largely overcoming the geographic and demographic restrictions" (Means, Toyama, Murphy, Bakia, & Jones, 2010, p. 11).

A major part of educational reform efforts increasingly relies upon online learning to promote student academic achievement (Miron & Urschel, 2012). Discussing the beneftis of online learning, John Bailey, Senior Officer with the Gates Foundation asserted, "Virtual schools serve students at both ends of the bell curve—not just AP students but also those needing remediation" (as cited in Tucker, 2007. p. 3). These educational choices offer personalized student learning benefits students at all levels by offering both AP and credit recovery courses. The flexibility of technology affords personalized online learning, based on individual student academic and personal needs, ensuring all students have equal access to learning by highly qualified licensed teachers. Technology extends learning opportunities to anytime, anyplace and possesses the flexibility to improve over time (Intel, 2013).

Virtual and blended learning models have become an effective way to engage students who are not performing well in traditional school models or have environmental circumstances that often impact the ability to adhere to public school hours and gives students the opportunity to work according to their individual schedules and learning pace, without time of day or

building hour restrictions (Porter, 2012). Virtual and blended learning models allow students to work at, or more closely aligned, to their individual learning styles and academic needs (Lips, 2010).

Effectiveness of Virtual K–12 Education

One of the major questions from distractors and advocates of online schooling is about how academic achievement results compare with those of traditional schools. A dearth in research exists in examining K–12 online learning effectiveness. Smith et al. (2005) conducted a meta-analysis of K–12 online learning outcomes and concluded there were no stastically significant differences in acheivement between online and traditional schooling expereinces. Another literature review summarized research on online teaching and learning. A study conducted by Tallent-Runnels et al. (2006) investigated academic achievment in virtual courses within age groups and content areas. The study concluded learning outcomes in online courses appeared equivalent to those of brick and mortar direct instruction courses. Means et al. (2010), who conducted a comprehensive study of online learning which included five K–12 studies stated, “The meta-analyis found that, on average, students in online learning conditions performed better than those receiving face-to-face instruction” (p. ix). Many parents view supporting their children in their online studies as a full-time job, but one well worth it, as they have greater control over their children’s academic success and more exposure to 21st century learning skills preparing them for college and life (M. Davis, 2011).

A 2009 study conducted by the U.S. Department of Education analyzed learning outcomes of students enrolled in K-12 and post-secondary virtual schools and revealed that “students who took all or part of their course online performed better, on average, than those taking the same course through traditional face-to-face instruction” (Lips, 2010, p. 2). “Studies

in which learners in the online condition spent more time on task than students in the face-to-face condition found a greater benefit for online learning" (Patrick & Powell, 2009, p. 4). Patrick and Powell (2009) continued by stating, "Online learning can be enhanced by giving learners control of their interactions with media and prompting learning reaction" (p. 4).

In a Pennsylvania cyber charter schools research study, there were no significant learning gains in reading for students enrolled in virtual and charter schools. Cyber charter school students also showed significantly fewer reading and math gains compared to similar student body populations in a public school (CREDO, 2011). Eight Pennsylvania cyber schools reading and math student performance data were examined and all the cyber schools showed 100% performed significantly lower than charter schools and traditional brick and mortar public school students (CREDO, 2011).

Most states do not have an indicator system to determine if students are attending online schools, so finding data can be challenging in states that offer virtual charter school options to families. Determining if students are enrolled in a traditional charter or cyber charter school is often unable to be identified by state data (CREDO, 2015). The variation in the effect sizes of racial-ethnic groups for cyber charter schools is present, but they are all consistently negative. African American students attending cyber charter schools showed losses of -0.08 in reading and -0.22 in math compared to African American students attending traditional public schools. White students attending cyber schools showed losses of -0.11 in reading and -0.25 in math compared to White students attending traditional public schools. When comparing effect sizes in reading and math equal to the difference in performance between traditional public and online charter school students, they were negative for each racial-ethnic group. African American

students showed the least amount of growth differences in reading and math compared to all racial-ethnic groups (CREDO, 2015).

Although findings varied for each student, the results in CREDO's report showed that most virtual charter students had much weaker math and reading academic growth compared to their peers who attended traditional public schools (Mathematica Policy Research, 2015). The CREDO reports showed virtual charter school students obtained significantly fewer learning gains in reading and math than their peers who attended traditional public schools. On average, looking at all racial sub-groups, students enrolled in online charter schools lost 180 days in math and 72 days in reading based on a 180-day learning day school schedule. Students in poverty showed even fewer gains (Mathematica Policy Research, 2015).

Drop-out recovery programs operated by companies, such as K12 Virtual, Connections Academy, and APEX Learning, have become national models to support at-risk populations earn a high school diploma as opposed to dropping out of high school. These programs offer attractive options for students that would typically pursue dropping out of high school as their only option. The credit recovery programs support students who are unable to graduate from a traditional public school for a host of reasons that affect many African American students and low SES students (Porter, 2012). Dr. James Woodworth at CREDO stated that the findings were not positive, but they were somber. It is essential that online schools use the appropriate data to make informed decisions about what must be changed to best support K–12 students. Virtual school operators, who are performing better than others, need to collaborate, document what is working, and make active steps to show overall improvement for students enrolled in their schools (Mathematica Policy Research, 2015).

Cost Effectiveness

Choice proponents promote both charters and virtual providers as essential to meeting school improvement goals with the further expectation to improve student achievement and increase graduation rates with fewer financial resources (Lake, Dusseaulat, Bowen, Demeritt, & Hill, 2010). Virtual learning has the potential to reduce taxpayer costs, increase student productivity, and lower the cost of education (Lips, 2010).

> In 2012, . . . iNACOL reported that the current U.S. average per pupil expenditure for a fully-online program is $6,400 and $8,900 for a blended-learning model. iNACOL reported an average cost of $10,000 per student for traditional brick-and-mortar school models. (Buechner Institute for Governance, 2012, p. 2)

Thus, virtual schools offer a technology-driven, cost-effective alternative to traditional school models.

Dillon (2011) argued that as schools battle budgetary constraints and fiscal challenges, "virtual education has the potential not only to help solve many of the most pressing issues in K-12 education, but to do so in a cost-effective manner" (p. 4). The "current U.S. average per pupil expenditures for a fully online model is $6,400 while traditional school models have an average per pupil expenditure of $10,000" (Tucker, 2007, p. 14). Tucker further discussed the potential benefits to taxpayers as online learning may improve productivity and lower the cost of education, reducing the burden on taxpayers. Picciano and Seaman (2007) found that the virtual school costs were about the same as brick-and-mortar school. The study argued that although virtual schools escape the geographic constraints and building costs of traditional schools, they need quality teachers who are the major expense of the model. According to Tucker (2007), the traditional school spent 70% to 80% of its budget on personnel; virtual school expenses may be

higher, because in addition to teachers' salaries, costs include course development, support, and technology personnel.

Christensen (2010) reported,

> As school budgets continue to tighten, as the drop in state and local revenues drop the situation for public education will remain bleak. With baby boomers set to retire en masse, state and local governments, which provide most school funds, will face mounting retiree health care and non-pension benefit obligations for which they haven't made proper allowances. And local districts haven't yet felt the full pain of the housing crisis in reducing revenue from property taxes. In other words, we have only seen the beginning of the red ink. (p. 3)

Christensen (2010) continued,

> Many schools have framed the looming cuts as a threat to how they operate–even though the teaching force has grown by 10% since 2000, while student enrollment increased by only 5%. But others are seeing the hardship of the moment as an opportunity to transform what they do with the implementation of online learning. (p. 1)

It was Christensen's (2010) assertion that widespread cuts combined with "increasing demands for accountability forces innovative leaders to recognize that online learning is a key reform for doing more with less" (p. 1).

Challenges to Progress

Although the studies showed similar outcomes with online and face-to-face learning, questions of quality continue. Many educators and local policy makers expressed teacher concerns of job security, transformations needed to adapt to online learning for the teacher and student, and the lack of high-quality, effective, and continual professional development.

Picciano and Seaman (2007) found questions around "funding issues were expressed especially in districts where limited available resources would have to flow out of the district to pay for online courses" (p. 3). The report summarized challenges regarding course quality, course development and/or "purchasing costs, concerns about receiving funding based on student attendance for online and/or blended/hybrid education courses, and concerns about the need for teacher training" (Picciano & Seaman, 2009, p. 14). Other challenges include varying technologies, student motivation, technical glitches, and time management. Challenges for online educators mainly reflected issues with time management, students taking responsibility for learning, communication, and their ability to learn and use technologies (Rice et al., 2008). Similarly, Loews (2005) argued that major concerns with online instruction were surrounded by the time demands of monitoring and responding to discussions forums, answering email, grading student assignments, and needing to learn technology.

Continuing equity questions surround the much-discussed digital divide or access to technology for African American students. Lips (2010) expanded on this discussion with the current digital divide or high-speed access to the Internet. Other concerns included programs that served only the most motivated and talented; the author contended this problem is exacerbated by availability, speed, and quality of schools' connections. Lips argued despite the benefits of online learning, the potential to serve students at all learning levels—especially those who are unsuccessful in traditional schools—has not been proven.

Another challenge cited by some online education providers was critical. They stated that parents must determine if they are able to provide the necessary time and support needed to ensure success of their students if enrolled in a full-time online education model. Parents of elementary students must be more involved and serve as a support at home, which is not a viable

option for many families where parents must work during the day (M. Davis, 2011). M. Davis (2011) argued that online learning can exclude certain families, based on the nature of online learning models that require parental engagement and supervision, especially with younger students. Many parents view supporting their children in their online studies as a full-time job, but one well worth it, as they have greater control over their children's academic success, and the children have more exposure to 21st century learning skills thus preparing them for college and life (M. Davis, 2011).

K^{12} Incorporated

K^{12} Incorporated is the largest and fastest growing virtual education provider. Of the 200,000 students enrolled in virtual schools, 70,000 are enrolled in the K^{12} system (Molnar et al., 2014). K^{12} reported delivering "individualized learning for each and every student as many children simply cannot get the individually focused and flexible learning they need in a traditional classroom" (K–12 Education, 2018, para. 1). According to the K^{12} website (www.k12.com), the model offers "challenging and engaging content delivered in state-of-the-art online lessons along with traditional materials, including textbooks, CDs, videos, and hands-on manipulatives that complement interactive online learning" (K–12 Education, 2018, para. 2). The vast amount of course content allows the lesson delivery in multiple formats that support a plethora of learning styles. Individual learning plans (ILPs) are created by teachers based on students' academic ability levels to offer families individualized instructional program that align to student learning needs and styles.

In Grades K through 12, students are supported by a parent-designated academic coach who supports the students in progressing through daily lessons environment and supports the students in completing all assignments and tasks while working in collaboration with licensed

teachers. The site asserts the school uses an individualized approach where students take courses that challenge them appropriately. The report in this model is in alignment with prior research, which found that the interactive nature of online learning uses multiple methodologies which transforms student learning from expectations to explorations.

A litany of research discussed the benefits of online learning, asserting "simulations, manipulatives, online tutoring and tutorials that offer student feedback can increase performance, decrease failure, and provide students with visual and cognitive support they need to master abstract concepts" (Cavanaugh et al., 2005, p. 10). K[12] reported parents were engaged as lessons were followed by assessments that allowed a determination of mastery before moving on.

Multiple studies argued that a benefit of online schooling is flexibility and increased access**.** K[12] offers a high school course selection ranging from core courses to AP courses in all subject areas in order to meet a wide-range of student academic needs. Academic offerings include:

- Easy-to-navigate online content, including summaries and reviews, with more time and effort spent on the hardest, most important topics and skills.
- Engaging interactive content to illustrate and explain the toughest concepts in ways no static page (print or Web) could ever match (K–12 Education, 2018, paras. 5–6)

Researchers found challenges to success in virtual schooling included time management, students who took responsibility for learning, communication, and their ability to learn and use technologies (Rice et al., 2008). K[12] mitigated some of these challenges by having students more engaged in each course using guided discussion threads that were monitored by the course teacher. Research showed the more often students were engaged, the more intense the learning experience.

K12 Incorporated enrolls more traditional public-school students than any other for-profit education management organization in the United States and plays a key function in the expansion of virtual schools in the United States and abroad. The National Education Policy Center conducted one of the most research-driven comprehensive studies of K12 Incorporated (Miron & Urschel, 2012). It was their contention that most of the prior research had been conducted by political allies or educational think tanks. The report's intention was to provide "a new perspective on the nation's largest virtual school provider through a systematic review and analysis of student characteristics, school finance, and school performance of K12 operated schools" (Miron & Urschel, 2012, p. ii). The report used data from various states as well as federal data to provide the demographic make-up of students enrolled in K12 operated schools, public funds acquired, and how those funds were spent by K12 for the for school and evidence of school performance.

> Initially the report provided an overview of K12 student characteristics and found that:
>
> K12 Incorporated virtual in comparison to traditional public schools mimics the enrollment percentages of African American students, a higher increase in White students and a decline in Hispanic students. Nearly 40% of K12 students qualify for free or reduced-price lunch, less than the nearly 50% state average based on states compared. K12, in comparison with public schools nationally and in the states they operate, . . . enrolls somewhat fewer special needs students with IEP's and 504's . . . 9.4% for K12 schools, 11.5% for same-state comparisons, and 13.1% in the nation. K12 virtual schools enroll significantly fewer English Language Learners; less than 0.5% ELL students in comparison with a nearly 14% same-state comparison, and nearly 10% on a national comparison. Most K12 schools enroll students from grades K–12; however, middle

school is the highest population. Enrollment drastically declines at the high school level. (Miron & Urschel, 2012, p. ii)

Miron and Urschel (2012) maintained students in K12 virtual schools have a higher White student demographic, and Hispanic students are the least likely demographic to be enrolled and the least represented in comparison states. K12 virtual students are less likely classified as low SES and even less likely to be enrolled if they are ELL. Recently, K12 has increased their special needs populations and have begun serving students they consider to be at-risk. The amount of money spent on these services remains lower and has not increased in relationship to public school data from comparison states (Miron & Urschel, 2012).

According to NCES data,

> During the 2008–09 school year, K12 schools reported receiving an average of $7,393 in public revenue per pupil, which is less than what charter schools ($9,258) or district schools ($11,708) received in the same states. K12 spends less on teachers and more on instructional materials. K12 spends more than traditional public schools on administration salaries and benefits, which is probably part of individual school contracts with the company that include additional administration fees. K12 spends significantly less than schools on facilities and day-to day school operations, which usually do not include the need for facilities to host children and little to zero transportation and food services costs by K12. They also spend minimally for support programming, enrichment programs, and any other student services that would provide support to struggling or failing students. Although K12 enrolls an increasing number of students with disabilities, it spends less than half as much per pupil as charter schools on special education instruction and a third of what districts spend on special education instruction. (Miron & Urschel, 2012, p. iii)

The report analyzed cost savings within the K12 model and found that "full-time virtual schools inherently have a tremendous cost advantage when it comes to facilities, operations, transportation, and food services" (Miron & Urschel, 2012, p. iv). Additional cost advantages were having high teacher-to-student ratios, paying teachers less with fewer benefits, and reducing special education spending. Conversely, the study found they spent a large amount on technology, curriculum development, and the best methods to deliver the curriculum virtually to students they served. Miron and Urschel (2012) assumed K12 spent more on marketing to enroll students, as opposed to students being placed within their perspective school districts.

Online Learning as a Disruptive Innovator

Christensen (2010) believed so desperately that virtual learning was needed to save education he authored an article, titled "Education as We Know it is Finished," lamenting,

> Online learning also allows students to study unburdened by the usual constraints of time, proceeding at a pace that works best for them. The current system forces all students to learn the same material within the same time frame. That stalls the progress of advanced students while leaving others behind. This is one of the reasons online learning has been shown to produce better results overall than traditional face-to-face instruction. (para. 7)

He believed in the vast potential of online learning to upend completely traditional school models and dramatically improve public education. The reasons for these projections are the major disconnect between students and schools as reflected by low test scores and other measures of accountability. This rings especially true for African American students who continue to struggle in traditional school models. These students are stuck in crowded classrooms with the vast majority of students working below grade level. Teachers must instruct multiple students using an antiquated mode of instruction that proves ineffective at meeting

student needs. Christensen et al. (2008) asserted that crowded classrooms and this mode of teaching ignores the multiplicity of student learning styles. Brick and mortar schools lack the flexibility for customized learning which forces teachers to teach according to the learning style of most students. Students at both ends of the spectrum, above-grade and below-grade levels, suffer as advanced students become bored seeking more rigors and struggling students fall further behind and become achievement gap statistics.

Intel (2013) sponsored a report that discussed how one-on-one computing can make a difference in students' lives. It was Intel's (2013) assertion that "as the world continues to shift from an industrial-based to a knowledge-based economy, students must be prepared to successfully meet the challenges they will face as they enter higher education or a career" (p. 3). The report identified benefits of online education for students, administrators, parents, and teachers, and how they can perform more efficiently:

> Administrators: Identify systemic trends, gauge progress toward meeting AYP mandates, perform cohort and longitudinal analysis, provide teachers immediate access to student information, including historical performance, discipline, attendance and information from a central student profile, succession planning for staff.
>
> Teachers: Differentiate instruction based on student performance, plan, schedule and track standards-aligned instruction with ease, provide access to exemplary lessons and instructional resources, analyze student progress and mastery of standards with item analysis and trend reports.
>
> Students: Increase use of technology as a tool to improve and accelerate learning, engage in improved student-teacher interaction, access "smart" interactive, multimedia content, prepare for higher education or a career. (Intel, 2013, p. 2)

According to Intel (2013), despite the fact America evolved from an industry-focused model to a technology-driven world and ubiquitous computing starts at earlier ages, schools have been slow to adapt. Many schools, especially in urban areas, use teaching methodologies that are nearly 200 years old. In the early 1800s, public school enrollment increased in response to the industrialization of America. With more students attending school, teachers moved from personalized learning to standardized learning with multiple grade levels in one classroom. These teacher-centric classrooms with standardized curriculum replaced personalization and still dictate the way subjects are taught. Teachers use a prescribed approach to teach a generic curriculum to everyone in the classroom at the same time. In the era of standardized testing, this is even truer as accountability standards force teachers to focus on what will be tested and neglect other subjects.

However, entering today's urban classroom brings memories of classrooms 30 years ago except for a few computers. Computers are in the classroom; in fact, schools have received $60 billion to purchase technology for schools and classrooms within the last 20 years. Yet, the addition of this technology has not benefited students, instead languishing in the back of classrooms or in computer labs. Trips to the computer lab and computer usage are treated as an extracurricular activity, not an everyday part of the school experience (Intel, 2013).

According to Peck, Cuban, and Kirkpatrick (2002), computers assist and merely sustain how schools already operate. Schools have not maximized the potential of computers; as in urban schools, students primarily use computers to complete research papers by using information found on the school approved Internet websites to word process essays or assignments or to create multimedia presentations (Christensen et al., 2008). Technology transforms one's life with smartphones, applications, and tablets closing the digital divide.

However, the authors argued that although schools teach basic computing skills and teachers occasionally use them when teaching a lesson in a classroom, they have not made any major transformations on learning or impacted how a classroom functions. Although students continue to lag in measures of achievement, it is Christensen et al.'s (2008) assertion that schools continue to operate where computers do not deliver instruction and operate as the teacher-centric model where teachers are the center of the classroom.

According to Christensen et al. (2008), transforming schools requires moving from sustaining innovators like minimal computer use in the classroom to creating disrupting innovations that move education from teacher-centric to student-centric learning. Christensen et al. (2008) contended that implementing "innovation so that it will transform an organization is to implement it disruptively—not by using it to compete against the existing paradigm and serve existing customers, but to let it compete where the alternative is nothing at all" (p. 1). Christensen et al. maintained educators make diligent efforts to differentiate learning based on individual learning styles within a classroom setting to bring information closer to the students in a capacity that is best suited for the individual student. It was Christensen et al.'s (2008) assertion that "educational technology has been instrumental in making information available to students just in time, just in the right quantity and in just the right way" (p. 2). Although students performed menial tasks such as conducting Internet research, typing reports using word processing programs, or constructing multimedia presentations and although teachers used PowerPoints to present content, "computers have not fundamentally transformed the way learning is accomplished or how the classroom operates" (Christensen et al., 2008, p. 2). Computers are not providers of direct instruction, and teachers must remain the focal support and

guide within the classroom. "And research shows that students who have access to computers in school do not necessarily perform better on standardized exams" (Christensen et al., 2008, p. 2).

The role of schooling is ever evolving with schools consistently asked to do more to improve student success. The implementation of equity-based, choice-based, and now accountability-based reform efforts offer proposed solutions to the achievement/opportunity gap. To some extreme all these reform efforts improved schooling; however, Christensen et al. (2008) maintained society constantly keeps moving the goal posts by changing the definition of quality and asking schools to increase expectations for performance. Although schools overall have steadily improved despite changing expectations, these results are not reflected in the opportunity gap. Jennings (2012) maintained that previously noted reform efforts have not been bold or comprehensive enough to substantially improve public education.

Keeping today's technology-wired students engaged requires helping students become intrinsically motivated to learn. Christensen et al. (2008) asserted that every student learns in different ways, and schools must create customizable education platforms to keep students motivated and inspired to learn. Christensen et al. argued that the structure of current traditional school models force standardization in teaching which is congruent with student needs. To introduce customization, schools must move away from monolithic instruction toward a modular, student-centric approach. It was their assertion that the structure, policies, and regulations prevent this from happening within brick and mortar school choices. Christensen et al. maintained that public schools operate as a monopoly with laws and policies that make it difficult for new business models to compete.

Christensen (2010) defined technology as processes by which an organization transforms inputs into services of greater values. For schools to transform student learning, they must

reevaluate delivery methods. Christensen et al. (2008) suggested that increasing student outcomes requires a disruptive innovator, which transforms education from monolithic teacher-focused learning to create student-centric learning, making education inclusive of all. Christensen (2010) asserted that computer-based learning is emerging as a student-centric model.

Christensen (2010) defined disruptive innovations "as an innovation that allows a whole new population of consumers at the bottom of a market access to a product or service that is historically only accessible to consumers with a lot of money or skills" (p. 3). The term disruption normally has a negative connotation, especially in schools. However, disruptive innovators are positive forces. As a disruptive innovator, online learning affords the opportuity for students from diverse backgrounds and experiences to gain access to quality courses and high-quality teaching released from the geographic and economic boundaries which keep them separate. Tucker (2007) shared how iTunes changed the way people collect, listen to, and share music. Consumers are not confined to purchasing the whole compact disk or shopping in a brick and mortar store. He maintained,

> Virtual schooling is driving the same sorts of transforming changes in public education. While the importance of effective teaching and learning has not changed, the Internet has enabled educators to significantly alter the experience of schooling. Virtual schools are personalizing student learning and extending it beyond the traditional school day. They've created new models for the practice of teaching—with opportunities to easily observe, evaluate, and assist instructors. (Tucker, 2007, p. 6)

Ally (2007) maintained that online learning offered benefits for learners and instructors. It is asserted that online learning allows students to learn anywhere and anytime. A student in rural Idaho could learn in a classroom in the heart of New York City. Asynchronous online

learning allows students access to online materials at any time, while synchronous online learning provides students with real-time virtual direct instruction with their teacher. Other learner-based benefits identified by Ally (2007) are that students "can use the Internet to access up-to-date and relevant learning materials and can communicate with experts in the field in which they are studying. Situated learning is facilitated, since learners can complete online courses while working on the job" (p. 4) or in their own space and can contextualize the learning.

Dobbie and Fryer (2011) found high-performing charter schools offered students "frequent teacher feedback, the use of data to guide instruction, high-dosage tutoring, increased instructional time, and a culture of high expectations" (p. 4). Students possess different learning styles and abilities, so feedback, tutoring, and instructional time is important. Unlike monolithic teacher-delivered information, software can accommodate students based on their academic ability levels and work pace. Christensen et al. (2008) termed student-centric technology as software "that can help students learn each subject in a manner that is consistent with their type of intelligence and learning style" (p. 90). "Computer-based learning is disruptive relative to the monolithic mode of teacher-led instruction. Academic tutors are largely limited to the wealthy, and for those privileged few" (Christensen et al., 2008, p. 91). Like all disruptions, "student-centric technology will make it affordable, convenient, and simple for many more students to learn in ways that are customized for them" (Christensen et al., 2008, p. 92).

Christensen et al. (2008) identified four areas where computer-based technologies are already taking root to meet the needs of underserved populations:

- AP classes offering college-level courses to high school students;
- Urban secondary schools, primarily in low-income areas, where resources are constrained;

- Homebound and home-schooled students, where traditional classroom education is either impossible or undesired; and
- Credit recovery for students who need to make up credits. (pp. 90–92)

According to Christensen et al. (2008), urban secondary schools in urban communities are an ideal market for computer-based learning. These resource-strappped schools sturggle to find and retain high-quality teachers. The influx of testing requirments in addition to limited resources are dominated by standardized tests. This has resulted in reduced course offerings in humanities, laguauges, and the arts. The Internet has allowed teachers to significantly change the education experience with personalized student learning and extended learning beyond the traditional school day by using new models for the practice of teaching. The online model provides resources to students previously under-resourced for tutoring and extra support as well as those who previously lacked acesss to rigourous coures.

Disruptive innovation in K–12 education in the form of online learning is also the catalyst to bring about more equitable access to high-quality education. Far too many students attend schools that do not offer the full suite of classes they need to be successful in life; but through online learning, high-quality teaching and learning experiences can be delivered regardless of where students live. And last, disruptive innovation introduces cost control into the system so that a tutor-like experience can be delivered for each child at a cost that does not break the bank (Lips, 2010).

Educators, researchers, and policymakers argued revised models for learning, which utilizes emerging technologies, can help prepare students for our ever-changing world. Research has shown multiple benefits of online schools, (including increased access to high-quality teachers, personalized learning, and increased flexibility for parents, students, and teachers,

improved productivity, and efficiency and innovation) and online schooling lags between how the world, including how students embrace technology, continues to plague educators (McCombs & Vakili, 2005). As previously mentioned, transforming schools dictates reform efforts to be bolder and use innovative technological advances. Christensen et al. (2008) maintained that transforming schools does not occur in traditional brick and mortar buildings, which face too many internal impediments to student success. It was their contention that by 2019, most schooling will be online with virtual learning soon transforming the state of the American education system. In particular, full-time virtual schools, also known as online schools or cyber schools, have attracted a great deal of attention. Proponents argue that online curriculum can be tailored to individual students and that it has the potential to promote greater student achievement than can be realized in traditional brick-and-mortar schools. Further, lower costs—primarily for instructional personnel and facilities—make virtual schools financially appealing. Assumptions about the cost-effectiveness of virtual schools, coupled with policies that expand school choice and provide market incentives attractive to for-profit companies, have fueled a fast-growing virtual school expansion in the United States.

Theoretical Framework

This study used Critical Race Theory (CRT) as a guiding framework toward understanding the experiences of Kindergarten–12th grade African American students who were attending virtual school models. This theory was developed by law scholars to address the lack of progress and the retrenchment of polices beneficial to African Americans in the post-Civil Rights era (Delgado & Stefancic, 2001). In the 1970s, legal scholars began to question the inabilities of civil rights legislation “to produce meaningful and lasting racial reform” (Dunbar,

2006, p. 5). Racism was deemed by Dunbar as endemic and ingrained legally, culturally, and psychologically within society.

According to DeCuir and Dixson (2004), the deceptive and often elusive ways in which race and racism manifest warranted "that educational researchers explore the role of race when examining the educational experiences of African American students" (p. 26). CRT, in recognition of the socially-constructed nature of race, combines multiple disciplines that include liberalism, feminism, and Marxism (Dunbar, 2006). CRT in education provides a tool to "deconstruct a culture of protecting White interests by perpetuating as legislation claims of racially neutral policies and colorblindness that protects Whites by deemphasizing issues critical to Black people" (DeCuir & Dixson, 2004, p. 27). CRT in education provides an approach to understanding the problems in education through the lens of African Americans (Solórzano, Ceja, & Yosso, 2000). Moreover, CRT places "race and racism in the research as well as challenge the traditional paradigms, methods, texts, and separate discourse on race, gender, and class by showing how these social constructs intersect to impact on communities of color" (Solórzano et al., 2000, p. 62). Roithmayr (1999) stated, "Critical Race Theory offers a way to understand how ostensibly race-neutral structures in education: knowledge, truth, merit, and objectivity, are in fact ways of forming and policing the racial boundaries of White supremacy and racism" (p. 4).

Culture refers to the method individuals use to construct their realities. Culture, according to Ogbu (1998), is "as a way of life shared by members of a population. It is the social, techno-economic, and psychological adaptation worked out in the course of a people's history" (p. 166). Providing cultural context means to gather interconnected characteristics to gain a stronger perspective or frame of reference for understanding various groups or individuals

and what is meaningful or valued. Theory needs to provide a method of understanding, and for theory to be relevant, it needs cultural context. According to Freeman (1998), cultural framework is to individuals as a conceptual framework is to research; "when research is conducted out of cultural context, findings and applications can be misunderstood and misinterpreted" (p. 2).

According to critical race theorists, racism remains pervasive in society, and colorless or race neutral ideologies perpetuate racism and oppression. CRT challenges the assumption of Whiteness as normalness. Instead, it acknowledges the need to recognize the influence of racism to deconstruct the perceived normative attitudes and considers the historical and contemporary experiences of Blacks to examine their stories (Bell, 1992). Dunbar (2006) explained, "Critical Race Theory can assist in establishing a voice and identity for underrepresented and marginalized populations that can be expressed through and agency of self-empowerment based on issues of significance to them" (p. 127). Dunbar further explained that CRT challenges the privileges of the dominant culture or Whiteness as the normative benchmark of social responsibility.

DeCuir and Dixson (2004) summarized the five tenets of CRT as "counter storytelling, permanence of racism, Whiteness as property, interest convergence and critique of liberalism" (p. 3). Delgado and Stefancic (2001) defined counter storytelling "as a method of telling a story that aims to cast doubt on the validity of accepted premises or myths, especially ones held by the majority" (p. 144). Counter storytelling provides a voice to marginalized groups by challenging privileged discourse (DeCuir & Dixson, 2004).

Bell (1992) asserted that the second tenet, the permanence of racism, recognizes racism as "a permanent component of American life" (p. 13). In essence, the permanence of racism

necessitates using a “realistic view” in accepting racist hierarchial structures allocated for the “privileging of Whites and the subsequent othering of people of color” (DeCuir & Dixson, 2004, p. 27). The third tenet, Whiteness as property, outlines the role jurisprudence has performed in reifying conceptions of race. It addresses the thought that Whiteness can be cogitated as property interest. Property in education law refers to the myriad of policies and procedures that have been employed to resrict ascess of students of color to quality educational experiences and facilities. Interest convergence, the fourth tenet of CRT, acknowledges that the progression for Blacks is only readily accepted when it does not infrige upon the self interest of Whites or acts as for the benefit of Whites. The fifth tenet, critique of liberalism, used by critical race scholars, challenges the notion of “colorblindness, the neutrality of the law and incremental change” (DeCuir & Dixson, 2004, p. 29). It is the assertion of critical race scholars that colorblindness jusitifies ignoring and “dismantling race-based policies designed to address societal inequity” (Gotanda, 1991, p. 2). Although there have been some changes, Decuir and Dixson (2004) suggested that this slow pace of incremetal change for marginalized groups is palatable for those in power. As multiple data points contiune to reveal educational outcomes, they continue to be negativley skewed according to race. DeCuir and Dixson maintained that the hegemonic structure of racism tends to change “in time.” It was their assertion that the incremental change or the notion of waiting for change to come benefitted those not directly impacted by the many arenas; inequity emerges as result of racism and racist practices. Racism is never eliminated as some racist practices fade, other racist practices manifest.

Critical race theorists operate under three basic premises, the first being that racism is ordinary and the normal way society does business. Second, interest convergence or White domination serves important purposes, both psychic and material (Dunbar, 2006). “Because

racism advances the interests of both White elites (materially) and working class people (psychically), large segments of society have little incentive to eradicate it" (Delgado & Stefancic, 2001, p. 7). Finally, CRT accepts race and racism as products of social thought and relations.

Summary

This chapter examined the literature pertaining to the educational experiences of African American K-12 student populations and virtual schools. Initially, the chapter explored the experiences of African American students in traditional school models. Second, this review of relevant literature explained charter schools as a school choice model. The chapter then discussed impeders to charter school success. Third, the chapter shared literature on virtual schooling. Finally, the chapter explored virtual schools as a disruptive innovation in education to improve academic outcomes for African American students.

CHAPTER 3

METHODOLOGY

The purpose of this study was to explore the influence of K–12 virtual school models on the educational outcomes of historically underserved African American students. Specifically, this study investigated virtual schools as a method for closing the perpetual achievement gap between African American students and their counterparts. This chapter describes the research methodology that was used to examine the impact that virtual school models have on increasing academic outcomes for African American students. Initially, the chapter defines qualitative research and case study methods. Second, the chapter provides a brief synopsis of the qualitative inquiry methodology employed for this study. Finally, the chapter examines the choice of sampling populations, data collection methods, and data analysis procedures.

Qualitative Inquiry

This study used qualitative research, which is an inquiry process that explores a social or human phenomena and how those who live it experience the phenomena. According to Merriam (2009), qualitative researchers seek to understand "how people make sense of their world and the experiences they have in the world" (p. 10). According to Creswell (2014b), this approach makes it permissible for the researcher to attain knowledge claims using the various individual experiences shared with the researcher by the subject. Creswell (2014b) described qualitative research as "emergent rather than tightly prefigured" (p. 181). The studies are exploratory and

descriptive, present emergent designs, and include data collection in natural settings where humans are the instruments (Creswell, 2005, 2014a; Merriam, 2009).

Creswell (2005) stated that many qualitative books do not provide an easy definition for researchers. As a result of the ever-evolving nature of qualitative inquiry, Creswell (2005) defined qualitative research as

> a situated activity that locates the observer in the world. It consists of a set of interpretive material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomenon in terms of the meanings people bring to them. (p. 36)

In qualitative research, one makes knowledge claims based on multiple meanings of individual experiences, which require one to engage in the setting of the individuals being researched to provide a vivid story from their perspective. The researcher provides a holistic portrayal and conducts the study in the natural setting of the participants. Merriam (2009) identified a researcher as the principal tool of data analysis and interpretation that must include a communication method. Both verbal and nonverbal communications are important parts of the depiction.

Qualitative research involves multiple interactive methods that actively engage research participants (Creswell, 2014a). Patton (1990) described the interactive relationship between the participant and the researchers maintaining that to seek understanding requires one to become a part of the participant's self-discovery, thus becoming an active participant along with the

participant(s) being studied in the research process. The interactive nature of qualitative research requires the qualitative researcher to build rapport and credibility with the participants. This relationship benefits from conducting interviews in the participants' space, thus allowing the researcher to gather detail and gain insight about the individual or place and be involved in the participants' experiences (Creswell, 2014a).

According to Mayut and Moorehouse (1994), in qualitative research, interpreting constructed meaning constitutes interdependency between the knower and the knowee where non-numerical values mediate and shape what is understood and depict multidirectional relationships where events shape each other. Furthermore, the researchers contend during the process, information-seeking processes are intertwined, whereas the experience becomes a discovering exercise for both the researcher and the participants. The participant-to-researcher relationship is of vital importance to gain accurate information. A benefit of qualitative research according to Merriam (2009) is that the researcher as a data tool permits immediate response and adaptability to the situation being studied. During qualitative inquiry, the information gained transfers understanding from the participant to the researcher (Patton, 1990).

Qualitative research seeks to gain understanding of a particular phenomenon from the viewpoint of the subjects experiencing the phenomenon by collecting information in the field through interviews and observation. To ensure the richness of the data, qualitative researchers often employ multiple empirical research methods that include "case study, personal experience, introspective, life story, interview, observational, historical, interactional, and visual texts - that describe routine and problematic moments and meanings in individuals' lives" (Denzin & Lincoln, 2003, p. 2). Using multiple tools within one study allows interpretation of multiple occurrences thus providing detailed emergent information.

According to Patton (2002), “Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviors, and social contexts of particular populations” (p. 47). Qualitative research is a method that considers the researcher’s experiences, including race, class, and gender, and how researchers make meaning “with a set of ideas, a framework (theory, ontology) that specifies a set of questions (epistemology) that he or she examines in specific ways (methodology, analysis)” (Denzin & Lincoln, 2003, p. 28). According to Nkwi, Nyamongo, and Ryan (2001), “Qualitative research involves any research that uses data that do not indicate ordinal values” (p. 1). Instead of static data, qualitative research employs methods such as interviews to construct multiple interpretations of an experience as it evolves to constitute meaning to a particular group.

Unlike quantitative research which often involves large random samples, qualitative research investigates the why and how of decision making using small focused samples (Groenewald, 2004). The researcher posits smaller numbers that facilitate the researcher in the establishment of a relationship with the participants and provide the opportunity for a deeper analysis into the case. According to Lofland and Lofland (1995), in qualitative research, “The researcher legitimately sacrifices breadth for depth” (p. 89).

Additional benefits include the ability of the researcher to “expand his [sic] understanding through nonverbal as well as verbal communication, process information immediately, clarify and summarize material, check with the respondents for accuracy of interpretation, and explore unusual or unanticipated responses” (Merriam, 2009, p. 45). Nonverbal communication can transmit an unspoken idea that signals the researcher to ask additional probing questions to clarify issues or to seek a greater understanding of issues the informant shows passion for either positively or negatively.

Qualitative research has grown and evolved, often reflecting the needs of a specific era or social crisis. It cannot be viewed from a neutral perspective as it has transformed into a multicultural process of inquiry where race, class, gender, and ethnicity shape the process (Creswell, 2005; Patton, 1990). This study used interactive qualitative research, an inquiry where "researchers collect data in face-to-face situations by interacting with selected persons in their settings" (McMillan & Schumacher, 2010, p. 28).

Creswell (2014b) summarized qualitative research as an inquiry approach in which the inquirer

> explores a central phenomenon (one key concept), asks participants broad, general questions, collects detailed views of participants in the study, analyzes and codes the data for description and themes, interprets the meaning of the information drawing on personal reflections and past research, and writes the final report that includes personal biases and a flexible structure. (p. 58)

Case Study

Case study design in qualitative research is a method that is focused on gaining a comprehensive understanding of a particular event or entity at a designated time (Stake, 1995). According to Yin (2009), "Case study design should be considered when your research addresses either a descriptive question—'What is happening or has happened' (p. 80)? or 'How or why did something happen' (p. 80)? This method of inquiry "allows the researcher to explore individuals or organizations, simple through complex interventions, relationships, communities, or programs" (Baxter & Jack, 2008, p. 544). Those conducting case study research seek "to derive a(n) up-close or otherwise in-depth understanding of a single or small number of 'cases' set in their real-world contexts" (Bromley, 1986, p. 1).

Case studies "are not characterized by the methods used to collect and analyze data, but rather its focus on a particular unit of analysis: a case" (Willig, 2008, p. 74). One advantage of case study research is that it lends itself to a closer alliance between the researcher and participant, with the opportunity for participants to share their stories while furthering research to possibly benefit others (Crabtree & Miller, 1999). Storytelling allows participants to verbally share their individual stories that they have perceived as their reality, thus enabling the researcher to gain a better understanding of the participants' actions (Lather, 1992; Robottom & Hart, 1993).

"Qualitative case studies afford researchers opportunities to explore or describe a phenomenon in context using a variety of data sources" (Baxter & Jack, 2008, p. 544). Exploring phenomena through a variety of lenses helps to understand multiple facets of the phenomenon. "Case studies are designed to bring out the details from the viewpoint of the participants using multiple sources of data" (Yin, 2009, p. 51). Data collection through multiple sources holds a two-fold purpose; it enhances the theory generating capabilities of the case and provides greater validity to statements made by case study participants and/or the researcher. This study examined the influence of three virtual or blended school models' curriculum, including K^{12} Incorporated, on the educational outcomes of African American students.

Zucker (2009) provided an overview of "a common case study protocol that guides the researcher's methodology" (p. 4). Those protocols utilized in this study were

> purpose and rationale for case study, significance of the phenomena of interest, research questions, design based on the unit of analysis and research purpose, data collection and management techniques, field methods, transcribed notes and interviews, member checking, describe the full case, focus the analysis built on themes linked to purpose and

> unit of analysis, analyze findings based on the purpose, rationale, and research questions, narratives, credibility, and confirmability. Developing a protocol will serve as a frame of operation and includes all the necessary elements in the proper conduct of students' research. (Zucker, 2009, p. 4)

Yin (2009) outlined four stages of case study design. Those stages are "(a) design the case study, (b) conduct the case study, (c) analyze the case study evidence, and (d) develop the conclusions and implications" (p. 12). In order to design the case study, the researcher must first determine the intent of the research. In the present study, I sought to understand the K–2 model in different contexts. One disadvantage of case study research "is that there is a tendency for researchers to attempt to answer a question that is too broad or a topic that has too many objectives for one study" (Baxter & Jack, 2008, p. 550). Schools using online curriculum in 2015–2016 with a significant population of Black students would bind this case. This aligned with Miles and Huberman (1994) who suggested defining by definition and context which ensures the study remains reasonable in scope.

After the case study "boundaries have been determined, the researcher must consider what type of case study will be conducted" (Baxter & Jack, 2008, p. 547). This study was an evaluation case study which allowed me to show (a) what actually occurred; (b) whether it had an impact, expected or unexpected; and (c) what links existed between a program and its observed impacts (Balbach, 1999). The study used a single case study with embedded units that allowed me to examine the same issue within different contents. "Holistic case study with embedded units would enable the researcher to explore the case while considering the influence of the various" sub-units (Baxter & Jack, 2008, p. 550). According to Baxter and Jack (2008), this type of research is powerful because it can examine sub-units that exist within a larger case.

"This is powerful when one considers that data can be analyzed within the sub-units separately (within case analysis), between the different sub-units (between case analysis), or across all of the sub-units (cross-case analysis)" (Baxter & Jack, 2008, p. 550). The ability to engage in such rich analysis only serves to better illuminate the case. This study examined the influence of three virtual or blended school models' curriculum, including K^{12} Incorporated, on the educational outcomes of African American students. The overall case involved examining the influence of online learning systems. The embedded units were the different organizations that used the K^{12} Incorporated or another online system/curriculum.

Miles and Huberman (1994) argued that conceptual frameworks anchor a study by "(a) identifying what will and will not be included in the study; (b) describing what relationships may be present based on logic, theory, and/or experience; and (c) providing the researcher with the opportunity to gather general constructs into intellectual" bins (p. 18). The conceptual framework provides the researcher a method of data interpretation. In addition to conceptual framework, the use of theory helps "organize your initial data analysis strategies and generalize the findings from your case study" (Yin, 2009, p. 9). This study used CRT to analyze the study and generalize the findings. I examined the influence of three virtual or blended school models' curriculum, including K^{12} Incorporated, on the educational outcomes of African American students.

To present effectively the results of a case study requires clearly presenting the evidence in your case study. Yin (2009) suggested the use of multiple sources (e.g., separate texts, tables, and exhibits) to present evidence gathered during the case study allows readers to judge independently the later interpretation of the data. Ideally, such evidence will come from a formal case study database that you compile for your files after completing your data collection (p. 134).

Analyzing case study data requires the researcher to determine which codes will be used, establishing how the evidence can be pieced together and how the evidence can determine themes. The researcher creates a unique algorithm appropriate for the case study based on evidence. An initial step in analysis is "systematically organizing your data (narratives and words) into hierarchical relationships, matrices, or other arrays" (Miles & Huberman, 1994, p. 31).

Role of the Researcher

How could I help children who looked like me be afforded opportunities that were not available to me that could have changed and shaped my educational experience? This is the framework upon which I began to shape my case study research topic. Thinking back on my education experiences as a poor African American girl attending underserved schools and living below the poverty level, there were certain opportunities to which I was not exposed. Historical data show that American students have been limited and compromised of learning experiences based on largely uncontrollable constructs, with the main one being geographical locations (Lips, 2010). I never realized the differences between higher education institutions, and I realized as an adult that I possessed the grades and test scores to attend an Ivy League school, but there were definitely no Ivy League recruiters at my high school on college and career day, and I did not know that a difference between certain colleges and universities existed. Would I be looked upon differently with an Ivy League degree as opposed to a state university degree? I think the answer would be "yes," but I cannot change what has already been done. Fortunately, research and practice will possibly allow me to re-shape the perceived destiny of children like me to see beyond what is offered to them, which is often far less than the very best.

Participant Selection

Qualitative research requires purposeful sampling to ensure participants selected can best inform the research questions and enhance understanding of the phenomenon (Creswell, 2014b). Defined by Maxwell (1997), "Purposive sampling is a type of sampling in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices'' (p. 87). Hence, one of the most important tasks in the study design phase is to identify appropriate participants.

Patton (1990) described the use of purposive sampling as "selecting information-rich cases for study in-depth" (p. 169). According to Welman and Kruger (1999), purposive samples are the most important type of non-probability samples to identify primary participants. Creswell (2005) noted that in qualitative research "the intent is not to generalize to a population, but to develop an in-depth exploration of a central phenomenon" (p. 203), which is best achieved by using purposeful sampling strategies. The researcher seeks to identify participants who "had the experiences relating to the phenomenon being researched" (Kruger, 1988, p. 150). Patton (1990) asserted qualitative inquiry normally involves an intense focus using somewhat small samples, volunteer samples, or even single cases, purposefully selected. The participants in this case study were K–12 teachers who worked and/or had worked in an online learning school model that served a large population of African American students. I conducted an online Google search using several key phrases, "virtual elementary schools," "online elementary schools," online high schools," "virtual high schools," "online high schools," "virtual K-12 schools," and "online K-12 schools." I also used the International Association for K-12 Online Learning (iNacol) and the two largest virtual school management organizations, K12 Incorporated and Connections powered by Pearson Learning websites, as a guide to help

determine which states offered online school options. Once the states were identified, I completed an additional Google search based on specific school names retrieved from the website searches. I then visited the websites for each state in which there showed a positive match for an online public school. I examined websites for the state of California, Delaware, Florida, Georgia, Illinois, Indiana, Michigan, Minnesota, New York, New Jersey, Ohio, Pennsylvania, and Tennessee. The website search enabled me to find the most recent public demographic data reported to the state by each school. The state department of education search was focused on locating the student demographic data. The state department of education search engines varied in ease of manipulation of the site to retrieve data, but there were no difficulties in finding the student demographic information using the exact school name. I sought schools with an African American student demographic population greater than 40%. I was able to locate six schools that met the demographic criteria. I went to the school websites for each school and located the school leader's name and contact information. Identified school leaders received recruitment e-mails from me that informed them of the study, the purpose, and the request for their assistance to find teacher participants with varying years of experience, content areas, grade levels, and highest number of African American students served. If school leaders did not reply to the e-mail request within three business days, I sent an additional follow-up e-mail. If the school leader did not respond within seven school days, I contacted the school leader via telephone and spoke with the school leader directly or left a voicemail requesting a return call. School leaders received a copy of the questions, the format in which the questions would be asked, and the time frame needed to complete the interviews. School leaders were also asked to identify former teachers who might be interested in participating to gain information from past and present online teachers. All six school leaders responded to the e-mail or phone call, and

three school leaders gave me permission to contact their teachers using the shared school distribution e-mail. I requested permission to use the school distribution e-mail to contact teachers directly, as opposed to the school leader selecting teachers. After I received permission to contact all teachers at the school, I sent an e-mail to all potential participants using the school distribution e-mail address and shared the same information I sent to the school leader, along with a statement of how their voluntary participation would help support the study and information on the informed consent form. Teachers were asked to contact me directly and not use the reply all function to further ensure confidentiality.

Data Collection Procedures

Qualitative research acquires data from the words and actions of the participants. "Qualitative research is interactive face to face research which will require relatively extensive time to systematically observe, interview, and record processes as they occur naturally. Data collection focuses on what the phenomenon means to the participants" (McMillan & Schumacher, 2010, p. 428). Collection of data includes gaining "information through unstructured or semi-structured observations and interviews, documents, and visual materials, as well as establishing the protocol for recording information" (Creswell, 2014b, p. 185). Qualitative researchers employ strategies or sampling and data collection techniques suitable for adaptability and modification during the data collection process to increase validity. Although the participants dictate the flow of the interviews or other methods, flexibility is of vital importance. "Use of strategies permits the design to emerge or be partially shaped as data are collected and analyzed" (McMillan & Schumacher, 2010, p. 428).

For the purpose of this study, I conducted semi-structured interviews with K–12 teachers who were working or who had worked in an online learning school model with a large

population of African American students, including K^{12} Incorporated. K^{12} Incorporated enrolls the largest number of K–12 virtual school students in the United States and thus plays a substantial role in full-time virtual school research. I conducted 10 face-to-face individual interviews with teachers; interviews ranged between 45 and 85 minutes. The interview protocol consisted of a prescribed list of questions that were asked of all teachers and audio recordings for thoroughness, clarity, and verbatim responses; I also took field notes, including specifics regarding the interview environment and observed body language.

During the initial contact via e-mail, I provided information about the study and interview questions around the online schooling model. After participants responded of their interest, they were provided an informed consent that was read, agreed upon, and signed as proof of receipt and understanding. At interview sessions, the participants were provided a brief overview. I explained the purpose of the study and requested their participation. The participants were assured of the appropriateness and confidentiality of the study. The informed consent was also discussed prior to the interviews.

The interviews were audio recorded using an interview protocol designed to create dialogue. I informed the participants that I might need to follow up for clarity. The interviews lasted between 45 and 85 minutes. After the interviews were transcribed, I used the member checking method to allow participants a review of the transcripts, make any changes they felt necessary based on what they said initially during the interview, or add additional information not mentioned. Member checking is commonly used in qualitative research and allows the researcher "to improve the accuracy and validity of what was recorded during the research interview" (Creswell, 2005, p. 211).

Procedures

"Qualitative methodology is an excellent method for examining phenomena about which little is known, especially when the research focus is on cultural and ethnic issues" (Morrow, Burris-Kitchen, & Der Karabetian, 2000, p. 589). The purpose of interviewing is to gain the perspective of the persons being interviewed. The interviewer's responsibility is to create an environment in which the interviewee can bring the interviewer into his world. Moreover, a naturalist qualitative social researcher gathers information by observing, talking with, and listening carefully to the persons being interviewed (Patton, 1990). To establish a rapport and create open dialogue, I spoke as an informed participant in the research to establish a cultural affinity between the "conversational partner" (Rubin & Rubin, 2005, p. 79) and myself, since the interviewee and I should be in the same "positions" (Rubin & Rubin, 2005, p. 80) of power. This study used semi-structured responsive interview protocol to allow the opportunity for interviewees' interpretation of their experiences and their understanding of their world. This type of interview method is flexible and adaptable, requiring the researcher to listen and process any follow up or clarifying points brought up in the interview (Rubin & Rubin, 2005).

Data Analysis

Qualitative inquiry consists of analysis, interpretation, and presentation of findings. Data analysis as a process involves continual reflection about data to identify significant patterns and establish a framework for communicating the essence of what the data reveals (Patton, 1990). Researchers look for recurring themes and statements to interpret responses to questions. Capturing this essence requires reading every interview after transcription to develop a working idea of what important concepts, themes, and events are present (Moustakas, 1988).

Although qualitative research uses different methods of data analysis, authors have identified step processes (Creswell & Poth, 2018; Rubin & Rubin, 2005). After the interviews, the first step was to organize and prepare data for analysis by transcribing and typing my field notes. Denzin and Lincoln (2003) contended this stage in data analysis requires reviewing interview transcriptions to develop a working idea of what important concepts, themes, and events are present. In addition to visually seeking themes from the data, I used NVivo, a software package that enables one to collect, organize, and analyze content from interviews, focus group discussions, surveys, audio, social media, videos, and webpages.

Ryan and Bernard (2000) maintained the benefits of this method include getting a better understanding of the data by handling it numerous times. From the software, I could identify key words or the (Key Words in Context KWIC) to identify initial themes (Groenewald, 2004). KWIC involves understanding a concept by looking at how it is used. This allows researchers to identify themes or key words and then go back within the text to search for multiple occurrences. Using multiple methods or living with data, Ryan and Bernard (2000) explained, "Investigators can eventually perform the interocular percussion test – which is where you wait for patterns to hit you between the eyes" (p. 769).

Once the theme is identified, the final step required "coding of the themes and combining the concepts for an overall understanding of the culture being investigated" (Rubin & Rubin, 2005, p. 209). Themes represent the major findings of the research project and are shaped into a general description of the experience (Creswell, 2014b). From the themes, a narrative passage was developed. The final step was the interpretation of these data.

Coding is a systematic process of organizing the interviews into categories described by Rossman and Rallis (1998) as chunks. It involves segmenting the sentences into categories and

labeling them with a term, which is commonly based in the actual participant language. Sadala and Adorno (2001) maintained the researcher at this point "transforms participants' everyday expressions into expressions appropriated to the scientific discourse supporting the research" (p. 282).

Establishing Validity

Qualitative researchers typically use as many strategies as possible to ensure validity of design (Denzin & Lincoln, 2003; Patton, 1990). To ensure validity in the present study, I used prolonged fieldwork, bracketing, and triangulation. Patton (1990) claimed spending prolonged time in the field enables the researcher to develop an in-depth understanding of the phenomenon under study. It also enables the researcher to "convey details about the site and the people that will lend credibility to the narrative account" (Creswell, 2014a, p. 196). Using prolonged research techniques enables the initial data (interviews) to be analyzed to develop more in-depth questions.

Before conducting interviews, researchers usually explore their own experiences initially to examine the dimensions of these experiences and, second, to become aware of their own prejudices and viewpoints (Creswell, 2014a). Merriam (2009) discussed becoming aware of personal bias and gaining clarity about preconceptions as the epoch phase. Epoch is a process that researchers engage in to remove, or at least become aware of, prejudices, viewpoints, or assumptions regarding the phenomenon under investigation (Patton, 1990). Epoch enables the researcher to "investigate the phenomenon from a fresh and open viewpoint without prejudgment of imposing meaning too soon" (Katz, 1987, p. 37). Bracketing or putting aside all prejudgments and bias allows collection and interpretation of data without influencing the process. Triangulation that occurred during this study included document analysis, field notes, and

member checking. "Triangulation of qualitative data sources involves comparing and cross checking the consistency of information derived at different times and by different means within the qualitative methods" (Patton, 1990, p. 467).

Summary

Chapter 3 detailed the qualitative methodologies that were used to explore the influence of K–12 virtual school models on the educational outcomes of African American students. The chapter discussed research designs, including participant selection and data collection techniques. The chapter then discussed case study research and outlined the benefits of its usage. The chapter also discussed data analysis techniques that were used in the present study. Finally, Chapter 3 outlined the procedures used to establish validity.

CHAPTER 4

FINDINGS OF THE STUDY

The purpose of this study was to examine the influence of K–12 online school models on the educational outcomes of African American students. Specifically, I examined how these models influenced the educational experience of parents, teachers, and students. The relationship between African American students and online and blended learning in this study emerged as an alternative to the disconnects in other school models, a way to embrace technology for teachers and students, and a method of adjusting teacher style and student needs. As students and teachers navigate the fine line between state accountability standards and student learning, identifying teaching models that promote increased student success remained of paramount importance.

Online school models provide this vehicle by empowering both teachers and students with technology as a mitigator to life circumstances. Current and former teachers of African American students in this study reported the benefits and challenges of using technology and online curriculum to support African American students. Educators discussed the challenges of holding students accountable without parental support, the need to redefine the role of technology, and how planned curriculum promotes innovation. Participants discussed the misconception of technology reducing the role of teachers. When properly implemented, teachers used technology as a gap filler, increasing the ability to support student needs for

success.

Research Question

The research question that guided this study was, "Do online learning environments provide the assistance K-12 African American students need to achieve academic success in public schools?"

Emergent Themes

In this section, the benefits and challenges of virtual schooling and its influence with the teachers and school leaders of African American students in this study are presented. The themes and sub-themes are presented within each of these sections. Initially, the use of theory in connection to the data are reviewed. Next, the categories, themes, and sub-themes that emerged from the analysis of the data are defined. Then, the themes and sub-themes, which were separated into the six categories identified in the themes section, are presented.

Six themes emerged after review of the subject transcripts and field notes. I separated the findings into six categories that emerged from the data: (a) technology made me a better teacher; (b) independence and self-efficiency impacts learning; (c) building relationships helps to adapt to student needs; (d) for African American students, face-to-face learning is most impactful; (e) virtual schools somewhat level the playing field; and (f) pluses and minuses of the different online learning technology-based models.

Participants

Qualitative research requires purposeful sampling to ensure participants selected can best inform the research questions and enhance understanding of the phenomenon (Creswell, 2014b). Defined by Maxwell (1997), "Purposive sampling is a type of sampling in which particular settings, persons, or events are deliberately selected for the important information they can

provide that cannot be gotten as well from other choices'' (p. 87). Hence, one of the most important tasks in the study design phase is to identify appropriate participants.

Patton (1990) described the use of purposive sampling as "selecting information-rich cases for study in-depth" (p. 169). According to Welman and Kruger (1999), purposive samples are the most important type of non-probability samples to identify primary participants. Creswell (2005) noted that in qualitative research, "The intent is not to generalize to a population, but to develop an in-depth exploration of a central phenomenon" (p. 203), which is best achieved by using purposeful sampling strategies. The researcher seeks to identify participants who "had the experiences relating to the phenomenon being researched" (Kruger, 1988, p. 150).

Patton (1990) asserted qualitative inquiry normally involves an intense focus using somewhat small samples, volunteer samples, or even single cases, purposefully selected. The participants in this case study were K–12 teachers who worked and/or had worked in an online learning school model that served a large population of African American students.

For this study, I conducted semi-structured interviews with K–12 teachers who worked or who had worked in an online learning school model with a large population of African American students, including K^{12} Incorporated. K^{12} Incorporated enrolls the largest number of K–12 virtual school students in the United States and thus plays a substantial role in full-time virtual school research. I conducted 10 face-to-face individual interviews that lasted an average of 45 minutes with teacher participants. The interview protocol consisted of a prescribed list of questions that were asked of all teacher participants, audio recordings for thoroughness, clarity, and verbatim responses, and researched field notes, including specifics regarding the interview environment and body language. I interviewed participants who were teaching in three states.

On average, the African American student demographic population for all schools was 81%. As a result, most of the students served by participants were African American, and this allowed for a more focused research study with a higher correlation to the criteria and research study questions. Table 1 contains participant teaching demographic information using participant selected pseudonyms.

Table 1

Participant Demographic Data

Pseudonym	Gender	Race	No. of Years Teaching	No. Years Teaching Virtually	Content Specialty	Grade Levels Taught
Phillip	Male	White	6	2	Math	9-12
Bella	Female	White	11	7	Science	9-12
Kiwi	Female	White	18	10	Science	9-12
Bob	Male	White	4	2	Social Studies	9-12
Molly	Female	White	4	3	Spec Educ	9-12
John	Male	White	3	1	English, Special Education, Social Studies	K-12
Slim	Female	African American	2	2	Math	5-12
Tacoma	Male	Mexican American	2	1	Math	9-12
Mike	Male	White	9	7	English Language Arts	K-8
Dawn	Female	African American	10	3	Math	1-8

Slim

At the time of the study, Slim was a second-year, female, African American middle school math teacher. Slim worked in a Grades 5–12 blended learning virtual school model. Slim transitioned into teaching after over a decade of working in finance, which she explained did not provide her with a sense of fulfillment. Slim decided to enter the teaching profession based on her experiences as a math tutor and ability to help African American students succeed who previously struggled to find success in any math class. Slim worked her first year in a fully virtual model and decided to transfer to a blended learning model as she struggled with the lack of face-to-face interactions with students. Slim originally chose to teach in a fully virtual teaching model, as she felt she could have greater work-life balance, but it did not produce the high levels of success she desired from her students.

Slim was very talkative during the interviews and verbally expressed her excitement to participate in the study several times throughout the study, as she answered the prescribed questions. Slim used her hands to further express her thoughts and experiences during the meeting session. Slim elected to meet in the basement of her summer workplace after her shift concluded. The meeting space was very quiet and sterile. The sound of the air conditioner resounded in the room, and it continued until we concluded responses to the fourth question. When the air conditioner turned off, it caused Slim and me to pause as it became easier to hear and there was a slight echo. Slim had a clear passion for teaching and learning math, which was evident in her lengthy responses with tangible examples to further explain her thoughts and experiences. During the interview, there was an intercom interruption that Slim seemed to completely ignore and disregard as she continued her train of thought and did not pause to entertain the perceived interruption. The interview went beyond the 45 to 60-minute proposed

time, but it was not addressed nor was it a concern, as Slim forecasted prior to the interview that she would need additional time, hence her scheduling the interview after she completed her work day.

Tacoma

Tacoma, at the time of the study, was a second-year, Mexican American, male secondary math teacher. Tacoma was a recent college graduate and selected to work in a blended learning online learning model as he experienced success in his virtual undergraduate college courses. Tacoma also desired to work with inner-city students to help them find success in a non-traditional school model. Tacoma was in his second year of teaching at a Grades 5–12 blended learning virtual school.

Tacoma chose to meet at a local coffee shop across the street from his school. The coffee shop was empty as the interview occurred after the lunch hour rush. No additional patrons entered the coffee shop before or during our session. Instrumental music was playing over the intercom, and the smell of coffee was pungent, as the baristas were cleaning the espresso machines and brewing fresh coffee, with possible anticipation of the next rush of patrons. The walls were bright red, and Tacoma discussed the choice of wall color with me. Tacoma shared red walls would not be ideal in an education setting as red is a trigger color for poor behaviors. Tacoma shared that red is a stimulant for students with behavior disabilities and encouraged me to look up the information later. Tacoma's cell phone rang one time during the interview, and the interview was paused so that he could ignore the call. Tacoma apologized for forgetting to turn his cell phone off or placing it on vibrate mode. The interview was conducted in a corner without a window to further minimize distractions. The baristas were very quiet and did not speak at a level that could be heard during the interview session.

Mike

Mike, at the time of the study, was a ninth-year, White, male, elementary and middle school English Language Arts teacher. Mike worked for seven years in a fully virtual school model that served elementary students under a long-term substitute teaching licensure. Mike was in his second year of teaching at a Grades 5–12 blended learning virtual school model that supported students in Grades 5–8.

Mike was very animated in his responses and used hand signals when he spoke. Mike chose to meet at a local library. Mike reserved a free meeting room at the local library to conduct the interview. Mike was very conscious of the space around him and shared that he often worked at the library in a private room to help him focus. He had a very engaging tone and demeanor. Mike shared many stories during the interview that he felt were relevant and described his previous experiences in response to the questions. The meeting room was large enough to support four people and was very quiet; the room had one picture on the wall of a child reading in a pile of books. Mike kept hitting the wall with his chair, as he stood up each time he really got passionate about what he was sharing. Mike shared that frequently moving or standing up when he spoke was one of his student engagement strategies when he worked in a completely virtual model and led daily synchronous teaching sessions. Mike shared that students wanted to attend his virtual classes just because they thought he was silly and fun.

Dawn

Dawn, at the time of the study, was a 10th-year, African American, female math teacher. Dawn worked seven years as a math teacher in a traditional elementary school model that served urban youth. Dawn was in her third year teaching math in a blended learning virtual school model. Dawn decided to work in a blended online learning model as a result of seeing so many

students fail due to their inability to commit to traditional public-school hours due to a variety of environmental factors that were often beyond the students' control.

Dawn opted to meet at the café in the high-end fitness facility she belonged to. There was a separate entrance to the café, so a gym membership was not required to enter. Dawn was completing her workout and wanted to meet with me as she enjoyed her post-workout beverage and talked about what she loved, urban education. Dawn also shared that she wanted to meet at the gym to ensure she did not see any students or staff from her school so that she could speak candidly on her own terms. Dawn shared her concerns with the state of affairs for urban youth and her desire to pursue finding a solution to fill the academic achievement gap. The café was partially filled with people sweating after their workout and drinking post-workout drinks or eating protein snacks, with minimal talking. The interview took place in the corner of the café away from the order counter and trash cans. The sound of high-powered blenders and low music playing on the intercom speaker system could be faintly heard in the background during our interview. Dawn finished her post-workout beverage before the completion of the third question, and she was full of energy. The interview extended beyond the proposed time. I stopped the interview at 60 minutes and asked Dawn if she had available time and capacity to finish. Dawn agreed to continue the interview after a brief restroom and water break.

Phillip

Phillip, at the time of the study, was an eighth-year, White, male math teacher. Phillip worked six years in a traditional public high school and two years in a fully virtual school, with scheduled check-in days for students to meet with teachers face-to-face. Phillip was an extremely upbeat, friendly, and energetic participant, which was evident when he entered the designated meeting space singing and greeting everyone as he passed by. Phillip selected to

meet at a local community center where he frequently volunteered to tutor elementary age students after school. The community center was full of people and a little noisy with the laughter and chatter of neighborhood children congregating before after-school programs began. Phillip reserved a private meeting room for the interview. The room appeared to be a music room, as the four walls were lined with a grey Styrofoam material to help make it sound proof. Phillip said that was the only room available as music was only offered on certain days, and the community center made use of all available space. Phillip brought in two student desks, the kind with the chair connected to the desk, for the interview. Phillip maintained excellent contact and provided examples with nearly all his responses to the questions. The room was quiet, and no one entered the meeting space during our interview, which extended beyond the proposed 60 minutes. I paused 55 minutes into the interview to determine if Phillip had additional time to meet or if we needed to end our session for the day. Phillip agreed to keep meeting and stated that he wanted to answer all the questions as he held a personal passion for education and research. Once the interview concluded, Phillip walked me to the main entrance and remained to tutor a small group of third grade students who needed help with math.

Bella

At the time of the study, Bella was an 11th-year, White, female science teacher. Bella had worked four years in in a traditional public high school, four years in a fully virtual K–12 school, and three years in virtual school setting with the option for students to attend classes on campus with morning, afternoon, and evening course options for high school students.

Bella selected to meet at a local coffee shop near her downtown apartment after school. The coffee shop was very noisy when we arrived, and there were limited seats. Bella asked me if the meeting location could be changed to a central meeting space in her apartment building. I

agreed and walked with Bella to the new meeting location. During the three-minute walk, Bella asked me about my experiences and why I had selected virtual education as a topic focus. Upon arrival at the apartment building, Bella went to speak with the building manager to gain access to the meeting room. The room was set up like an executive conference room with a large rectangle-shaped glossy, dark cherry wood table and eight leather high back chairs on wheels. The room was a little warm, so Bella turned on the air conditioning using the wall thermostat to help regulate the temperature before the interview began. Bella was very focused on the questions and made sure she followed along on her copy as I read the questions. Bella sat with her legs crossed in the chair during the entire interview and took her glasses off after every question was read before she responded. Bella had limited eye contact with me. She was very articulate in her thoughts and took time to process each question before she responded. During the interview, Bella paused to comment on the quiet space and how she is used to working in noisy environments, so she had to adjust, but she said she enjoyed not having noisy distractions. When the interview was complete, Bella thanked me for being flexible as we walked to the apartment main exit. Bella waited outside with me until the taxi driver arrived.

Kiwi

Kiwi, at the time of the study, was an 18-year, White, female science teacher. Kiwi worked eight years in a traditional public school and 10 years in virtual schools. Kiwi had experience teaching at the elementary, middle, high school, and post-secondary undergraduate levels. Kiwi shared that she enjoyed teaching high school students the most, which was her assigned grade level at the time of the study.

Kiwi selected to meet outside at a small café that she frequented. The weather was very pleasant for outdoor seating and conversing. It was partly sunny and 76 degrees. Kiwi ordered

an iced latte beverage before the interview began. There were four small tables outside, although there were no other patrons sitting outside. The inside of the café was filled with people working that needed electrical outlets, as every table had someone sitting at it with a cell phone or laptop plugged in. Kiwi arrived with a pen and paper in case she needed to take notes, which she did not need during the interview. Kiwi made great eye contact and rotated her crossed leg after she finished sharing her response to each question. Kiwi stated that she felt very comfortable talking with me, as she initially had reservations since she did not know me. Kiwi's answers flowed very well with the questions, and on three occasions she made a natural segue into the next question, based on what she was discussing. Kiwi kept the questions in front of her during the interview.

Bob

Bob was a fifth-year, White, male history teacher. Bob worked for three years in an alternative public school within a traditional school district and two years in a virtual school with check-in days for low-performing students. Bob had never worked in a traditional school model and compared many experiences to his work in alternative schools and the inner-city church he attended where he served as the youth pastor.

Bob asked to meet with me during the school day, so he selected the community center next door to the school. We met during his 90-minute prep at a study carrel in the community center. There were four other people in the community center, not including the staff members. The center appeared to be newly remodeled with the fresh smell of paint and new furniture throughout. The study carrels were large enough to allow a group of four to sit comfortably and collaborate. The chairs were oversized with high, reclining backs. The meeting space was comfortable, and it was obvious to me that Bob was very familiar with the community center and

meeting spaces. Bob seemed a bit reserved in the beginning of our interview. He answered the first question in a scripted manner.

As we began the second question, we paused the interview as we both heard screaming and chants from children that indicated that a fight was occurring. The school had an open campus, so upper class students could leave the school building for lunch. Bob quickly recognized his students, and I reminded Bob that it was okay to stop or pause the interview. Bob quickly jumped up and headed out to break up a student fight and contact school administration. Bod returned to the community center, and I asked him if he wanted to stop the interview. Bob stated that he wanted to continue the interview. I asked Bob if he wanted to pause to get some water and gather his thoughts. Bob agreed to a five-minute break and then the interview resumed. The entire dynamic changed after the student fight. The more reserved version of Bob was no longer present. Bob stated that he appreciated me for being flexible and realizing that students come first. Bob became more relaxed and the conversation became more detailed with raw details to paint a solid picture of his experiences.

Bob had a great sense of humor, which he shared was part of his teaching connection with children. Bob was very aware that he needed to go to greater lengths to get to know his students, as he did not look like most of the students he served. Bob was concerned that students would not complete work in his class or be motivated to do well, especially when they were working virtually and did not see him daily. Bob expressed that he discovered the most influential children in the school and made a strong connection with them. Bob said this process helped him connect quickly with most students and gain their trust.

Molly

Molly was an eighth-year, White, female special education teacher. Molly worked for five years in a traditional public high school and three years in a blended online learning school model. Molly stated that she enjoyed working in the blended online learning model the best as it was more hands on. She stated that the model gave her an opportunity to fulfill all components of students' IEPs easily, as many of the accommodations in the IEPs are natural components of the model, such as small group testing and having materials read to you (the learning management system has this feature built in).

Molly chose to meet at a chain coffee shop near her school. Molly stated that she chose this location as she stopped there every day after work to get an evening coffee treat to help give her a boost before she headed home to prepare to serve her own family. Molly arrived with a water bottle and an insulated thermos. When Molly walked into the chain coffee shop, it was obvious that she was a regular customer. The baristas knew what she wanted and quickly grabbed her thermos to rinse it out and fill it up with her coffee drink. They also refilled her water bottle with water and ice. It seemed very routine. Before the interview began, Molly asked to read the questions instead of me reading the questions to her, as she liked to forecast and felt she comprehended better when she read something herself. The coffee shop was moderately noisy, but there were no problems being heard during the interview. Molly stated that she loved coffee shop environments as she worked best with a little noise and would be more relaxed.

Molly was very animated and used her hands to talk as she answered each question. Molly also leaned back in her chair a lot and almost fell when she got excited answering a question. She stated that she did not feel educators' voices get heard enough, which is why she

quickly responded to the opportunity to share her experiences with me. Molly was the first person to respond to the initial correspondence and schedule her face-to-face-meeting time with me. Molly had a unique lens as a special education teacher. She stated that the percentage of students with IEPs at her school was 29%, which was higher than traditional and charter public schools in her region.

John

John was a fourth-year White, male, English, social studies, and special education licensed teacher. John transitioned to teaching after nearly two decades of working in a corporate setting. John worked for three years in a traditional public school as a humanities teacher and one year in a virtual school model as a special education teacher that supported humanities.

John selected to meet near an airport restaurant where he worked part-time. John wore his work uniform before the start of his shift. John used my flight schedule to plan his work start time to ensure we had time to meet, and it also allowed him to be on time at his second job. Upon arrival to the airport, John was waiting for me with a handmade sign that stated, “Yes, Tora, it’s me, John.” He used his actual name to create the sign, as he had not yet created a pseudonym. We met in the staff break room, but no other employees were present when we began. The break room had several microwaves, a full-size refrigerator, a Keurig coffee machine with eight different coffee, tea, and hot chocolate pods, an ice machine, a water fountain, and landline telephones. John sat in an open position and used hand gestures when talking.

The break room was rather brisk, so the interview paused after the third question so that John could change the thermostat. John and I both made a cup of coffee to help warm up before

proceeding with the interview. John asked to go back and answer the last question before the temperature was unbearable, as he felt he was not as thorough because he was focused on getting done to change the thermostat. The room warmed up and so did John's responses during the conversation. John shared experiences from his corporate experience which drove him to education and expressed that he built upon those experiences to offer students a unique learning experience to prepare and equip them to find their passion and turn it into a career. An airport employee entered the break room at Question 10. John and I paused to speak to the employee, as she spoke when she entered the break room. When the interview concluded, John went to work, and I proceeded to ground transportation to wait for a taxi to take me to the next meeting location from the airport.

CHAPTER 5

STUDY PARTICIPANT DATA ANALYSIS

Data Analysis

The overall benefit of virtual and blended school models described by all the participants was flexibility. This flexibility benefited multiple levels of the teaching and learning experience. According to the participants, technology provides a platform for student-centric learning. Instead of being mired in failure because of previous gaps in learning, the flexibility of the curriculum allows adjustment to students' individualized needs. Some African American students' life circumstances are not always conducive to academic success in traditional school models. Students are empowered by being able to control their own academic destiny. The participants discussed how students enter school with academic declines (two to three academic levels below aged grade level) and struggle to keep up in the one-size-fits-all model of traditional schools. Participants stated, "The virtual component allows you to meet students where they are and help them get to where they need to be." This model supports effective school research studies that promote data-driven learning measured by ILPs created for each student in a virtual or online blended learning model. In this model, the students are assessed, and the curriculum is adapted or auto-adapted using the learning management system tools to meet students' needs.

The participants argued that the flexibility of the model allowed teachers to meet students where they were and get them to where they needed to be. Flexibility was beneficial to parents,

students, and teachers. The participants agreed with the fact that "online learning is academically effective and can provide meaningful alternatives for students who have a need for greater flexibility with their education due to individual learning styles, health conditions, employment responsibilities, lack of success with traditional school environments" (Michigan Virtual University, 2017, p. 6). Virtual schools somewhat mitigated the circumstances of students who cannot thrive within traditional school models and helped teachers overcome the challenge of meeting the needs of diverse populations.

The one challenge in teaching, voiced by most participants, was trying to engage and educate multiple students from multiple backgrounds with different learning styles. The flexibility of the online model allowed technology to support teachers in accessing and adapting to student needs. Slim shared, "There are different learning levels in the classroom. I think students benefit from the blended-learning model better because it allows you to assess where they are and support them face-to-face and virtually." Consistent with the literature, participants discussed how prescribed lessons increased productivity and efficiency. The prescribed lessons acted as guides for the students which afforded teachers extra time for data interpretation and individualized lesson planning.

Tacoma shared,

> It's helped me in a lot of ways; it's given me a lot of time. Because some of these lessons are already posted, on my own time I can see what the students are doing. I can know before the students. But a lot of the clerical work is taken out because the online curriculum learning management system tools are doing it.

With increased standardization and accountability, teachers have been given the added task of reports and paperwork, which has reduced their time on task as related to students.

Several participants discussed how technology released them from some administrative tasks and created extra time to examine data and to individualize how to address student needs. Other benefits identified by the participants were how this streamlining afforded teachers the opportunity to address student needs "one-on-one."

Technology Made Me a Better Teacher

The participants felt the flexibility of the virtual model allowed teachers to "step away from the front of the class" and actively engage with students through "one-on-one interactions." According to participants, the additional "one-on-one" time with the students allowed them to provide individualized instruction and meet students' academic, personal, and/or social needs. Describing this collaboration and customization, Phillip summarized,

> It's turned me into more of a "one-on-one" teacher. Even with 25 students in the room, I'm moving around. It becomes much more personal to get that "one-on-one" because of preparedness. It's [curriculum and lesson plans] already set up for me. It lets me individualize and set things up to their needs. I know this student is coming in this afternoon, and they are going to need some help. But I also know these two are moving along so I can focus on all three, as I know what they need based on the data. It's more than just trying to move an entire class along based on time; I don't have to do that.

The one-on-one allows for real time adjustments to student needs. In a traditional school model, students can often hide their lack of understanding and frustrations. The use of technology to provide real-time individualized assessments is helpful. Teachers know a student's academic needs almost instantly and can use technology as a platform to design a program to support those needs. Because of previous schooling experiences, students often lack

the confidence to ask questions. Data accumulated in the virtual model identifies their struggles and promotes working with the students to fill in the gaps or provide acceleration.

Bob expounded on the benefits of flexibility, one-on-one relationships, and academics when he shared the following:

> If we see a lot of students struggling on the computer, we can address the issues one-on-one. And then that's basically how our model goes; if you need support, we offer all these supports at whatever level you are. [The supports range from] very simple to very intense depending on student needs.

In agreement, John discussed how the model forced him to develop skills to address students' one-on-one needs. John said,

> I feel like our model has an online component where students are able to do work at any time with flexibility based on their schedules. We also have the in-person portion allowing us to give them support. For instance, I have become an expert at digital arts, and I help a lot of students with that course, but I am not the digital arts teacher. The digital arts teacher lives in another state and is a fully virtual teacher.

The participants asserted that the flexibility and one-on-one support was important in helping their students reach academic success. Students come from diverse backgrounds with multiple challenges that have not been effectively addressed in traditional school models. Reading levels directly correlate with academic success levels. A commonality in student challenges identified by the majority of the participants was reading levels. John explained how the model helped by working one-on-one to identify problems and having multiple tools to address student needs maintaining:

> So, we are also able to read the content aloud to the student. We also have Natural Reader in the course content, so if a student wants to, they can have it read to them while following along. They can use that software. They also have Dragon Speak, so if a student doesn't type very well, they can use it to type their papers for them. So, we have a lot of tools to help close the gaps. We also have counseling services if a student wants to use them. I think we try hard to not teach them just math and science. We try to educate the whole student.

In addition to working one-on-one, the model supports collaboration between the teacher and other students. Some students need a lot of one-on-one support whereas other students work better in groups with peer support. The model allows teachers to help multiple learning styles. As Molly explained, "I can have four kids working on American literature together and help them for a while instead of going from person to person."

Following up on the benefits of having more than one teacher and the flexibility for peer to peer support, Bella stated,

> Our students have the support of two classroom teachers, other teachers, and their peers. Sometimes they ask their peers, "Can you help me with this?" I know they are not teachers, but they help each other. An important part of learning is helping and getting help from peers.

Technology extends learning opportunities to anytime, anyplace. Slim summarized,

> The biggest benefit of online learning is that it allows students to work at their own pace. It allows students to have access to school in different places, at home, at school, in a library, or at a community center. African American students that I've worked with sometimes they have kids. Let's say, maybe day care has fallen through for the day and

> the student needs to do work . . . they can log on at home to complete school work. It gives them that flexibility. Maybe their job isn't being flexible, so they need to change times. They can do work at night or in the morning.

These skills help to empower students to be better students. The teachers supported the notion, "We try to educate the whole student."

Research consistently shows low income and African American students often lack access to high-quality teachers. One of the benefits of virtual schools identified in the literature was increased access to high-quality teachers (Christensen et al., 2008). Not only did the teachers agree with this argument, they felt the flexibility forced them to be better prepared and helped them become better teachers. The consensus of the participants was that effective virtual teaching required one to master his or her content and then some. Dawn summarized, "You can't teach what you don't know." The participants agreed that to be effective, they must practice "classroom management, master your content, and understand the technology." Another component identified by the participants as important with the blended learning model was patience and compassion because blended learning meant you were dealing with different learning levels. Dawn explained,

> The common theme is to master your content. You can't teach what you don't know. In terms of blended online learning, I think the skill set is flexibility, being an innovator in the classroom, and being abreast on the technology and the teacher resources. I have learned so much, and there is so much more. Google, of course, but beyond that you must be an innovator in the classroom. You must use your resources, you have to learn classroom management.

The dedication of the teachers moved beyond technology into their in-person roles as teachers. Slim shared,

> I am very reflective of a lesson. Did I get the points across? Did I have their attention? Were the students engaged? How were they assessed? With the blended learning, I am more flexible as a teacher because you know a plan is just a plan until you put it in practice. Until you see it operate in your classroom you don't know if it worked. But with blended learning you see it in the students. Blended learning has helped me as a teacher. How I prepare is that I don't do lesson plans; I prepare for the whole unit. It is making a difference in how I prepare. I think it is the best model to use, especially in urban areas.

All the participants highlighted the benefits of having the ability to adapt and modify academics and the need for relationships with students. Molly who taught special education discussed the importance of relationships in addressing this need and noted,

> I think the most important skills are modifying assignments and clearly communicating with students what the expectations are. I think that would be the most important skills. If they [teachers] built those relationships, they [students] might feel more comfortable going to them [teachers] for help. That would also allow them to have a better understanding of modification and accommodations to best support the student.

The participants felt this was especially true for virtual and blended learners. These teachers cannot stick to a weekly prescribed lesson plan but must instead develop the adeptness of mastering a variety of subjects and methods of delivery. The participants argued the criticalness of flexibility in teaching style and content knowledge to support student needs effectively. Developing this talent made them become better teachers. Participants championed the ability of

teachers to multitask: “We could have 20 kids in a room and they all could be working on different things.” Teachers must be flexible enough to meet a variety of student needs by also being able to help with different subjects. Describing how this flexibility was needed, Tacoma shared,

> We teach your basic courses here, but if you are taking an online course and that teacher is not here, you must be flexible, you have to be knowledgeable, and you must be quick. Traditional teachers teach one subject. Here one student may need you for something and behind you a student needs help on an algebra question. So, I think flexibility is the greatest asset.

Bob concurred,

> For virtual teachers, you need to know your subject. But you need to know more of what the students’ needs are, and you need to know how to fill the gaps. You need to know or fill in the gaps for the elective students. Elective teachers can comment and send emails back and forth. But if the students need help you need to be there. You really should be able to help the students to understand what they are doing and talk through it.

The flexibility of technology affords personalized online learning, based on individual student’s academic and personal needs, ensuring all students have equal access to learning by highly-qualified licensed teachers. Several participants agreed with the Phillips’s assertion about the benefits of a flexible school model:

> With a little more flexibility in our virtual school model, we can change lessons if we see that a student is excelling. We can also add lessons to their virtual course. If they are struggling, we can pull back, maybe modify or add more supports to that student.

The participants agreed that flexibility allowed for increased access to quality teachers, as the model supported creating and supporting effective teachers. The participants in this study advocated for blended models of learning where technology does not replace the teacher but acts as an ingrained support system, which enriches the overall learning experience. Teachers in these models had to diversify their skill sets to meet student needs. The participants agreed with Molly:

> Traditional teachers can be very locked in to their backgrounds. Sort of single minded about content areas. You wear a lot of different hats here. I guess it goes into my special ed background. If I had to modify, I can, and that can go either way. If a student is just barely getting through the work, in a traditional model, teachers often must keep going and add more work without ensuring the student has mastered anything. In our model, if a student is struggling, let's help them. I don't know if that always happens with traditional teachers. They are sometimes closed-minded. But with virtual teachers you must sometimes work with what you got.

Tacoma asserted,

> So, you must be flexible, you have to be knowledgeable and you must be quick. Sometimes you have 25 students in a room; some days they don't need you, and some days they do. You must move around the room. Traditional teachers teach one subject. Here, one student may need you for something and behind you a student needs help on an algebra question. So, I think flexibility is the greatest asset.

Tacoma described how the flexibility and the ability to develop relationships made them better teachers and noted,

> During different times of the day, I have students that I always have, like my night session students. But maybe one day a student I know comes in and another student that I don't even know, I must get acquainted with that student quickly so that I can best support both students. It's made me develop better wit. I don't know how to describe that we wear a lot of different hats. I may not be the computer lit teacher, but If I'm there, I'm going to help you [students]. It's broadened my view. Helped me to individualize more than in a traditional classroom.

Although some may think virtual teaching is "easy" with prescribed lessons and software to adjust to student needs, the participants discussed how this model "forced them to step up." Slim described the skillsets necessary for virtual teachers:

> I think that all the skills traditional teachers have, virtual teachers need those plus some. You need to have a little bit more patience, be a little more flexible because students are working at different paces. You can't just say we are doing this, and it is due right now. You must find different ways on how to present information to your students. You cannot say here are these notes or upload this document because students are working at different paces. With that, you must figure out more one-on-one sessions with this student. Some students can figure out the assignment with information that you have uploaded where others, you must help more. Work for all your students is different; this is not a one-size-fits-all model.

Independence and Self-Efficiency Impacts Learning

The participants felt that this flexibility "made students feel capable of learning." Learning at their own pace instilled confidence in the students. Teachers felt they had the freedom to work with students and to establish the fact that "students need to feel somebody

cares." The teachers felt the flexibility of online school models allowed them time to develop meaningful relationships. The participants felt the flexibility of virtual learning assisted teachers, students, and administration. The participants discussed how the flexibility and one-on-one time made them better teachers. The model afforded freedom and independence for both the teachers and students. Instead of having prescribed lessons for 45–50 minutes, teachers can measure the engagement, understand levels of each student in real-time, and adjust the lesson accordingly. John shared,

> It allows the student to have, in my opinion, more freedom. Not like traditional schools where the teacher is at the front of the class giving their spiel and expecting students to get it all at the same time. Students can be more self-paced, so students take as much time on an assignment that they need to instead of having to go at the pace of the class.

Asynchronous online learning allows students access to online materials at any time, and synchronous online learning provides students with real-time virtual direct instruction with their teacher. All the participants agreed that the ability to seek extra resources empowers students in their educational process and builds confidence. This confidence has multiple benefits. John stated,

> They gain self-confidence; we see their grades go up and their scores and their confidence go up. They come to school more. They have the flexibility to work online and have a face-to-face and virtual teacher. I think the flexibility helps to meet their needs and address their challenges [Students from diverse populations].

Bob shared,

> This school has been much more effective in my opinion. It allows students to learn the way they need to learn. Some of the students can look at an assignment and plow

> through it at their own pace; some students need us to sit down and hold their hands through the entire course. The virtual model allows them to get what they need at their own pace.

Another way the participants felt that virtual learning made them better teachers was by having a platform to get to know student strengths and weaknesses and the ability to openly discuss their issues and to devise a system to "fill in the gaps." Discussing the differences in traditional teachers versus virtual teachers, Flex explained,

> I think the only difference is the blended teachers have an advantage over fully virtual teachers because they have an up and close personal view of where a student is at. So, a student can't hide the fact that they don't know something. If you do things the traditional way, it is easy for a child to get lost. Most public schools are overcrowded anyway. If you don't raise your hand, chances are you will not get called on. But in blended learning you do not have to raise your hand. It is right there.

Several participants discussed how anywhere and anytime learning benefitted the students and the teachers. As Tacoma summarized, "It allows students to sort of move at their own pace, and it allows them to work on curriculum at home and benefit from the help of instructors when they get to school for things they need help with." The participants agreed that the model empowered students to get help when they need help and allows them to excel in what they can excel in at home. It allows them to work on assignments at home and get help when they get to school. The disconnect between education and home life was identified as a challenge for virtual teachers. The participants discussed how working together with technology was important to providing a system of accountability that students do not have at home or in previous school models. The ability for self-paced learning was critical to student success

because it allows students to learn the way they need to learn. Molly shared, it "lets students go at their own pace and they can do things in different ways." The participants felt them having flexibility empowered students and built confidence, and they complete their work.

Slim described how the ability to use multiple platforms worked on multiple intelligence:

> Multiple intelligence use is good for them; it's helping to change their outlook on school from a very authoritative, boring place into a place where people are out to help you. Things are different here. I'm [student reference] doing my thing, but if I need some help, people are here to help me. Nobody is buzzing around me constantly telling me I must do this. I will do it, but maybe not now. I think all those things come into play.

Understanding their student population, the participants concurred that in their homes, education may not be a number one priority. Most of the participants discussed how this and a variety of other reasons (time management, kids, family obligations, attitudes, and academics) were why students had not been successful in traditional school models. Bob explained how virtual learning provides a better platform:

> They need it to be self-paced. For instance, at the other alternative school I worked for, we stand in front of class, give a lesson, students do what we tell them to do, and that was that. After seeing that teaching style not be very effective and then coming to this school, this school has been much more effective in my opinion. It allows students to learn the way they need to learn.

It is well documented that African American students struggle in schools because of early schooling deficiencies. Some of the challenges of virtual and blended teachers are that the students are not prepared for the basics of the prescribed curriculum. According to the participants, this was an additional benefit of the flexibility in content knowledge and the ability

to adjust the curriculum. Phillip discussed the flexibility needed as a teacher to make sure students get the information they need:

> It is nice that the content is there, but I'm still responsible for the content as a math teacher. If it doesn't make sense, if material is over their head, they are going to need a lot of scaffolding to get up to this point. So, that's a big challenge; a lot of the K12 stuff is over their head. For instance, in algebra II the students can't just log on their class and get started as it's too challenging for most of my students. They need extra help. Some classes are more accessible than others. I don't do a lot of direct instruction. I do more one-on-one. I do a lot of personal teaching or tutoring. For instance, I'm a math teacher any given day. I can teach English or computer lit. It's helpful because the modules are already set up. I'm not specialized in those content areas.

One of the challenges of generation text is to keep students engaged in school and motivated to learn. The flexibility of the blended model afforded the adeptness teachers needed to keep students engaged by offering multiple learning platforms. Most participants agreed with Dawn who summarized their views:

> Certain levels of freedom and independence exist with regard back to what the students are to do. Instead of having set times for set lessons, students can bounce around a little bit. If students put a lot of work into something and they get a little tired of it, they can jump to something else. That helps to keep their interest in what they are doing; at the same time, it offers their teacher a little one-on-one support time. As teachers, we can move around and give support where it is needed. We can do less direct instruction. We can do direct instruction as needed, but we have flexibility.

The model benefits the students and teachers as teachers feel more in tune with student needs and students. Slim summarized, "Students get that feeling of independence, but we are still there." This level of control increased student aptitude and instilled confidence. The participants agreed that this flexibility allowed them to further differentiate instruction to meet student needs. Kiwi expanded on a few ways the virtual platform supported student needs and noted,

> I think a lot has to do with the multiple intelligence piece. I think it helps in a lot of ways the virtual school is hitting students on so many levels. A lot of teachers are good at that. It is not just one way of learning; it's multiple platforms. I think that helps majorly; I think a little bit of freedom and a little bit of flexibility goes a long way.

In the model, the students can use multiple platforms and reduce frustration by having the flexibility to leave assignments, work on something else, and then go back to pick up where they left off. Bob shared,

> Instead of one, we use multiple platforms. I'm not over you to the point that I annoy you. You get frustrated; we come back to it. We move on to something else, and we will come back to it. They do come back to it. I think a certain amount of freedom allows for students to have the confidence not to give up as quickly.

How the platform benefits African American students who did not have positive experiences in other school models was discussed. After a long pause, Bob explained,

> It's hard to say because I think it would benefit any student. Specifically, I can speak on my 98% of African American students that flexibility and freedom keeps them from getting bored at what you are doing. Somebody is not just standing over you or telling

> you what to do or how to think. I think it's the freedom and oversight of education that work independently. If they need me, they will ask. If not, they work on their own.

The students often faced a variety of issues that prevented student success from personal to academics. Bella maintained,

> Our students face a wide variety of issues. I believe that some students just are not designed to just sit there in a classroom for 45 minutes; understanding that's difficult for everyone to varying degrees. A lot of people think why they can't just sit there and shut up like I did when I was in school, but for some students they will never be successful that way. That's why it's important that they have multiple ways of learning information. They have phones they can look up a YouTube video or Khan Academy computer lessons.

Recognizing the role of technology in the lives of today's students, John stated,

> This is different from the traditional student. The traditional are usually more technologically savvy. Traditional students complete what's in a textbook or what is written out for them by their teachers. But I see them [nontraditional students] go into something [online curriculum] and to the side they can pull in pictures and videos and clips to enhance the learning experience. How technology plays into it is amazing because that is the world we live in. Today their tech savvy ability is important.

Building Relationships Helps to Adapt to Student Needs

The student population for the participants in this study was predominately African American. Most of the students experienced academic and/or social failure in traditional school models. Some students had backgrounds non-conducive with traditional models and had experienced failure. In agreement with the literature, participants felt the African American

students remained disconnected from the schooling experience which further perpetuated the achievement gap. The flexibility allowed teachers to sort of circumvent some of these challenges. Tacoma shared,

> I think the attention the kids get here is important. I think a lot of students who come here are the ones who were sitting in the back of the classroom and ignored. Or they acted out and the teacher threw them out and didn't want to be bothered. Some of our kids have ADHD or can't sit down, so sometimes you must chase them or go get them and tell them to sit down. You need to be a special teacher to work here. Our students just couldn't make it in a traditional school; you must be patient and put up with a little noise. You need to be patient with students who just can't sit down for three hours.

Examples of the cultural incongruence between African American students and traditional models are the limitations and need for teacher interaction. Instead of technology replacing teachers, it enriched the ability of teachers to develop relationships and close some of the disconnect between African American students and teachers. Some educators referred to online learning as a "colorblind" environment or one in which the cultures of the instructor and student are not considered. The online portion allows teachers to put away biases as Bella stated,

> You must realize they are just kids. Even though they look like a grown man, they are just kids. We need patient teachers. They are still learning. They try to act grown, but they are not. You need to listen, let them breathe, let them make a mistake occasionally. Be patient, and listen.

Advocating how supporting the needs of these students is relationship driven and understanding their needs is critical. Bob shared,

> One of my teachers knew a student from another school, and he said, "You are not going to like him; he punched a teacher." Most of my students punched a teacher or someone before. I thought, "Why would you even tell me that; I don't care what he did. He is not going to do that to me. I will judge him by what he does here.

Sometimes, life gets in the way for students who face challenges like having to work to support their families and their children. Instead of the traditional 8 am to 3 pm school day, virtual schools offer different sessions and individualized scheduling. If students need to change their schedules, they have that flexibility. John stated,

> Some of my students have two or more jobs. They are busy from early mornings to the night; we offer three different sessions, so if your job can't get you here at night, you can come in the morning; you are not missing your education because you must go to work.

John discussed the benefits of flexible schedules:

> I guess for the virtual school model, the biggest benefit is the flexibility that high school students have working with their schedules. They have different situations, and schedules change. They have kids and jobs. Some have kids, and their schedules change based on their kids' needs. It is extremely helpful to be flexible with what they need to do as far as schoolwork. It is a real-world skill to learn how to use a computer. Our school uses files to submit things online and create folders. These skills are good to know; they go beyond high school.

Another component of the virtual model that is beneficial to teachers who support students from diverse backgrounds is developing relationships with their students. Students enter this school model with a variety of academic, social, and personal issues. They have negative school experiences and often lack support systems at home. The participants agreed the

students often struggled with trust issues and relationships with teachers who overwhelmingly did not share their race or cultural backgrounds. The participants stressed the importance of relationships and meeting their needs. Phillip discussed the benefits of flexibility:

> One of the things I always tell my students is to talk to us. If you come to us and tell us what's going on, we will help. If you must come between shifts or parts of shifts, we will find a way to make that happen. We have that flexibility to do that; I think the size of our school has allowed us to create family or space for all our students to feel very safe, and they respect that. They build relationship and trust with staff members. Not with every staff member, but each student has at least one staff member that they trust, and that helps keep them here.

Mike explained how the relationships were supported by technology and said,

> The kids do have a lot of freedom outside of school to complete their work. That's why it's important to establish that relationship. Without a relationship, we could call or use Remind.com all we want, and their answer would be, "Oh, it's that person who gives me work on the computer, and I don't even care." School in general and learning, forming personal relationships is important. It does not have to be weird at school relationships but more like, "Hey did you see the basketball game or hockey game?" just to show that you are interested. "I heard you got a new job; how is it going?" Just showing interest.

Expanding on the importance of relationship and how developing these relationships promote academic success, the partipants felt the design of virtual models permitted this relationship development. Bob, who had taught in both models, said,

> A lot of this also is the community here. As opposed to traditional schools, our model allows us to build relationships unlike traditional schools. In our model, sometimes the

> student will do things just because we want them to do them. We can get students to do things because we asked them to. They trust and respect us enough, because of the relationships with us, that they are just going to do it. The student who I was just talking about, she came early because I had been giving her a hard time and let her know that she had to do it. She and I have a really good relationship. I have gone above and beyond. For her senior project, I allowed her to come to my church and work with my kids. Things like that when they see how much you are pulling for them. That allows them to (1) see that you want them here and (2) do things they wouldn't otherwise do because they don't want to disappoint you. They see you care, so they will do things they don't normally do. That's the biggest part of it with our school.

Additional discussions on the importance of relationships and sharing information between students and teachers ensued, and Slim offered,

> Yes, it aligns because it allows a rapport to be built through the student teachers or faculty student as whole; it allows a different level of rapport or relationship. Through that relationship, it's a lot of confidence, and it's a lot of imparting from the adult to the student. If the teacher isn't African American, it allows a certain level of relating that can take place.

Face-to-Face Learning is Most Impactful

With all the positive benefits of technology-based learning, several participants posited that the virtual model did not support the needs of African Americans and other historically marginalized student groups, and specifically those who failed in traditional school models. It was their contention that although virtual schooling is transforming changes in public education, it cannot replace the face-to-face interactions with teachers. Instead of totally virtual, the school

blended online model worked more effectively as the participants advocated for the blended model which provides the one-on-one interaction, which helps promote success. The participants agreed with Slim who stated, "If a student was missing a skillset or lacked 'academic hustle,' just putting them in front of a computer will not help." An overwhelming majority of the participants' students' schooling experiences have been negative as Slim shared,

> In my opinion, if children already have challenges or lack prior knowledge, then it is not useful to have technology as the primary source of how you teach in the classroom. It should be like a minimal aid. So, the challenge is not with the blended model but more so the online component. You have students that have academic rigor or hustle, and you have students that do not. Introducing technology into the classrooms or blended model must be considered because students that don't have any academic rigor or hustle, virtual is not beneficial to them. It's like technology becomes the primary source, and the teacher becomes the teacher aide. It is not beneficial to every student. In my opinion, online components should be just a component. School systems should not use that as the primary resource when trying to educate African American students.

Slim further explained the challenge in using technology to engage students who have previously struggled in school:

> In terms of the subject I teach, I don't believe technology should be the primary source. Here we have the SPARKS system, and since math is so hands on it doesn't align with the culture of our young people. With this point and click generation, everything at their fingertips is not always a great thing. I think it's up to teachers to gauge where students are. Some students you can sit off to the side, and they got it, and they can work on their own. But most students, they need contact. I can tell them a set of rules for algebra but

> until they apply it, they are not going to learn it. They are just not going to do it. Teaching is more impactful from a math perspective. Sitting them in front of a computer is not impactful.

One of the problems with schools using the same teaching pedagogies for the last 200 years is that it continues to perpetuate the achievement gap specifically for African American students. Most of the participants discussed how their students did not respond to this learning style. Participants explained how in the traditional school models, they felt handicapped being limited to teaching towards standardized tests. The participants found this to be a disservice to their students and a form of educational malpractice.

Discussing how some African American students struggled with just direct instruction or just the virtual model, John maintained,

> I think African American students struggle with that type of instruction. Their home life is not set up for "I'm coming to school; I am going to listen to you for 40 minutes and recite everything you just told me." I believe the culture is not what they are taught at home. A lot of time they are being raised by brothers and sisters, aunts and uncles. Mothers at work all day because dad is in jail or not at home or vice versa. In the blended model, not only are we able to tailor the subject, but the way it's instructed. In the blended model, if they don't understand, we are there to help them. You do what you can, but I am going to hold your hand to help you get through. It is very conducive to their needs. It's good for all our students, but a higher percentage of African Americans need that support.

Bob agreed,

> Our schools have a high population of mostly African American students, but not the top

> tier of students. When it comes to education, it is not what their main priority is. I think with African American students more so than White students, they have other things that are priorities than other students. You know whether it's a single-family home or where they live, they have more important things to worry about, like safety.

Pluses and Minuses of the Different Online Learning Technology-Based Models

Intel (2013) asserted that virtual learning assisted teachers, students, and administrations. The flexibility of the model is that it allows teachers "differentiated instruction based on student performance, plan, schedule and track standards-aligned instruction with ease, provide access to exemplary lessons and instructional resources, analyze student progress and mastery of standards with item analysis and trend reports" (Intel, 2013). In these models, students are empowered by being able to control their own academic destiny. The participants discussed how students enter school behind and struggle to keep up in the one size fits all model of traditional schools. The current study participants agreed with Christensen et al.'s (2008) contention that "educational technology has been instrumental in making information available to students just in time, just in the right quantity and in just the right way" (p. 2). The findings in the current study revealed how the virtual component allows one to meet students where they are and help them get to where they need to be. Effective school researchers promote data driven teaching and learning by creating an IEP for each student. The current findings agreed with John who said,

> You can meet child on their level, and it allows teachers to teach on that child's pace. When it is taught properly, it allows the student to grip on, and you can see the progress or the stagnation of that child.

Discussing the flexibility of the virtual models, Fogg, Carlson-Sabelli, Carlson, and Giddens (2013) argued, "Although there are many ways to engage a learner, teaching strategies are often

based on students 'learning preferences" (p. 390). The findings show how real-time data facilitates this process with student assessment and modifications to meet student needs. According to Kiwi, unlike in traditional models, "our schools let students go at their own pace and they can do things in different ways." Kiwi stated, "Although there are good teachers in a traditional school, they often do the same thing . . . lecture every day, here it is, here it goes type of attitude."

Fogg et al. (2013) found "the differences according to race and ethnicity suggest that as student populations increase in diversity, multimodal methods of learning may help students, regardless of learning style, to flourish" (p. 392). In agreement, Slim shared how the models enabled adaptation to learning styles using multiple intelligence:

> I think a lot has to do with the multiple intelligence piece. I think it helps in a lot of ways the virtual school is hitting students or so many levels. A lot of teachers are good at that. It is not just one way of learning; it's multiple platforms. I think that helps majorly. I think freedom and flexibility; a little bit of freedom and a little bit of flexibility goes along way. Instead of one we use multiple platforms; I'm not over you to the point that I annoy you. You get frustrated; we come back to it. We move on to something else; and we will come back to it. They do come back to it. I think a certain amount of freedom allows for multiple intelligence use is good for them; it's helping to change their outlook on school from a very authoritative, boring place into a place where people are out to help you. Things are different here; I'm doing my thing, but if I need some help, people are here to help. Nobody is buzzing around me constantly telling me I must do this. I will do it but maybe not now. I think all those things come into play.

Gill et al. (2015) explained how teachers in most online charter schools are not

responsible for creating their own curriculum or lesson plans. In most of these models, teachers either use the curriculum provided by their charter or education management organization or outsource with an online curriculum provider. Because less than 20% of online charter schools create their own curriculum, online charter schools are able to provide a large variety of courses that many brick and mortar schools are unable to provide. The participants concurred with these assertions and explained how technology frees them up from administrative tasks, allowing time to examine data and to individualize how to address student needs. Other benefits identified in the findings are how this streamlining afforded teachers the opportunity to address student needs "one-on-one."

Horn (2014) argued, "Because online learning is inherently modular, it can help the education system customize for each child's distinct needs and create opportunities for more meaningful collaborative work between children and teachers" (p. 1). According to Gill et al. (2015), "Most online courses are aligned to core standards and have modules embedded to help prepare students for state standardized tests. This is an additional responsibility that online teachers are not responsible for" (p. 17). The participants in the present study agreed and considered this another flexibility that reduces administrative tasks and opens time for student contact. Consistent with the literature, the participants discussed how prescribed lessons increased productivity and efficiency. These lessons acted as guide for the students, afforded extra time for data interpretation, and addressed additional student academic, personal, or social needs. Describing this collaboration and customization, Tacoma summarized,

> It's turned me into more of a one-on-one teacher. Even with 25 students in the room, I'm moving around. It becomes much more personal to get that one-on-one because preparedness . . . it's already set up for me, it lets me individualize and set things up to

> their needs. I know this student is coming in this afternoon, and they are going to need some help, but I know these two are moving along so I can write about it. More than just trying to move an entire class along based on time, I don't have to do that.

Virtual school models afford flexibility in school design, curriculum, and operations (Caitlin et al., 2009; NAPCS, 2013; Wohlstetter et al., 2011). The school design affords curriculum adjustments that allows for student teacher interactions. Gill et al. (2015) asserted that "students in the typical online charter school have less synchronous instructional time in a week than students in a brick and mortar school have in a day" (p. 10). The findings show the students wanted and needed more interactions with the teachers. The data revealed that specifically for African American students, this flexibility offers nimbleness in adjusting to student needs not possible in a traditional school model. Other learner-based benefits identified by Ally (2007) were that students

> can use the Internet to access up-to-date and relevant learning materials and can communicate with experts in the field in which they are studying. Most of the research and studies show the benefits gained by African American students when afforded the opportunities and resources within the right learning environment to achieve and excel at the highest level of education. The educational environment plays a crucial role in shaping the brain's abilities and determining students' academic achievement (p. 6).

All the participants agreed that the ability to seek extra resources empowers students in their educational process and build confidence. This confidence had multiple benefits; according to John,

> They gain self-confidence; we see their grades go up, and their scores and their confidence goes up. They come to school more. They have the flexibility on line and

> teacher I think the flexibility helps to meet their needs and address their challenges [Students from diverse populations].

The participants agreed with Michigan Virtual University's (2017) assertion that

> online learning is academically effective and can provide meaningful alternatives for students who need greater flexibility with their education due to individual learning preferences, health conditions, employment responsibilities, lack of success with traditional school environments, or to pursue advanced coursework" (p. 2).

In agreement with the literature, flexibility is beneficial to parents, students, and teachers. The participants agreed with Tacoma that "in a lot of ways, flexibility helps them because they are working hard; they have a lot of things going on." Virtual schools somewhat mitigate the circumstances of students who cannot thrive within traditional school models.

Christensen et al. (2008) asserted that every student learns in different ways, and schools must create customizable education platforms to keep students motivated and inspired to learn. The participant findings showed the benefits of this flexibility. Kiwi stated,

> There are certain levels of freedom and independence with when the assignments are due. Instead of having set times for set lessons, students can bounce around a little bit. If students put a lot of work into something, and they get a little tired of it, they can jump to something else. That helps to keep their interest in what they are doing, [and] at the same time, it offers their teacher a little one-on-one support time. As teachers, we can move around and give support where it is needed.

According to the data, the students feel the teachers care, and the teachers feel more in tune with student needs, or the students. Mike stated, students "get that feeling of independence, but we are still there."

Discussing the transformative nature of online education, Horn (2014) maintained that "in a knowledge-based economy, we need to ensure that every student is getting the right opportunities to fulfill their potential. Online learning offers a flexibility that can help transform education into a student-centered learning system beneficial to all" (p. 4). The participants agreed that this flexibility allowed them to further differentiate instruction to meet student needs. These models offer the opportunity to interrupt what Christensen et al. (2008) suggested as the structure of current traditional school models force standardization in teaching which is incongruent with student needs. Kiwi maintained that students face a wide variety of issues when she said,

> I believe that some students are just not designed to just sit there in a classroom for 45 minutes. The blended model affords real world contacts not just them and a computer screen. They get frustrated; it's nice to have someone to turn to when they need help. They know we will be here during set times. They need to be here. They can get to know us. We will always be here.

Lips (2010) discussed how the flexibility of the model afforded students access to teachers and direct online instruction during non-traditional hours, which met the needs of a variety of students. In virtual school models, students are no longer tied to a desk or to time limits. Virtual education can offer students greater flexibility in how and when they learn. The findings concurred with John's assertion: "It allows students to sort of move at their own pace, and it allows them to work on curriculum at home and benefit from the help of instructors when they get to school, with work they need help with."

The findings in the present study agreed with Gill et al.'s (2015) assertion: "Teachers in online charter schools tend to have more responsibility for individual attention to students than

for developing curriculum, lesson planning and lecturing" (p. 28). The participants agreed with the assertion that released from paperwork, they could more actively focus on student needs.

Kiwi discussed the flexibility to "change lessons if we see that a student is excelling. We can add lesson to their virtual course. If they are struggling, we can pull back maybe modify or add more supports to that student." Kiwi expounded on the benefits of flexibility on one-on-one relationships and academics:

> If we see a lot of students struggling on the computer, we can address the issues one-on-one. And then that's basically how our model goes, if you need support, we offer all these supports at whatever level you are. [The supports range from] very simple to very intense depending on student needs.

Instead of the stagnation of sitting behind a desk, virtual or e-learning connects instructors and learners with interactivity (Kearns, 2017). Over 150 years ago, Dewey (1938) argued the importance of continuity and interaction as the fundamental criteria of educational experience. According to the participants, this continuity and interaction is promoted by online schooling. Teachers can step away from the Whiteboard and have one-on-one interactions to address student needs. The findings in this study showed the importance of freedom and flexibility as participants shared in their ability to authentically individualize student learning. The participants agreed with this method of teaching as it developed relationships by creating opportunities for one-on-one instruction. Mike stated,

> And I don't really sit at my desk during the day; I spend all day helping students with whatever class they need or whatever subject they need. A lot of time is reading comprehension help, whether it's understanding the assignments or the instructions as far as the assignments.

Gill et al. (2015) offered how these models promoted cross functional teaching and learning; “many online charter schools offer courses that teachers can teach on a permanent or temporary basis based on their licensed content areas” (p. 17). Another flexibility identified by teachers was the ability to teach different courses according to student needs. John discussed how online and blended-learning teachers must multitask because this model requires understanding different subjects: “We could have 20 kids in a room, and they all could be working on different things. Teachers must be flexible enough to meet a variety of student needs by being able to help with different subjects.”

Christensen et al. (2008) argued that transforming schools requires creating disrupting innovations that move education from teacher-centric to student-centric learning. According to the participants, “Technology provides a platform for student centric learning. Instead of being mired in failure because of previous gaps in learning, the flexibility of the curriculums allows adjustment to their individualized needs.” The findings agreed that virtual education provides teachers greater flexibility in their teaching practices, methods and teaching, and support hours**.** Gill et al. (2015) explained how in the online model, “Student data is readily available, allowing teachers to work with students in small groups based on their areas of deficiency to build them up and offer enrichment opportunities in areas where students excel” (p. 28).

Marchuk (2010) asserted online learning benefits students and their families in terms of academic enrichment and academic remediation and/or acceleration. This aligned with John Bailey’s assertion that “virtual schools serve students at both ends of the bell curve—not just AP students but also those needing remediation” (Tucker, 2007. p. 3). According to Smith and Brame (2017), the blended model (sometimes called hybrid) instruction has between 30 and 80% of the course content delivered online with some face-to-face interaction. The findings in the

present study agree with the assertion that blended and online courses not only change how content is delivered, they also redefine traditional educational roles and provide different opportunities for learning. The findings agreed with Palloff and Pratt (2013) who asserted,

> The online classroom is a potentially powerful teaching and learning arena in which new practices and new relationships can make significant contributions to learning. In order to harness the power this creates in education, instructors must be trained not only to use technology but also to shift the ways in which they organize and deliver material. Making this shift can increase the potential for learners to take charge of their own learning process and facilitate the development of a sense of community among them. (p. 30)

Several participants agreed with the assertion by Mike who discussed the benefits of flexible school model:

> A little more flexibility in virtual school model, we can sort of change; we can change lessons if we see that a student is excelling. We can add lessons to their virtual course. If they are struggling, we can pull back, maybe modify or add more supports to that student. In a blended learning model, teachers have the flexibility to accelerate or remediate according to student needs.

Bob elaborated, "If I have to modify I can. That can go either way. If a student is just breezing through the work, it lets me add more."

Mathematica Policy Research (2015) argued that "student engagement, low teacher-student contact time, and high student-teacher ratios attribute to academic challenges in virtual charter schools" (p. 21). Inconsistent with these findings, the participants in our study felt this

model afforded the teachers the flexibility to help with these struggles and to adjust to one-on-one needs.

"'Urban districts' difficulty in attracting and hiring teachers . . . means that urban teachers are less highly qualified teachers than their suburban counterparts with respect to such characteristics such as experience, educational background, and teaching certification" (Jacob, 2007, p. 129). The findings highlighted how the benefit of online schools allowed them to circumvent some of these issues. Molly stated that teaching online actually "forced them to step up." Molly described the skillsets necessary for virtual teachers that made them better teachers: "I think that all the skills traditional teachers have, virtual teachers need those plus some." The findings showed that online learning model teachers needed more patience, more flexibility, and the ability to present information in a variety of ways. Overwhelmingly, the data agreed with Gill et al's. (2015) arguments about the importance of understanding students who are working at different paces. The findings showed them flexibility of the model. Bella stated, "Teaching online afforded teachers the time to figure out more during one-on-one sessions with this student." The findings in the present study showed how online learning creates relationships with students that the participants felt they could not develop in traditional school models. In agreement, the participants shared how the flexibility and the ability to develop relationships made them a better teacher.

According to Jacob (2007), "Urban and suburban schools also differ from each other in terms of the resources available to students and teachers, although the many compensatory state and federal programs reduce the size of the disparities" (p. 132). Most participants asserted that technology and the Internet somewhat made up for the lack of resources. Slim discussed how traditional teachers in urban areas had to be creative to make up for the lack of resources:

"Because I have always been using blended learning, but I just didn't know what it was called. I am more flexible as a teacher because you know a plan is just a plan until you put it in practice."

Discussing how the blended model somewhat made up for lack of resources with individualized instructions, Slim shared,

> Over the years, as I have taught different age groups in our community, you have different learning levels. So, I believe African American students need more than technology, as this generation of students are naturally tech savvy. I think different things come into play for African American and for urban students. The monies that are used to educate are different. Sometimes certain schools lacked resources before blended learning was even a term. Some teachers in urban areas were already doing blended learning because of a lack of resources. But I think blended learning happened before it was a term. The needs of African American students are different and vary. With these different disproportionalities in their needs, we need to make it mandatory for blended learning to be a part of your strategy for teaching African American students.

Dillon (2011) argued that this innovative technology could change the traditional K–12 school's system with the implementation of technology that allows interactions with teachers and peers and the flexibility needed for busy families. Earlier, Tucker (2007) maintained the Internet has enabled educators to significantly alter the experience of schooling by personalizing student learning and extending it beyond the traditional school day. This agreed with the findings in the present study that showed students get the benefits of working at their own pace, exposure to teachers who have the flexibility to adjust the curriculum for extra student, and exposure to anytime any place learning.

Intel (2013) suggested technology-based platforms offer personalized student learning benefits students at all levels offering both AP and credit recovery courses. The flexibility of technology affords personalized online learning based on individual student academic and personal needs. The findings show the teachers revered developing freedom and independence for the students.

Ally (2007) maintained that "online learning offered benefits for learners and instructors" (p. 4). Several participants agreed with Ally's assertion that online learning allows students to learn anywhere and anytime, and it has benefits for both the student and the teachers. As Bob summarized, "It allows students to sort of move at their own pace, and it allows them to work on curriculum at home and get benefit help from instructors when they get to school on things they need help with." Bella stated, the model empowered students to "get help when they need help and allows them to excel in what they can excel at home. It allows them to work on assignments at home and get help when they get to school." The findings show the effectiveness of the model. Phillip shared that the model

> allows students to learn the way they need to learn. Some of the students can look at an assignment and plow through it at their own pace, some students need us to sit down while the teacher hold their hands through the entire course. The virtual model allows them to get what they need at their own pace.

Noddings (1992) described competent teachers as "care-ers" (p. 2) who want to respond to the voiced and unvoiced needs of their students. Instead of teaching a lesson and just moving on as required by lesson plans in a traditional school, blended learning promotes the adeptness necessary to respond to student needs. Slim summarized the experiences of online teachers and stated, "Teachers must be compassionate and patient with blended and online learning models

and students because you are dealing with different learning levels." The participants asserted that addressing the needs of African American students in a caring manner meant more person-to-person interactions and less technology. Accomplishing these goals with the most challenging populations requires practice and self-reflection, Slim stated,

> I am very reflective of a lesson; did I get the points across? Did I have their attention? Were the students engaged? How were they assessed? With the blended learning, I am more flexible as a teacher because you know a plan is just a plan until you put it in practice. Until you see it operate in your classroom, you don't know if it worked. But with blended learning you see it in the students. Blended learning has helped me as a teacher. How I prepare is that I don't do lesson plans, I prepare for the whole unit. It is making a difference in how I prepare. I think it is the best model to use, especially in urban areas.

All the participants highlighted the benefits of having the ability to adapt and modify academics and the need for relationships with students.

Noddings (1992) argued the need for caring teachers to practice interdisciplinary thinking and build their own store of knowledge to respond intelligently to their needs and interests; the participants felt this was especially true for virtual and blended learners. These teachers cannot stick to a weekly prescribed lesson plan but must instead develop the adeptness of mastering a variety of subjects and methods of delivery. The participants concurred with her assertion, or as Slim shared, "We do not have to know as much biology as the biology teacher or as much literature as the English teacher, but we do have to know how our own subject connects with these subjects." In alignment with Noddings, the participants argued for criticalness of flexibility in teaching style and content knowledge in order to support student needs effectively.

Tacoma championed the ability of teachers to multitask: “We could have 20 kids in a room, and they all could be working on different things.” Teachers must be flexible enough to meet a variety of student needs by being able to help with different subjects. As an example of this caring, Slim discussed how teachers of urban kids who lack resources had to use ingenuity to meet student needs:

> Sometimes certain schools lacked resources before blended learning was even a term. Some teachers in urban areas were already doing blended learning because of a lack of resources. But I think blended learning happened before it was a term. The needs of African American students are different and vary. With these different disproportionalities in their needs, we need to make it mandatory for blended learning to be a part of your strategy for teaching African American students.

Bella felt they had the freedom to work with students and to establish the fact that “students need to feel somebody cares.”

Rocha (2007) argued that education researchers, analysts, lawmakers, and advocates for reform promote the necessity of more learning and instructional time to increase educational outcomes; the flexibility of online allows students additional time. The findings in the present study concurred, sharing that time on task was a challenge for the students. In the present study much like students in a traditional school model, they concurred that time on task was hindered by attention levels, home life interfering with school life, or academic deficiencies. “Technology extends learning opportunities to anytime, anyplace” (Intel, 2013, p. 3). Phillip summarized the biggest benefit of online learning is that it allows students to work at their own pace. It allows students to have access to school in different places: at home, at school, in a library, at a

community center. In relation to African American students, the findings in the present study participants agreed with Tacoma who shared,

> Students that I've worked with sometimes have kids; maybe day care has fallen through for the day, but they need to do work, so they can log on at home. It gives them that flexibility. Maybe their job isn't being flexible, so they need to change times. They do work at night time or in the morning.

Gill et al. (2015) asserted, "In most online charter schools, a substantial amount of coursework is self-paced" (p. 7). He maintained that the culturally congruent pedagogy research has shown that this method of learning is mostly least effective for African American students. These assertions are inconsistent with the importance and necessity of self-paced learning identified by the findings in the present study regarding African American students.

Research studies and census bureau data suggested that great efforts have been made to reduce the digital divide gap in many academic, government, and private sectors. "Despite these findings, fewer African Americans, when compared to the general population, have access to computers and Internet service in their homes, although they may have access in public settings" (Killion, Gallagher-Lepak, & Reilly, 2015, p. 408). In the present study, although the students sometimes lacked access at home to high speed Internet, an overwhelming number of the students had cellphones. Bella argued, "That's why it's important that they have multiple ways of learning information. They have phones they can look up a YouTube videos or Khan academy computer lessons." Championing the versatility of virtual learning, Molly shared, "It allows students to have access to school in different places, at home, at school, in a library, at a community center."

According to Jacob (2007), students in urban and rural school areas are often transient, which also disrupts the teaching and learning flow for teachers and students. The participants identified this as a challenge that is somewhat mitigated by the flexibility of online schools. In agreement, Gill et al. (2015) offered, "Online charter schools might be attractive to various kinds of students and families, including homeschoolers, rural students, students with disabilities, highly mobile students, and students who are not well suited to conventional schooling" (p. xii). Porter (2012) argued that virtual and blended learning models have become an effective way to engage students who are not performing well in traditional school models or have environmental circumstances that often impact the ability to adhere to public school hours and gives students the opportunity to work according to their individual schedules and learning pace, without time of day or building hour restrictions. Molly shared, "A lot of students, they have those issues, kids, jobs, pay for own housing, need to support the household or their younger siblings and/or their parents, lot of issues with homeless." The consensus of the participants was that effective virtual teaching required one to master one's content and then some. Slim summarized, "You can't teach what you don't know." She also explained, "We try to educate the whole student."

"African American students' access to learning can be inhibited or deferred when teachers fail to recognize and validate their multiple literacies, that is, their social and cultural ways of communicating in their everyday lives" (Carpenter-Ford, 2013, p. 372). Bob shared,

> They have kids, jobs, some have kids, and their schedules change. Another extremely helpful benefit is students have flexibility to do what they need as far as completing school work anytime of the day. It is a real-world skill to learn how to use a computer. If you get schools to use files and to submit things online, create folders, this is good for students, more than just in high school, you need those skills for life.

The findings in the present study agreed with Carpenter-Ford's (2013) assertion that families were choosing a virtual or blended learning model as the traditional brick and mortar classroom communication breakdown with students, teachers, and parents had taken a toll on students academically and socially. The findings concurred with the lack of student engagement in traditional school models, resulting in failing grades and often disciplinary action which causes students to become upset and disconnect from schooling in a greater capacity. The findings showed teachers had to adjust to a variety of student behaviors that were incongruent with traditional school models. Tacoma shared,

> I think the attention the kids get here is important. I think a lot of students who come here are the ones who were sitting in the back of the classroom and ignored. Or they acted out and the teacher threw them out and didn't [want to be] bothered; some of our kids have ADHD or can't sit down, so sometimes you must chase them or go get them and tell them to sit down. You need a special teacher to work here. Our students just couldn't make it in a traditional school; you must be patient, put up with a little noise; you need to be patient with students who just can't sit down for three hours.

Flexibility is beneficial to parents, students, and teachers. The participants agreed with John's assertion that "I see in lot of ways flexibility helps them because they are working hard; they have a lot of things going on." Virtual school somewhat mitigates the circumstances of students who cannot thrive within traditionally school models.

The Black Cultural Ethos (BCE) quantitative and qualitative findings indicated that "more African Americans experienced enhanced achievement in culturally congruent contexts that aligned with their preferences" (Parsons, Smith-Simpson, & Travis, 2005, p. 183). The

participants shared that African American students struggle with teacher-centric classrooms that primarily use lectures or formats that lack student engagements. John shared,

> I think African American students struggle with that type of instruction. Their home life is not set up for "I'm coming to school; I am going to listen to you for 40 minutes and recite everything you just told me." I believe the culture it is not what they are taught at home. A lot of time they are being raised by brothers and sisters, aunts and uncles. Mothers at work all day because dad is in jail or not at home. A high percentage of African American students at our school need that extra support.

The ability to actively participate in discourse within a classroom setting is important. "From a sociocultural perspective, learning is a social, situated process enriched by interactive classroom talk" (Carpenter-Ford, 2013, p. 372). Classroom discourse gives students the opportunity to showcase what they have learned, and teachers can assess if their learning objectives have been mastered. "Increasing students' access to classroom discourse, then, has the potential to increase students' access to learning" (Carpenter-Ford, 2013, p. 373). Phillip offered,

> In the blended model, not only are we able to tailor the subject, but the way it's instructed. In the one model, if they don't understand we are there, you do what you can, but I am going to hold your hand to help you get through. It is very conducive to their needs. It's good for all our students, but a higher importance for African American.

There Was Not Motivation for Change

In her summarization of virtual teachers, Molly shared,

> I don't know, whatever you call your traditional teachers . . . they are sometimes closed minded. But with virtual teachers, you must sometimes work with what you got.

> Flexibility taught here, we have your basic courses here, but if you are taking an online course, that teacher is not here. So, online we work with the students and the teachers. So, you must be flexible, you must be knowledgeable, and you must be quick.

The fifth tenet, critique of liberalism, used by critical race scholars, challenged the notion of "colorblindness, the neutrality of the law, and incremental change" (DeCuir & Dixson, 2004, p. 29). It is the assertion of critical race scholars that colorblindness justifies ignoring and "dismantling race-based policies designed to address societal inequity" (Gotanda, 1991, p. 2). Although there have been some changes, Decuir and Dixson (2004) suggested that this slow pace of incremental change for marginalized groups is palatable for those in power. As multiple data points reveal, educational outcomes continue to be negatively skewed according to race. These colorblind policies lack culture and inclusivements. Parsons et al. (2005) argued, "The incorporation of culture makes cues more discernible, activates cognitive processes such that relevant components of a task are identified, and heightens the salience and meaningfulness of the situation to individuals so that they become more attentive and motivated" (p. 184). The data showed teachers who recognize cultural incongruence in teaching styles and understood their student needs created positive schooling experiences for those who traditionally "fell through the cracks." The findings show in traditional schools teachers mainly lecture and are often hesitant to change lesson plans. Molly shared,

> They do the same thing . . . lecture every day, here it is, here it goes. I think African American students struggle with that type of instruction. Their home life is not set up for . . . I'm coming to school, I am going to listen to you for 40 minutes and recite everything you just told me. I believe the culture, it is not what they are taught at home.

Critical Race Theory Connections Evidenced Through Study

Discussing the criticalness of education crisis for African American students over three decades ago, Bowman (1994) argued, "The inequities that prevent the educational achievement of these children may very well affect the social stability of the United States" (p. 1). Similarly, Smith et al. (2005) argued, "This low level of education threatens these students' economic and social integration into mainstream America" (p. 21). It was his assertion that "this poor education creates a permanent underclass and severely compromises this country's ability to develop and sustain a well-balanced, pluralistic society that enjoys a high standard of living" (Smith et al., 2005, p. 21). These statements are even more relevant in the knowledge-based economy. Opportunity gaps are confounded by factors including poverty and lowered expectations. These gaps are compounded by the shift in American demographics which results in most African Americans being taught by teachers who do not share their racial or cultural experiences.

The participants overwhelmingly felt that most of their students have not succeeded and would not succeed in traditional school models. They agreed with the research which listed a variety of factors that contribute to the disconnect, including student's race, ethnicity, cultural background, and other variables (e.g., poverty, assessment practices, systemic issues, lack of PD opportunities for teachers, institutional racism), and significantly influence the student's achievement (Harry & Klingner, 2006; Orosco & Klingner, 2010; Skiba et al., 2011). Because of these perpetuating gaps, educational stakeholders continually seek alternative methods of closing the gaps to increase student achievement.

It is well documented that traditional schools using monolithic models designed to educate the masses fail to meet the needs of African American students. Systemic institutional

failures continue to promote poor academics and thus life outcomes for a disproportionate number of African American students. Race and socioeconomics assign most African American students to high-poverty, low-performing, underfunded schools unable to provide essential services (Darling-Hammond, 2010; NCES, 2011).

Although the system perpetuates negative academic outcomes, students are blamed for perpetuating the "pernicious" achievement gap (Jackson, 2011). As the more seasoned and effective teachers leave for the suburbs and private schools, the students with the most challenges attend schools with inexperienced teachers and poor academic outcomes. Because of schools that fail to meet their needs, these students experience higher rates of absenteeism, course failures, and attrition. In a knowledge-based economy, ineffective schools inhibit upward mobility causing poor job opportunities impacting multiple generations in poverty (Carter & Welner, 2013).

The achievement gap between African American students and other groups and the potential of virtual leaning to change these outcomes aligns with DeCuir and Dixson's (2004) study which warranted employing CRT as a tool to analyze this experience. Each of the five tenets of CRT—counter storytelling, the permanence of racism, Whiteness as property, interest convergence, and critique of liberalism—provide insight into the experience of African American students and schooling.

Delgado and Stefancic (2001) defined counter storytelling "as a method of telling a story that aims to cast doubt on the validity of accepted premises or myths, especially ones held by the majority" (p. 144). Counter storytelling provides a voice to marginalized groups by challenging privileged discourses (DeCuir & Dixson, 2004). The findings in the present study showed how African American students, often blamed for school failures, in reality had not been effectively

served by traditional school models. Education Trust (2014) reported, "African-American and Latino students have made little to no progress in 12th grade reading scores since 1994, continuing to lag behind White students" (p. 1). Technology provides a vehicle for meeting the needs of students with their varying interests, backgrounds, abilities, and learning needs. An important component of the learning experience, according to the findings and discussed by Carpenter-Ford (2013), was "cultural congruence which refers to the harmony or alignment among the participation structures, language use, and learning styles experienced in the home and at school" (p. 373). African American culture is counter to what Freire (1998) described as the banking models where students just sit and receive information. Bob summarized, "I basically don't spend any time preparing lessons except individualized instruction." The findings showed that if the students came to school, the teachers and resources allowed them to engage the students which resulted in positive academic outcomes. Tacoma shared,

> We have 99% African American students. The academic outcome's fantastic here. The only time I see amazing grade in everybody that comes in here. It's an A or F place, the only ones I see [with] F's are the ones I can't get in here with me.

Instead of using materials that have been proven ineffective with this population, the findings showed creativity in meeting student needs. Tacoma continued,

> I do, however, make study guides. We do have a disproportionate number of special ed students, but I don't just make it for them. I make it for the regular students as well. So, I make those available for all my students and put them in there. As I said our population is behind in reading. Our students average about a 6th grade level reading. And I don't really sit at my desk during the day. I spend all day helping students . . . whatever class

> they need or whatever subject they need . . . a lot of time is reading comprehension help, whether it's understanding the assignments or the instructions as far as the assignments.

Bell (1992) asserted that the second tenet, the permanence of racism, recognizes racism as "a permanent component of American life" (p. 13). In essence, the permanence of racism, necessitates using a "realistic view" in accepting racist hierarchial structures allocated for the "privileging of Whites and the subsequent othering of people of color" (DeCuir & Dixson, 2004, p. 27).

> Most of the research and studies show the benefits gained by African American students when afforded the opportunities and resources within the right learning environment to achieve and excel at the highest level of education. The educational environment plays a crucial role in shaping the brain's abilities and determining students' academic achievement. (Osler & Wright, 2016, p. 3)

According to Pine and Hilliard (1990), racism does not have to be intentional but includes institutional policies and procedures that resulted in negative treatment and subordination of members of a racial or ethnic group. American society relies on schools to level the playing field for children born into different circumstances. "More than any other institution, schools are charged with making equality of opportunity a reality" (Duncan & Murnane, 2011, p. 7). Attendance at underperforming schools increases the growing achievement gap as family incomes force historically underserved African American students and students from low SES backgrounds to matriculate at schools where 50% fail to graduate from high school, and over 90% never receive a college degree (NCES, 2010).

bell hooks (1995) argued, "Racism is oppressive not because White folks have prejudicial feelings about Blacks, but because it is a system that promotes domination and subjugation" (p.

154). The permanence of racism in traditional public schools is imbedded in the system, revealed by the findings that multiple traditional school policies including standardized testing, accountability, and one size fits all teaching pedagogies impede inclusive teaching and learning. These racist, either intentional or unintentional, policies inhibited African Americans in schooling. The findings showed most of the participants despite race agreed that systemic racism from teachers, attendance at poor schools, and culturally incongruent pedagogy negatively impacted previous schooling experiences for their students.

"Although teachers appear to be more effective with students of their own race or ethnicity" (Jacob, 2007, p. 138), research does not show exactly why this is the case, "but observers suggest that both passive teacher effects, such as the teachers simply serving as a role model, and active teacher effects such as communication styles, pedagogy, and curriculum design may play a role" (Jacob, 2007, p. 138). Research consistently shows low income and African American students often lack access to high-quality teachers. The participants attributed some of the failures of African Americans in school to impoverished schools with ineffective teachers.

Slim shared her experience in traditional schools feeling that the race-based disproportionalities warranted blended models of learning:

> Over the years, as I have taught different age groups in our community, you have different learning levels. So, I believe African American students need more than technology, not to say they are not tech savvy, they are tech savvy. I think different things at play for African American and for urban students. The monies that are used to educate are different. Sometimes certain schools lacked resources before blended learning was even a term. Some teachers in urban areas were already doing blended

> learning because of a lack of resources. But I think blended learning happened before it was a term. The needs of African American students are different and vary. With these different disproportionalities in their needs, we need to make it mandatory for blended learning to be a part of your strategy for teaching African American students.

For African American students, the online models and the ability of teachers to develop one-on-one relationships with students creates a counter-space which combats the debilitating influence of institutional racism. The findings highlighted the benefits of one-on-one interaction. According to Tacoma,

> It becomes much more personal to get that one-on-one because preparedness . . . it's already set up for me; it lets me individualize and set things up to their needs. I know this student is coming in this afternoon, and they are going to need some help.

This aligns with Carpenter-Ford's (2013) assertion that it is imperative that teachers as classroom leaders set the tone of communication, as they have the power to significantly impact students in a positive or negative capacity. Fewer than 10% of teachers are African American; "White teachers should be especially aware of this power because misunderstandings around communication often stem from cultural differences" (Carpenter-Ford, 2013, p. 371). "Culturally congruent communication can provide equitable access to learning opportunities for all students" (Carpenter-Ford, 2013, p. 371).

The third tenet, Whiteness as property, outlines the role jurisprudence has performed in reifying conceptions of race. In education law, this refers to the myriad of policies and procedures that have been employed to resrict ascess of students of color to quality educational experiences and facilities. Despite reform efforts from busing to charter schools or the ovewhelming majority of African Americans, home zip codes dictate these students attend

chronically underperforming schools further contributing to the achievement gap. Despite decades of empirical evidence revealing negative ramifications, including significant differences in outcomes of African American students and their counterparts, the traditional school model of teacher-centric learning with limited technology mars the schooling experience for African American students (NCES, 2012).

Reading is a critical component of learning, and the findings showed how the students coming from traditional public schools lacked this ability which impacted their learning ability. The flexibility of online schools allowed the teachers to address these needs.

Slim questioned, "How did the students get this far" and offered,

> A lot of challenge comes from a lot of our students are that they are behind on their reading levels. So, that presents a challenge because the curriculum is at a much higher reading level than our students are. A lot of our students are not able to comprehend. A lot of times even if the student is not able to read or understand, they can understand if we verbally just read it or tell them the questions; they are able to understand. So, I find myself rephrasing the questions or verbally telling them the questions . . . that helps our students. But it doesn't allow them to work at home if they don't have the help, so that [they] comprehend the problem just from reading.

"African American youth have been disciplined and dismissed from classrooms for engaging in culturally based communication practices that teachers misinterpret as disruptive" (Carpenter-Ford, 2013, p. 371). The findings showed how colorblind policies and attitudes meant culturally incongruent experiences for African American students. They felt this caused negative schooling experiences for the students. John shared,

> What I can tell you . . . most of our students have been kicked out of TPS [traditional public schools]. A lot of our students are excelling here. A lot of our students did not make it in TPS, and they say if it wasn't for our school, they would not be in high school. So, I think this model works for our students.

Without accountability, instead of working to identify and support student needs, traditional school teachers have the option to ignore or remove. This is demonstrated by the findings showing how the extra supports provided to students who failed in traditional schools have allowed them to succeed in the online blended school model. According to Phillip,

> Academic outcomes are very good. If we can get them to come to school and do their work, they do very well. I do creative things to get them through academically. If we can get them through the door, we can help them.

Tacoma discussed the difference in models:

> I think the attention the kids get here is important. I think a lot of students who come here are the ones who were sitting in the back of the classroom and ignored. Or they acted out, and the teacher threw them out and didn't bother . . . some of our kids have ADHD or can't sit down so sometimes you must chase them or go get them and tell them to sit down. You need a special teacher to work here. Our students just couldn't make it in a traditional school, you must be patient put up with a little noise; you need to be patient with students who just can't sit down for three hours. You must realize they are just kids; even though they look like a grown man, they are just kids.

Interest convergence, the fourth tenet of CRT, acknowledges that the progression for Blacks is only readily accepted when it does not infringe upon the self-interest of Whites or acts for the benefit of Whites. Interest convergence or White domination serves important purposes,

both psychic and material (Dunbar, 2006). "Because racism advances the interests of both White elites (materially) and working class people (psychically), large segments of society have little incentive to eradicate it" (Delgado & Stefancic, 2001, p. 7). The charter model affords flexibility in school design, curriculum, and operations in return for additional accountability (Caitlin et al., 2009; NAPCS, 2013; Wohlstetter et al., 2011). The flexibility afforded this model offers nimbleness in adjusting to student needs not possible in a traditional school model. Charter schools face strong levels of accountability as legislation regulates charter school oversight with dire consequences, including school closure for failure to meet the expectations outlined in the charter. Charter schools are held accountable for student outcomes. The technology enables a system of accountability. "The aim of socially just pedagogy is to provide students with equitable access to learning opportunities" (Carpenter-Ford, 2013, p. 372). Several of the participants felt that because African American students' learning did not directly impact the teacher, the majority of whom did not look like them, the lack or desire to develop relationships with students from diverse backgrounds inhibited their schooling experience.

Summary

The participants in this present study asserted that the flexibility in virtual and blended learning promoted better opportunities for teaching and learning. Research has shown multiple benefits of online schools and online schooling that include increased access to high quality teachers; personalized learning; increased flexibility for parents, students, and teachers; improved productivity and efficiency; and innovation (Cavanaugh, 2009; Dillon, 2011; Tucker, 2007). The teachers credit technology with making them better teachers by reducing the time spent on paperwork and reallocating the time toward content knowledge and one-on-one time with their students. Free from a static curriculum, the online learning model empowers students

to work at their own pace and take control of their learning. Many of their students had negative schooling experiences. The participants argued technology helped students feel capable of learning. The participants credited flexibility with allotted time for relationship building as helping them to adapt to student needs. The educational needs and learning styles of African American students were not conducive to virtual only learning models. This demographic needed the support of face-to-face teacher interactions.

CHAPTER 6

DISCUSSION, RECOMMENDATIONS AND IMPLICATIONS

Discussion

A well-documented disconnect exists between African American students and traditional school models, and this consistently results in poor academic outcomes. Despite decades of research and the investment of billions of dollars, brick and mortar teacher-centered schools continue to disproportionately fail to meet the needs of African American students.

Freire (1998) asserted that education must "begin with the solution of the student-teacher contradiction, by reconciling the poles of the contradiction so that both are simultaneously teachers and students" (p. 53). His writings advocated that for true learning to occur, students and teachers must become learners. He described the ineffectiveness of the deposit method, which views students as containers in which teachers deposit knowledge. "The more students work at storing the deposits entrusted to them, the less they develop the critical consciousness which would result from their intervention in the world as transformers of that world" (Freire, 1998, p. 55). Yet, schools continue to operate on the premise that the role of teachers is to simply teach, and the role of students is to learn with little to no differentiation based on learning styles or life circumstances.

Freire (1998) passionately expounded on the mechanical flaw in the current system and offered an approach that he believed mediated the learning-teaching disorder in the classroom.

The flawed conception, Freire explained, was the oppressive depositing of information (hence the term banking) by teachers into their students.

> In problem-posing education, people develop their power to perceive critically *the way they exist* in the world *with which* and *in which* they find themselves; they come to see the world not as a static reality, but as a reality in process, in transformation. (Freire, 1998, p. 64)

It was his further assertion that "whoever teaches learns in the act of teaching, and whoever learns teaches in the act of learning" (Freire, 1998, p. 31). Participants in the study stated, "Online learning provides a way to transform information in a mutually inclusive manner."

Although the United States overall has achieved some academic achievement gains, the racial and socioeconomic achievement gap remains (Christensen et al., 2008; Reardon, 2011). The racial achievement and opportunity gap is demonstrated by "standardized test scores, high school dropout rates, high school completion rates, college acceptance and retention rates" (Glass & Welner, 2011, p. 1). Although efforts to close the racial achievement gap over the years have experienced small successes, studies continue to show the existence of academic achievement disparities between African American and Caucasian students. In fact, according to an Education Trust (2014) report, "African American and Latino students have made little to no progress in 12th-grade reading scores since 1994, continuing to lag behind White students" (p. 1). Technology provides a vehicle for meeting the needs of students with varying interests, backgrounds, abilities, and learning needs. Participants stated the flexibility of virtual school models empowers both teachers and students to take charge of the education experience using differentiated instruction. This approach transforms learning environments into dynamic communities of practice populated with connected learners taking advantage of digital tools.

Virtual schools offer a way to circumvent some of the challenges of traditional brick and mortar charter schools by providing cost-effective quality educational access to all. Research has shown multiple benefits of online schools, including increased access to high quality teachers; personalized learning; increased flexibility for parents, students, and teachers; improved productivity and efficiency; and innovation (Cavanaugh, 2009; Dillon, 2011; Tucker, 2007). One of the major benefits identified by the participants that aligned with the research was flexibility. This flexibility included time, place, and content. Students enter school at a variety of levels. In the quest for standardization, schools fail to include academic levels and learning styles as factors for success in traditional schools. The participants discussed how technology allows the flexibility to support students by meeting students where they are and adjusts in "real time" to their individual needs.

Although America evolved from the age of industrialization to the world of technology, and ubiquitous computing starts at earlier ages, schools have been slow to adapt (Intel, 2013). The click and point generation or generation text enter schools especially in urban areas mired in 200-year-old teaching methodologies. During the industrialization era of the early 1800s, public school enrollment increased substantially in response to the increase in students; teaching went from personalized to standardized learning. These teacher-centric classrooms with standardized curriculum replaced personalization and continued to dictate the learning experience for many students. Teaching involves using a prescribed approach to teach a generic curriculum to everyone in the classroom at the same time. In the era of accountability, teachers focus on what will be tested and neglect other subjects. Christensen et al. (2008) defined student-centric technology as software "that can help students learn each subject in a manner that is consistent with their type of intelligence and learning style" (p. 90).

Despite the need for additional preparation to compete in a technology-driven, knowledge-based economy, entering today's urban classroom evokes memories of classrooms 30 years ago minus a few computers. Although schools have invested in technology, spending over $60 billion within the last 20 years, urban students remain deprived of this potential as computers mainly languish in the back of classrooms or in computer labs. Instead of embracing ubiquitous computing common to today's students which transcend race and income level, trips to the computer lab and computer usage are treated as an extracurricular activity, not an everyday part of the school experience.

A major component of student failure is cultural incongruence between African American students and school systems. Traditional models assume that all students learn in the same way and at the same pace and have the same learning needs. Academic outcome data, especially for African American students, show these models do not meet the needs of most students. As one seeks models to interrupt the dismal education results, virtual learning has been supported as a means to democratize the educational experience for all students and to enhance access to educational options, including low-income and racial/ethnic minority students with limited educational opportunities (Merrill, Cooper, & Bird, 2011).

As stakeholders seek models to disrupt negative academic outcomes and transform education, stakeholders described e-learning as important as the 1954 *Brown v. Board of Education*, the landmark case that legally ended segregation in public schools. Although *Brown v. Board of Education* theoretically outlawed separate and unequal schools more than half a century ago, African American students often lack equal access to a quality education. The ruling reduced the number of African American teachers and administrators (Journell, 2007). A multitude of methods and models have been tried with limited to no success. Consequently,

Horn (2014) depicted online learning as the first disruptive innovation in education since the printing press. It is his contention that online learning had an opportunity "to transform teaching and learning to better serve each individual student within each school by personalizing and humanizing learning—and undo the factory-model assumptions that dominate our schools and treat uniformly students in the process" (Horn, 2014, p. 1). He argued that today's education systems act as a sorting system, and "those students who can't keep up with the pace are sorted out at various intervals—an arrangement that worked fine for many in the past, but in today's knowledge economy is no longer okay" (Horn, 2014, p. 2).

These challenges are especially critical for African Americans who remain shut out from high-paying career opportunities. The lack of income opportunity impacts generations. Discussing the need for higher skills for African American students, BAEO (2015) argued,

> If we want to change Black students' outcomes in higher education, we must change what they learn in pre-K–12 education, particularly in reading, math, and science. If we fail to do so, our students will be locked out of colleges and jobs that require higher-order thinking skills. (p. 15)

A plethora of research exists addressing the disconnect between African American students and teachers who do not share their race and or cultural backgrounds. Some research shows how online models somewhat close these gaps. In the age of accountability, standardized tests have become the primary determinant of whether a student has learned a particular set of assessed knowledge and skills. "Such limiting of the curriculum narrowly defines literacy as achievement on a test and may not reflect the literacies or lived experiences of African American students, alienating them and leading to their disengagement from schooling" (Carpenter-Ford, 2013, p. 373). The findings of this study with Carpenter-Ford's (2013) argument that being

limited in terms of what can be taught to ensure that all components of a standardized test jeopardize authentic learning and limit opportunities for relevant and necessary knowledge and skills to be taught in an engaging capacity that meets the needs of all students. The flexibility of online learning was considered a way to circumvent some of these issues.

Specifically, for African American students, the findings agreed with Carpenter-Ford (2013): "Culturally congruent communication that makes school feel like home can enhance African American students' participation in classroom discourse and engagement in subject matter learning" (p. 373). The participants in the present study agreed with this assertion that students need to connect with teachers because students often feel that teachers just do not care. Noddings (1992) addressed how expanding knowledge of students' academic needs and developing relationships helps teachers to become better teachers. Christensen et al. (2008) argued that one of the benefits of online learning is the increased access to high-quality teachers. Not only did the teachers agree with this argument, but also they felt the flexibility forced them to be better prepared and helped them become better teachers. These skills help to empower students to be better students.

C. Maxwell (2016) argued that the Flex model gave students significant control over their pace and path throughout almost all of a course. This aligned with Christiansen et al.'s (2008) depiction of virtual learning as a disruptive innovator, replacing the monolithic mode of teacher-led instruction which has been proven ineffective for diverse populations. The findings in the present study asserted that the one-on-one time made them better teachers. It was their contention that the model afforded freedom and independence for both the teachers and students.

Molnar et al. (2014) posited, "Virtual schools force us to reconsider the limits of educational conceptions of time, like class periods, grade levels, six-hour school days, and 180-

day school years" (p. 1). The findings in the current study concluded for African American students that the typical school day was incongruent with life circumstances. According to the findings, sometimes life gets in the way for students who face challenges like having to work to support their families and their children. In alignment with the literature, the participants discussed flexibility as a key component for online school models. Instead of the traditional 8 am to 3 pm school day, virtual schools offer different sessions and individualized scheduling. Students who need to change their schedules have that flexibility. Instead of having prescribed lessons for 45 to 50 minutes, the teachers can, in real time, measure the engagement and understanding levels of the student and adjust the lesson accordingly.

As an African American teacher and school leader, I have an urgent need and desire to see positive changes in education reform to help level the playing field for African American children to excel and achieve at the same levels as their White peers. Although the components of online learning models appear to be congruent with the needs of African American students, the data and research shows there are barriers to academic success.

One barrier is access to the appropriate technology and Internet speeds that are required for an optimal online learning experience at home. According to the data, many schools provide laptops or desktops to low-income families for students to use in their home environments. Having access to the hardware is not fruitful unless families have high-speed Internet access within their homes. It is common for many low-income families to rely on the Internet connections provided by their cell phones, which does not preclude that these same families are able to afford high speed Internet in their homes. The curriculum modules within the learning management systems are only accessible online, and dial-up Internet or an unsecure cell phone hotspot connection will not allow students to access the required assignments and materials. The

online curriculum cannot be accessed using mobile connections, which is a common misconception.

In addition, it is assumed that parents and students know how to manipulate and engage with the technology. Students and parents are offered an online learning module detailing how to access the modules, complete lessons, take attendance, monitor progress (just because a student is sitting in front of a computer does not mean they are on-task and completing school work), and check grades. The assumption is that they know how to complete this task, without face-to-face or hands-on assistance. If parents work multiple jobs, are unable to read, or are simply not engaged with their child's education for whatever reason, this task often does not occur, hence starting the student and family off on the incorrect path for school success.

Although flexibility is a powerful lever, it can also have a negative adverse effect. Based on teacher interviews, the largest disengaged student body population was African American students. The online learning model is designed to have a parent at home to help monitor progress and stand in proxy of the classroom teacher. Most African American families are not afforded the opportunity to remain at home during the school day and serve in the capacity of a home learning coach or guide. The anytime learning concept often results in learning not occurring. Teachers interviewed share their overall concerns with many of their African American students waiting until the very last minute and often making a plea for a last-minute chance to complete all the work they missed previously in the last few weeks of the semester. This is not conducive to mastery of materials and ensuring proficiency as students progress to the next grade level. As reported by teachers, some students were allowed to complete last-minute assignments in the best interest of the school and end of semester grade report data.

The academic outcomes did not show favorably for African American students, as the

level of rigor of the online curriculum is not comparable to what the students were typically accustomed to. This stems from other components, which were not the focus of this case study. For many African American students, attending an online school is often a last resort option, as they are usually not thriving in a traditional public-school setting. Students are typically below grade level and need additional supports to help catch up, which can be challenging to detect and support virtually. Many African American students who choose online learning have poor experiences with schools, combined with the rigorous online curriculum and the lack of face-to-face learning experiences which can attribute to continued failure for the student.

Research and data show that African American students thrive best in learning environments that offer face-to-face interactions to keep them engaged and excited about learning. It is challenging for African American students to thrive when there are no opportunities for teacher interactions, which help the student get to know and trust the teacher providing them with knowledge for mastery. Lack of student engagement for African American students in this study resulted in the "out of sight, out of mind" mentality that causes the student to further disconnect and disengage in learning. In addition, many African American students' environmental factors impact their ability to commit and engage. If students are required to work or assist with siblings to help support the functions of their home life or are in unsafe or high poverty communities, staying alive and eating are priority. Online school becomes even more irrelevant for them, as the freedom to learn at their own pace often results in zero engagement because they must rely on themselves to get the work done and thus life takes precedence over school.

Online teachers expressed a need for additional training to support the needs of African American and urban students who are not engaging with the online curriculum. The online

teachers discussed frustration, as they are held accountable for poor academic outcomes, but there is not adequate training and support to guide them on best practices. Many online schools market their models with the mantra, "meeting students where they are, and getting them where they need to be." Most online teachers in this case study did not feel adequately trained to live up to this mantra in an online setting with minimal face-to-face contact with students and families. Although training is provided on the uses and functions of technology, online curriculum, and the learning management system, it is not enough. Online teachers in this case study expressed a need for specific training on best practices to support African American students, cultural competence in an online environment, and best practices for teaching students with academic deficiencies who are not capable of completing any of their grade level work without support and assistance. In essence, the online model is a standard "one size fits all" framework for all students, so either it works for you or it does not. This is much like the framework of traditional public schools that many years of education reform has been working to improve.

Recent 2017–2018 Indiana data regarding the academic outcomes of online and charter schools in Indiana further add to the data gathered from this case study. During a recent informational meeting with the Mind Trust as part of their Indianapolis Public Schools Innovation School's partnership, the selection team stated that they decided to not take a strong consideration for new innovative school model proposals involving online learning, as they were closing throughout the nation due to poor academic achievement. In 2017, two blended online learning schools, Carpe Diem, were mandated to close due to poor academic outcomes. In addition, Carpe Diem had just built a brand-new building, which was never occupied by students, using one million dollars of federal and state funding for construction. In 2018, three

Indianapolis charter schools closed due to finance and/or poor academic outcomes. Hoosier Academies Virtual School managed by K12, Inc., Nexus Academy (Blended Online Learning) managed by Connections (Pearson Learning), and Indiana College Prep Charter School all closed after the Mayor's Office or Ball State University Charter School Office ordered their shut down. All three charters were revoked.

Recommendations for Further Study

Is it possible to take parts of online learning that have been proven effective for White, K-12 students' academic success, based on research, and see how they can be adapted to meet the educational needs of African American students? We must look through the lens for whom online learning really works and how they deem it as effective. Online learning models market the school as allowing students to work at their own pace, giving freedom and flexibility for students to have non-school commitments that must be completed during "normal" school hours; teachers have the ability to adjust the curriculum to best meet the needs of students; additional time is available to complete more challenging assignments; students and teachers are able to work from the comforts of their homes while learning; and there is greater access to a wider variety of courses that traditional public schools may not be able to offer, such as world languages and AP courses.

Further research also needs to investigate what type of student online learning best supports. The research would need to include but not be limited to student and family demographics, student grades, standardized test scores, discipline records, and individual learning styles. Once the student profile and the highest functioning parts that contribute to academic success for students are discovered, further research needs to investigate how these components can be translated effectively to help improve academic outcomes of African

American students. A clear definition of online learning does not exist. It is difficult to measure progress or effectiveness when decision makers have different understandings of what online learning looks like, which further impedes research. How can this be further researched and investigated to get everyone operating with similar understandings?

K-12 Education

A silver bullet for school reform does not exist. There is not one single thing that will close the large academic achievement gap that exists between black and brown children in relation to their White peers. The only silver bullet is to have a completely homogenous group of students cloned to operate in a specific model that is implemented across the United States in all schools with a high level of fidelity so that it would be seamless for a child who was transient for any reason. This will not happen, nor should we ever desire for this to happen, as the world is composed of culturally rich, diverse groups of people with many different gifts, talents, mindsets, skillsets, and abilities that allow this nation to grow and evolve.

Schools must be cognizant that all students who attend their schools are not the same, and their school model must reflect this reality. Schools must make informed education delivery decisions based on the current student body population as trends are tracked to prepare for the future generation of students that will arrive into their buildings in the future. Schools should not be shocked, unaware, or ill-prepared when their student demographics change, but they usually are. Failure to plan for future trends sets schools up to fail. Lack of planning and preparation is failing students daily in schools across the nation. Schools must allocate funding to track trends and prepare teachers and students to embrace all students, current and forthcoming.

The tools needed to meet the needs of students must be a priority, and teachers must be properly trained and given opportunities to model understanding of learned practices in

preparation for the next level of teaching and learning that must occur to meet the needs of all students. Prior to investing in the next program—technology initiative, the most talked about reform model, or hottest buzz words in education—schools must conduct a thorough needs assessment of their school and determine what will work best for the students they currently serve and forecast serving in the upcoming years. Something that works best for one school does not mean it will work best for another school, as they are not the same.

Students, Parents, and Families

School choice sounds great in theory, but it can be warped in translation and practice. It is important for families to make informed decisions and not choose solely on recommendations of others or what sounds easiest or most appealing. School choice was designed to allow families the opportunity to send their children to schools that most align with the individual student needs. School choice works to eliminate the one size fits all mentality that has been deemed by many legislators, researchers, and lawmakers as one of the causes of the academic achievement gap that exists between students of color and their White peers. Families must carefully assess the learning styles of their children to make an informed decision. If families do not feel comfortable making this decision, the families must connect with someone they trust and feel comfortable supporting them in choosing the right school for their student. Parents must be given information from schools that go beyond what their model promotes; the schools must be open and honest regarding the type of student that would best benefit from their model, as opposed to trying to make the model fit to the student to increase enrollment, because this only perpetuates what school choice was designed to eliminate.

It is also critical for families to engage with the schools their children attend. In order for families to make informed decisions, they must know what is going on in the school building

they send their children to everyday, outside of the parent-teacher conferences and open houses. Many families are forced to work several jobs to provide housing and resources for their families, so schools must be flexible in the types of opportunities afforded to families to give them an opportunity to be a part of the school, as opposed to assuming that they do not come because they do not care. Just because school choice exists, it does not mean that the local school district, where they student is assigned to attend based on state zoning boundaries, is not a great school for the student. If the model is working, it is not in the best interest of the student to make a change. Change should only be made if there are clear indicators that they student is not excelling and seeing the measurable growth parents desire to see to ensure their child is prepared for post-secondary life, which may or may not include a college-bound track. Another common misconception is that college is for everyone, which once again falls into the assumptions that align with a one size fits all model, which school choice was designed to eliminate.

Implications

Online learning is an ideal learning model for introverted learners, students with high levels of self-discipline, natural learners who operate well being taught without needing face-to-face accountability, or students who are afforded a parent who is able to stay at home and serve as the full-time teacher in partnership with the licensed online teacher responsible for partially delivering instruction and grading assignments using the correlation with the learning management system. Fully virtual is not a best practice to help close the achievement gap with African American students, unless there is a blended learning infusion that provides students with a licensed face-to-face teacher who is able to teach and support them while using the online curriculum as a tool to supplement and allow flexibility to complete work outside of traditional school hours or at different points during the school day that work best for the students.

The idea of flexibility must have parameters, and lessons must be paced when working with African American students, without the option to permit students to complete work at the end of the semester which does not lend itself to learning or mastery. This process will take strategic planning and preparation by school systems with clear systems and measurable outcomes to ensure fidelity to the model and provide tangible evidence of learning to support closing the achievement gap.

Limitations

1. Finding successful virtual learning school models that were able to meet the African American student demographic requirement was a limitation for this study.
2. Lack of parental support was another limitation. Virtual school models depend on a parent to be actively involved and engaged with their student at home. Parental engagement may depend on providing parents with assistance in how to help the students at home using a computer and technology.
3. Charter school models constantly evolve from their original design to meet the needs of the students they serve, which is accounted for within the charter agreement but may not be reflective of the original school design model that is marketed to potential families.
4. Charter schools are relatively new; therefore, greater accountability, monitoring, and expectations are more recently in place. As a result, measuring for charter schools outcomes is more recent, accounting for limited access to data.

Conclusion

A need continues to exist for more research around the data pertaining to virtual and online learning school models. Online schools have been around for fewer than 20 years. They

have not been around long enough to gather enough data. My desire to complete this case study and add to the research was to allow districts to make informed decisions regarding school models that work best for the student populations they serve, and thus, there must be more research around the data. As with any form of school reform, time is required to determine effectiveness, so it is critical that the intent of the reform and the lives of the children it will impact guide all decisions. The right people must be seated at the decision-making table to guide progress and stay grounded in the work. If developed and implemented with fidelity, blended learning could be a viable school reform option for African American students to help close the academic achievement gap and improve graduation rates.

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APPENDIX A: TEACHER INTERVIEW QUESTIONS

1. Identify the overall benefits of virtual school models. (Cavanaugh, 2009; Christensen, Horn, & Johnson, 2008; Dessoff, 2009)

2. How do these benefits align with the needs of African American students? (Laing, 2010; Porter, 2012)

3. Identify the overall challenges of virtual school models. (Cavanaugh, 2009; Christensen, Horn, & Johnson, 2008; Dessoff, 2009)

4. How do these challenges align with the needs of African American students? (Laing, 2010; Porter, 2012)

5. Discuss your school model and compare how components of this support or hinder the needs of African American students. (Laing, 2010; Miron & Urschel, 2012)

6. How has the role of a virtual teacher changed how you teach (i.e., preparedness, time, and number of students)? (Tallent-Runnels et al., 2006; Tucker, 2007)

7. Discuss your teacher training. Is their additional training for supporting the needs of students from diverse backgrounds? If so, what supports are provided? (Miron & Urschel, 2012)

8. How are teachers held accountable for student achievement? How are students and parents held accountable? (Miron & Urschel, 2012)

9. What are the most important skills for virtual teachers and do these skills differ from traditional teachers? (Molnar et al., 2014a; Rocha, 2007)

10. What is the role of parents in this model? How are parents supported? (Miron & Urschel, 2012)

11. What are student expectations, and how are students supported in conforming to these expectations? (Miron & Urschel, 2012)

12. Describe the demographics of your school. Describe the outcomes of African American students. (Miron & Urschel, 2012)

13. How do virtual schools support the needs of African American students in comparison to traditional public schools? (Laing, 2010; Porter, 2012)

APPENDIX B: RECRUITMENT E-MAILS

SCHOOL LEADERS:

Dear School Leader,

My name is Tora Townsend, a doctoral student at Indiana State University. I am conducting a dissertation case study on ONLINE LEARNING ENVIRONMENTS AS PROVIDERS OF ASSISTANCE TO AFRICAN AMERICAN STUDENTS. The purpose of this study is to explore the influence of K-12 virtual school models on the educational outcomes of African American students. This study will examine the impact of the relationship between virtual schools and the academic success of African American students in Kindergarten through Grade 12. Initially, I would like to schedule a 45-60-minute conversation with you to discuss the study protocol, or we can communicate via e-mail based on your preference if you are willing to participate. I would then like for you to recommend teachers to participate in the study and/or allow me to contact your teaching staff through you via e-mail to seek their voluntary participation. I am seeking participants who may be willing to provide insight on the role online education plays in supporting the needs of African American students. If you have any questions, you may contact me directly at ttownsend5@sycamores.indstate.edu or 317-525-8297. Thank you for your support.

Respectfully,

Tora Townsend

POTENTIAL PARTICIPANTS:

Dear Potential Participant,

I am reaching out to you as an important member of the online learning teaching family; I would like to interview you on your experience. My name is Tora Townsend, a doctoral student at Indiana State University. I am conducting a dissertation case study on ONLINE LEARNING ENVIRONMENTS AS PROVIDERS OF ASSISTANCE TO AFRICAN AMERICAN STUDENTS. The purpose of this study is to explore the influence of K-12 virtual school models on the educational outcomes of African American students. This study will examine the impact of the relationship between virtual schools and the academic success of African American students in Kindergarten through Grade 12.

I am seeking current and former grades K-12 online learning model teachers for a one-on-one, 45-60-minute interview session where you will have the opportunity to tell your story. Please participate in this opportunity to provide insight on the role of online learning school models in supporting the needs of African American students. If you are willing to participate, you will be asked to participate in an initial in-person interview, lasting about 30 minutes, to explain the purpose and structure of the study and to complete an informed consent form. We will then schedule a 45-60-minute time for you to share your experiences with me. This opportunity is completely voluntary, and you do not have to participate. If you have questions, please feel free to contact me at ttownsend5@sycamores.indstate.edu or 317-525-8297. I look forward to hearing from you soon. Thank you in advance for your participation.