A Study of Curriculum Development and Reform in Residential Schools for the Blind in the United States: Three Case Studies

By

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Abstract

This study was conducted to understand curriculum development in residential schools for the blind after the enactment of NCLB and was guided by the research question, "How do residential schools for the blind and visually impaired develop their curriculum to meet the unique needs of students who are blind and visually impaired?" In the United States, approximately 6.5 million children and youths receive special education and related services to meet their individual needs (US Department of Education, 2007). The federal law mandates that students receive adequate education privileges and opportunities relative to their respective disabilities (Hess & Petrilli, 2006; Welner & Chi, 2008; Hunt & Lasley, 2010). However, there is great disparity among states and local school districts on what is deemed an appropriate education for this population of students (Sears & Moody, 2001; Wallace, 2010). In addition, learning outcomes do not easily convey an achievement of learning goals on the part of the students, specifically learning the skills and abilities to integrate themselves into society and become well-adjusted individuals (Rice, 2009).

Given the broad range of disabilities and the variance within disability categories, it is extremely difficult to identify and articulate an all-inclusive definition or statement on what is appropriate for these students to be taught and to learn. This issue of identifying what students in special education should be taught and what they should learn reveals an even more pressing concern and one that has led to the focus of research on specifically one disability group, the blind and visually impaired. This dissertation presents a case study of three residential schools, where data were collected through interviews with the relevant teachers on the development of the curriculum after the No Child Left Behind Act. The findings of the study suggest that even though residential schools continue to improve their curriculum in compliance with the established state standards, there are still several challenges that need to be addressed.

CHAPTER 1

1.0 Introduction

In the United States, approximately 6.5 million children and youths receive special education and related services to meet their individual needs (US Department of Education, 2007). The federal law mandates that students receive adequate education privileges and opportunities relative to their respective disabilities (Hess & Petrilli, 2006; Welner & Chi, 2008; Hunt & Lasley, 2010). However, there is great disparity among states and local school districts on what is deemed an appropriate education for this population of students (Sears & Moody, 2001; Wallace, 2010). In addition, learning outcomes do not easily convey an achievement of learning goals on the part of the students, specifically learning the skills and abilities to integrate themselves into society and become well-adjusted individuals (Rice, 2009).

Given the broad range of disabilities and the variance within disability categories, it is extremely difficult to identify and articulate an all-inclusive definition or statement on what is appropriate for these students to be taught and to learn. This issue of identifying what students in special education should be taught and what they should learn reveals an even more pressing concern and one that has led to the focus of research on specifically one disability group, the blind and visually impaired. Concerning students who are blind and visually impaired, the questions now relates to how residential schools for this group develop their curriculum to meet the unique needs of students who are blind or visually impaired.

While there is an established research base regarding the nature of the work of principals, teachers, superintendents, and other professionals in the field of education (Kelley and Peterson, 2001, Peterson, 1996, Peterson, 1986, Jackson and Peterson, 2001), there exists little to no research on the roles of leaders in curriculum development and reform in residential

schools for the blind. More specifically, an extensive review of current literature, revealed no empirical studies about curriculum development in residential schools for the blind, particularly pre- and post-standards based reform movement.

Since the creation of systematic public schooling in the U.S., the issue of what schools should include in the curriculum has always guided and dictated what type of instruction students receive in the classroom. This issue is complicated by the fact that restrictions are imposed on students (whether fairly or not) that constrict what type of instruction they receive and thus, what they are prepared to do once they exit the public school system. Sometimes, these restrictions are warranted, based on a student's level or type of disability and sometimes they are not. In some cases, districts and schools simply do not provide to students with disabilities certain types of curricula solely based on the fact they have been identified as needing special education services. This practice can be interpreted as setting low expectations for students with disabilities which limits students from achieving at their fullest potential. This practice can also inhibit students with disabilities from receiving the instruction and preparation necessary to thrive post-graduation.

All schools serving students with disabilities are responsible for preparing students for their future and for practical existence outside of the classroom. This includes residential schools serving students who are blind and visually impaired. These schools should not be excluded from the responsibility of developing and reforming a rigorous curriculum that adhere to the standards of accountability, balances the needs of students, and adequately prepares students who are blind to become self-sufficient and self-sustaining adults.

Over a decade ago, the No Child Left Behind (NCLB) Act exposed states to a series of challenges regarding the establishment of statewide standards and assessments, and strict

accountability requirements. However, the United States – one of the most developed countries in the world – still lags behind other countries with reference to student academic performance and in preparing students for the life beyond classroom. The United States Department of Education expects that by 2014 the performance gap between students in the United States and students from top performing countries should be minimal (Daggett & Gendron, 2010). The NCLB Act emphasizes the need for inclusive education, where all students – disabled or not – have equal access and opportunities to educational programs. Where specialized instruction is needed, the Individuals with Disabilities Act (IDEA) was reauthorized in 2004 in alignment with the NCLB Act. IDEA consists of provisions for the Individualized Education Programme (IDEA) which compels teachers to design disability-specific curriculum or instructional programs so to ensure that students with disabilities have their unique academic needs accomodated within the classroom setting.

In recognition of the need to strengthen educational standards, the federal government of the United States placed new mandates on schools that receive funding through the American Recovery and Reinvestment Act of 2009 (ARRA), with an allocation of $100 billion for the improvement efforts in schools. Out of the total funding, $4.3 billion Race to the Top (RTTT) fund has been directed towards innovative education reform. The innovative education areas are categorized into four the four areas priotized under ARRA. Furthermore, the government requires new ways for the alignment of the Elementary and Secondary Education Act (ESEA) to the college- and career-ready standards (Daggett & Gendron, 2010). It is important to note that in compliance with the NCLB Act, students who are blind and visually impaired undergo through a curriculum and instructional program that prepares them in accordance with the college and

career standards. Essentially, the impact of the federal education initiatives should be felt by every student, including students who are disabled.

1.1 Background

The landscape of educational opportunities for blind and visually impaired (BVI) has witnessed major transformation since the early 1800s. In the United States, residential boarding schools for the blind traditionally served as the primary source of education for students who are BVI and catered for between 90 to 95% of this population by 1935. Residential schools for the blind were considered as academic institutions at the same level with other public schools (Masoodi, 2004). Today, the educational landscape in the United States has assumed a completely new direction. According to a research conducted by Heward (2003), it was established that by the year 2003 only 8% of students who are BVI were found in residential schools for the blind, while a major percentage of the students who are BVI attended local schools (DeMott, 1993; Oyinlade & Gellhaus, 2005). Generally, the role of residential schools has assumed a new twist and the schools currently accommodate even multiply-handicapped children who learn mostly functional rather than academic skills (Mann, 2006). This background section offers a brief history of residential schools for the blind or BVI education in the United States, while emphasizing the legal requirements and standards, policy changes, and development of a number of changes with regard to educational opportunities for BVI students.

According to Lowenfeld (1981), people with visual disabilities were considered as defective, expendable, or even killed in the ancient times since they made no contribution towards the development of the community. It was until the rise of the monotheistic religions that the need to care for and shelter blind people in the society emerged. The religious motivation provided an atmosphere of charity for individuals who were blind to began to make

considerable strides in their own right. Among the legends of these times who achieved fame due to their personal achievements included Francois Huber (1750-1831), Thomas Blacklock (1721-1791), Nicholas Saunderson (1682-1739), and Marie Theresia von Paradis (1759-1824). People who were blind were among the first people with disabilities to attain recognition as beneficiaries of the rapidly expanding education landscape. The recognition stemmed from the demonstration made by individuals who were blind themselves that even in the absence of formal education they could be at par with people who were sighted in terms of responsilbilty and development (Ferrel, 2007).

Ferrel (2007) notes that the wake of the first half of the 19th century saw the establishment of schools for the blind in the United States, not to isolate/segragate them from the common population, rather as an indication that students who are blind and visually had the skills and capabilty to contribute towards the well-being of the society. Notably, manadatory education had not assumed a universal dimension by this time, thus a good number of both blind and sighted children were not attending school. The newly established schools for the blind affirmed the untapped potential of children who are blind in a society that hardly perceived education as a socio-economic and political goal. It is important to note that children with visual disabilities had not been excluded from the education system compared to the manner in which children with other disabilities were excluded (Ferrel, 2007). Irwin (1955) observes that residential schools for the blind in the United States adopted the model of boarding schools in Europe. In essence, students who are blind had similar academic curriculum standards as those used in public schools. By mid-20th century, the operation of these schools had assumed the trend of private schools and received considerable recognition due to the quality of education they offered. Most of the residential schools for the blind adopted a cottage system of residential

living, which was designed more or less like home environments (Hatlen, 2000). In 1900, public school classes for students who were BVI began, especially in the major cities, and by the 1930s residential schools for the blind started admitting secondary students in local high schools (Ferrel, 2007).

The first residential school for the blind in the United States was opened by Samuel Gridley Howe in 1832 – currently the Perkins School for the Blind in Massachusetts. The traditional idea was to make the Perkins School a preparatory academy, which additionally offered vocational and life skills to students who are blind and visually impaired. The subsequent years saw a rapid expansion of education for the blind, and by 1910 a considerable number of States had established schools for the blind (Masoodi, 2004; Erin, 1993). In 1885, the Washington Territorial Legislature established the Washington School for the Defective Youth, which enrolled blind, deaf, and "feeble-minded" students. Following the establishment of separate facilities for the "feeble-minded" students in 1905, the school was renamed Washington State School for the Deaf and Blind. The school was inspired by Perkins School for the blind, further strengthening its role as an academic institution. The Washington Legislature advocated for the seperation of the students who were blind and deaf, which saw the establishment of two separate institutions for the deaf and blind – the Washington State School for the Blind (WSSB). During the 1940s and the 1950s, the educational landscape in the Washington State School for the Blind paralleled in all aspects the public school academic curriculum standards of the state right from kindergarten through the 9th grade (Masoodi, 2004).

The 1950s witnessed an explosion in the number of atudents who are BVI which was coupled by a radical shift in the role of residential schools for the blind. This period was characterized by the birth of a large number of premature infants who were diagnosed with

retrolental fibroplasis (RLF) or Retinopathy of Prematurity (ROP) – the largest single cause of blindness ever recorded (Masoodi, 2004). Retrolental fibroplasis was caused by excessive administration of oxygen to premature children at birth, and since prematurity is a receipe for various infant developmental problems, for instance neurological impairment, this period witnessed multiple disabilities. Between 1950 and 1960, the number of BVI children had grown by 158%, and by another 50% between 1960 and 1970 following the rubella epidemic during the mid-1960s. This sudden increase in the number of students who were BVI placed a lot of pressure on residential schools (Masoodi, 2004; Ferrel, 2007; Mann, 2006).

As a result of the change in size and composition of students with BVI, the period between 1950 and 1970 saw two important developments in the educational sector across all states – the admission of children with multiple disabilities in residential schools, and the massive implementation of programs for students who were BVI in public/local schools. Over the next years, the number of students enrolled in residential schools across the United States dropped significantly as relatively large number of students who were BVI opted to transfer to their local school districts. The residential schools mostly accomodated students multiply-disabled, which marked a major transition for the residential schools for the blind. Within a period of only a few years, Masoodi (2004, p. 53) notes that, “schools who justified their existence by claiming to be normalizing institutions for a population too small to be educated in local districts, to residential institutions who served some of the most severely multiply disabled children in their respective states.” Currently, there are 39 residential schools for blind across the United States. This admissions decision changed the core of these institutions across the United States:

> It was a tremendous shock when most of the new applicants were kids with multiple disabilities. At the California school, my office was next door to a classroom where there was a blind teacher who taught algebra, geometry, Spanish and French. I literally saw her go within two years from those classes, to changing diapers on 12 year-olds. It happened that dramatically. In 62 when I went to the school for the blind it was almost entirely academic – in 66 when I left it was almost entirely ungraded (Interview with P. Hatlen, 2003 as cited in Masoodi, 2004).

The passage of the **Education for All Handicapped Children Act (PL-142)** by the Congress in 1975 brought an end to the era of residential schools as the key provider of education for students who were BVI. Generally, prior to the passage of PL-142, almost 93% of all students who were BVI had enrolled in local schools within their districts. PL-142 emphasized the provision of free, appropriate education and related services in the least restrictive environment (LRE). PL-142 was reauthorized as the **Individuals with Disabilities Education Act (IDEA)** in 1990. IDEA was mandated with strengthening LRE provisions, and it emphasized the provision of education in regular classroom to the maximum extent possible. Any time beyond the regular classroom was justified through the student's Individualized Education Plan (IEP). IDEA was reauthorized in 1997 and later in 2004. The reauthorization of 2004 was meant to align IDEA with the **No Child Left Behind Act (NCLB)**, and it included the **Instructional Materials Accessibility Act (IMAA)**, which mandates educators to provide educational materials to BVI students at the same time as sighted students. The 2005 financial year (FY2005) budget for idea authorizes an increase of $1 billion, which implies the spending averaging $1,612 per disabled student for IMAA (Mann, 2006; Masoodi, 2004).

1.2 Problem Statement

Both general and special educators often refer to their students as exceptional children/individuals. This inclusive term applies to individuals who have disabilities or differ from societal standards of normalcy. These differences may stem from significant physical, sensory, cognitive, or behavioral characteristics, and many of these individuals often require educational programs that are customized or designed to meet their unique needs – they are a heterogeneous group with exceptional needs. For instance, a student with a superior intellectual ability may require specialized assistance for students identified as gifted while a student who is blind or visually impaired may require special textbooks in large print or Braille. However, just because a student has exceptional or unique needs does not automatically imply he or she requires special education. Occasionally, the educational needs of the student can be addressed within the general education classroom through alteration or modification of the curriculum and/or instructional strategies.

Professionals as well as the general public often use the terms *disability* and *handicap* interchangeably. However, these two terms – in contrast to popular opinion – are not synonymous but have distinct meanings. When we talk about an individual with a disability, we refer to an individual with an inability or reduced capacity to perform a task in the normal way. In other words, disability is the limitation imposed on an individual as a result of loss or reduced functioning such as of hand muscles. It implies to the inability to perform as other individuals do due to impairment in sensory, physical, cognitive, or other areas of functioning which can cause problems in learning. These limitations are only perceived as a disability when they impede an individual's ability to realize his/her educational, social, or vocational potential. On the other hand, the term handicap implies to the consequence of a disability rather than the disability itself.

Handicap refers to the difficulties encountered by a person with a disability in the process of functioning and interacting with his/her environment.

Historically, individuals with disabilities often faced several forms of discrimination which eventually limit the exploitation of their full potential in the development of the society. In worst case scenarios, they are marginalized and excluded from the mainstream society, and are considered as a curse. Unfortunately, despite the endless efforts of human rights activists and disability rights movements – which seek to halt discrimination against individuals with disabilities – individuals with disabilities in the United States still encounter some form of discrimination. Gargiulo & Kilgo (2011) assert that we must appreciate that an individual with a disability is a person, and a student with more similarities than differences from his or her typical peers. The fact that a student has a disability should not deter us from seeing how typical the student is in many other ways. Teachers are encouraged to focus on the students rather than their impairments; appreciate the student's ability and isolate it from the disability; and concentrate on the student's strength rather than weaknesses.

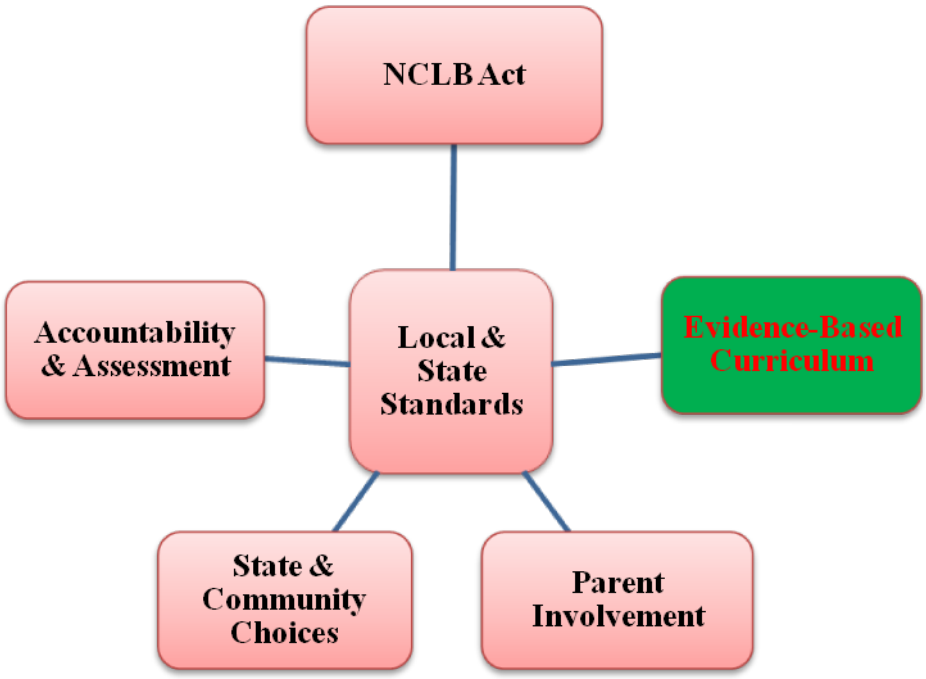
Over the last few decades, there have been dramatic changes in the philosophy and practices associated with the education for students who are blind or visually impaired. Students with severe visual impairments, who hardly had any opportunities for academic success in the general classroom of the 1960s, currently attain their formal education within public schools. The students who use Braille as their primary mode of reading have also been enrolled in the general classroom for a considerable majority of their instructional time. The opportunities for educational programming for students who are blind and visually impaired, which were previously limited, have expanded exponentially with the provision of specialized support that enables the students to attend public schools as their sighted peers. With the establishment of the

No Child Left Behind Act in 2001 and the reauthorization of the Individuals with Disabilities Education Act in 2004, there have been continuous adjustments and modifications of the curriculum for students who are blind and visually impaired in compliance with the defined state standards.

The purpose of this study is twofold. First, I provide a history of U. S. Federal Curricular Policy for the education of the blind. Second, I attempt to shed light on recent history in curricular implementation for the blind by investigating how a small sample of residential schools for the blind made curricular transitions after the No Child Left Behind (NCLB) Act was implemented, specifically in developing and reforming the educational core curriculum for students who are blind and visually impaired. There could be a discrepancy between what current research in the field of visual impairments suggests and what is mandated by both state and federal regulations regarding the education of students with visual impairment (Heldref, 2006). Thus, the mandatory state testing and the requirement for teaching basic academic skills requires residential schools for the blind to provide a quality education during the school day (Heldref, 2006). Generally, residential schools for the blind have been occupied with ensuring that the Expanded Core Curriculum (ECC) (which includes compensatory skills, social interaction skills, use of technology and others will be discussed later in the study) is explicitly taught to students who are blind. While the ECC is important and useful, its emphasis comes at the expense of the teaching of core subject matter. In my professional experience, I have observed that the ECC has overshadowed the core curriculum which has caused students who are blind and visually impaired to lag behind their sighted peers in core academic subjects.

The problem addressed by this research study relates to how residential schools for the blind address the standards based curriculum mandates in the United States (U.S.). To provide background on this problem being addressed, various studies that were conducted from the research-based perspectives will be reviewed. Viewing curriculum development and planning in residential schools for the blind from a research-based perspective is necessary to determine how the changes in curriculum development and implementation occurred. Overall, the goal in conducting this research is to explore the historical underpinnings of curriculum development in residential schools for the blind and visually impaired and to understand how curriculum development in such schools responds to recent Federal policies. This study may assist in improving the quality of education and learning outcomes for this population.

1.3 Conceptual Framework of Hypothesized Factors Affecting Curriculum in Residential School for the Blind



The No Child Left Behind Act is based on four basic pillars: stronger accountability for results, freedom for states and communities, evidence-based educational approaches, and more

choices for parents. First, the newly established state standards compel schools to ensure that all students – including students with disabilities, achieve academic proficiency. The annual state and school district assessment reports provide information to parents, administrators, and the public regarding state as well as school progress. Schools that do not make progress or reach the expected assessment standards must opt for supplemental services including extra tutoring, assessment of the curriculum and instructional programs before developing new ones to improve performance. The focus on accountability will see schools explore all avenues for ensuring effective instructional methodologies are put in place. Second, NCLB emphasizes the need for evidence-based educational methodologies that have proven effective through rigorous scientific research. The federal funding targets programs that have clearly improved student learning and achievement. The curriculum development and reform process should be guided by evidence-based practices in order to increase effectiveness in the program implementation phase. Some of the most successful programs include the Individualized Education Program which emphasizes individualized and disability-specific instruction for students. Ideally, this individualized instruction guarantees the identification of curriculum and instructional needs for each student which will ultimately generate high performance standards.

Moreover, the NCLB Act gives states and school districts (communities) unprecedented flexibility in the utilization of federal education funds. School districts can transfer up to 50 percent of the funds towards core areas including educational technology, teacher training and professional development. All these areas are vital in providing students who are blind and visually impaired with the necessary curriculum and instructional needs. Educators must identify, through assessments, the gaps in curriculum including assistive technology materials so that they can direct funds towards improving education for disadvantaged students. Finally, the

Act gives parents a chance to transfer their children from one school to another within a given school district. As such, parents should be involved in the design and implementation of the curriculum so that they can present their concerns and receive assurance that their concerns are addressed. When parents are involved, the whole process will be readily accepted thus it will limit unwarranted transfer of students from one school to the next. School culture plays an instrumental role in the way the community relates to the school. An inclusive culture creates a sense of ownership and will generally receive acceptance while minimizing chances of conflict.

1.4 Research Objectives and Questions

The purpose of this study is to provide a history of U.S. curriculum policy for the education of the blind over the past 10 years, and to conduct a preliminary investigation of curriculum planning and development undertaken in a small sample of residential schools. To accomplish this objective, three case studies of residential schools for the blind and visually impaired in the U.S. were conducted. Studying three residential schools allowed for exploration of how and to what extent these schools developed curriculum after NCLB to meet defined academic standards for students who are blind and visually impaired. In addition, the objective of this study is to examine the role of the principals' engagement in curriculum development and reform. Specifically, the research was guided by the following questions:

1. What were the challenges RSB face in developing curriculum after NCLB and what were the processes in bringing forth meaningful change in curriculum development?
2. What organizational, political, leadership and cultural factors are associated with the development of standards based curriculum in RSB?
3. How does the ECC fits into the core curriculum in the achievement of the overall curriculum goals?

Through the exploration of curricula development at three residential schools, this study will contribute to the knowledge base about curriculum development and standards based reform in schools. In addition, exploring the research questions and seeking answers to them will shed light on the factors that influence curriculum design in these unique settings. After presenting the case studies the data analysis, conclusions, recommendations for improvement, and implications for further study were discussed.

CHAPTER 2

2.0 A History of U. S. Curriculum Policy for Education for the Blind

This research is anchored to the development of residential schools for the blind in the United States, specifically how the curriculum implemented in these schools were designed to meet the unique learning needs of the students. Exploring curriculum development in residential schools is of high interest especially since planning and development are influenced by measures that are reflective of state and common core standards. In addition, curriculum development should also follow the mandates of accountability. Considering these issues, overall, the goal in conducting this research is to explore the historical underpinnings of curriculum development in residential schools for the blind and visually impaired and to understand how curriculum development in such schools responds to recent Federal policies. To fulfill the research objectives, several bodies of literature must be examined to gain a true and grounded understanding of the problem and where this research figures into existing literature in the field.

The issue that guides this investigation is the idea that a significant percentage of students who are blind and visually impaired graduate high school with few post-secondary options, which ultimately leads to increased poverty among blind and visually impaired adults. There seems to be a disconnect between the kinds of research-based curriculum development and/or reform that occurs in residential schools for the blind and the types and level of preparation that blind and visually impaired students need to become successful and well-adjusted adults.

The goal of reviewing existing literature is to examine research on curriculum development in residential schools and the actual needs of blind and visually impaired students. Moreover, the literature review is expected to serve as a foundation in this study, from which analysis and interpretation of data will be based, with the ultimate objective of providing

recommendations regarding the development of curricula and learning outcomes in residential schools.

The literature review is in three parts. The first part of the literature review frames the problem in the context of schools for the blind, which includes studies and statistics on blind and visually impaired adults, their educational and workforce outcomes, their socioeconomic conditions, literature on the importance of improving post-secondary outcomes for blind and visually impaired and why improving outcomes is an imperative. The second part of the literature review will also help frame the problem and provide a basis for this investigation. This includes a description of residential schools for the blind, a brief history and discussion of the nature and purpose of residential schools, the problems or issues that students observed from learning situations, and the current landscape and what they provide to students. The final part of the literature review will include a review of the types of curricula that are provided to students who are blind and visually impaired including a review of the literature that recommends the implementation of the ECC and suggests this curricular option may be the best preparation for students.

2.1 The Condition of Blind and Visually Impaired Individuals in Society

Literature on the current economic, educational and social conditions of adults who are blind and visually impaired in the United States contributes to the framing of the research problem. A 2004 report issued by the National Center for Policy Research for Women and Families revealed that a small percentage of blind adults were able to complete their high school education, while a large percentage of this population was unemployed. The report states that 40 percent of blind adults (age 18 and over) have not obtained a high school diploma, compared to only 25 percent of the general population (Zuckerman, 2004). Additionally, the report reveals,

over 80 percent of blind adults are unemployed, only 12 percent are college graduates and 1 in 5 lives in poverty (Zuckerman, 2004). Among youth aged 16-21 who are not enrolled in school, only 24 percent are employed (Leonard, 1997). These data serve as the foundation for this research study, which seems to investigate the need for the development of a curriculum that would improve the quality of education for blind and visually impaired students so they can be self-sufficient and well-adjusted after high school.

Aside from the report released by the National Center for Policy Research for Women and Families, other research studies relate the difficulties and challenges that blind and visually impaired adults face after high school, especially related to following career a path. Kirchner and Smith (2005) argued that although existing laws and policies implemented by the U.S. government are in favor of providing equal access to education among the blind and visually impaired, these efforts are still insufficient. The primary problem facing blind and visually impaired adults is career-related. Previous research proved that the prospects of pursuing higher education and establishing a career are favorable after finishing high school, but this has not held true for the blind and visually impaired. Another alarming conclusion revealed by Kirchner and Smith is that education was not seen as a factor in helping blind and visually impaired individuals earn gainful employment after high school; mean that formal education has not improved the life of these individuals in society.

According to Hunt and Lasley (2010), the rate of unemployment among blind and visually impaired adults is high. Almost 50 percent of the total population of adults who are blind and visually impaired in the U.S. are unemployed, and one of the primary factors that contribute to unemployment is the high school dropout rate among their group. Only 45 percent of the total population of individuals who are blind and visually impaired who enroll in high

school graduate and receive their high school diplomas. The remaining 55 percent drop out from high school before graduation. The primary factors that contribute to high school dropout rate among students who are blind and visually impaired includes poverty and inability to pay for high school fees, the severity of their disabilities, and their interests and motivation for attending school. Although the factors are primarily innate in nature, interest and motivation are also influenced by the type and quality of education students receive in school.

Various research studies reveal that students who are blind and visually impaired lose interest in school because they feel discouraged after receiving failing or low grades compared to their peers in the regular or integrated classroom setting. The outcomes of research studies not only highlight the disadvantages of integrated classroom settings for students with visual disabilities, but also emphasize the advantages of residential schools for this learner group. This body of literature emphasizes the importance of acknowledging the benefits and advantages of residential schools in teaching blind and visually impaired students, as well as the importance of improving the curriculum offered in residential schools considering that these schools are touted as ideal learning environment for students who are blind and visually impaired (Reynolds & Fletcher-Janzen, 2007).

Kirchner and Smith (2005) conducted a study to determine whether blind and visually impaired students were able to either pursue higher education or obtain employment after their high school graduation. In the study, 69 percent of the sample population was able to attend a postsecondary institution after high school – four-year and two-year college or university classes and vocational or technical classes. Although 73 percent of the same population held a paid position in the two years immediately following high school graduation, most of the jobs the

participants were able to obtain were not related to their course or planned career, and a majority of this 73 percent who held paid positions only worked part time.

Moreover, the study revealed that the hourly wages that all of the participants received were inadequate in helping them live independently and self-sufficiently. The authors state that, "A possible relevant finding… is that the jobs held by visually impaired youths were generally found for them, often by teachers or counselors; the youths did not find the jobs on their own in the context of career education" (Kirchner & Smith, 2005, p. 503). The poverty rate among adults who are blind and visually impaired is also high. According to Moore, Graves, and Patterson (1997), "the poverty rate of people with severe visual impairment (23 percent) is twice that of individauls who do not have disabilities (12 percent)". In addition, 33 percent of blind and visually impaired individuals aged fifteen to sixty are suffering from poverty.

However, Nagle (2001) highlights several studies that show that employment rates of blind adults are positively correlated with level of education. That is to say that the more education an adult who is blind and visually impaired receives, the better their chance of obtaining meaningful employment. Another study, however, revealed that the educational system implemented for blind and visually impaired students presented problems early on that prevented them from achieving success and becoming well-adjusted in and after high school (Nagle, 2001).

Similarly, several researchers note the benefit to the American economy and the impact that blind adults' workforce participation can have on the economic structure. It is estimated that the cost to the U.S. economy of lower labor force participation and lower wages among the blind and visually impaired is $8 billion (Bosma Enterprises, 2009). This body of literature not only highlights the problem, but also provides a basis of support for why the problem should be addressed.

Conversely, among people with multiple or other disabilities, the blind and visually impaired are considered more successful since they are more active in postsecondary educational and professional activities. However, what is notable is that the majority of well-adjusted and succesful blind and visually impaired students graduated from residential schools. In the words of Moore, Graves, and Patterson (1997, p. 21):

> Students with visual impairments represent only about 1 percent of the students with disabilities who are served by special education… They also participate in postsecondary activities at higher rate than individuals with other disabilities… a majority of students who attend residential schools for individuals with visual impairments graduate and 81 percent are involved in education or training programs or are employed full time.

Aside from technological advancements in schools, the success rates of students who are blind and visually impaired who graduate from residential schools can also be attributed to a progressive, utilitarian, and contemporary learning program, which incorporates technology in the learning process, such as the use of computers and voice-activiated or assisted programs. The significant improvement of success rates among blind and visually impaired students could therefore be attributed to the kind, quality, and content of learning experiences that they experience. This body of literature obviously suggests that some residential schools that embrace contemporary practices in instruction contribute to the improvement of learning outcomes for blind and visually impaired students, which consequently highlights the importance of evaluating and improving existing curricula to address the needs of the learners.

2.2 The History of Residential Schools

The first residential schools, however, were established earlier. In 1829, Samuel G. Howe established the New England Asylum for the Blind; in 1830, the New York Institution for the Education of the Blind (now the New York Institute for Special Education); and in 1832, the Pennsylvanian Institution for the Instruction of the Blind (now the Overbrook School for the Blind). These three U.S. residential schools pioneered developments in education for the disabled. Since then, numerous residential schools were built across the country to accommodate students with visual impairments (Holbrook & Koenig, 2000).

However, the development of residential schools for the blind was at times met with criticism and protests. Some groups were opposed to institutionalization and thus, sabotaged developments in learning for blind students. For instance, those groups voiced fierce opposition to the law that mandated the American Printing House to reprint learning materials for the blind and visually impaired by using large fonts. Nevertheless, the outcomes of the reprints were positive and encouraged the further improvement of learning materials to accommodate the unique needs of students who are blind and visually impaired.

Consequently, these positive outcomes encouraged students who are blind and visually impaired to attend residential schools. Koestler notes that after the passage of the law in 1879, "8,411 children registered in schools for the blind, 4,722 were Braille readers, 2,302 read large type, 426 read both, and 961 read neither" (Koestler, 2004, p. 496). Following the success of the American Printing House's strategy and contribution to learning development, the American Association of Instructors for the Blind (AAIB) decided to increase awareness of the unique and needy situation of blind students. AAIB decided to assist school personnel and other individuals

who could influence school administration and instruction in classrooms for blind students (Koestler, 2004).

The first residential schools for the blind were fashioned after the European system of education for the disabled. Howe went to Europe to observe the management of residential schools and the educational system there influenced him in developing the educational philosophy for schools for the blind. Howe believed that "each child who was blind must be considered an individual and be educated according to his or her interests and abilities" (Holbrook & Koenig, 2000, p. 5). Therefore, the curriculum was fashioned after the curriculum implemented in public schools during that time, but with the inclusion of more interactive programs that allowed blind students to explore their interests and express themselves, including arts and crafts and music programs.

Aside from what Howe learned in Europe, his beliefs and ideologies about special education were also inspired by his experiences, which later influenced the development of curriculum in residential schools. In 1837, Howe was involved in teaching disabled students himself. Howe taught Laura Bridgman how to read, write, speak, and listen and to do daily tasks on her own. Howe's teaching was a success since Bridgman became a well-adjusted person. The outcomes of Howe's teachings led to educational reforms. Together with Mann, Howe lobbied for the establishment of a teacher's college where aspiring educators could learn how to teach special education effectively. In addition, Howe lobbied for further improvements in instructions by arguing the importance of improving the quality and content of instructional materials such as textbooks (Grimm, 2002). Howe was highly influential in the further development including curricula and instruction in residential schools for the blind until his death in 1876.

After his death, there were a total of thirty schools for the blind across the U.S., both public and private and the American Association of Instructors of the Blind (AAIB) was established in 1918. The establishment of the AAIB was momentous because the organization is responsible for contributing to the development of instruction for blind students. Educational leaders who were involved in working with blind students were members of the AAIB and the organization helped them to improve their knowledge, skills, and competencies in instruction (Altenbaugh, 1999).

In partnership with the AAIB, school administrators and educators maintained the goal of helping blind students reach their full potential through effective and adequate schooling. The philosophy that schools should help blind students become physically, mentally, and financially self-sufficient influenced the development of learning outcomes in the field. Residential schools established various objectives, such as providing affordable education for students, offering adequate programs that would allow students who are blind and visually impaired to compete with other learners, learn useful skills that would help them secure a lucrative source of income, and after learning basic knowledge and skills, integrate blind student successfully to mainstream society (Altenbaugh, 1999).

The development of residential schools for the blind not only helped to diminish discrimination due to handicap or disability, but also helped to diminish discrimination due to race (among students with disabilities). In the late nineteenth century, segregated schools offered learning programs for visually disabled African American students. Prior to the establishment of segregated schools, African American visually impaired students did not attend any school, private or public. However, the development of non-regular schools for students

with handicap and disabilities prompted the inclusion of individuals who were not formally schooled (Altenbaugh, 1999). Carroll (1913) notes that:

> The rationale for establishing these programs was that African American children with visual disabilities were being excluded from public schools, while state policy had provided for "equal education" for all (Carroll, 1913)… Exclusion of African American children from schools for the blind was the result of public objection to educating African Americans in schools with white students (Morris, 1893) (cited in Safford & Safford, 2006, p. 39).

The development of residential schools was therefore an apparent means of addressing problems not only for students with disabilities, but also for students in the minority. Various scholars criticized the segregation of not only African American students who were blind, but of students who were blind. Critics of residential schools cited the issue of the socialization of students who were blind, which they believed was stifled by attendance at a residential school. Critics pointed out that learning should be holistic and, therefore, should include socialization as an important part of the learning process. Moreover, according to critics, residential schools did not offer opportunities for socialization, which would make it difficult for blind students to reintegrate themselves to society. These critics supported the day school model in lieu of residential schools. Osgood notes that, "Day school advocates argued the nonresidential approach allowed the children to experience a more natural life in the family, home and community" (Osgood, 2008, p. 36). Conversely, day school advocates believed that residential schools limited human interaction for blind students, which they believed diminished normalcy in socialization.

The second body of literature noted here concerns the specific offerings and the planned and expected learning outcomes in residential schools for the blind. This section of the literature review helps to create a portrait of the past and present condition of residential schools in the United States, which is absolutely essential in understanding and identifying existing problems in the educational system in these schools helpsand determine recommendations for solutions and future improvements in the field.

In the United States, the government endorses equal access to education for all. Thus, the government implemented laws to ensure that all children receive equal opportunities to pursue their education. In 1975, the Education for all Handicapped Children Act (EHCA) was passed. The purpose of the Act was to enforce an educational system that responds to the unique needs of children with disabilities. In addition, the law was intended to dispel issues of discrimination in the U.S. educational system (Russo & Osborne, 2007). Henceforth, all states in the U.S. were mandated by law to ensure that schools within their jurisdiction were aware of their responsibility in addressing the respective needs of students with disabilities. Alexander & Alexander (2005) note that:

> To ensure children with disabilities basic education rights, Public Law 94-142 incorporated certain tenets: (1) a free appropriate public education, (2) an individualized education program, (3) special education services, (4) related services, (5) due process procedures, and (6) the least restrictive environment (LRE) in which to learn (Alexander & Alexander, 2005, p. 491).

Over time, the EHCA was amended several times as a result of the government's continuous efforts to improve the country's educational system to accommodate all students from diverse backgrounds and regardless of their disability. In 1978, the important role of

educational research was incorporated in the policy to foster continuity in terms of developing and improving laws and policies for special needs students. Likewise, EHCA was amended in 1983 to extend the coverage of the policy. Prior to 1983, the law defined as a mandate to benefit children with disabilities was met with criticisms because the policy did not extend educational opportunities to children with mild to severe disabilities, such as students who were blind.

Therefore, the government amended the EHCA again to include blind and deaf children and other students with multiple disabilities specifically to the policy's coverage. In 1990, EHCA was renamed Individuals with Disabilities Education Act (IDEA) to emphasize that the mandate covers children with disabilities. In addition, the government also highlighted the role of schools in contributing to the development of educational services and opportunities for students with disabilities (Ponchillia & Ponchillia, 2005). The act defined children with disabilities as "those who are mentally retarded, hard of hearing, deaf, speech and language impaired, visually handicapped (including blindness), seriously emotionally disturbed, orthopedically impaired, or otherwise health impaired" (Alexander & Alexander, 2005, p. 492).

As mandated by IDEA, school districts held the responsibility of initially identifying students with handicaps and disabilities, especially at an early age. The U.S. government emphasized the importance of early detection as a means to implement education intervention as early as three years old in order to allow children ample time and opportunity to adapt to their learning environment. Aside from early detection, IDEA mandated that school districts be held responsible for selecting and placing disabled students in appropriate learning settings or environments that best meet the needs of students. U.S. laws and policies, such as IDEA govern the educational system in this country and secure an appropriate and equal education for disabled students.

For several decades, these laws and policies were amended in order to ensure that disabled students were accommodated and provided with adequate educational opportunities. Moreover, the evolution of these laws and policies portrays the improvement of the U.S. educational system for both disabled and non-disabled students. Similarly, the educational system for blind students evolved to address the problems and issues as they occurred. The objective of this research study is to explore one issue that has over the years relative to the education of students who are blind and visually impaired which is curriculum development in residential schools for the blind. Exploring the issue of curriculum development in residential schools for the blind could provide relevant and valuable insights on how the educational system could further evolve or improve to address past and current issues or problems for students, educators, and academic institutions.

The laws and policies that support the educational system for the blind were discussed in order to establish the context for this study. Moreover, the previous discussion about the evolution of laws and policies governing education for the disabled illustrates the nature of constructs in education, and other fields for that matter, that constitutes change. The changes that occurred in the laws and policies implemented by the government reflects the necessity for change and the factors that prompt the need for it. Similarly, change is necessary in other areas of education, even in curriculum development. Since this research is related to residential schools for the blind, the objective here is to trace the changes in curriculum development practices implemented for these schools.

Throughout history there has been an attempt to educate the blind and there appears to be constant questions whether students who are blind should receive education in regular schools or separate schools same as residential schools. The education of the blind received its beginning

with students of elite families utilizing private tutors (Nordstrom, 1986). However, the need for formal schooling, for students with disabilities prompted the need for the development of schools that would address their unique needs. Residential schools in the United States, as noted earlier, have a longstanding history and span from 1784 to the present time, but the attention and placement of blind students in residential schools began in the 1950s. Successful schools for the blind were built in the early 1950s and Karen Huffman was the first academic who wrote a curriculum that was meant to specifically address the needs of blind children and other students who had additional disabilities apart from visual disability. Since then, various states have built new schools and established learning programs for the blind. Holbrook & Koenig (2000) noted that:

> By the late 1950s, local school programs for students who were visually impaired were growing rapidly throughout the country. The majority of these programs placed children in general education classrooms, and provided resource room support from the teachers of students with visual impairments. In fact, resource room programs were often highly selective in the children they admitted, hoping to ensure academic success that would provide that the integration of children with visual impairments into general education classrooms was successful (Holbrook & Koenig, 2000, p. 28).

Although the objective of school districts was to help students who were blind and visually impaired achieve academic success, the system for schooling changed when most of their students were unable to gain access local school programs as a result of the more advanced performance of students who were non-disabled. Since then, school districts realized students who were blind couldn't be placed in local school programs because they were unable to

compete academically with regular students who were non-disabled. As a result, placement of blind students in residential schools became prevalent in the 1960s (Holbrook & Koenig, 2000).

2.3 Criticisms of Residential Schools for the Blind

Criticisms of residential schools as well as some negative experiences noted by blind students prompted some groups to establish new schools. Instead of following the residential approach, the new schools were integrated. Scholars claim that integrated schools were more effective than residential schools and as a result, the rate of enrollment in integrated schools for the blind increased. However, like residential schools, these schools experienced some optimism as well. Mansbridge & Morris (2001) note that, "Integrated in schools with the sighted and discouraged from socializing with one another, blind children had few opportunities to establish free spaces where an oppositional culture and consciousness could develop" (Mansbridge & Morris, 2001, p. 80).

Aside from issues concerning socialization and instruction in residential schools, scholars also criticized the alignment of school policies to the mandate of the government. The law, which encouraged the development of schools for the blind, was meant to allow disabled students equal access to education. However, the significant cost of learning in residential schools also prevented students' access to basic education. Critics argued that nonresidential schools cost less. As a result of this fact and the change in learning patterns in the twenty-first century of various residential schools for the blind closed.

Critics argued that towards the core curriculum in schools for the blind, limited students who are blind from achieving their full potential (Lohmeier, 2005). In addition, the shift from core curriculum to the expanded curriculum was ushered by the shift of specialized education to the practice of inclusion. As a result, residential schools were forced to adjust in order to provide

more dynamic learning experiences, which involved recreational programs, apart from the academic programs, as well as courses that contributed to professional development among the learners (Ajuwon & Oyinlade, 2008).

Despite criticisms toward residential schools for the blind, some educational leaders voiced the benefits and advantages of residential schools. Proponents of residential schools for the blind argued that "institutional instruction offered better opportunities for specialized instruction as well as more secure and supportive environment for children whose disability drew unwanted attention and often derision" (Osgood, 2008, p. 37). Other supporters argued that the needs and demands of blind students were unique, and therefore, they needed to be taught in a learning environment where educators can focus on teaching them what they need to learn apropos to their strengths and weaknesses as learners. Educators, according to proponents, should also possess the knowledge, skills, and credentials for effectively teaching students with disabilities. Therefore, blind students should be taught in residential schools where the educators are well trained in teaching and interacting with students who are visually impaired and the curriculum and learning program are geared towards teaching the blind (Safford & Safford, 2006).

2.4 Benefits and Advantages of Residential Schools for the Blind

McMahon (1994) conducted a study of 33 residential schools for the blind; this study yielded some interesting results pertaining to the type and quality of education offered at these specialized institutions. Another team of researchers investigated the post graduation outcomes of the graduates of one state residential school for the blind (DeLaGarza, 1993). Both studies, as well as others, taken together help form a holistic picture of the range and types of services (academic and others) that are offered at residential schools for the blind. The study by Ajuwon

and Oyinlande (2008) relate the various reasons why residential schools offer adequate learning opportunities for students who are blind and visually impaired and why parents choose to enroll their children in schools that offer specialized classroom settings. The results of the study by Ajuwon and Oyinlande (2008) revealed the top ten reasons why parents chose to enroll their child in a residential school. The reasons are listed below in order of importance by the parents in the study:

1. Supportive faculty or staff members
2. Ability of the school to meet the child's unique needs
3. Adequate classroom accommodations
4. Conducive social environment for growth
5. Adequacy of well-trained teachers of students who are visually impaired
6. Opportunities to make friends
7. Opportunities to be academically at part with same-age peers
8. Perceptions that teachers in the school are familiar with the child's disability
9. Opportunities to be a strong advocate for personal needs
10. Opportunities to learn how to live in an integrated (sighted and nonsighted) society (Ajuwon & Oyinlande, 2008, p.1).

Ultimately, despite the issues or problems discussed previously about residential schools, these schools as evidenced by the study noted above, are still ideal for blind and visually impaired students because educators address the problems of students directly. Kirk, Gallagher, Coleman, & Anastasiow (2008, p. 10) note that:

> Residential schools would address children with diverse needs while playing a role in the future education of children with visual impairments. Another reason

> for placing a student with visual impairment in a special school is to receive a curriculum that cannot be provided in the general education classroom.

The importance of maintaining residential schools is also noted in various other studies including Erin, Corn, and Bishop (1993), which discusses the advantages of residential schools over state schools in addressing the unique needs of blind or visually impaired students. This study was conducted to determine how students, teachers, and parents perceive the value or non-value of residential schools to the education of students who are blind and visually impaired. Erin, Corn, & Bishop (1993) concluded that:

> The respondents supported the need for residential schools (they should not be terminated), but disagreed considerably on the role of such schools…. This is an issue that requires the most unified, creative, innovative, determined, and philosophically sound resolution. Planning for the future is critical if residential schools are to survive (Erin, Corn, & Bishop, 1993, p. 124).

The primary debate involving the education of students with disabilities, particularly is to those who are blind and visually impaired, is whether students are provided the opportunity, to develop to their fullest potential. To achieve this, some believe that students must be in schools that set high standards for learning and inclusion. Some believe that schools that implement standards-based curriculum are the best environment for students to achieve this goal. As a result, as well as progressive social values and perspectives about special education, many students who are blind and visually impaired were included in the regular classroom setting, which led to the decline of residential schools. However, the concept of individualized instruction also emphasized that specialized methods in teaching were necessary to teach special needs students the specific knowledge and skills they require to become successful adults.

Therefore, many agree and argue that residential schools should not entirely be discontinued, but should be included in learning programs that are developed and implemented ito satisfy the federal mandate to improve teaching and learning efficiency. To this end, many believe that the focus should be on the alignment of goals between residential and traditional schools, the development of smooth transitions from residential to state schooling, and the complementary roles of curricula implemented in residential and state schools.

Based on the results of the study conducted by Erin, Corn, and Bishop (2003, pp. 124-125), regarding the interaction and transition between residential schools and traditional schools the following recommendations were established.

1. The development of an exit-oriented philosophy in order to help blind or visually impaired students transition smoothly from residential schools to traditional public schools. The philosophy should be intensive to the knowledge, skills, and competencies that would allow the students to integrate themselves succesfully in the real world.
2. Implement most appropriate placement (MAP) strategies and determine least restrictive environments (LRE) where blind or visually impaired students could learn. Identifying LRE and MAP would allow the state to detemrine whether blind or visually impaired students should attend residential or state schools.
3. Develop efficient and adequate assessment tools to implement MAP and identify LRE.
4. Develop and implement learning programs in residential schools that are intensive including the following: (a) dual programs, (b) split placements

between residential and regular classroom settings, (c) short-term learning in residential schools, (d) summer programs, (e) catch-up year learning, and (f) model programs.

5. Provide opportunities for intensive professional devleopment. Educators and staff should be taught the skills and competencies to effectively assess and facilitate placement of blind or visually impaired students in schools. In addition, they should be taught to carefully observe learning situations to contribute to instructional and curriculum development programs for improvement.
6. Develop curricula that is flexible enough to be implemented by classroom teachers and itinerant teachers for studnets. The curricula will not replace the curricula implemented in schools, but should be an "add-on" to the existing curricula to include the learning content and programs that blind or visually impaired students should learn. This provides a complementary relationship between the curriculum and the goal of addressing the needs of blind and visually impaired students (Erin, Corn and Bisihop, 2003, pp. 124-125).

The primary concern about residential schools is that the continued development of curriculum affects the interest towards the programs implemented in these schools. More parents and teachers endorse the integration of blind and visually impaired students in the regular classroom setting. However, the issue is that learning outcomes in the regular classroom setting could be intensified or heightened by implementing the programs offered in residential schools. Thus, residential schools should not be ruled out as alternatives or options for teaching students who are blind and visually impaired.

The issue could be resolved, however, by looking into the future of curriculum development at residential schools. Previous studies reiterate the importance of residential schools as well as the importance of allowing the transition from resideintial to regular classroom settings as an option for blind and visually impaired students. The transition may not be smooth, however, if the curriculum implemented in residential schools does not coincide or complement the curriculum offered in traditional schools (McInnes, 1999). Conducting research to map the devlelopment of academic curricula in residential schools for the blind, therefore, could be instrumental in determining how curricula could be aligned with the goals of standards-based education, state standards, and the curriculum implemented in traditional schools.

The curriculum and learning goals in residential schools are more specialized, while some parents and scholars claim that regular schools are more suitable in helping children who are visually impaired cope effectively in the real world. In a national study, Corn, Bina and DePriest (1995) analyzed responses from nearly 1,000 families who stated that "specialized schools had more comprehensive services, resources, and opportunities for their children than were available locally" (p. 48). They reported that a high percentage of parents indicated that specialized schools provided higher standards of excellence, and had better-qualified staff members than did their local education agency (Ajuwon & Oyinlade, 2008, p. 326).

Amidst the debate, some scholars emphasize the need to acknowledge the advantages and strengths of both learning environments. Therefore, it is duly noted that although some prefer inclusion in the traditional school setting, there are benefits and advantages which students who are blind and/or visaully impaired recieve general curriculum through attending a residential school for the blind.

2.5.1 The Foundation of Curriculum Development in Residential Schools for the Blind

The third part of this literature review includes a selective review of literature on the different types of curricula offered to blind and visually impaired students, noting how the educational system has evolved over time. The literature review also includes studies regarding recommendations to improve the development and implementation of the expanded core curriculum to ensure student success beyond high school.

This body of research provides identification of the types of curricula that were and are currently provided to students who are blind and visually impaired as well as an examination of what many scholars believe to be the most appropriate and useful curriculum to ensure success. This selective review will identify what curricula are being provided to students who are blind and visaully impaired to ensure academic success and accountability as set forth by NCLB.

A curriculum can be defined in many ways. Fundamentally, a curriculum consists of a list of the topics or subject matter that will be covered throughout the course of a program. However, scholars sought to conceptualize the curriculum in order to incorporate the philosophy, objectives, and strategies that make up its foundation. While curriculum could be defined as a set of activities or experiences that the learner will undergo, it could also be described as "a plan tied to goals and related objectives… purposeful and defined as activities [that] shape student behaviors" (Wiles, 2008, p. 2). Therefore, the curriculum determines the set of goals that shape the kinds of life-changing activities that the students will learn during the instructional process. The curriculum is also a reflection of the strengths, weaknesses, behavior, and needs of the students. In addition, the curriculum contains standards or "what students should know and be able to do" – "and it sets the goals for instruction" (Squires, 2008, p. 141).

But, what is the general education curriculum? The general education curriculum constitutes the basic educational programs that are applied in regular school settings. According to Hitchcock, Meyer, Rose, and Jackson (2002), the general education curriculum is adopted in the school or school system as the overall plan for instruction. Defining what the general education curriculum is, however, is difficult because it is not specialized or focused on a specific educational problem or group of students. Nolet and McLaughlin (2000), for instance, acknowledge the uniqueness of the general education curriculum for each school system—and each student—when they recommend procedures for "finding" the general education curriculum. Wehmeyer et al. (2002) also add that the general curriculum is defined broadly because Congress intends for it to be determined locally. The general education curriculum serves as the groundwork or foundation of other types of curricula, and is also applied to special education students.

2.5.2 Development of general curricula after NCLB

The enactment of the NCLB Act in 2001 under the Bush administration changed the environment for states and school districts receiving federal funds. The law required states to create accountability systems that include challenging academic content and performance standards. States were also required to align the curriculum and assessments to ensure student achievement and high academic performance (Glatthorn *et al.*, 2009). The law also enforced strict sanctions on districts, schools and school leaders, in some cases, for pupil low achievement on standardized tests. Thus, the general curricula environment post-NCLB was tightly aligned and highly driven by test achievement.

2.5.3 Development of curricula for students with disabilities after NCLB

In special education, the curriculum is expected to meet standards that are “mentally-appropriate and age-appropriate to prepare students intellectually, academically, and socially to function in society” (Jones, 2010, p. 3). As discussed above, NCLB changed the environment for receiving federal funds, requiring states to create accountability systems that included challenging academic content and performance standards for all students. States were required to align the curriculum and assessments to ensure the achievement of all students, including students with disabilities.

To ensure a single high-quality public school education is available to all, the curriculum itself must be structured in such a way to allow schools to offer and provide quality instruction. Individual protections that reside at the heart of the Individuals with Disability Education Act (IDEA) remain in place, so while curriculum is of primary importance, providing individual students with disabilities with a free, appropriate, and public education will continue to be the focus (Turnbull & Turnbull, 1998). Pugach (2001) calls for a "curriculum-centered dialogue" that will enable general and special educators to confront several crucial and fundamental issues embedded in curriculum reform. These include the following:

1. The appropriateness and quality of the general education curriculum for all students
2. The degree to which the general education curriculum meets the needs of students from various cultural, linguistic, and socioeconomic backgrounds
3. The relationship of the curriculum to the disproportionate numbers of students of color in special education (Pugach 2001 p.25)

Appropriateness, the degree to which the curriculum meets the needs of students, and the appropriateness of the curriculum to the background of students are highly important in the

development of curriculum. The curricula implemented in schools for the blind require frequent modification to accommodate the ever-changing needs of students attending these schools and now must address the requirements of NCLB. However, amidst this post-standards environment, the IEP continues to guide the teaching and implementation of specified curricula for students with disabilities.

Overall, a curriculum-based education is often effective in the field of special education because the curriculum serves as an evaluative tool that determines what kinds of changes to be implemented to improve teaching content and instruction for students with disabilities. For students who are blind or visually impaired, the evolution of the curriculum over time proves that its implementation and the outcomes determine if it should be adjusted to better suit the needs of these students.

Although curriculum planning and development is influenced by various factors, including laws and policies implemented by the U.S. government, the learning outcomes exhibited by learners after implementation of the curriculum determines the route that planning and development should take (Shinn, 1989). Ultimately, reform in curriculum-based education satisfies the requirements of special education because it requires that the unique needs of students with varied handicaps and disabilities be evaluated. Consequently, the curriculum is adjusted to address these unique needs.

However, as in other schools, curriculum development in schools for the blind and special education generally, is influenced by many factors such as the inner workings of the organization itself, political influences, and leadership within the organization and culture within the schools (Bolman and Deal, 2007). The curriculum development and reform in schools for the blind will be discussed in the following section. Although the contents of the core curriculum

are highly important in helping blind and visually impaired students cope or adjust to mainstream learning situations, the regular learning situation presented various barriers that made learning difficult for blind and visually impaired students. Kinash & Paszuk (2007) noted examples of these barriers include "information provided in a print form, environments that are difficult to physically navigate, and social cues that are visually conveyed" (Page). To address these barriers and problems, the ECC was developed and implemented. While the core curriculum focused on the basics of education, the ECC focused on including other knowledge bases, skills, and competencies that were deemed more practical and would improve function in the real world.

Core Curriculum for Blind and Visually Impaired Children and Youths

Existing Core Curriculum	
English Language Arts	Other languages, to the extent possible
Mathematics	Science
Health	Physical Education
Social Studies	Fine Arts
Business Education	Economics
History	Vocational Education
Expanded Core Curriculum	
Compensatory or functional academic skills, including communication modes*	Orientation and mobility
Social interaction skills	Independent living skills
Recreation and leisure skills	Career education
Use of assistive technology (AT)	Visual efficiency skills

Table 1: Core Curriculum for Blind and Visually Impaired Children and Youths (Source: Hatlen, 1996)

2.6 Expansion of Core Curriculum and Reform in Residential Schools for the Blind

The ECC developed and implemented before NCLB continues to serve as the foundation for how students who are blind and visually impaired are educated in the U.S. After NCLB, the ECC implemented within the schools for the blind began to undergo critical examination in an

effort to connect content with state standards and satisfy the new mandate; however this examination was not without contention. Even after schools for the blind attempted to realign the ECC with state standards, satisfying the NCLB mandates, according to Ferrell (2009), the implementation of NCLB has yet to meet its promise for children with visual impairments. Scholars and schools agree that it is not that NCLB has adversely affected the education for blind and visually impaired students, but it is the issue that , *"No Child Left Behind*" means that still *some* are moved forward, but not all (Ferrell, 2009). For this low incidence population, the struggles continue as the field attempts to ensure equal educational opportunities for blind and visually impaired students.

2.6.1 The Nature of the Expanded Core Curriculum (ECC)

The expanded core curriculum is derived from the unique or disability-specific needs of blind and visually impaired students identified and elaborated by Hatlen and Curry (1987). It is noted that compensatory (core academic) skills are those skills needed by blind and visually impaired students in order for them to access all areas of the core curriculum. When students who are blind or visually impaired have access to the general curriculum, they are able to excel academically and thereby achieve mastery of certain knowledge and skills. Functional skills refer to skills that students with intellectual and/or multiple disabilities learn that provide them with the opportunity to work, play, socialize, and take care of personal needs to the highest level possible.

Schools and educators seek to accomplish the learning objectives and standards of the ECC through the following (Kinash & Paszuk, 2007):

1. Providing early intervention to preschool-age children who are congenitally blind, so that they come to elementary with foundational skills;

2. Providing age and developmentally appropriate intensive workshops in the evenings, and/or weekend, and/or during summer vacation;
3. Providing one-on-one instruction during one or more of the above time-frames;
4. Pulling out the blind or visually-impaired learner from the regular daytime scheduled activity of sighted peers
5. Staggering school placements so that learners are fully included with their age-related peers for concentrated blocks of time followed by a block of time focusing on the expanded core curriculum, and then repeating the cycle. (Kinash & Paszuk, 2007 p.56)

As previously discussed, the core curriculum focuses on cognitive development among the blind and visually impaired learners. However, the ECC also includes psychosocial development and other non-academic skills development. In the ECC, Kinash & Paszuk (2007) note that educators are expected to meet the following expectations:

1. Directly and explicitly teach a stance of diversity, that is, difference is valued in the classroom.
2. If possible, involve the blind or visually impaired student, and/or if age appropriate, the parents in directly answering the questions about the eye condition and the impact on function.
3. Including the blind student in authentic classroom activity so that the message is not sent to the sighted peers that the blind or visually impaired student requires being separate and apart.
4. Include pair and small-group activity for all the students, so that all of the students have a chance to get to know one another on a more intimate basis.

5. Intentionally create opportunities for the students' gifts and capacities to shine.
6. Start conversations between students and then withdraw from the exchange once it has taken off. (Kinash & Paszuk, 2007 p.40)

Apart from the opportunity of offering an extended and more comprehensive curriculum and learning program for blind and visually impaired students, one of the advantages of the ECC is the continuity of learning for the students. The ECC allows learning to occur before, during, and after school because the learners are given opportunities for continuous learning to improve outcomes. Table 1 below from a study done by Hatlen (1996a) shows the percentage of time that specialized schools spend in implementing the ECC before, during and after school. The contents of the core curriculum, is limited to classroom instruction, which many believe, limits the capacity of learners to make the most out of their learning experience. Moreover, the results of the study by Phil Hatlen (1996a) favors what the ECC can teach blind and visually impaired learners. The exploration of the outcomes of learning and how learning occurs before, during, and after school relates the advantages of the ECC over the core curriculum. Lohmeier (2006) notes that, "professionals in the field of visual impairments agree that factors beyond academic skills affect a visual impaired student's overall success in life" thus, the ECC proves to be more significant and valuable in teaching blind and visually impaired students what they need to know in order to become valuable members of society who are self-sufficient and well-adjusted.

The overall intended goal of the ECC is to provide students with visual impairment an opportunity to access the general curriculum and address other social skills that students who are sighted learn incidentally. In other words, sighted students learn these skills incidentally or through modeling, but students who are blind or visually impaired have little or no opportunity to acquire them through that mode of learning (Lohmeier, 2006). Therefore, the ECC is designed

to go beyond the core curriculum of math, reading, science and social studies and offer students a holistic learning experience that will adequately prepare them for life beyond high school and place them on equal footing with their sighted peers (Holbrook & Koenig, 2000).

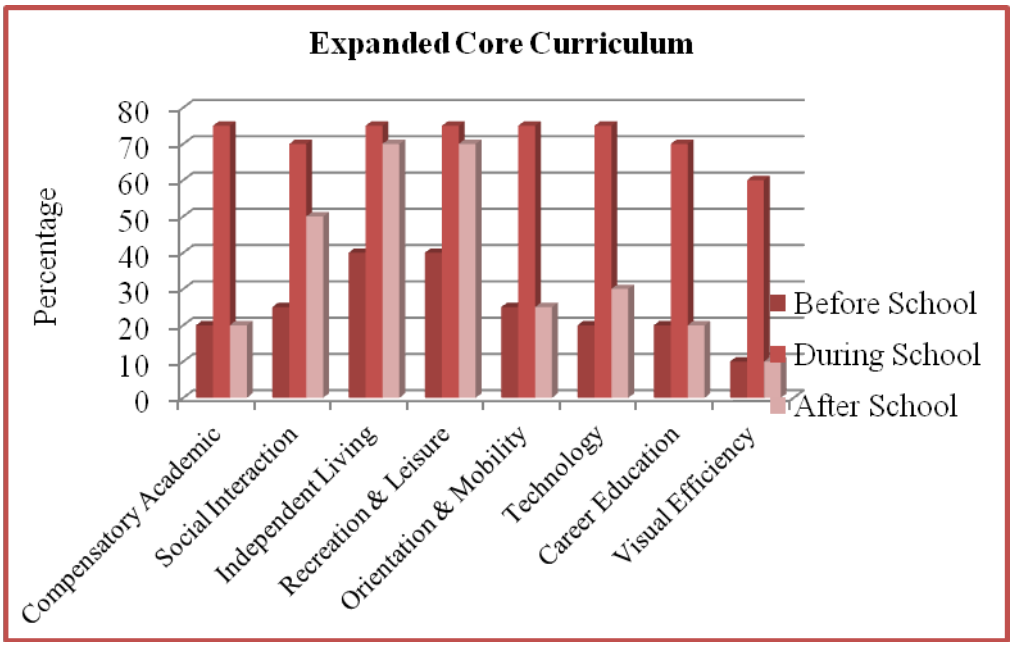


Figure 1: Percentage of Time Distribution in Implementing the ECC Before, During and After School in Specialized Schools in the United States

2.6.1.1 Compensatory/Access Skills

Compensatory and functional skills include such learning experiences as concept development, spatial understanding, study and organizational skills, speaking and listening skills, and adaptations necessary for accessing all areas of the existing core curriculum. Communication needs will vary, depending on degree of functional vision, effects of additional disabilities, and the task to be done. Children may use Braille, large print, print with the use of optical devices, regular print, tactile symbols, a calendar system, sign language, and/or recorded materials to communicate. Regardless, each student will need instruction from a teacher with professional preparation to instruct students with visual impairments in each of the compensatory and functional skills they need to master. These compensatory and functional needs of the

visually impaired child are significant, and are not addressed with sufficient specificity in the existing core curriculum.

2.6.1.2 Orientation and Mobility Skills

As a part of the expanded core curriculum, orientation and mobility is a vital area of learning. Teachers who have been specifically prepared to teach orientation and mobility to blind and visually impaired learners are necessary in the delivery of this curriculum. Students will need to learn about themselves and the environment in which they move - from basic body image to independent travel in rural areas and busy cities. The existing core curriculum does not include provision for this instruction. It has been said that the two primary effects of blindness on the individual are communication and locomotion. The expanded core curriculum must include emphasis on the fundamental need and basic right of visually impaired persons to travel as independently as possible, enjoying and learning from the environment through which they are passing to the greatest extent possible.

2.6.1.3 Social Interaction Skills

Almost all social skills used by sighted children and adults have been learned by visually observing the environment and other persons, and behaving in socially appropriate ways based on that information. Social interaction skills are not learned casually and incidentally by blind and visually impaired individuals as they are by sighted persons. Social skills must be carefully, consciously, and sequentially taught to blind and visually impaired students. Nothing in the existing core curriculum addresses this critical need in a satisfactory manner. Thus, instruction in social interaction skills becomes a part of the expanded core curriculum as a need so fundamental that it can often mean the difference between social isolation and a satisfying and fulfilling life as an adult.

2.6.1.4 Independent Living Skills

This area of the expanded core curriculum is often referred to as "daily living skills." It consists of all the tasks and functions persons perform, in accordance with their abilities, in order to lead lives as independently as possible. These curricular needs are varied, as they include skills in personal hygiene, food preparation, money management, time monitoring, organization, etc. Some independent living skills are addressed in the existing core curriculum, but they often are introduced as splinter skills, appearing in learning material, disappearing, and then re-appearing. This approach will not adequately prepare blind and visually impaired students for adult life. Traditional classes in home economics and family life are not enough to meet the learning needs of most visually impaired students, since they assume a basic level of knowledge, acquired incidentally through vision. The skills and knowledge that sighted students acquire by casually and incidentally observing and interacting with their environment are often difficult, if not impossible, for blind and visually impaired students to learn without direct, sequential instruction by knowledgeable persons.

2.6.1.5 Recreation and Leisure Skills

Skills in recreation and leisure are seldom offered as a part of the existing core curriculum. Rather, physical education in the form of team games and athletics are the usual way in which physical fitness needs are met for sighted students. Many of the activities in physical education are excellent and appropriate for visually impaired students. In addition, however, these students need to develop activities in recreation and leisure that they can enjoy throughout their adult lives. Most often sighted persons select their recreation and leisure activity repertoire by visually observing activities and choosing those in which they wish to

participate. The teaching of recreation and leisure skills to blind and visually impaired students must be planned and deliberately taught, and should focus on the development of life-long skills.

2.6.1.6 Career Education

There is a need for general vocational education, as offered in the traditional core curriculum, as well as the need for career education offered specifically for blind and visually impaired students. Many of the skills and knowledge offered to all students through vocational education can be of value to blind and visually impaired students. They will not be sufficient, however, to prepare students for adult life, since such instruction assumes a basic knowledge of the world of work based on prior visual experiences. Career education in an expanded core curriculum will provide the visually impaired learner of all ages with the opportunity to learn first-hand the work done by the bank teller, the gardener, the social worker, the artist, etc. It will provide the student opportunities to explore strengths and interests in a systematic, well-planned manner. Once more, the disadvantage facing the visually impaired learner is the lack of information about work and jobs that the sighted student acquires by observation. Because unemployment and underemployment have been the leading problem facing adult visually impaired persons in the United States, this portion of the expanded core curriculum is vital to students, and should be part of the expanded curriculum for even the youngest of these individuals.

2.6.1.7 Assistive Technology/Technology

Technology is a tool to unlock learning and expand the horizons of students. It is not, in reality, a curriculum area. However, it is added to the expanded core curriculum because technology occupies a special place in the education of blind and visually impaired students. Technology can be a great equalizer. For the Braille user, it allows the student to provide

feedback to teachers by first producing material in Braille for personal use, and then in print for the teacher, classmates, and parents. It gives blind persons the capability of storing and retrieving information. It brings the gift of a library under the fingertips of the visually impaired person. Technology enhances communication and learning, as well as expands the world of blind and visually impaired persons in many significant ways. Thus, technology is a tool to master, and is essential as a part of the expanded core curriculum.

2.6.1.8 Sensory Efficiency Skills

The visual acuity of children diagnosed as being visually impaired varies greatly. Through the use of thorough, systematic training, most students with remaining functional vision can be taught to better and more efficiently utilize their remaining vision. The responsibility for performing a functional vision assessment, planning appropriate learning activities for effective visual utilization, and instructing students in using their functional vision in effective and efficient ways is clearly an area of the expanded core curriculum. Educational responsibility for teaching visual efficiency skills falls to the professionally prepared teacher of visually impaired learners.

Bringing together all of these skills learned in the expanded core curriculum produces a concept of the blind or visually impaired person in the community. It is difficult to imagine that a congenitally blind or visually impaired person could be entirely at ease and at home within the social, recreational, and vocational structure of the general community without mastering the elements of the expanded core curriculum. What is known about congenitally blind and visually impaired students is that, unless skills such as orientation and mobility, social interaction, and independent living are learned, these students are at high risk for lonely, isolated, unproductive lives. Accomplishments and joys such as shopping, dining, attending and participating in

recreational activities are a right, not a privilege, for blind and visually impaired persons. Responsibilities such as banking, taking care of health needs, and using public and private services are a part of a full life for all persons, including those who are blind or visually impaired. Adoption and implementation of a core curriculum for blind and visually impaired students, including those with additional disabilities, will assure students of the opportunity to function well and completely in the general community.

The components of the expanded core curriculum present educators with options for addressing the needs of visually impaired children, specifically, those with additional disabilities. The educational requirements of this population are often not met since the lack of vision is considered "minor", especially when the child is severely impacted by cognitive and physical disabilities. Each area in the expanded core curriculum can be further defined to address the educational issues facing these children and assist parents and educators to fulfill their needs. This expanded core curriculum is the heart of the responsibility of educators serving visually impaired students. These areas are not adequately addressed by regular classroom teachers, nor should they be, for this is the core curriculum that is essential only to blind and visually impaired students, and it epitomizes their "...right to be different..."

2.6.2 The Delivery of the Core Curriculum for Blind and Visually Impaired Students

In varying ways, and to various degrees, the existing core curriculum is essential to the learning of blind and visually impaired learners. This fact has been generally accepted in the profession of educators for visually impaired learners and by parents of visually impaired students. Of equal importance is the acceptance of the expanded core curriculum as being necessary for blind and visually impaired students. Assuming this second level of acceptance has occurred, what must be done next is to determine how the expanded core curriculum will be provided for

visually impaired learners. The Expanded Core Curriculum for Blind and Visually Impaired Students will be difficult to complete in 12 years of education, especially for students who are high academic learners. Several approaches for fitting the Expanded Core Curriculum into a normal education career have been suggested. One possibility that has been used is to depend on the infused competencies contained in the Existing Core Curriculum for providing the additional skills and knowledge needed by the visually impaired learner.

While it appears as though many of the competencies reflected in the expanded core curriculum might be achievable when infused within the existing, traditional curriculum, there is compelling evidence that infusion is risky and does not provide the appropriate urgency and emphasis to the expanded core curriculum. These students learn differently, in ways that are not intuitively obvious to individuals who rely on their visual sense for 80% of all that they learn and understand. Because blind and low vision youngsters often do not bring the same visual experiences to the learning environment, it is very likely that all of their curriculum needs will not be met without planned, sequential, direct instruction by individuals who understand their learning style. At this time, no single, simple method has been developed that assures visually impaired students of accessing both traditional and expanded core curricula within the same time frame as their sighted peers. This remains a significant, but attainable challenge.

For too many years educators behaved as though they were unaware of the unique and specialized needs of blind and visually impaired students. The outcome has become a modern tragedy, with too many products of our educational efforts living isolated, troubled lives. For too many years educators have known the content of the curricula needed by blind and visually impaired learners that would equalize education by neutralizing the effects of visual impairments on incidental learning. And for too many years educators have found reasons not to implement

the expanded core curriculum. The additional learning experiences contained in the expanded core curriculum are not easy to implement. They require time to teach, and the need for them does not diminish with age or competency. The professionally prepared teacher of visually impaired students must be responsible for assessment, instruction, and evaluation in unique and specialized curricular areas. This educator needs to teach the skills and knowledge necessary or to orchestrate the teaching through utilization of other community resources.

The competencies that result in an expanded core curriculum require that educational time be allocated to teach these skills. Programming that appropriately addresses all of the educational needs of blind and visually impaired students must assume that most students will need sizable periods of time in order to master the competencies required in the expanded core curriculum. If the profession does not demand that this time be made available, it has done a disservice to students with visual impairments, and may disable them in their efforts to successfully transition from school to adulthood. The expanded core curriculum must become the unifying issue among educators for visually impaired students. It must first be adopted by the profession as the education needed by blind and visually impaired students. Once the profession has adopted the expanded core curriculum, it then takes on the enormous task of carrying the curriculum message to parents, administrators, and the public at large.

The message must transcend fiscal issues, conflicting philosophical and political positions, and the doubts and misgivings of educators and parents. The spotlight must be on the individual child, and must begin with a thorough assessment of the child, one that covers every area of the expanded core curriculum. Using assessment results and invaluable information from parents, goals and objectives must be developed for the individual child, based on assessment. If assessment has truly covered every area of the expanded core curriculum, then there will likely

be goals and objectives for each area. Someone must meet, or orchestrate the meeting of, all goals and objectives. This will be the professional teacher for visually impaired children. Decisions must be made on placement, on priorities, and on frequency and duration of instruction. Care must be taken that the competencies contained in the expanded core curriculum receive equal attention to academic competencies, as stressed in the existing curriculum.

2.7 The Shift from General to Standards-Based Curriculum Development

The standards-based curriculum for improving student outcomes, including students with disabilities was first implemented in Texas and integrated into the state's accountability system. The schools in Texas implemented criterion-based testing in order to measure student performance, specifically how student performance met the standards set in the curriculum (Hargreaves, Lieberman & Fullan, 2010). The case of Texas contributed to the further development of the standards-based curriculum reform movement and the passage of NCLB which was implemented in other states. Curriculum frameworks produced by states are accompanied by mandated standardized tests that ensure the 'alignment' of classroom practices with state frameworks (Ross, 2006, p. 25).

A shift occurred after the enactment of the NCLB Act in 2001. The shift was a move to a standards based model for curriculum development. Achieve (1998) notes that a standards based curriculum requires several things including:

a. High academic standards and expectations for all students, including students with disabilities;
b. Assessments that are more rigorous and challenging, to measure whether students are achieving set standards;

c. An accountability system that provides incentives and rewards for educators, students, and parents to collaborate to help students achieve set standards

According to Ravitch (1996), in the field of education, the term *standards* are defined as a cumulative body of knowledge and set of competencies that is the basis for quality education. Standards express what all students should know and be able to do, but should not dictate pedagogy (Ministry of Education, 1998; Ravitch, 1996). The *curriculum* sets benchmark levels of pupils' achievement and progress towards meeting the standards by describing what the pupils can do with the language. Therefore, many scholars agree that it is necessary to move beyond testing methods which concentrate on memory, and develop those which measure understanding and application (Genesee, et.al., 1998; Winters, 1995). The traditional pre-standards modes of providing education allowed for teacher flexibility and were based on district curriculum or benchmarks, or the core subjects that the students were supposed to learn. Standards-based education, on the other hand, is more content based, structured and more dynamic. However, the foundation of standards-based curriculum development is more than just prescribed subjects and lessons that students are supposed to learn.

Aside from content, standards-based curriculum development is also influenced by a focus on learning. For instance, strategies and practices in instruction evolve based on the changing standards for learning. Furthermore, standards-based curriculum development remains flexible at the state level depending on outcomes of performance assessments, results of research, and the standards and competencies required by the state departments or boards of education. Combined, these are all reasons why many recommend providing a standards-based curriculum in schools. Like all traditional schools, in the mid to late 90s, education for students with special needs experienced a shift in regards to the development and implementation of the

standards-based curriculum. Schools for the blind, in particular, struggled to integrate the ECC with the new standards-based core curriculum amidst the environment of high stakes testing, increasing caseload and size, and administrative push toward less direct service and more consultation (Sacks, 2004). Other phenomena that complicated this shift in schools for the blind were the changing landscape of pedagogy as well as the influences of external factors such as social and technological developments.

2.7.1 What did the Schools for the Blind do After NCLB?

Upon the enactment of NCLB, schools for the blind began to collaborate on ways to address the mandate for standards based curriculum reform while still maintaining the use of the ECC. In early 2004, Dr. Robert Beadles administered a survey that was disseminated to 39 schools for the blind to examine how the mandates of NCLB were being addressed in these schools (Beadles, 2004). Beadles (2004) found that schools for the blind varied in the ways in which they addressed the components of the NCLB mandates. Beadles found that a significant number of schools in his study (88%) were not considered a Local Educational Agency (LEA) and therefore, were not receiving Title I Funding, which could have exempted them from implementing and adhering to many of the mandates under NCLB. However, many of the schools for the blind that participated in the study addressed personnel issues relative to NCLB's highly qualified provision and schools also examined and made changes to their testing procedures in order to satisfy the test participation Adequately Yearly Progress (AYP) mandate.

This study by several interesting findings in relation to schools for the blind and factors requiring attention related to NCLB. The study revealed that schools for the blind continue to struggle to fully understand how NCLB will ultimately affect the educational programs for students who are blind and visually impaired. According to Ferrell 2007, one of the main

struggles is ensuring timely delivery of materials (textbook, large print, Braille, etc.) to students who are blind or visually impaired in order for them to gain access to the general (now standards based) curriculum. Although there are many struggles, as with traditional schools, educators who are responsible for teaching students who are blind and visually impaired feel that some of the criteria under NCLB can be satisfied. However, there remains to be contention between the NCLB mandates for students with disabilities and what educators teaching these children know and understand about the students' learning styles and abilities. Gargiulo (2010) notes "the expectation [under NCLB] seems to be that effective instructional strategies can compensate for a student's disability" (p. 54). NCLB and IDEA constitute the groundwork for the shift to and development of the standards-based curriculum in educating students with disabilities. But other factors are relevant too.

There are additional factors and elements that make up other characteristics of the standards-based curriculum. Following over two decades of education reform in the U.S., states have established a framework for guiding local school districts in the process of curriculum development aimed at initiating standards-based reform for all students, including students with disabilities (NIMAS, 2010). As part of this effort to ensure that schools and school districts organize and employ their resources appropriately to address state standards in core content areas, states have developed broad-scale assessment systems to measure the extent to which students are progressing and achieving proficiency in core subjects. These assessment systems are intended not only to determine individual student achievement but also to hold states and schools accountable for public investments in education reform (NIMAS, 2010). These have pushed many schools to implement a standards based curriculum.

2.7.2 Characteristics of the Standards-Based Curriculum

Within a standards-based curriculum, learning is designed by first determining what the students need to know, or simply put by determining learning standards. In a standards based curriculum, it is important to assess whether and to what degree students have met learning standards. Thus, assessment plays an important role in a standards-based curriculum (Burrill, & Kennedy, 1997; Popham, 2003). Lund & Tannehill (2009) write that, "assessments are a key part of the standards-based curriculum process as those developing curricula must decide what they are going to accept as evidence that students have met the standards" (p. 16). Moreover, Cizek (1999) notes that "the nature of what is tested is important in establishing the rigor of the system, because rigorous-appearing standards can be assessed in a simplistic manner and serve to reinforce the mediocre status quo in the educational system" (p. 166). Thus, in developing a standards-based curriculum, it is not only important to pay close attention to the standards themselves, but also the manner in which achievement of those standards is assessed.

Based on the requirements of the standards-based curriculum, the American Federation of Teachers (AFT) came together to develop a set of criterion that its members could use to develop or evaluate students' capacity to achieve learning standards (Cizek, 1999). This criterion allowed members of the AFT to make recommendations about how the standards-based curriculum could be structured or changed to accommodate the needs and capacity of learners. The criteria are noted below:

i. States need to be encouraged to revise and improve their academic standards.
ii. States need to help make sure their standards are rigorous and internationally competitive.
iii. States should draw on the best work of other states.

iv. States should supplement their standards with curriculum guides or frameworks that provide clearer guidance to districts and schools without sacrificing local control.

v. States need to ensure their assessments are based on strong standards.

vi. States should help whether their standards and assessments are aligned.

vii. States should establish plans for phasing in incentives or consequences, otherwise students will not take the standards seriously.

viii. States must provide extra help to students who are not meeting the standards.

The shift to the implementation of the standards-based curriculum followed the implementation of the No Child Left Behind Act (NCLB) and concerning students with disabilities, was founded on the Individuals with Disabilities Education Act. The objective of implementing standards-based curriculum was to fill the gap in learning for all students including those with special needs. The shift to standards-based curricula also increased the interest among scholars to conduct research studies related to the development and implementation of standards-based curricula, especially regarding those curricula provided to students with disabilities. Greer and Meyen (2009) conducted a study to determine how a standards-based curriculum benefits special needs students. In the regular classroom setting, the standards-based curriculum is generally based on group school performance from the AYP. In special education, however, the standards-based curriculum emphasizes the role of the IEP to guide instruction for special needs students. Additionally, the standards-based curriculum was implemented to ensure accountability in special education methods and practices (Toelle & Blankenship, 2008).

2.8 The Implementation of Curriculum Reform and the Role of Leaders

Educational leadership in terms of curriculum development relates to the involvement of scholars and educators in advancing the field (Association for Supervision and Curriculum Development & National Education Association of the United States Department of Supervision and Curriculum, 1978). The research points to the role of school leaders in the development of standards based curriculum. Below is noted a selected set of studies that show how principals and other leaders influence the development of standards based curricula since the enactment of NCLB in 2001. NCLB has accentuated the role of principals in curriculum development and reform in this era of standards based reform (Glatthorn, et al, 2009). This could be due to the fact that now, more than any other time in history, school leaders are held accountable for student achievement and academic performance.

Standards-based reform does not only focus on curriculum development guided by the performance of students but also emphasizes the value of appropriate leadership in curriculum development. Standards based reform highlights the important roles of educational leaders – special education directors or educators, and reading specialists, among others. Landel, Mundry, and Keeley (2009) highlight the professional knowledge base as an asset in developing standards-based curriculum. They write that, "new ideas have been shaped and influences by the growing research base that provides educators with insights into how students develop their understanding of specific ideas… and how preconceptions may impede learning if they are not surfaced and taken into account when designing instruction" (p. 4).

Considering the first hand experiences and observations of educators and other members of the school community in developing a standards based curriculum is important especially related to student with disabilities. This is because it is their responsibility to contribute to

existing knowledge base about these students, their learning situation and experiences, and the strengths and weaknesses of the curriculum in providing effective instruction. A study conducted by Burgess, Robertson, and Pattinson (2010) discusses the importance of helping educators understand their role in curriculum development, whether in early childhood education, special education, or the regular classroom setting. The study notes that failure of educators to contribute to curriculum development is attributed to their non-awareness of how their knowledge about the learning situation and the learners' needs affected curriculum development. Based on the results of the study, educators withdraw from participating and contributing in curriculum development when they do not know that their knowledge and experiences are highly relevant in guiding the direction of planning, developing, and implementing curricula.

Moreover, the implementation of curriculum reform and the role of leaders are important and valuable to the success of supporting teachers. The role of leaders in curriculum involves processes which focus on concise objectives by exerting its influence on student performance and teacher input. The key functions of curriculum leadership consist of decision making, organizing and guiding and has a deep impact upon the formation, implementation, reform and development of curriculum in schools. Therefore, collaboration among educational leaders in curriculum development and implementation becomes important in advancing the field of education.

2.9.1 Addressing Accountability of the NCLB Act

According to Lohmeier (2009), educators are faced with a challenging task of meeting state and federal mandates while maintaining the individuality of educational programs. Educators and certified orientation and mobility specialists dealing with students who are blind

and visually impaired have the greatest challenge as they struggle to identify an approach that enables them to address the subject areas of both the general curriculum and the expanded core curriculum, whether in classroom or in the Individualized Education Programs. Professionals dealing with students who are blind and visually impaired appreciate the the role of ECC as a critical component of education and development. It is also important to teach the skills required in these curriculum areas in isolation and also generalize them within other areas of ECC, and finally within the community.

When specialist educators and the general educators work together in aligning the ECC areas with state standards, they not only increase an opportunity to address the general curriculum but also the educational needs of students who are blind and visually impaired, including IEPs. Lohmeier asserts that this collaborative approach does not exclude teaching the ECC areas in isolation, but provides an extra means for the integration of ECC into the program. The core curriculum is designed to address skills that both sighted and blind students are expected to achieve from elementary level through high school. In most of the states across the United States, the core curriculum consists of language arts, health, mathematics, science, fine arts, social studies, economics, business education, vocational education, and history. With the new provisions and legal frameworks including the NCLB Act, students who are blind and visually impaired share the same curriculum with their sighted peers, in addition to specialized instruction (ECC) to address their individualized needs.

Lohmeier (2009) asserts that for equity in the acquisition of proficiency in the subject areas, specialist teachers must provide adaptations and instruction in developmental skills and concept areas that may be affected the students' disability. The expanded core curriculum is characterized by instructional areas that address skills and concepts associated with visual

impairment, such as compensatory skills, social skills, recreational and leisure skills, orientation and mobility skills, independent living skills, self–determination, assistive technology and technology skills, career education, sensory efficiency skills. Essentially, aligning ECC with the state standards promise a realistic bridge between development of concepts and proficiency demonstration for blind and visually impaired students.

Specialist teachers should collaborate with general education teachers in the public schools in order to build a more productive between teachers in addressing the needs of blind and visually impaired students. Aligning ECC with the state standards assumes five key steps as outlined below (Lohmeier, 2009):

i. The specialist teacher determines which academic goal from the state standards should be addressed in the classroom and/or in the individualized education program.
ii. The teacher analyzes the main intention of the goal through its key words.
iii. The teacher determines which ECC areas and concepts or vision-specific skills that the student should develop in order to address the intended of the already identified standard goal.
iv. The specialist teacher defines the vision specific skills and concepts in manner that generates an outcome that parallels the intent of the standard goal.
v. The teacher constructs a single integrated goal that is meaningful, accessible, and applicable to the student's learning environment.

Lohmeier (2009) affirms that the individual states do not have any standards to guarantee students who are blind and visually impaired the acquisition of skills defined under the expanded core curriculum (ECC). However, the Individuals with Disabilities Education Act (IDEA) - reauthorized in 2004 to align it with the No Child Left Behind Act 2001– states that all students

undergoing the individualized education program (IEP) must have functional outcomes or the ECC accommodated in the IEPs. In order to integrate the ECC goals and benchmarks within the IEPs, administrators as well as districts must observe their responsibility and accountability in the provision of appropriate instruction in compliance with the state and federal laws. As stipulated under IDEA, an IEP must ensure there is a direct relationship between the student's educational programs and the student's involvement in and progress toward the general curriculum that is similar to that of their sighted peers.

Moreover, IDEA stipulates that the IEPs must address the unique needs associated with the students' disabilities. It is important to address and integrate these skill areas into the IEP since many of the unique needs associated with students' disabilities are the same ones defined under ECC (Lohmeier, 2009; Hatlen, 2000). The challenge for teachers who are dealing with students who are blind and visually impaired is that an increasing number of states demand that IEP goals should be referenced back to the state standards as a reflection of compliance with accountability mandates, thus teachers can hardly develop any goals arising from students' disabilities. Lohmeier (2009) suggests that the IEP team should work collaboratively in the development of appropriate goals based on the data from the assessment of a student with visual impairment.

Expanded Core Areas	Examples of Skills and Concepts
Compensatory or access skills	Concept development, communication modes (Braille, print and others), organizational skills, required accommodations
Social skills	Social concepts, physical gestures, assertiveness training, social integration
Recreation and leisure	Hobbies sports, games, orientation, physical fitness
Orientation and mobility	Body image, travel, spatial awareness, safety, directionality
Independent living skills	Hygiene, food preparation and retrieval, financial management, time monitoring, dressing
Assistive technology or technology skills	Media literacy; technical concepts, selection of appropriate assistive devices, media needs, accessibility to information
Career education	Explore interests, areas of strength, job awareness, planning, preparation, placement, work ethic
Sensory efficiency skills	Visual, auditory, and tactual learning: environmental cues and awareness, personal attributes, sensory attributes, usage of low vision devices
Self-determination skills	Sense of self, decision-making, problem solving, goal setting, personal advocacy, self-control, assertiveness training

Table 2: A summary of the key areas of the expanded core curriculum [Adapted from Lohmeier (2009)]

2.9.2 Curriculum, Assessment, and Accountability in Residential Schools for the Blind

Over the years, there has been an increasing demand for accountability for schools and school districts, and it remains among the most significant and controversial educational reforms witnessed in the United States. Student performance on the basis of assessments is among the key indicators that have dominated the national educational policy for a long period of time, and with the recent reauthorization of the Elementary and Secondary Education Act (NCLB Act of 2001) the accountability requirements for schools has grown to a much higher level (Gagnon &

McLaughlin, 2004). The current educational accountability emphasizes on the assessment of student performance through periodic tests in order to ascertain whether the student has gained knowledge that meets the content standards (Fuhrman, 1999; Heubert & Hauser, 1999; Linn, 2000; Olson, Jones, & Bond, 2001).

The newly established federal and state accountability systems have a direct focus on schools and involve the collection of school-level data, specifically data on student performance, and the dissemination of the performance standards or levels into the public domain statewide. Similarly, schools account for individual student performance through report cards in order to enable parents and guardians to keep a check on student performance. Under the new accountability systems, the school-level performance data are the basis for sanctioning or rewarding individual schools as well as targeting improvement initiatives at the school level (Fuhrman, 1999; Linn, 2000; Olson, Jones, & Bond, 2001). These reports have become characteristic of accountability systems worldwide, and their consequences include public assessment of performance based on the key indicators resulting into rewards and sanctions (Gagnon & McLaughlin, 2004).

Typically, students are held directly accountable for their performance at the high school level based on the completion of specific curriculum requirements or a set of courses (Heubert & Hauser, 1999). Almost all states have established the minimum course requirement for high school students within specific academic areas. For residential schools for the blind, the new demands for public accountability (based on student performance) have seen a shift from an accountability model that was based on the individualized education program (IEP) goals and the school system's compliance with the standardized procedures (U.S. Department of Education, 2002). Traditionally, accountability with regard to individual student performance has been

individualized and based on the individualized education program review process, rather than being hinged on a standard and publicly reported (McLaughlin & Thurlow, 2003; Wolf & Hassel, 2001). The No Child Left Behind Act established new policies focusing on assessment, accountability, and expectations that all students with disabilities will be held to the same performance standards as their typical peers. The NCLB Act provisions demand that every student with a disability has access to the general education curriculum, participates in both state and local assessments, and have their assessment results reported in the same manner as other students. The new provisions target the promotion of higher performance standards and improved results for all students with disabilities (Gagnon & McLaughlin, 2004).

One of the basic tenets of the NCLB Act is the principle of inclusion which requires that all students with disabilities - to the maximum extent possible – share the same educational opportunities as the general population. The principle of inclusion was inspired by the widespread practice of educating students with disabilities in isolation from their peers in the general population. In most cases, the isolation was profound and disabled students undertook their educational programs in separate day schools or physically isolated buildings within local schools. The disabled students barely had the opportunity to interact with their non-disabled peers. However, for the blind and visually impaired students, this isolation was not as prevalent. Educators dealing with students who are blind and visually impaired have always believed that their students have a place in public schools.

Over the last decade, educators of blind and visually impaired students have come to acknowledge that the educational curriculum for their students has two major components: instruction in traditional academic areas; and instruction in disability-specific areas. Accordingly, students who are blind and visually impaired deserve the same instruction that their peers in the

general population receive in reading, mathematics, science, language, social studies and arts among other subjects. Moreover, these students deserve chronological-age and developmentally specific or appropriate instruction in the skill areas so that they can meet their unique needs. In preparation for adult living, students who are blind and visually impaired ought to participate in educational programs based on the dual curriculum – the core curriculum as well as the expanded core curriculum. In other words, students who are blind and visually impaired share the same curriculum with their non-disabled peers, in addition to the disability-specific curriculum – the expanded core curriculum (Curry & Hatlen, 2007).

The regular academic component of the dual curriculum is determined by the state and local policy. Even though there is room for personal differences, academic requirements are hinged on their shared benefits in the community. All students enrolled in a local educational institution must complete the required courses and demonstrate the standardized competencies before advancing to the next grade level. The level of teacher involvement in the instructional programs doesn't change – the subject matter of study does. It is generally assumed that as students familiarize themselves with a specific area of the academic curriculum, they are likely to increase their concentration on a more complex aspect of that given subject or even in another study area. Curry & Hatlen (2007) assert that for students who are blind and visually impaired, the responsibility for skill and knowledge development rests primarily with the classroom teacher.

The second component of the dual curriculum is based on individual student need. Due to the variations in the disability-specific needs of each student, the nature of direct instruction by the specialist teacher also varies for every given student. From a traditional perspective, the extent to which a specialist teacher engages with students who are blind and visually impaired

hinges on the philosophy that the students must be instructed in the regular classroom. As a result, the teachers' efforts are centered on instruction with regard to special academic and communication skill need which is a prerequisite for the integration of students who are blind and visually impaired into the regular classroom. Ideally, students in regular first grade classrooms may demand for extensive amounts of intervention services including intensive instruction in specialized reading and writing methods, concept development, and utilization of adaptive equipment. However, a well prepared high school grade student who is blind and visually impaired may need specialized assistance only in the retrieval of books and reading materials required by the regular classroom teachers. In essence, a high school student with a solid foundation regarding special academic and communication skills can handle an integrated placement with minimal or no specialized support (Curry & Hatlen, 2007).

The special needs of students in residential schools for the blind are most intense in early years, especially when the focus is on reflexive development, proprioceptive awareness, gross, and fine motor development. But, by adolescence most of the specialized education needs of students who are blind and visually impaired with regard to the sensory/motor area have been developed. The focus at this stage shifts to the refinement or reinforcement of previously learnt skills, which is coupled with a significant drop in the intensity or level of instruction. Elsewhere, while there is a significant decrease in the sensory/motor needs, there is a rapid increase in specialized teacher involvement with regard to orientation and mobility needs of these students. The development of sensory/motor skills prepared the students for the later acquisition of orientation and mobility skills. The intensity of specialized instruction in orientation and mobility skills continues to increase until the educational program is complete. More often than

not, advanced instruction in this skill area must continue after high school graduation, even for the most adept student (Curry & Hatlen, 2007).

Furthermore, there is need for a gradual increase in the intensity of instruction with reference to the daily living skills of students who are blind and visually impaired. Curry & Hatlen (2007) note that even though instruction on independent living skills commences at a relatively high level in early childhood, the acquisition of an increasing multitude of skills is necessary in the performance of complex tasks in order to guarantee a satisfying and productive adult life. Most of these skills are learned casually by sighted individuals, however intensive instruction is needed for students who are blind and visulally impaired. Curry & Hatlen argue that personal management is among the most vital areas of specialized instruction, other than being the most difficult to implement in public school curriculum.

Similarly, career education is initiated from early childhood through the development of personal autonomy, independent decision-making and task responsibility, in addition to appreciation of adult lifestyles. Due to the lack the ability to observe people at work affects their knowledge on how adults live in the society, students with visual impairments require specialized instruction. In ascertaining positive career development, the students must be exposed to a variety of work settings outside the school so that they can directly observe adults, including adults who are blind. It is only through such direct experience that these students can understand the world of work, individual responsibilities at the workplace, and the job market or employment opportunities at their disposal. Curry & Hatlen (2007) assert that work experience programs forms part of the curriculum for high school students who are blind and visually impaired, since such experience enhances awareness with regard to rewards and satisfactions of work, as well as opportunities for later employment. Some of the main stakeholders in the

planning and implementation of career education curriculum for students who are blind and visually impaired include the specialist teacher, the orientation and mobility instructor, and the parent.

Curry & Hatlen (2007) also report that the social and emotional needs of students who are blind and visually impaired remain considerably stable over time. The realization of these social and emotional needs in early childhood is primarily achieved through the involvement of parents. Generally, specialized instruction targets parents and primary caretakers in order to provide the necessary guidance in supporting their efforts thus fostering positive development of the student's sense of self. Nonetheless, these students still need the intervention of the specialist teacher who must oversee the students' response to socialization and recreation in the society, how they deal with a visually-oriented world, their response to the state of blindness and visual impairment, and the students' acknowledgement of individual assets and the problems associated with blindness or visual impairment.

2.9.2.1 Guidelines for Instruction of Students who are Blind or Visually Impaired

1. **Classroom teacher's style and philosophy of teaching affects the academic and social gains of student with visual impairment.**
    - Provide a structured and organized environment so the student knows where things are and what to expect.
    - Enhance social experiences by providing seating arrangements that facilitate student's entry into a peer group. For example, have 4-6 students in cooperative learning groups.
    - Change seating assignments frequently throughout the school year so the student has opportunity to meet a work with a variety of classmates.

- Provide opportunities where the student has a chance to select a partner during group and free-play activities.

2. Involvement of the teacher of students with visual impairments during in-class and withdrawal instruction/support; and cooperation and willingness of the classroom teacher to provide a positive integrated environment.

- Develop a positive atmosphere and communication style with the regular classroom teacher so questions and concerns can be addressed.
- Observe and participate in the regular classroom as much as possible on a consistent, on-going basis.
- Provide in-service training workshops for classroom teachers who will have a student with visual impairments in their class. Emphasis should be placed on the effects of a vision loss on learning and appropriate adaptations and accommodations needed.
- Provide opportunities for the classmates who are sighted to ask questions about visual impairment.
- Meet regularly with classroom teachers. Help the student who is visually impaired understand his/her visual loss and how to communicate his/her needs effectively.

3. Integration of students with visual impairment must be evaluated against both academic standards and social criteria specific to the grade level the student is enrolled.

i. Does student with visual impairment play with and communicate with peers similar in frequency to those who are sighted?

- Assist the student in selecting a peer to be a buddy in the classroom, during recess, and while traveling throughout the school as a class.

- Have the student invite a classmate to share in a project or activity that is being worked on in the resource room.
- Provide opportunities that promote the cooperation and sharing between the student with visual impairment and classmates.
- When working with a student with visual impairment in the classroom design activities which include his/her peers.
- Create activities in the classroom environment that both visually impaired and sighted can do together.

ii. Do peers talk to and play with the student with visual impairment in the classroom, on the playground or invited to after school or weekend activities?

- Encourage parents of students with visual impairment to invite the student's classmates into the home for birthday parties, over-nights, outing etc.
- Provide opportunities for the student to become involved in recreational activities by discussing the topics, concepts, and language others are using around games, clothing, activities, and organized sports.
- Provide opportunities for parents in the school community to become aware of the program for students with visual impairment.

iii. Does the student with visual impairment show affection and preference for particular classmates?

- Identify the students' friends in the class.
- Encourage the student to express positive feelings toward classmates.
- Encourage sharing of materials, toys, games and choosing partners when required in the classroom.

- Encourage the student to help classmates.
- Facilitate discussions regarding friendships and becoming aware of the feelings of others.
- Encourage the student to express his/her needs in simple terms to teachers and classmates.

iv. Does the student with visual impairment interact with others during recess times; do educators, when necessary, intervene so the student does not become isolated?

- Suggest recess games the student can participate in with his/her classmates who are sighted.
- Adapt games so student can participate.
- Have student choose a buddy to play with at recess.
- Provide toys the student can play with at recess that will attract the attention of others.
- Provide opportunities for the student to try and select the above strategies in real situations.

v. During the school year, how does the student's social status change and develop with his/her classmates.

- Allow opportunities for classmates who are sighted to learn about the visual impairment.
- Help classmates come up with activities that will include a student with visual impairment.
- Brainstorm activities and methods with the classroom teacher that will maximize the inclusion of the student with visual impairment.
- Help the classroom teacher solve social problems related to the student with visual impairment, as they arise during the school year; and allow the teacher to communicate his/her frustrations and feelings.

4. The classroom environment needs to promote the social well-being of all students in the class.

- Attempt to find placements in the classroom so affective education is emphasized for all students.
- Look for situations in the classroom that fosters the development of a positive self-esteem.
- At the primary level select classrooms that stress equally academic and social competence.
- Opportunities to meet and discuss in a relaxed manner with the regular classroom teacher the differences between the social, physical, and emotional aspects between students who are visually impaired and sighted.
- Help all students recognize the strengths and limitations of all classmates through discussions and activities within the curricular framework.

2.9.3 Common Core State Standards for Maths, and English Language Arts & Literacy in Other Core Areas

According to the National Governors Association Center for Best Practices (2010), the Common Core State standards are the first step in the provision of high-quality education among young Americans, and accordingly evry student, parent, and teacher should have a clear understanding of these standards as provided under the various schools across the United States. Parents, community leaders and teachers have played a participatory role in the creation of Common Core State Standards, which clearly define what is expected of students at each grade for both the students with disabilities and the general student population. These standards require teachers to be more equipped with instructional skills that are needed in initiating the

individualized education program. The Common Core State Standards are directed towards conceptual knowledge and procedures from the early stages of learning, thus providing ample time for teachers to build foundations for the core concepts and procedures and enable students to be well prepared for complex concepts and procedures in future. The involvement of both parents and teachers while focusing on shared goals will ensure improved performance amongst students each year and prepare the students for college and even modern workforce.

The Common Core State Standards for Mathematics highlight what students are expected to understand and develop the ability to do in their study of this particular subject. When a teacher asks a student to tackle a mathematical problem within a classroom setting, he/she is simply assessing whether the students has understood the subject or issue under study. One of the basic tenets of mathematical understanding is the ability to justify, while considering the level of the student's maturity, the theory behind the mathematical statement or its origin. The National Governors Association Center for Best Practices (2010) asserts that there is a major difference between a student who can employ the use of a mnemonic device to expand a product such as $(x+y)(a+b)$ and a student who can explain the theory behind the mnemonic device. Ideally, the student who can explain the rule has a better understanding of mathematical concepts and may find it easy to expand such a product as $(x+y+z)(a+b)$. Both mathematical understanding and procedural skill are important and can be assessed using mathematical problems of various kinds.

The mathematical standards are guided by two evidence-based principles – focus and coherence. Focus enables students to have sufficient time for thinking, practicing, and integrating new concepts into their growing knowledge structure. It facilitates rich classroom discussion and interaction that accommodate standards for Mathematical practice. Similarly,

coherence stems from mathematical connections, and some of the connections in the standards draw topics together withing a sigle grade level (e.g. area models and multiplication in grade 3). However, most of the connections emerge across two or more grade levels forming a progression of expanding knowledge and skills. The instruction at an advanced grade level is informed by the a student's overall progression across all the previous grades. Teachers must also acknowledge the connections that exist between content standards and practice standards, since this connections are essential in supporting the development of a student's overall mathematical understanding. The Model Content Frameworks emphasizes that Mathematics is not a checklist of fragments to be mastered, rather a subject that should be understood by connecting content and practices (Partnership for Assessment of Readiness for College and Careers, 2010).

The Common Core State Standards set garde-specific standards, however they do not define instructional approaches or the necessary materials for supporting students who are either below or above grade-level performance expectations. These standards also do not define the full range of specialized support or instruction for students with disabilities. The standards emphasize that all students must have access to high standards of learning so that they can acquire the necessary knowledge and skills for college-readiness and ultimately for absorption into the workforce. The standards encourage students from all backgrounds, whether with disablities or not, to participate fully in educational programs along with the necessary accomodations for students with special needs. In the case of students who are blind and visually impaired, schools should offer Braille, screen reader technology, and other assistive devices for reading, and a scribe, computer, or speech-to-text technology for writing. It is important to note there is no set of grade-specific standards that can fully address the individualized needs of all students, rather it is upon the school to establish instructional

methodologies towards the individualized education program (National Governors Association Center for Best Practices, 2010).

The Common Core State Standards for English Language Arts and Literacy in other subjects including History, Social Studies, Science, and Technical Subjects stem from an extension of broad-based efforts to meet the standards set by states in creating the next generation of K-12 standards that will ensure all students are college- and career-ready in literacy by the end of high school program. The current attempts to address the standards are led by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO). It builds on the foundation of the standards outlined by states several decades ago in the drive towards the realization of high quality education standards. The standards borrow ideas from international models and research from a variety of sources such as state departments of education, scholars, and professional organizations, educators from all levels, parents, students, and even the public. The standards have been refined through successive drafts and feedback, and their design and content represent a synthesis of the best elements that will improve English language and literacy in other subjects (National Governors Association Center for Best Practices, 2010).

The National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO) contend that the standards are influenced by rigorous research and evidence-based; aligned with college and job-related expectations; and are based on international models. The inclusion of any standard in the document was guided by the best available evidence to support that its mastery would create college and career-related readiness that were at par with the international standards. The standards are contained in a living document – when new evidence emerges, there's room for revising the standards accordingly. The standards on English

Language Arts are based on an initial initiative aimed at the development of College and Career Readiness (CCR) standards in reading, writing, speaking, listening, and language, as well as Mathematics. Grade-specific K–12 standards in reading, writing, speaking, listening, and language are translated into age- and attainment-appropriate terms within the classroom setting (National Governors Association Center for Best Practices, 2010).

The standards highlight the requirements for English language arts (ELA) as well as literacy in history, social studies, science, and technical subjects. The literacy skills and knowledge required for college and career readiness with regard to multiple disciplines are contained in the standards which emphasize that teaching English language arts must enable students to read, write, speak, listen, and use language effectively in a variety of content areas. According to the National Governors Association Center for Best Practices and the Council of Chief State School Officers, the literacy skills for grade 6 and above are predicated on educators of English Language Arts, History, Social Studies, Science, and Technical subjects. The educators or teachers are encouraged to employ their content area expertise in helping students to address particular challenges with regard to reading, writing, speaking, listening, and language in their respective fields. Accordingly, the grade 6-12 literacy standards in these subject areas are not meant to replace the content standards, but rather to supplement them. These literacy standards should be incorporated into the subject-specific standards (National Governors Association Center for Best Practices, 2010).

Essentially, these standards define a clear-cut vision regarding the qualities of a literate person in the contemporary education system. The skills and knowledge obtained by students during learning should be applicable beyond the classroom setting into college and ultimately at the workplace. The students who attain the English Language Arts and Literacy standards are

fluent and attentive in reading, writing, speaking, understanding and enjoying complex works of literature. These students can perform critical reading necessary to identify the main ideas through an overwhelming volume of information whether print or digital. They are pro-active in seeking wide, deep, and thoughtful engagement with rich literary and informational texts that is endowed with knowledge and broadens worldviews. Above all, these students reflexively demonstrate the cogent reasoning and use of evidence that is necessary for personal deliberation and responsible citizenship.

2.9.4 Principles of the Common Core State Standards

More often than not, state standards and assessments dealing with the accomodation of students with disabilities – a heterogeneous group with unique characteristics and specialized needs – are not addressed satisfactorily or sometimes ignored. The Common Core State Standards (CCSS), as McLaughlin (2012) notes, is a fundamental component in the improvement of acces to rigorous academic standards for students who are blind and visually impaired. However, effective implementation of the CCSS can only be realized through an assessment of each individual student's characteristics in order to accommodate the student's needs to the maximum extent possible. Since it has been established that there is no single and definite approach in the provision of access to the Common Core, the implementation process must address the most important areas – instruction and assessment. As principals address the implementation of CCSS in residential schools for the blind, the following six principles must be observed (McLaughlin, 2012):

1. **Recognizing that students with disabilities are a heterogenous group demanding for individualized educational planning**

Students who are blind and visually impaired have different needs from students with learning disabilities or students with autism. However, even students who are blind and visually impaired may vary tremendously with regard to their support and instructional needs necessary for access to CCSS. Ideally, this forms the basis for the individualized education program which provides specific support and instructional needs for students who are disabled. The support and instructional needs of every individual student should be guided through a careful assessment of the student's current level of performance in reference to the state standards. The support and accomodations should focus towards the improvement of specific aspect of disability that impedes smooth learning, including behavioral, emotional, and physical aspects. In order to address the needs of students who are disabled, specialist teachers must apply the principles of (UDL). The National Center on Universal Design for Learning reports that UDL emphasizes that in order for a goal to be effective and realistic, it must exhibit flexibility by offering the learners multiple ways of goal achievement. In other words, the established standard must clearly highlight the means of achieving the target goal.

2. Distinguishing between accomodations and modifications

The provision of multiple ways of learning the standards for students, in addition to their expression of knowledge and abilities complements the conceopt of accomodation. However, educators often use these two terms interchangeably without a clear understanding of the difference. Accomodation implies a device, intervention, or practice that guarantees equal access to instruction for students who are blind and visually impaired. It targets the reduction or elimination of the impact of blindness or visual impairment so as to allow the student achieve the desired standard. Accordingly, accomodation neither has impact on the content of the instruction, nor does in reduce learning or achievement of defined goals. For instance,

intoducing a text-to-speech gadget or an iPad to enable a student access grade-level text (audio) so that the student can respond to questions and demonstrate comprehension. A modification may also be a device, intervention, or practice, however it involves chaning the core content standard or performance objective. For instance, when a student uses text-to-speech device which is an accomodation with the intent of obtaining and comprehending content knowledge, yet it can also be a modification in the CCSS foundational skills.

3. **Support a teacher-friendly environment, set realistic expectations for teachers, and use evidence-based practices**

School principals or the overall management play a major role in helping teachers to understand the best approaches in addressing student instructional needs. In order to create improved instruction, the principals or management must provide opportunities for general and specialist teachers to collaborate in developing and implementing evidence-based practices or interventions, as well as the application these practices to instruction in the CCSS. It has been noted that most of the specific interventions have been useful in improving learning within residential schools for the blind. The evidence-based interventions are characterized by explicit, intensive instruction and close monitoring of individual student learning. It aids teachers in the identification of conceptual and procedural knowledge, and skills in Mathematics, Arts, English language and Science; teach the skills directly and more clearly; and give students the opportunity to concentrate their efforts in mastering the skills.

4. **Augment state assessments with a school-based asssessment program that can evaluate progress and growth**

Assessment of student progress with regard to CCSS is very essential. Five assessment consortia have been established to assess the achievement of the CCSS. They include:

i. Race-to-the-top assessment consortia;

ii. Partnership for assessment of readiness for college and careers (PARCC);

iii. SMARTER balanced assessment consortium (SBAC);

iv. Alternative assessment consortia for the assessment of alternative achievement standards for students with significant learning disabilities:

- Dynamic learning maps (DLM)
- National Center State Collaborative (NCSC)

v. English language proficiency (ELP) assessment consortium:

- Assessment services sup- porting ELs through technology systems (ASSETS)

Generally, students with disabilities are guaranteed a chance for participation in the same assessments as their peers, but they will be entitled to accomodations. Schools must also develop an assessment system that can be used to measure and evaluate student progress parallel to the state assessments. The leadership of the school should embrace systems that will ensure continuous monitoring of student performance to enhance the end-of-year snap-shot assessment system. Some of the continuous assessments include curriculum-based measuremsnts such as reading fluency probes and performance-based tasks measurable within classrooms using common rubrics. Both the general and specialist teachers should examine and discuss student work in order to establish student progress and address the areas of concern.

5. Understand and support the alignment of IEPs with the CCSS

A standards-based IEP ensures that individual educational goals have a direct link to the grade-level curriculum standards. The individualized educational program highlight individualized plans of accomodations and supports designed for each student to enable the student meet the expected standards. The school management must avail the necessary resources

that teachers may require in the development of standards-based IEPs. According to the National Association of State Directors of Special Education, in order to create a successful standards-based IEP the following six steps must be observed:

i. Assess the standards of the grade-level curriculum for the grade in which the student is enrolled or will be enrolled based on age.
ii. Carry out an examination of the classroom and student data so as to determine student progress with reference to the grade-level standards.
iii. Establish the current level of academic and functional performance.
iv. Develop measurable annual goals which parallel grade-level curriculum standards.
v. Assess and report student progress throughout the course or on an annual basis.
vi. Identify learner-specific instruction or specialized instruction, including accomodations and modifications that are vital in the access and progress of the general education curriculum.

6. Recruit and support well-trained specialist educators

Recruitment of new staff personnel should target graduate specialist educators from accredited professional institutions, who have experience in the specialized skills for safe and effective practice including empirical research, disciplined inquiry, informed theory, and wisdom of practice in their area of expertise. Other than recruiting experienced staff, the principals must also appreciate the importance of professional development in helping teachers to fully understand the common core state standards.

Both specialist and general educators should collaborate in developing specific instructional contents that ill accommodate a significant number of learners. All educators must undego professional development so as to understand the effective practices suited for their students.

Above all, the school management, specifically the principal, must foster collective responsibility and help teachers understand their roles in the relaization of the standards.

CHAPTER 3

3.0 Research Methodology

The objective of this study was to trace the history of curriculum development in residential schools for the blind and visually impaired post-NCLB. Specifically, this study sought to uncover the ways in which curriculum developers at residential schools for the blind responded to the mandate for standards-based curricula and increased accountability across all sections of the student population, including students with disabilities. To achieve this objective, I studied three cases to both examine the responses of three individual schools as well as compare the schools' responses in relation to one another to uncover similarities and themes unique to residential schools for the blind. In this chapter I present my research design and methodology, data collection procedures, and the framework used to analyze the data.

Research Design

Merriam (1998) notes that "qualitative research is based on…the view that reality is constructed by individuals interacting with their social worlds" and that "qualitative researchers are interested in understanding the meaning people have constructed…how they make sense of their world and the experiences they have in the world" (6). In this study I sought to understand the ways in which curriculum developers at residential schools for the blind negotiated and constructed their realities in relation to the tasks and responsibilities set before them by NCLB. Specifically, I wanted to understand and gain insight into how these individuals balanced and made sense of the mandates and directives handed down by the federal government. To gain both an insight into the response of individual schools as well as to gain an understanding of the similar processes and conceivable obstacles the schools' experienced collectively, I utilized the case study method. To explore and examine the cases selected, I conducted in-depth, semi-

structured the examination and exploration of the cases selected interviews and collected and analyzed various documents to both inform and enhance

Use of the Case Study Method

Cohen, Manion & Morrison (2007) note that the advantages of the case study method in conducting educational research include the following: (1) grounded to reality; (2) development of strong generalizations based on observable, and thus, factual realities; (3) recognition of the importance of social construction, organization, and truths in influencing certain phenomena; (4) obtainment of descriptive and observable material that makes for a strong and effective conclusion or generalization; (5) leads to the development of new theories, (6) and the accessibility of data from actual sources; (7) provides relevant issues or ideas about similar topics, which allows for the expansion of the research in the future; and (8) least influence of bias since the data are from actual primary references. The use of the case study method as a research strategy allows the researcher to hone in and focus on the culture and dynamics that are present within a single organization or setting (Eisenhardt, 1989). Further, Merriam (2001) notes that case study is an appropriate and suitable research design if one is interested in how things happen or happened and the process by which things occurred. She also notes that there are features of the case study method that make it more suitable for certain types of research. These features include the ability to examine specific issues or instances, to uncover complexities of a specific situation and show the ways in which external factors and forces influence a situation and the ability to isolate or attempt to isolate the reasons or impetus for particular problems or situations.

The inherent design of case studies allows the researcher to uncover specific details and particularities from the vantage point of the study participants (Tellis, 1997). In this study, I

performed what Yin (1993) refers to as an exploratory/collective case study due to the nature of my research questions and the fact that I studied multiple cases.

Interviews

Weiss (2004) notes that "qualitative interviews ask about the details of what happened—what was done and said, what the respondent thought and felt [and]…the aim is to come as close as possible to capturing in full the processes that led to an event or experience" (46). To uncover and explore the curricula processes and events at residential schools for the blind, post NCLB, I conducted in-depth, semi-structured interviews with relevant school staff. In-depth interviews yield useful and meaningful information that can significantly inform the researcher about the occurrences and events that influenced a particular situation or phenomena (Weiss, 2004).
In semi-structured interviews, responses from interview participants are directed towards specific areas of inquiry—the research questions (McIntosh, 2009). The semi-structured interview is tailored in such a way so as to illicit participant responses that are subjective in nature but when examined and analyzed alongside the objective knowledge of the interviewer can be a significant and useful addition to the understanding of a particular problem, occurrence or situation (McIntosh, 2009).

Document Analysis

Glenn (2009) notes that document analysis is often used in combination with other qualitative research methods as a means to understanding and grounding the phenomena to be studied or explored. Denzin (1970) adds that "the qualitative researcher is expected to draw upon multiple (at least two) sources of evidence…to seek convergence and corroboration through the use of different data sources and methods (291). The combination of methodologies in the study of the same phenomenon has been referred to as "data triangulation" (Denzin, 1984).

Eisner (1991) writes that "by triangulating data, the researcher attempts to provide a confluence of evidence that breeds credibility" (110). Documents provide insight into the context within which the research participants operate and can aid in the suggestion of possible questions that might need to be asked by the researcher to clarify or qualify information uncovered during the analysis of documents (Glenn, 2009). Further, document analysis can provide a means of tracking changes and developments, and can even be used to verify particular findings (Glenn, 2009).

Analytic Framework

Eysenck (1976) wrote that "sometimes we simply have to keep our eyes open and look carefully at individual cases—not in the hope of proving anything, but rather in the hope of learning something" (9). In this study I sought to uncover the "how" and "why" of the process (or lack thereof) of curriculum development in residential schools for the blind, post NCLB. In doing this and employing the use of interviews and document analysis, I used the method of thematic analysis in analyzing the data to uncover themes and similarities across the three cases related to the ways in which the three residential schools for the blind responded to the mandate for standards-based curriculum alignment. This method of analysis was chosen and was deemed most appropriate given the ability it presents to generalize based on the themes apparent across the cases—lending insight into the challenges and/or issues faced by residential schools for the blind in developing and responding to the mandate for standards-based curricula.

Braun and Clark (2006) note that thematic analysis is one of the foundational methods of qualitative data analysis and is a method that is appropriate for identifying, analyzing and reporting patterns and themes within the data. Braun and Clark (2006) also discuss that thematic analysis allows the researcher to provide "rich" detail in his/her report. Charmaz

(2003) describes rich data as data that reveals the true thoughts, feelings, intentions and actions of participants and "affords views of human experience that etiquette, social conventions and inaccessibility hide or minimize in ordinary discourse" (page 25) Braun and Clark (2006) describe a theme as something important that is revealed in the data, relating to the research questions, that represents some level of meaning within the data.

Additionally, Braun and Clark (2006) note that thematic analysis allows the researcher to identify and examine the underlying ideas and assumptions present within the data being analyzed. In sum, thematic analysis involves a careful interpretation and read of the data set, in this case interview data, to uncover and reveal repeated patterns of meaning. In this study I used thematic analysis to understand and to reveal similarities and differences in the cases relative to the ways in which they curriculum developers responded to the changing environment of standards-based reform.

3.1 Data Collection

In this study I analyzed and examined the processes at three residential schools for the blind and the ways in which the schools responded to the NCLB mandate of standards-based reform and curricular alignment with identified standards. In seeking to answer my research questions with dealt with influential factors, external forces and internal procedures I utilized a multistep data collection process which involved sample selection and identification of the three residential schools selected as cases, selection of interview participants and document retrieval and analysis.

Sample Selection and School Recruitment

Using my prior and background knowledge of residential schools for the blind along with the annual publication of the American Federation for the Blind and Visually Blind, I compiled a list of the thirty-nine (39) residential schools for the blind located in the United States. From the list, in no particular order, calls were made to twenty (20) school leaders explaining the focus of my research and soliciting their schools' participation in the study. During the initial call process, I was able to speak with many school leaders during the first contact, however, many were unavailable during my call and voicemail messages were left in these instances. Two schools were intentionally omitted from the initial call list due to their current and past involvement in multiple research projects. In this study, I wanted to include those residential schools who were not the most popular or large, but who were equally important to understanding the overall landscape of the education and curriculum development in these specialized schools.

After making initial contact (via phone and voicemail) with the twenty schools chosen, I received verbal and written commitment and agreement from three (3) schools to participate in the study. Many of the initial calls were not returned. I also received refusals and denials from several schools who indicated that their current curricular focus was on the Common Core Standards and they did not wish to participate in a study where the focus was on past practice. Initially one school agreed to participate and submitted a letter of commitment but later withdrew their participation. The superintendent of that particular school indicated that they felt the study and the interview process would be too distracting and overwhelming to teachers and would ultimately disrupt the day-to-day flow of the school's normal activities. After the withdrawal of that school, I contacted other schools who had initially expressed some level of interest but

whom had not made a commitment to participate. I was able to gain commitment from one additional school that was similar to the school that withdrew.

After solidifying the three (3) schools that would ultimately participate as cases for the study, I made follow up contact via phone and email with each school's superintendent/principal to provide further details about the study and a time frame for when the research would be completed. I also provided to the schools a rough estimate of the amount of time that would be required of staff in order to complete the research. Champion (2002) describes this type of sampling technique as convenient or opportunity sampling where selection or the sample is based on availability or who can conveniently participate.

The three schools that agreed to participate in the study were located in the southern and northern regions of the United States and is a member of the Council of Schools for the Blind (COSB). The COSB is a membership organization of special purpose schools for students who are blind or visually impaired, including those with multiple disabilities. COSB is a consortium of specialized schools in Canada and the United States whose major goal is improving the quality of services to children who are blind and visually impaired. COSB schools provide important leadership in the continuous improvement of educational outcomes for all students with blindness or visual impairments in the United States through a wide variety of services and supports. Key among these are specialized residential and day campuses in most states; short and longer-term program options; outreach services to students and educators in under-served areas; training and networking opportunities for families; professional development programs; the development of specialized curricula and teaching practices; research; Braille production; and clearinghouses for instructional materials and public information on blindness. Each COSB school has developed its mix of services to be a valuable partner in the continuum of educational

opportunities for students in its home state, and each COSB school is a committed advocate for excellence in the education all children with visual impairments (http://www.cosb1.org/).

Selection of Interview Participants

McIntosh (2009) discusses the importance of selecting the appropriate individuals to interview when employing the semi-structured interview method in qualitative research. She writes that "participants for semi-structured interviews are selected because of their particular experiences, perspectives or expertise, and not because they are demographically representative of the larger population" (page 20). Creswell (2007) adds that interview candidates should be chosen based on their ability to provide the most useful or credible information to the study. This type of selection or sampling is referred to as purposive sampling—where there is clear criteria and rationale for selecting particular interview participants (Charmaz, 2003; Barbour, 2003).

You (2011) writes that curriculum development, or curriculum making "is conducted within complex contexts through the efforts of multiple players" (page 109). The process of curriculum development, then, involves many activities and processes that "emerge within webs of societal, political, and cultural ideologies which, in turn, reflect the voices and agendas of various interest groups" (You, 2011, page 115). The purpose of this study was to understand the "activities and processes" of those individuals involved in curriculum development at residential schools for the blind. Specifically, how these individuals responded to the mandates of NCLB and the internal and external forces that influenced and affected their ability to respond to the standards movement. To accomplish this, I used purposive sampling to identify and select the individuals at the three schools selected that were directly involved in curriculum development at their respective schools during the period immediately following the passage of NCLB.

To accomplish the objective of the study and to select the appropriate participants, administrators from each of the three schools (herein referred to School A, School B and School C) were asked to provide a list of school staff who were directly involved in curriculum development and who served on the curriculum development team during the period when NCLB was enacted. Once the lists were received, they were reviewed and individual staff members were contacted and asked to participate in the study. The selection of school staff to interview was deliberate and purposive. As noted above, my objective was to uncover the ways in which curriculum develop happened post-NCLB so only staff who were involved in curriculum development during the period when NBLB passed were selected. This meant that only those staff that had been at the schools between 5 to 7 years was selected.

The important role of the principal in guiding curriculum development in schools was discussed earlier in the literature review. For the reasons outlined, the principal at two of the residential schools were interviewed to better understand the motivations and reasoning that led to and influenced the decisions to adjust and/or change the curriculum. The curriculum development at one school was included in the interview sample due to his direct involvement and role as a curriculum leader at the school. Teachers were also interviewed in order to gain a clear understanding of the effects of curriculum development on the processes of teaching and learning in the respective schools. Therefore, the goals of the interviews was to examine the issues from two perspectives—the background and process of curriculum development in residential schools for the blind and how the development of curricula affected the teaching and learning process.

From the list provided by each school's administrator, staff members were contacted to gain commitment and interest in participating in the study. As stated above, not all staff that was

indicated on the list provided by the administrators was contacted. Only those staff deemed to have been present at the school during the period of the passage of NCLB and those directly involved in curriculum development were contacted for possible inclusion in the interview sample. Of those staff contacted for inclusion in the sample, some accepted and some refused the invitation to participate for various reasons including unavailability and disinterest in the study. The final interview sample included three teachers (Teacher A1, Teacher A3, Teacher A4) and the principal (Principal A2) from School A; two teachers (Teacher B1 and Teacher B2) from School B and; two staff (Principal C1 and Curriculum Coordinator C2) from School C.

3.2 Research Instruments and Methods

Researchers note that the semi-structured interview is appropriate to use when the researcher is knowledgeable enough about the research topic to be able to identify the topic's main components but needs to explore and investigate further because he is unable to anticipate all possible outcomes and answers to the questions being posed (McIntosh, 2009; Morse & Feld, 1995). In the semi-structured interview, the interviewee or participant is privileged as the "knower", however, the information and perspectives provided by the participant gives rise to new themes and new categories by which to understand and create new meanings related to the research questions. In this study, the semi-structured interview method was used to gain an understanding about the type of educational programs being offered for students who are blind and visually impaired.

The semi-structured interviews were conducted face-to-face and were recorded using a digital recorder. Handwritten notes were also taken during the interview to aid in the identification of points when follow-up or probing questions were necessary and to also note points during the interview where key themes were identified by participants. Shuy (2001) notes

the advantages of face-to-face interviews includes providing structure to the interview, optimal communication (both verbal and non verbal communication) and the ability of the researcher to discern uneasiness or discomfort and to possibly avert these occurrences if necessary. After gaining consent from interview participants I reiterated to participants that their participation was completely voluntary and that any identifiable information concerning them or the school would be kept confidential. Participants were also informed that the information collected was to be used solely for academic purposes and that the study was not an "evaluation" of the curriculum but rather an attempt to understand the process of "making" the curriculum.

Prior to the interview, interview questions were emailed to participants so as to provide them an opportunity to recall particular situations or events that might have been relevant to the research and to ease any uneasiness about the content and context of the research project. In addition to the interview questions, probing and follow-up questions were asked to clarify participant's responses. Merriam (1998) notes that "the right way to analyze data in a qualitative study is to do it simultaneously with data collection" (162). While participants responded to interview questions from the interview guide, their responses were analyzed on the spot in order to ascertain whether and to what extent follow-up or probing questions were necessary to elicit a deeper and richer response.

Interviews and time spent talking with individuals at the respective schools ranged from 30 hours to 40 hours each.

Alignment to Research Questions

The semi-structured interview is defined by the use of an interview guide. The interview guide provides the focus of the study and frames the domains of inquiry for the research (Barbour, 2003). The interview questions or interview guide was provided to interview

participants prior to the interview and included 25 questions. Rubin & Rubin (1995) note the important principles of interview question design to be the specificity of the questions, the appropriate wording and sequence of questions and that questions are clearly communicated.

Research Question 1: What were the challenges RSB face in developing curriculum after NCLB and what were the processes in bringing forth meaningful change in curriculum development?

In order to establish how residential schools for the blind developed a new curriculum that addressed the state and federal standards as required under the NCLB Act, the interview questions 5, 9, 12, 23 and 24 for the principals, and interview questions 4, 5, 22, and 23 for the other teachers were developed. These questions were aimed at establishing the approaches and reform processes developed by the schools in order to meet the state and federal mandates enshrined under the NCLB Act of 2001. The questions enabled me to obtain the necessary information in ascertaining how the schools used in this case study developed their curriculum to ensure improved performance among students who are blind or visually impaired.

Research Question 2: What organizational, political, leadership and cultural factors are associated with the development of standards based curriculum in RSB?

This question was designed to establish the organizational, political, leadership and cultural factors associated with the development of standards-based curriculum in residential schools for the blind. The principal's interview questions 4, 8, 10, 11, 12, 13, 19, 20, 21 and 22, and the other teachers' interview questions 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 and 21 addressed this research question. These questions solicited information regarding the internal and external teams involved in the curriculum development and reform within these schools, the

challenges, the plans, the processes and the involvement of other state organizations such as the State Education Agency in the reform process among other factors.

Research Question 3: How does the ECC fits into the core curriculum in the achievement of the overall curriculum goals?

This question aimed at establishing the role of the expanded core curriculum (ECC) in addressing the overall curriculum goals. It is important to note that ECC was specifically designed to accommodate the unique needs of students who are blind or visually impaired in order to place them at par with their sighted peers. The expanded core curriculum is a vital component of the overall curriculum development and reform process targeted at addressing the needs of students in residential schools for the blind across the United States. This research question was addressed by the principal's interview questions 2 and 3, and the other teachers' interview question 3.

Document Analysis

Documents and information relevant to the schools included in this study as well as their processes of curriculum development were reviewed before, during and after the interviews were conducted. Documents and information related to the schools' history, current state and other information were reviewed prior to the interviews to gain an understanding of the context within which the staff operated. During the visits to the various schools, documents related to curriculum processes and developments were obtained to supplement, verify and confirm some of the information shared during the interviews. Finally, some documents and information were reviewed post-interview to aid in the analysis of the interview data.

3.3 Data Analysis

A thematic analysis was performed using the data obtained from the interviews. This type of analysis involves an examination or search of the data for repeated patterns of meaning in relation to the study objectives and research questions (Braun, 2006). In using the semi-structured interview method, all participants were asked the same questions which made participant response comparisons possible (McIntosh, 2009). Qualitative analysis of the results from the three case studies on what the three schools actually did in developing and reforming curriculum have been provided in the next chapter. The data was organized based on the questions asked during the interview as well as the themes of the responses. The analysis of data focused on determining common and reoccurring responses in the data obtained from the participants of the three residential schools. The nature of this study provided a clear understanding of how curriculum and standards based reform was developed after NCLB in residential school for the blind. Additionally, the study makes recommendations to the field of blindness in order to improve curricula for students who are blind and visually impaired.

CHAPTER 4

4.0 Findings

This chapter presents the findings of the research study. The research examines curriculum development and reform at three residential schools for the blind located in the United States. Each school is discussed with its own case study. The chapter provides demographic information about each school and background information on interview respondents. Additionally, within each case study I discuss the process of curriculum undertaken by each school, the challenges the schools' faced in responding to the reform mandates of NCLB, the successes experienced throughout the process, their ideas and experiences with accountability and each school's future directions. The chapter concludes with a discussion of key themes gleaned from the cases.

Case Study I—School A

Demographics of School and Interview Respondents

School A is a residential school for the blind and visually impaired located in small Midwestern city approximately 40 miles from the state's capitol. The school is state owned and operated and serves students in grades Kindergarten through grade twelve. In addition, School A participates in the state assessment and worked closely with the state vision consultant on programming. At the school's incorporation in 1850, it served only eight students. The school began occupying its current location—on the banks of the area's majestic river—in 1852. Today the school serves a total of fifty full time residential students with visual impairments and a small number of students who receive short-term educational services from school staff. The school offers an educational curriculum that is based on the state's educational standards,

extracurricular activities, housing and meals for its residential students as well as the most up-to-date adapted technology. The school employs a staff of fourteen teachers who assist the principal in providing a quality and rich educational experience for the students who attend the school. The school's colors are orange and black and the students and staff alike take great pride in the school's mascot—the badger.

Both the principal and teachers describe the education provided at their school as "thorough" and they believe that the students attending the school are receiving a well-balanced quality education. Over half of the teaching staff at School A are blind or visually impaired themselves and have extensive experience in teaching children who are blind and visually impaired. The school offers all required academic subjects in a format that is customized to meet the needs of each individual student. In addition to the core academic subjects, School A also offers physical education and health, vocational education, independent living skills development, orientation and mobility, music, Braille instruction, technology courses and specialized classes and therapy of students with multiple disabilities. Although School A has extensive academic and curricular offerings, if a parent or student finds that the school does not offer a course or subject they desire, the parent has the option of enrolling the student in the desired course at an area public school through the "inter-school co-op program".

School A also offers a wide variety of extracurricular activities to keep students involved and engaged outside of the classroom. Students at School A are given the opportunity to train and compete in various sports including track and field, swimming, wrestling and cheerleading. Students who are involved in the athletics offered through School A are given the opportunity to have fun as well as meet and interact with students from the surrounding community and from across the country. Those students who are not interested in athletics can participate in the

community scout activities, perform volunteer community service, participate in student council, enjoy horseback riding or compete in oratory and music competitions. The annual school prom is the social event of the year that draws students and staff alike for a social evening of fun, food and music. For the many hours of out-of-class time spent on campus, the school's recreation department plans various outings such as bike trips and organizes group activities like bingo and other "hang out" sessions that take place in the school's teen center.

At School A, three teachers (Teacher A1, Teacher A3, Teacher A4) and the principal (Principal A2) were interviewed. Teacher A1 has been on staff at School A for nearly 10 years having joined the staff in 2003. She currently serves as an Assistant Technology instructor but during her ten year tenure has taught in other areas of the school including as a math instructor, and as a science instructor and elementary teacher and as a short-course teacher. Preceding her move to the Assistive Technology department, Teacher A1 served in the department of outreach for two years.

Teacher A3 has been teaching at School A for 14 years, since 1999. However, she first became employed at the school some 24 years ago, in 1989. She began her career as a "house parent"—a staff member charged with the responsibility of meeting the residential needs of the students—and later worked as an educational aide before being offered a teaching position at School A in 1998. During her teaching tenure at the school Teacher A3 has taught a course in living skills, been a part of the assistive technology teaching staff, taught third, fourth and fifth grades and now teaches Social Studies.

Teacher A4 became a part of the staff at School A 13 years ago in 2000. She began as a functional academics teacher and later transitioned to teaching English, then Social Studies, then Geography. Currently she teaches Braille and Music. Teachers A1, A3 and A4 were selected as

interview respondents due to their extensive time at the school—having been present before and after the enactment of NCLB—and their experience with curriculum development during their time as teachers at School A.

Principal A2 has served as the principal of School A for five years. Before coming to School A, Principal A2 retired from the area public school system as a high school administrator. Principal A2 was a school administrator for 24 years was an assistant principal for eight years and also served as a school district business manager. As an administrator with over 30 years in the school system, Principal A2 brings extensive educational experience to School A.

The Process of Curriculum Development

The information gleaned from interview participants revealed that the process of curriculum development at School A was largely driven by each student's Individualized Education Plan (IEP). In tailoring the curriculum to each student's needs and abilities, teachers integrated new concepts and ideas in order to modify or improve the curriculum for individual students. Teachers at school A have put forth the necessary efforts to fully integrate the Expanded Core Curriculum (ECC) throughout all core curricular areas noting the importance of enabling students to develop all of the skills included in the ECC component areas. In her attempt to establish a holistic math curriculum that suited the needs of students, Teacher A1 noted that she searched various databases and also contacted other schools for the blind to find more information on instructional approaches for specific subject areas where guidance or other curricular resources seemed to be lacking. Teacher A1 also noted that in order for staff to develop curriculum according to the needs of each student as expressed in their IEP, as a teacher, she responded to the context of the class and the students within it. Teacher A1 further noted,

that this response oftentimes included out of class follow up and encouraging students to learn and increase their skills independently to meet standards.

Principal A2 asserted that the teaching staff at School A forms the most vital component of the overall curriculum development process. However, he noted that over the past few years, School A has undergone major changes and shifts among its teaching staff. Several teachers have retired, one passed away and another moved out of the country. He noted that replacing these experienced teachers with teachers with less experience has been a daunting task but not one that is impossible. Basically, the knowledge of the veteran teachers was not transferred and all of the information and professional development around curriculum development was gone. In spite of this challenge, Principal A2 noted that student performance has continued to improve at School A.

To assist in the process of curriculum development, School A enlisted the support and help of three private certified consultants from across the state of Wisconsin who specialized in curriculum development, assessment and instruction. The consultants were brought in at the very beginning to discuss the curriculum development process and standards-based instruction. The consultants were available twice per month to answer questions and provide guidance during the regularly scheduled staff meetings at School A. The staff was also organized into subject area teams where they collaborated with one another to “get courses aligned with what public schools were doing”. Teacher A4 noted that teachers modified the curriculum to suit the students at School A so that students could “manage” the curriculum. In other words, the teacher ensured that the curriculum was modified to the level of understanding to meet the unique needs of the students being served at the school for the blind.

Responses to NCLB

In order to address the mandate of NCLB for standards-based curriculum in all schools, School A developed all instructional materials into Braille and out sourced to American Printing for the Blind (APH) in Louisville, Kentucky for all the additional materials needed to align the curriculum to the state standards. Teacher A1 was a member of the curriculum team and thus was responsible, along with other staff to review curricula in each subject area to ensure its alignment with state standards. Through this review process, it became apparent that in order for the school to be compliant, some materials formerly used had to be discontinued.

During the curriculum reform process, the school also received help and guidance from the Vision Consultant from the state department of education who met with staff and provided guidance for ongoing collaboration, reform and continued alignment. Even though teachers at School A saw the value in the new curriculum mandates—they were still frustrated with them. Teacher A3 noted,

*"On the one hand, I don't think you could find many teachers who appreciated the No Child Left Behind Act. They understood the need for No Child to be Left Behind but the requirements that it put were not solely decided by teachers, they were decided more by government people who said, "Yes, we had input from teachers," but some of the things were not as realistic. It was probably one of the most hated pieces of legislation by teachers…I could see the wisdom of overhauling things to make sure that it was done right but especially at our school, I feel like some of the students through the years may have suffered because of the time and energy that was required of the teachers to be busy overhauling the curriculum was also taking away time and energy from teaching the students. So, like many things in life it would be a great thing once you got it done but the process was not enjoyabl*e. "

Additionally, Teacher A4 noted that although the staff at School A worked to respond positively and favorably to the mandate, unlike teachers in traditional public schools, they had to pay close attention to the ways in which modifications had to be made to suit the type of students being served at the school. Teacher A4 stated,

"…we of course were asked to do a curriculum reform after No Child Left Behind but the ways of teaching here are so none standard as compared to a regular public school not that the material is different but with that Expanded Core Curriculum that we have to integrate and just the assumption that a student is not at the requisite skill level just because they are assigned to grade number."

Challenges

Throughout the process of curriculum development and attempting to respond to the standards-based reform mandates, staff at School A faced several challenges. Due to the special population of students being served, it was difficult to address standards in some subject areas such as Math due to the limited resources (Braille transcribers for curriculum materials for the creation of tactile graphs) and the need to integrate the use of assistive technology to meet the educational needs of students. Additionally, teachers noted that although they received some guidance on curriculum development from consultants and others who were brought in to assist with the process, they received minimal assistance with exploring different instructional techniques to best implement and deliver the new curriculum.

Another challenge noted by teachers is the difficulty in adhering to the standards and accountability reform given the vast differences among and the unique needs of students. Teacher A1 noted that "the biggest challenge [is that] we're just trying to make our student's needs fit the neat little package that [the] government wanted for accountability purposes". Staff from School A also noted that the curriculum reform process proved to be difficult due to a lack of communication from leadership at the state level and also due to the frequent change in leadership at the school level.

Principal A2 stated that "The school has experienced changes in administration over the past 10-15 years. The changes range from at least 3 new center directors to at least 4 principals. Due to these changes, our school curriculum has been through many hands and in many cases stifles the growth of our educational curriculum for our students". Further, staff endeavored to balance the competing priorities of the requirements outlined in students' IEPs, the priority areas in the ECC and the new standards.

Teacher A4 stated that,

"The challenges were fitting those Expanded Core Classes in because those were required. Those were IEP driven and once we signed a federal contract, the IEP we had to meet that. Well, that didn't necessarily hurt the students at all, but it didn't line up nicely with No Child Left Behind either."

Overall, staff and external consultants alike attempted to accomplish the task of curricular reform as best they could, however, the sheer difference of the population and the various considerations that had to be made proved to be an extremely difficult task. Teacher A4 noted-- "I think they all intended to aim high but the dynamics of what we were doing just didn't seemed to fit well within a standard rubric of this is how you produce your curriculum."

Successes

Staff at School A, although forthcoming on the processes and challenges they experienced during the development and reform process, did noted some positive outcomes of the process and some successes they experienced. Teachers noted that the opportunities to collaborate and re-examine their current practices were positive outcomes of the reform process. Additionally, new ways to integrate the ECC into more courses and throughout the curriculum was also discovered through the process. Further, teachers and the principal expressed their appreciation of the concerted effort that all staff put forth during the process of the good of the students.

Accountability

The staff at School A was well aware of the accountability measures and expectations associated with the standards and curricular reform movement. Principal A2 noted that "teachers and administration alike had to embrace NCLB because our evaluation process depended upon our student's performance, so there was this level of accountability". So, not only were staff

concerned with ensuring that the curriculum was aligned to the standards, they were also concerned with the performance of students relative to those standards.

Among the staff, there were common feelings and concerns about ensuring that the curriculum was consistent with what was being offered in public schools in the state because, as Teacher A2 stated, "the assumption was always that the students might at some point leave our school; go back to the public schools so we wanted what work we did to match as closely as possible to what was going on in mainstream education". Teachers felt that they were "preparing" their students for something beyond the school's campus and were obligated to offer the best possible education they could.

Future Directions

Teacher A3 seemed optimistic about the future and more than willing to continue to work to improve the curriculum and to offer high quality relevant education to students. She stated,

"You only go around once. You can't get complacent that this is not a job or you can come in and look at your watch at 8 o'clock on Monday and say, "Whoa, in 40 hours, I'll be gone." There are nights I go home with a headache, there are nights I go home smiling, there are nights I go home crying. I do work at home. Sometimes I come in on the weekends but for me still the needs of the students are going to take the priority. That doesn't let off from knowing what those standards are in Social Studies which is what I'm teaching right now. That doesn't excuse me from trying to read any scholarly articles in the publications or going to seminars and learn."
"So you are always striving and trying to improve yourself so that you can be a better resource for your students but it's not a process that lends itself well to saying, "Okay, I got to do these three things. I can do this, this and that" and I'm set. In other words, our school continues to redefine curriculum to meet the needs of our student population to prepare them for a global society."

Case Study II—School B

Demographics of School and Interview Respondents

School B is located in the Southern section of the United States in the heart of the state's capitol city. The school was founded in the early 1830s and since that time has provided an array of quality services to students who are blind and visually impaired. School B's mission is

to provide the diverse population of students who attend the school high-quality, world-class education and to equip them with the skills they will need to be successful after graduation. The skills that School B believes are needed for its students to succeed go far beyond just mastery of academic subject content. The skills include orientation and mobility, the effective use of adaptive technologies, independent living skills and having the confidence to be a self-advocate.

The educational program at School B has as its foundation a diversified curriculum that seeks to address the educational needs of the broad spectrum of students attending the school. School B is very clear in its mission to not only provide students with the academic skills they need to succeed but to also equip them with the everyday skills and techniques they will need to function at their optimal level as blind and visually impaired individuals. One of the main educational philosophies employed at School B is that every student is an individual of worth who has the right to receive the appropriate assistance to enable them to reach their potential and absolute maximum level of functioning.

The instructional staff and the residential staff work together and are dedicated to remaining true to the implementation of the school's mission and philosophy. Each student is provided with an individualized learning plan to suit their needs and staff work together to ensure that the plan is aligned with and consistent with the overall mission and goals of the school. Not only is the school dedicated to supporting its students, it is also very dedicated to providing the necessary supports to its staff. School B is closely connected to the surrounding community and works to create and sustain partnerships with parents, friends, area universities and the community at-large to continue to provide the best possible education for students both in and out of the classroom.

Two teachers from School B participated in this study and were interviewed. Teacher B1 has been on the staff at the school for fifteen years. Teacher B1 was originally hired to serve as a life skills teacher—which is her background and area of specialization. After two years as a life skills teacher, she was moved to a new role as a transition teacher with the vocational education program. Currently Teacher B1 serves mainly as an instructional coach but teaches two periods of math each day. The remainder of her days was spent serving as a resource for teachers and other staff who require guidance and assistance with curricular or instructional matters.

Teacher B2 has been working at School B for 13 years. She was also hired as a life skills teacher, holding that position for ten years. Several years ago, teacher B2 was approached by the principal who encouraged her to step out of her comfort zone and try a new area—working with transition students. She currently teaches one transitional class and another on functional instruction. She spends the remainder of her time as an instructional coach which gives her the opportunity to interact with other staff and affect change not only in her classroom but throughout the entire school.

The Process of Curriculum Development

Both teachers B1 and B2 were very strong in their assertions that they take all of the necessary steps imaginable to enable their students (school-wide) to attain the skills and knowledge outlined in the expanded core curriculum. They also asserted the importance of not over-shadowing the academic components of the expanded core curriculum with the functional components as preparing students for college and beyond are very important to them and the entire staff at School B. They noted, however, that the expanded components of the expanded core curriculum are not to be diminished in their importance as it is the attainment of the skills in

the expanded components that enable and allow students to master the skills in the core curricular areas.

When faced with the challenge of having to ensure alignment with NCLB and state standards, staff at School B employed a variety of different strategies and techniques. The two teachers noted that the entire process was participatory in nature as all teachers from across the school from various departments were invited to engage and be involved in the process. Teacher B2 noted that the process was a testament to the spirit of collaboration that has always been apparent at the school. She noted that the more experienced teachers took on lead roles and the less experienced teachers learned from them but were also able to provide input based on their own expertise and knowledge-base.

The school was provided with further assistance from the state's department of education as consultants were periodically on-site to engage staff and assist throughout the process. Curriculum development teams were formed across the subject areas where the main areas of focus were (math, reading, science and social studies) and each team was provided with an abundance of materials and guides to assist in the alignment process. Staff within each curriculum development team also explored the materials and curricula that had been implemented and developed at the area public schools and used them as a base and standard for what the curriculum at School B should encompass.

During the period of curriculum development and realignment, hiring decisions that needed to be made were made based on individuals' experience with curriculum development as administrative staff was interested in hiring staff that could meaningfully contribute to the major process that was underway at the school. Throughout the process the curriculum development

teams met regularly and provided regular updates and communications to various stakeholders—parents, other staff, consultants, etc.—on the team progress and next steps.

One of the major positive outcomes of the entire curriculum development process was not only a newly aligned curriculum that was consistent with state standards and met the requirements of NCLB, but the realization of school staff that the curriculum needed to be more culturally relevant to students. The students at School B were from an array of culturally diverse backgrounds and educators involved in the curriculum development process realized the great opportunity to ensure that the new curriculum addressed some of the needs and concerns that had already been made apparent in regards to the curriculum and the culturally diverse student body attending the school.

Responses to NCLB

The staff at School B has always held, as part of their overall mission and goals, preparation of students for college and life beyond as paramount and central to the work and the type of education they provide. The mandate of the No Child Left Behind Act took a step further and prompted staff and administrators to go the extra mile in ensuring that student at School B would not be "left behind". Other schools for the blind consulted to gather information and ideas on how they were approaching this new mandate.

Teachers from School B attended conferences and meetings across the state to collaborate and engage with other professionals in the field on best practices and strategies for ensuring students' success in the classroom. There was also formed, amongst several states, a consortium of schools for the blind that had as one of its initial goals to assist in the development and alignment of curricula in these specialized schools to meet the requirements and mandates of

NCLB. On the whole, staff embraced the new mandate as it was not a significant deviation from what they already endeavored to do and the type of educational experiences they wanted to provide to students. Teacher B1 noted that the process and activities that occurred in response to the mandate were important and were meaningful because the school and the staff wanted to ensure that students at School B were "at the same edge with the other students in public schools".

Challenges

Teachers B1 and B2 noted several challenges that the staff faced in trying to develop and reform curricula in response to the standards-based mandate of NCLB. The initial interpretation of what NCLB meant specifically for specialized schools such as School B was fuzzy. Staff was initially unsure of how, if at all, the new law would affect the day-to-day teaching and learning that occurred at the school. Additionally, after learning that NCLB and its standards-based mandates would apply to School B as all other schools, staff encountered challenges with obtaining the necessary and appropriate instructional materials to accommodate the new curricular requirements.

Students who are blind and visually impaired require assistive technology devices as well as other specialized materials in order to effectively engage with the curriculum. All of these devices and materials are not easily or speedily available when major changes are made in the curriculum. Oftentimes, due to their disability and to the absence of appropriate instructional materials teachers had to improvise in the ways in which the curriculum was delivered to students. In response to this challenge, Teacher B1 noted that "in some cases we had to spoon-

feed the students to ensure they gained the necessary knowledge in order to attain the expected performance standards".

Other challenges noted by Teacher B2 include the process being time consuming which ultimately limited the time teachers could spend with and planning lessons for students. Teacher B2 also noted that the presences of multiple consultants at different points in time was not always helpful because one consultant was not aware of what was discussed and covered with the other consultant so there were inconsistencies and unnecessary overlap in some areas.

Successes

Although the path to and through the curriculum development and reform process was not without its hiccups and challenges, staff noted there were many positives that were achieved. Transparency and communication with other staff as well as parents were important and those involved in the process, most notably administration, ensured that the appropriate parties were kept abreast of next steps and the goals of the entire undertaking. This clear communication tactic was a way to gain buy-in and support from those who ultimately would be involved in the successful implementation of the curriculum both inside and outside of the classroom.

Teacher B2 noted another aspect that precipitated success throughout the process was the fact that administration of the school understood the unique circumstances of the school and worked to mitigate the challenges and difficulties encountered by staff that was on the front-lines through the development process. Collaboration was noted by Teachers B1 and B2 as a significant success. They both touted the tremendous cooperation that all parties involved gave to one another and the open-mindedness that accompanied the cooperation which made a very difficult process easier to undertake.

Overall, staff at School B understood and embraced the meaning of NCLB—that all students should be prepared for success. This made NCLB an easier pill to swallow. Teacher B2 stated that "as educators, we did everything we could to ensure that the students were not disadvantaged by their blindness so as to ensure they had equal access to the curriculum…the curriculum met the needs of every student who was visually impaired on every grade level and we worked to ensure that students met the same performance standards as their sighted peers".

Accountability

Teachers B1 and B2 noted that accountability was always something that was ingrained in all of the staff. Although not as formal and attached to sanctions as with NCLB, teachers and other staff at School B always felt accountable to the students and families. They believed it was their responsibility to enable and equip students for future success. They felt a deep obligation to do their very best in helping students overcome the obvious obstacle of not being able to "see" like everyone else.

Because of the inherent challenge of blindness and visual impairment faced by students at School B, staff worked that much harder to ensure that students were gaining the skills and knowledge that would enable them to compete on planes and levels beside their sighted peers. Having a visual impairment was never used as an excuse as teachers pushed students to their intellectual and ability limits. Teachers pushed students to hold themselves accountable for their own learning and progression which in turn made staff work harder to challenge and engage students in the curriculum.

Future Directions

Moving forward, staff at School B has been given new insight on the curriculum development and reform process. Teacher B2 noted that the entire process allowed staff to realize the importance of ongoing re-evaluation and re-examination of the curriculum to ensure that it remains appropriate and continues to meet the ever-changing needs of students. The overall and ultimate goal of all of it, she says, is that students are "college-ready" and "career-ready". Through this process, both teacher B1 and B2 noted that they, as well as other staff, were able to gain a clearer and deeper understanding of the unique needs of their students and how performance standards can and should be applied in all schools. The challenges and difficulties that these teachers faced on a daily basis in the ongoing mission to adequately prepare their students for the world do not discourage them. Teacher B1 stated,

> *I would recommend that the teachers look for any realistic and valid ways to ensure that the curriculum makes sense for these students. It's not always easy to make a blind child understand what you are talking about, so even if you have tried fifty different ways and it's still not working, you have to try for the fifty-first time".*

Case Study III - School C

Demographics of School and Interview Respondents

School C is located within a historic neighborhood in one of the nation's oldest cities. The school is surrounded by beautiful white stucco buildings with Spanish-tiled roofs, graceful palm trees and majestic live oak trees. Together these surroundings create a serene and peaceful setting for the students and staff at School C to learn, live and have fun. The campus of School C is filled with passionate and committed staff and students who are all dedicated to being the very best that they can be. One of the many missions of School C is to prepare students to become literate and productive citizens who make meaningful contributions to their communities and the world at-large. The staff has high expectations for their students at School C and the students

have high expectations for themselves as they strive to do more, to be more and to achieve more. The staff and the students alike believe that the educational opportunities and possibilities are boundless.

School C was established in the late 19th century and since that time has preserved its rich history and school-wide traditions. School C, throughout the years of its existence, has become and remained one of the premier providers of education of the blind and visually impaired in the United States. School C is the only school of its kind in the area that is located that provides educational services specifically for students with visual impairments. The staff at School C is highly qualified, with most of the teachers holding dual certifications. School C prides itself on having small classes and incorporating the use of advanced technologies into the curriculum. The school also provides numerous early learning opportunities through its Parent Infant Program and Montessori-based toddler and pre-kindergarten programs. School C offers a world-class academic education with independent learning opportunities and career development programs that extend beyond the walls of the campus.

School C believes firmly in the value of family involvement in education as it offers and extensive array of opportunities for families to be involved in the extended educational programming at the school. The high quality education and services School C provides are well-known and recognized among the greater community and surrounding areas. School C and its staff are trusted resources for school districts, educators, professionals and blind and visually impaired citizens. Overall, School C is committed to providing an education to its students that will eventually and successfully lead to independence. School C prides itself on having an extremely high focus on academics. As such and unlike other schools for the blind, School C does not accept *every* student that is interested in attending. The principal at the school

explained that the school is somewhat selective on the types of blind and visually impaired students it accepts. The school does not accept students who have certain levels of intellectual and social disabilities. The school also does not accept students who have a history of behavior or disruption issues within their past educational environments.

At school C, the principal C1 and curriculum director C2 were interviewed. Principal C1 has been a part of the staff at School C for 32 years and curriculum director C2 has served at the school for 17 years. The principal C1 is an experienced classroom teacher and administrator. Her experience has been in technology education as well as in curriculum. The principal holds multiple degrees in the field of education and technology. As principal, she oversees operations and makes decisions for the Blind/Career Education and Transition Departments.

The Curriculum Director C2 is an experienced classroom teacher of the blind and visually impaired. Her experience has been in the areas of curriculum, staff development and assessment. The curriculum director holds a master's degree in curriculum and instruction and a specialty degree in visual impairment. As the curriculum director, she oversees the department of curriculum and works very closely with the state department of education on assessments.

The Process of Curriculum Development

When NCLB was enacted, School C followed and adhered to the mandate by developing curriculum to meet state standards and developed a process for completing the task. Principal C1 explained that every six years the school reviews their curriculum content and revises and adopts new materials and curricula as necessary. At the time NCLB was passed, School C was already in the process of revising the curriculum. The process was daunting because of all the provisions in NCLB had to be addressed. During the reference period of the study, the school was in the

process of adopting new curricula for math and reading in the elementary grades. The school, during their six year reviews, makes decisions regarding materials and other resources to be employed to remain in alignment with state standards, however, as Principal C1 explained, “the standards and the benchmark is something that is given [to us] by the state”. The process that School C follows is mainly centered on implementation and how the curriculum can be adapted to suit the unique needs of the students attending.

During their review and process of developing curriculum plans in response to NCLB, Curriculum Director C2 explained that staff at the school was situated into teams based on grade level and subject-area. Within these grade levels and subject-area teams there are also academic leadership teams which are responsible for keeping the administration informed and up-to-date on the processes and new developments within the curriculum developmental phase. The teams were given designated times within to work together as a group to refine the curriculum as well as working with the state on the state assessment to meet the mandates of NCLB. School C adheres to the same assessment calendar as public schools in the rest of the state. Principal C1 shared that the school, although specialized in its approach due to the unique student population, works closely with other small districts around the state to ensure that curriculum is on par with surrounding public schools.

Curriculum Director 2 explained that throughout the process, the state department provided guidance in the interpretation of NCLB requirements and provided consultants in specific subject areas of expertise to help with curriculum development. These consultants were available free of charge to ensure teachers and the administrators had the necessary supports to adhere to this new mandate. Trainings from the department was available to staff and curriculum

development director to address questions and concerns regarding the curriculum development process.

Additionally, Curriculum Director C2 explained that the state department of education provided ongoing support and trainings across the state that school personnel, including those at School C, could participate in. These trainings were professional development opportunities that certain school staff, such as Curriculum Director C2, could attend and receive training on curriculum development and then return to their respective schools and train other school staff on the information they gleaned from the professional development.

At School C, Curriculum Director C2 provided training for school staff during their annual summer planning time which enabled teachers, specialists and support staff to learn more about the curriculum development revision and standards and how best to meet the unique needs of the students at their school. School C continues to have in-house training opportunities such as these on a monthly basis. These monthly meetings are to ensure that materials and other curricular resources that are being used are aligned with the common core standards and enable their students, who are blind and visually impaired, to access the new curriculum. Teachers and staff at School C developed their own rubrics specifically for their students who are blind and visually impaired. The rubrics and the monthly professional development meetings held at the school were mainly to discuss and devise ways to effectively incorporate the use of technology and other elements within the curriculum to allow easy access for School C's blind and visually impaired students.

Responses to NCLB

School C embraced the mandates from NCLB by revising the curriculum and adhering to staff being held accountable for student learning. Curriculum Director C2 noted that, "it has always been part of our mission that we provide students…the same opportunities [as] their sighted peers in the districts…so we have always followed and complied with the state standards that have been available". So, after the enactment of NCLB the school was able to look through a different set of lenses as curriculum was being developed to meet the unique needs of their students. Constantly, re-evaluating their curriculum and how they assessed students allowed them to advance their work by adhering to NCLB requirements.

Principal C1 noted that, it was a daunting task because much of the changes to the assessments forced them to have to outsource much of their materials to other vendors such as American Printing House for the Blind (APH) to ensure students timely access to materials just as their sighted peers. School C had to outsource the production of materials because they did not have enough staff to keep up with the work demand of braille, large print and tactile graphics to meet the unique needs of their students. The principal explained that NCLB did not provide any money to support schools in this new mandate, so this created some staffing issues in ensuring students had all required materials to succeed. Therefore, School C did not have additional funds in their budget to hire someone to do the reproduction of materials. So, APH was used because states received federal quota dollars per pupil that allowed for materials to be reproduced free or at a fraction of the cost.

Curriculum Director C2 explained that before School C moved forward in adhering to the mandate of NCLB and now the adoption of the common core state standards and before the adoption of the previous standards, there was always some form of standards or "course

descriptive" in place. The state also always had performance standards as well so the NCLB mandates for high performance and uniform standards for all students were not surprise to staff at School C. Both the principal and curriculum director felt that NCLB was a great mandate and that it solidified the work that was already taking place at their school. Principal C1 contended that the school follows the overall plan that is handed down by the state department of education, stating "…we follow the same plan and timing that the state gives us [and]…we move forward….they [the state] gives us our marching orders and we move forward". The state where School C is located supported the NCLB act and therefore, the acceptance of accountability and the revision of curriculum development made the response less cumbersome because of the support rendered from the state department of education.

Moreover, School C was able to function and move forward and not feel that their careers were on the line. But rather, a true professional learning community was evolving because a great deal of support was given by the state. In addition, the state accepted the new mandate of NCLB and provided schools with the necessary supports and ongoing training needed to develop a solid curriculum to advance their student population.

Challenges

Curriculum Director C2 noted that one of the major challenges staff at School C experienced in adhering to standards and refashioning the curriculum was ensuring that all of the students at School C had equal access to the curriculum given their disabilities. She discussed that the state department of education realized that with the standards and new NCLB mandates, many students could have been "left behind" because they could not access the curriculum in the same ways as their sighted peers. Specifically, textbooks that may needed to be provided in

braille or large print at the same time as their sighted peers. Whereas, sighted students textbooks and materials are ready the first day of school and they have access to the curriculum in their preferred medium of learning. Due to this realization, the state department of education allowed School C to align their approach to the new standards and curricula with the IEP and intake process. By placing the student preferred medium for learning in the IEP held individuals accountable for ensuring the materials/resources was available to the student with visual impairment so they could access the curriculum.

Another challenge identified by Curriculum Director C2 was preparing teachers to address the unique needs of students and realizing when particular students might not perform at the level (proficient or advance on state assessments) as expected by NCLB due to their disability. In spite of difficulties, teachers at School C were always encouraged to do their very best with all students and, no matter where the students might be academically, strive to consistently move students to the next level. Determining the appropriate interventions and continuously developing and implementing new strategies also proved challenging for teachers at School C. Additional challenges identified by Principal C1 and Curriculum Director C2 include the production of materials to suit the needs of their blind and visually impaired students, not a sufficient number of people involved in the process of curriculum development to revise the curriculum in response to NCLB. Thus, the principal wanted to have a broader perspective on curriculum development and felt that another educator with a background in curriculum would have helped the process along. According, to the principal, the new staff member would have been best utilized in leading some of the smaller teams and keeping them focus on the assigned task in response to NCLB.

Successes

One of the positive aspects of the entire curriculum development process in response to NCLB noted by both Principal C1 and Curriculum Director C2 was the availability of specialists and other consultants from the state department of education to answer questions and aid staff through the process. Both interviewees also noted that the regional meetings, conferences and trainings that were made available were also very helpful throughout the process. Also, having the opportunity to collaborate with the small districts around them enabled staff at School C to experience the process alongside others who were oftentimes experiences some of the same feelings and challenges that they were. This collaboration enabled staff at School C to work with others outside of their school building to develop ideas and best practices for adhering to the standards.

Curriculum Director C2 noted that having the opportunity to present to and involve parents throughout the process was a hallmark of the entire process. Explaining what the standards meant and how they applied to their students allowed staff to make parents and families partners in education which is one of the many missions of School C.

Overall, both interviewees were fairly satisfied with the entire process and the involvement that they and other staff were allowed to have. Principal C1 noted that this is one of the positive characteristics about their state department of education stating that, “our state does a really good job of getting people involved in their process”.

Future Directions

Curriculum Director C2 is hopeful that other schools for the blind around the country eventually adopt the common core state standards because this would allow for more

collaboration among schools for the blind. Principal C1 is looking forward to continued expansion of their work with the common core standards and adaptation to the needs of students who are blind and visually impaired. Being continuously kept abreast of new policy development and mandates from the state level is important to both interviewees and having the opportunity to receive appropriate training and professional development is also imperative moving forward.

Summary

The overall findings from the qualitative interviews suggest that residential schools for the blind in these case studies took the curriculum development process very seriously, so much so that they based hiring decisions on how well teachers could contribute to the curriculum development process. Additionally, respondents indicated that there was much uncertainty or unsure of how, if at all, the new law would affect the day-to-day teaching and learning that occurred at the respective schools. However, the respondents were committed to adhering to NCLB mandate because they all were accountable for teaching the core academic subjects (reading, math, social studies, and science) and they were committed to ensuring that the curriculum developed would address the needs of their students and the participation in assessment would be fair and accessible to their student population.

Although optimistic, when discussing what they would like to see for the future, the respondents involved in the case studies indicated they wanted to continue to expand their work in understanding federal policy to improve curriculum and outcomes for students who are blind and visually impaired. Generally all the teachers interviewed agree that the curriculum development and reform process, in conformity to the newly established state standards

associated with the NCLB Act of 2001, have had a positive impact on the instructional process; the expanded core curriculum has greatly enhanced the quality of instruction by providing the students with the basic skills (such as technology or orientation and mobility skills) needed for effective instruction in the general classroom setting. Basically, the standards associated with NCLB improve student achievement by clearly defining the instructional approaches, ensuring that educational professionals have the expertise to implement the curriculum, and defining the expected performance standards for students at every given level. Most of the efforts directed towards improving the quality of education begin with the integration of standards into the curriculum. The integration of standards into the curriculum is undoubtedly a complex endeavor that brings value-added and evidence-based dimensions to the curriculum development and reform process.

Data from the study suggest that the changes in leadership as a result of teacher transfer, retirement and so on also contributed to the need for regrouping and refocusing with specific reference to the new teachers who had replaced the retired ones. The curriculum development process has generally been a continuous process; however some teachers are yet to embrace the much needed curriculum changes associated with the standards defined under NCLB within their classroom. In one particular case, a teacher complained that when she was transferred to the current school, where she was teaching mathematics, she realized that the teacher who was there prior to her recruitment was using a textbook published in the late 1980s as the main instructional guide for students who are blind or visually impaired. Essentially, the teacher did look for an improved version or publication of the book that had improved instructional approaches which are periodically modified to meet the learning needs of students who are blind and visually impaired. This clearly indicates that some teachers still find it hard to adapt to the

new standards which stress on evidence-based practice. In such a case, it would be difficult to change the curriculum overnight. The schools also had a difficult time supplying the necessary materials including assistive technology gadgets and other instructional materials. The teacher would have to work with the school management in designing a better curriculum framework for her students in order to ensure they attain the current standards of education as stipulated under the NCLB Act.

The administrators from this study, stepped up to the plate in ensuring that their voice and advocacy for student who are blind and visually impaired was heard as they were engaged in dialogue with other administrators and state leaders concerning the development of curriculum. The administrators expressed their active roles in helping to pull together a team of educators and thoroughly reviewing the standards after the enactment of NCLB. Moreover, the principals indicated that they provided collaboration time for the curriculum team to meet and to address each standard to ensure students who were blind and visually will receive quality instruction just as their sited peers. The research supports that active leadership roles by administrators becomes necessary to address the Standards based reform and highlights the important roles of educational leaders – special education directors or educators, and reading specialists, among others.

Finally, there were a number of challenges that affected the curriculum development process. Since 2001, these schools have spent enormous amounts of hours working to improve their curriculum frameworks, and they have faced several challenges common to schools that are trying to improve. Among the main challenges are the differences in opinion and philosophies between teachers, mediation of heated work sessions, trying to reach consensus for grade-level groupings within the curriculum framework, and resolving perennial issues. The lack of

cooperation between the administration and the teachers or their representatives in the curriculum development and reform process indicates that the administration employed a top-down management approach which is characterized by bureaucracy. Bureaucracy is often associated with a lot of time mismanagement as the teachers would have to go through various departments of the school to find out the changes that have been made in the curriculum. Generally, when teachers are involved in the curriculum development process they tend to have a clear understanding of the contents of instructional materials than when they are given pre-defined curriculum. Meeting the state standards associated with the NCLB Act of 2001 demands for commitment from the administrative level down to the individual teacher level since it is through collaboration and coordination that a standards-based curriculum can be realized.

CHAPTER 5

5.0 Discussion

This chapter will present a summary of the research and explicate upon the common themes disclosed during the findings portion of this study. Conclusions based on the findings, implications for practice, and suggestions for future research are also presented.

The primary focus of this research was residential schools for the blind and visually impaired – their response to NCLB in the development of curriculum. The goal of this study was to describe the process of curriculum development post NCLB,

5.1 Recommendations

There is no doubt that the new standards following the period after the No Child Left Behind will impact instruction and assessment in residential schools for the blind across the United States. As such, it is imperative that states, districts, schools, and teachers begin planning in order to make the appropriate changes in conformity to the standards along with overall school reform, and the process should be evolutionary rather than revolutionary. Leaders at various educational levels must begin to build instructional capacity within their system so as to ensure effective implementation of the standards and assessments. Both the schools and districts must develop a transition plan and a process for implementation of the plan.

An effective development of the program calls for a comprehensive and participatory approach, a procedural process and strategic tools. The leadership teams must adopt a collaborative approach and begin discussions on the best way to achieve standards within their respective districts and schools. The plans should build awareness and understanding with regard to the standards, assessments, and the need for change. The leadership teams at both the district and school levels must also develop a gap analysis in order to compare the existing

standards, assessments, instructional programs, technology use, accountability measures, and student performance levels to the new standards and assessments.

The first step in identifying the curriculum needs for students who are blind and visually impaired within residential schools for the blind is the alignment of the local standards to NCLB. A rigorous review and assessment of the standards at the district and school levels will help in the identification of the gaps in curricula, which will ultimately inform the necessary instructional approaches at every level. Accordingly, the standards require teachers to assess the content rather than breadth of the overcrowded curriculum. Cross-disciplinary lessons and practical learning will improve the performance levels of students.

Moreover, parents, community members, as well as students ought to understand the need for the changes and the new expectations that have been put in place. It is important to note that the new standards focus on preparing students beyond the classroom setting to guarantee college- and career-readiness. The implications of these standards are both exciting and daunting for the educators, since they have to develop new instructional and assessment approaches. Elsewhere, students are expected to adapt to the instructional changes, but the process has to gradual and procedural in order to be effective – it cannot be achieved overnight. The transition process requires vision, gaining commitment and consensus, planning, time, and increased instructional capacity that will support educators in developing an expanded repertoire of skills in anticipation of the new standards.

Students who are blind and visually impaired have diverse individual needs despite the fact they share a common trait of some degree of vision loss. These students often experience a number of difficulties since they have limited access to visual information. From an educational perspective, the loss of vision (whether partial or complete) is just a single factor for

consideration with regard to assessment and instructional planning. These students have varying cognitive abilities, levels of independence and physical fitness, and some may even have additional disabilities. Visual impairment and blindness fall under low-incidence disabilities, therefore a student who is blind or visually impaired may be the only person with disability in his/her school. The instructional approaches and interventions for students who are blind and visually impaired is based their ability to access and respond to sensory information. These students often access information through direct experiences and hands-on, tactile exploration through the guidance of specialized teachers who can address their unique needs.

In essence, these students require instruction from specialized educators in disability-specific areas including Braille literacy and numeracy, assistive technology skills, use of low vision devices, career skills, independent living skills, social interaction skills, and orientation and mobility skills. Based on this research, the following recommendations are necessary for the effective development of curriculum and reform in residential schools for the blind:

1. Curriculum Development and Reform Team

The curriculum development either at the district or school levels should ensure that the students who are blind and visually impaired have educators who work in collaboration in the planning, implementation, monitoring and evaluation of the curriculum and instructional programs. A well-trained, highly qualified, and certified specialist educator should be the one to direct the team of educators in developing the goals and objectives which relate to the curriculum. It is also important to involve educators who instruct students in the general classroom settings since they also contribute to the overall performance of the students who are blind and visually impaired. Some of the key issues to be considered when selecting the

learning teams or team of educators in order to ensure effective curriculum development and reforms have been highlighted below:

- The team leadership should have the authority to guide the process of curriculum development effectively. At the school level, the principal plays the most significant role in providing support and necessary assistance to guarantee the success of the program.
- The curriculum development team should consist of general classroom teachers, specialized teachers (teachers who are specially trained in educating students who are blind or visually impaired), administrators, parents, orientation and mobility instructors, other professionals who may be relevant in the assessment and curriculum development, and even students (e.g. student leaders for the students who are blind and visually impaired).
- Where appropriate, the team can also seek the contributions and opinions of other professionals including occupational therapists, speech and language pathologists, psychotherapists, behavior specialists, school psychologists, career counselors, social workers, adapted physical education specialists, and assistive technology consultants.
- Each of the learning or curriculum development team members must have clearly defined roles during the implementation of the curriculum reform and, where appropriate, during instructional programs in the Individualized Education Program (IEP).
- The goals and objectives for each student's IEP that requires academic goals should be align to the curriculum at the appropriate grade level. As well as carry out continuous monitoring and evaluation of student performance to ensure the student is

on par with meeting stated goals. The changes in the IEP should be based on the results of the monitoring and evaluation during the academic year.

2. **Meaningful Parent and Family Involvement**

Parents play a very significant role in the development of a child's early learning abilities and they are valued and contributing members of the curriculum development and reform team. More often than not, parents understand the unique needs of their children who are blind and visually impaired and their contribution towards curriculum reform cannot be overlooked. They help their children to understand and improve on the practical aspects of life, as well as educational programs including homework and so on. The following factors should be considered during the development and implementation of the curriculum reforms:

- Parents should be given a chance to contribute their views, ideas, and concerns regarding all aspects of their children's education and life – they are the teachers back at home.
- The family is best placed to provide information regarding the specific impact of the loss of vision and the acquisition of disability-specific skills.
- The family should have the necessary information regarding the opportunities for training that would help their child in the acquisition of disability-specific skills at home and in the community.

3. Disability-specific Skills

The curriculum development and reform process should ensure that students who are blind and visually impaired receive instruction that is directed at disability-specific skills, since these skills will help them in achieving learning outcomes that are similar to their peers. In

order to ensure effective achievement of the disability-specific skills, the following factors should be considered:

- The specialized teachers, due to their deep knowledge regarding visual impairment, should identify the necessary needs through assessment, inform the curriculum reform team on the potential impacts of visual impairment or blindness on student learning and development, set the appropriate expectations for progress and performance, advice on the best strategies for addressing the assessed learning needs, and provide direct instruction in disability-specific areas identified under the expanded core curriculum (ECC).
- The curriculum team should acknowledge that orientation and mobility (O&M) forms an integral part of the ECC, and students should be trained by qualified professionals (specialized teachers or qualified O&M instructors) who work in collaboration with the teacher in the integration of their instruction into the general curriculum.
- The curriculum reform process should emphasize that students who use Braille receive Braille literacy and numeracy instruction from specialized teachers, especially at the elementary school level.
- Staff members working with students who are blind or visually impaired within the school should be subjected to rigorous professional development to keep them informed on the best and improved ways of dealing with these students.

4. Assessment

The curriculum development and reform team should identify specialized teachers and other professionals to assess the existing curriculum and identify the gaps that must be addressed. The following factors should be considered:

- Both the specialized teachers and the O&M instructors should continuously assess the students who are blind and visually impaired with regard to all areas under the ECC.
- Functional vision assessments should be conducted for all students in order to identify their optimal means of accessing visual information right before the beginning of formal reading and writing instruction. The selected team of professionals should design, implement, and evaluate each student's IEP, and carry out an examination and analysis of the assessment results so as to make informed decisions about the necessary materials and strategies for effective instruction.
- The assessment process should be continuous and decisions should be re-evaluated on an annual basis, or even frequently if the decisions are tentative.
- All students who are blind or visually impaired should participate in the same academic assessments as their peers.
- Students with additional disabilities should receive additional assessments from qualified professionals who should be identified by the curriculum development and reform team.

5. Individualized Education Program

The Individualized Education Program is mandatory for each student who is blind or visually impaired. It contains information about planning, implementing, monitoring and evaluating the student's specific needs regarding the curriculum and/or instruction. These plans are used throughout the year and the following factors must be considered:

- The IEP should be developed through the collaborative efforts of appropriate members of team through the utilization of the curriculum.

- The team should gather information from assessment that is essential to the development of each student's IEP, and then they use the information to develop a plan that accommodates the instructional needs of each student.
- The IEP should include goals and objectives that are specific to each student's learning needs, the ECC, modifications and/accommodations that are necessary for access to the regular curriculum, and above all address disability-specific needs.
- Some of the most vital information in the IEP includes:
  - ✓ assessment data
  - ✓ relevant medical information
  - ✓ current level of performance and achievement
  - ✓ measurable goals and objectives
  - ✓ procedures for evaluating student progress
  - ✓ identification of coordinated support services
  - ✓ required classroom accommodations
  - ✓ transition plans
  - ✓ year-end summary

6. Access to Curriculum and Instructional Programs

The curriculum development and reform process in conformity to the newly established standards should ensure that all students who are blind and visually impaired, regardless of the severity of their additional disabilities, should have access to curriculum and/or instructional programs provided by specialized teachers as well as orientation and mobility specialists. The curriculum development process should ensure that:

- Each student's goals and objectives regarding the ECC should be integrated within the IEP.
- The specialized teachers should collaborate with the general classroom teachers and parents in various areas of the expanded core curriculum.

7. Accessibility and Provision of Alternate Format Materials

The curriculum development and reform team should identify the necessary alternative-format materials for students who are blind or visually impaired, and these materials should be provided at the same time when print materials are availed to their sighted peers. The students should be allowed to request materials in the format they are comfortable with in addition to the following:

- Students should have access to library books, other education-approved materials, instructional materials issued by teachers, leisure reading materials, school announcements and report books all in their required alternative format.
- The students should get the necessary assistance with regard to the usage of these materials, and where need be they should be provided with other improved alternatives.

8. Use of Assistive Technology

The curriculum development and reform process should also ensure that students who are blind or visually impaired are provided with assistive technology including Braille and computerized dictionaries. The students should obtain the appropriate level of technical support in their day-to-day use of the technology equipment. The following should be done:

- The concerned team of teachers should carry out a comprehensive assessment of the individualized needs of each student in order to identify the best assistive technology for each student.
- Specialized teachers, general classroom teachers and parents should receive the necessary training on how to use the assistive technology that has been assigned to ensure students receive support in mastering its use.
- The use of assistive technology should ensure that students achieve independence in the usage of such facilities as they grow up.

9. Programming Options

Students should have a wide range of curriculum and instructional options, including short-term intensive training opportunities on areas of the ECC while accessing the core academic subject areas. Some of the key areas to be considered include:

- Learning about internet use, use of voice-access technology, application of orientation and mobility skills in navigating their community.
- The curriculum/instructional placement options should be based on the identified needs of the students, recommendations from school-based planning teams and input from parents.

5.2 Limitations of the Study

A major challenge faced during the data collection was gaining confidence as an 'outsider'. In some instances, some of the respondents may have felt that I was carrying out an evaluation of one of the functions of the department and it might have taken a lot of confidence building to get respondents appreciate that the study was purely for academic purposes.

In consideration of the set of all staff members who could have provided valid reports about the research questions in the sample schools who were involved in curriculum development during the period right after NCLB is limited. My sample does not include all of these staff members because some left the sample schools before my study began. The sample also does not include people who were still employed in the schools when research was conducted for the study, and who could have provided valid reports on the research questions, but who declined to participate in the study. Because I am missing the perspectives of these two kinds of staff members, the story that I am able to tell about the sample schools has limitations.

Also, access to some respondents was not possible at the appointed time due to impromptu work assignments and this called for re-scheduling of the appointments and this explains why the response rates fell during the period when planning meetings were in progress.

Moreover, the data is in most cases perceptual. Thus, the responses are not objective measures but perceptions of the teachers/educators. It was mostly based on what respondents perceived to have happened rather than the actual observation of the happenings themselves. As for the linkage between curriculum development and reform and student performance, it was not possible to ascertain in clear cut terms if it had caused significant improvements. In overall, the sample size was small and may have limitations in terms of making generalizations about the research study.

In addition, the collection of data cannot be represented in a very simple manner. There was complexity in compiling the information gathered to reflect what I actually heard doing the interview and in trying to make sense of the data. Not being able to have the numerical data presented some challenges as well.

5.3 Conclusion

The No Child Left Behind (NCLB) Act has exposed states to a series of challenges regarding the establishment of statewide standards and assessments, and strict accountability requirements. However, the United States – one of the most developed countries in the world – still lags behind other countries with reference to student academic performance and in preparing students for the life beyond classroom. The United States Department of Education expects that by 2014 the performance gap between students in the United States and students from top performing countries should be minimal. The NCLB Act emphasizes the need for inclusive education, where all students – disabled or not – have equal access and opportunities to educational programs. Where specialized instruction is needed, the Individuals with Disabilities Act (IDEA) was reauthorized in 2004 in alignment with the NCLB Act. IDEA consists of provisions for the Individualized Education Programme (IDEA) which compels teachers to design disability-specific curriculum or instructional programs so to ensure that students with disabilities have their unique academic needs accomodated within the classroom setting.

The No Child Left Behind (NCLB) Act of 2001 supports a standards-based curriculum reform which centers on the assumption that setting high standards and establishing measurable goals can improve individual student outcomes in education. The four pillars of NCLB Act include accountability for results, state and local flexibility (developing state and local curriculum standards), focusing resources on proven educational methods, and expanded choices for parents. The Act has become plays a significant role in the public education reform since it strives to meet the main educational goal – reaching all groups of students, whether with disabilities or not, in the United States by 2014.

From an educational perspective, the existing core curriculum is essential to the learning of students who are blind or visually impaired. Both parents and professional educators of students who are blind or visually impaired subscribe to this fact. On the same note, the expanded core curriculum forms an integral part of the overall curriculum and instructional programs that are directed towards students who are blind or visually impaired. However, completing the expanded core curriculum within the 12 years of education – from elementary through high school – will be a daunting task, considering that the Common Core State Standards require that the curriculum development and reform should ensure that all students are college- and career-ready by the end of high school. It therefore follows that educators must develop realistic goals and objectives that are achievable or attainable within the 12-year period. This calls for the intervention of specialized educators, O&M instructors, general educators, parents, and any other professionals who can help in the effective implementation of the curriculum and instructional programs. Since each student has his/her unique needs, the Individualized Education Program should be used to address the specific needs of each student so as to improve their performance.

Finally, this study has established that educators of students who are blind or visually impaired have a daunting task in developing the curriculum as required by the newly established state standards as required under the No Child Left Behind Act. The curriculum development and reform process is characterized by insufficient educational resources including instructional materials as well as professionally trained human resource-base to oversee and implement the program. Administrators and principals at the district and school levels form the core management team in the implementation of the curriculum and they must exercise their leadership skills to ensure a smooth transition of the program.

The specialized needs of the students who are blind or visually impaired that are covered under the expanded core curriculum must become a unifying issue among educators. Once the educators have adopted the ECC, they can extend it to parents, administrators, and the public at large in order to create an inclusive environment for all. Educators must also set standardized benchmarks for assessing student performance and ensuring that students who are blind and visually impaired are at par with their sighted peers in terms of academic performance. In essence, the whole curriculum reform process should give all students – whether with severe or mild disability – a chance to live a rich and fulfilling adult life.

References

Abel, G. L. (1959). The Education of Blind Children. In W. M. Cruickshank, & G. O. Johnson, *Education of Exceptional Children and Youth.* New Jersey: Prentice Hall.

ACT. (2004). *Courses Count: Preparing Students for Post-Secondary Success.* Policy Report, Iowa.

Ajuwon, P. M., & Oyinlande, A. O. (2008). Educational placement of children who have low vision in residential and public schools: A national study of perspectives. *Journal of Visual Impairment and Blindness, 102,* 325-339.

Alberta Education. (2006). *Essential components of educational programming for students who are blind or visually.* Edmonton: Alberta Education.

Alexander, K., & Alexander, M. D. (2005). *American Public School Law.* Florence, KY: Cengage Learning.

Altenbaugh, R. J. (1999). *Historical Dictionary of American Education.* Westport, CT: Greenwood Publishing Group.

Bangser, M. (2008). *Preparing High School Students for Successful Transitions to Post-Secondary Education and Employment.* Washington, DC: U.S. Department of Education.

Beadles, R. (2004). *The Effects of "No Child Left Behind" on Specialized Schools for the Blind.* Washington, DC: American Foundation for the Blind.

Blankenship, L. W. (2009). *Let my People Go: Breaking the Bondage.* Summerville: Holy Fire Publishing.

Bosma Enterprises. (2009). *Annual Report.* Indianapolis: Bosma Enterprises.

Bremer, C. D., Clapper, A. T., Hitchcock, C., Hall, T., & Kachgal, M. (2002). Universal design: A strategy to support students' acces to the general education curriculum. *Addressing Trends and Developments in Secondady Education and Transition, 1*(3).

Browder, D. M., & Snell, M. E. (2001). Teaching Functional Academics. In M. E. Snell, & F. Brown, *Instruction of Students with Severe Disabilities* (pp. 493-542). New Jersey: Merrill.

Burgess, J., Robertson, G., & Patterson, C. (2010). Curriculum Implementation: Decisions of Early Childhood Teachers. *Australian Journal of Early Childhood, 53*(3), 51-59.

Burns, E. (2007). *The Essential Special Education Guide for the Regular Education Teacher*. Charles C. Thomas Publisher.

Burrill, G., & Kennedy, D. (1997). *Improving Student Learning in Mathematics and Science: The Role of National Standards in State Policy*. National Academic Press.

Cheng, F. W. (2005). Audience Strategies used by EFL College Writers. *Pan-Pacific Association of Applied Linguistics, 9*(2), 209-225.

Cizek, G. J. (1999). *Handbook of Educational Policy.* London: Academic Press.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education.* New York: Routledge.

Corn, A. L., Bina, M. J., & DePriest, L. B. (1995). *The parent perspective on schools for students who are blind and visually impaired: A national study.* Alexandria, VA: Association for Education and Rehabilitation of the Blind and Visually Impaired.

Crawford, S. (2007). *Special Education Models for Students with Visual Impairment in the United States.* Qantas.

Curry, S. A., & Hatlen, P. H. (2007). Meeting the Unique Educational Needs of Visually Impaired Pupils Through Appropriate Placement. *Journal of Visual Impairment & Blindness*.

Daggett, W. R., & Gendron, S. (2010). *Common Core State Standards Initiative: Classroom Implications for 2014.* International Center for Leadership Education.

DeLaGarza, D., & Erin, J. (1993). Employment Status and Quality of Life of Graduates of a State Residential School for the Blind. *Joural of Visual Impairments & Blindness*, 229-233.

DeMott, R. M. (1993). New and Future Roles for Residential Schools. *Journal of Visual Impairment & Blindness, 87,* 224-226.

Douglas, C., & Granzin, A. (2001). Setting learning expectations for students with disabilities. *School Psychology Review, 30*(4), 466.

Erin, J. N. (1993). The Road Less Traveled: New Directions for Schools for Students with Visual Impairments. *Journal of Visual Impairment & Blindness*, 219-223.

Erin, J. N., Corn, A. L., & Bishop, V. E. (1993). *Low vision: Reflections of the past, issues for the future.* Washington, DC: American Foundation for the Blind.

Ferrell, K. (2007). *Issues in the Field of Blindness and Low-Vision.* Washington, DC: National Center on Severe and Sensory Disabilities.

Frampton, M. E. (1940). *Education of the blind: A study of teaching the blind.* New York: World Book.

Fran, R. (2003). The expectations of parents of disabled children. *British Journal of Special Education, 30*(3), 144-149.

Frostad, P., & Pijl, S. J. (2007). Does being friendly help in making friends? The relation between the social position and social skills of pupils with special needs in mainstream education? *European Journal of Special Needs Education, 22*, 15-30.

Fuhrman, S. H. (1999). *The New Accountability. Policy Brief: Reporting Issues in Education Reform.* Philadelphia: Consortium for Policy Research in Education.

Gagnon, J. C., & McLaughlin, M. J. (2004). Curriculum, Assessment, and Accountability in Day Treatment Residential Schools. *Exceptional Children, 70*(3).

Gargiulo, R. M. (2010). *Special education in contemporary society: An introduction to exceptionality.* Thousand Oaks, CA: Sage Publishers.

Gargiulo, R., & Kilgo , J. L. (2011). *Young Children with Special Needs.* Belmont, CA : Wadsworth Publishing.

Genesee, F., Gottlieb, M., Katz, A., & Malone, M. (1998). *Management Process.* Virginia: TESOL.

Glatthorn, A. A., & Jailall, J. M. (2009). *The principal as curriculum leader: shaping what is taught and tested.* Corwin.

Grimm, R. T. (2002). *Notable American philanthropists: Biographies of giving and volunteering.* Westport, CT: Greenwood Publishing Group.

Hardman, J., & Quill, T. (2011). The impact of federal public policy on curriculum and instruction for students with disabilities in the general classroom. *Preventing School Failure, 52*.

Hardman, M. L., & Dawson, S. (2008). The impact of federal public policy on curriculum and instruction for students with disabilities in the general classroom. *Preventing School Failure, 52*(2), 5-11.

Hargreaves, A., Lieberman, A., & Fullan, M. (2010). *Second international handbook of educational change.* New York: Springer.

Hatlen, P. (1996). *The core curriculum for the blind and visually impaired students, including those with additional disabilities.* New York: American Foundation for the Blind.

Hatlen, P. (1996a). The core curriculum for blind and visually impaired students, including those with additional disabilities. *Review, 28*(1), 25-32.

Hatlen, P. (2000). Historical Perspectives. In H. C. M, & K. J. A, *History and Theory of Teaching Children and Youths with Visual Impairments* (2nd ed., pp. 1-54). New York: AFB Press.

Hatlen, P. H., & Curry, S. A. (1987). In support of specialized programs for blind and visually impaired children: The impact of vision loss on learning. *Journal of Visual Impairment & Blindness, 81*(1), 7-13.

Hauer, J., & Quill, T. (2011). Educational needs assessment, development of learning objectives, and choosing a teaching approach. *Journal of Palliative Medicine, 14*(4), 503-508.

Hedred. (2006). *Change Magazine.* Washington, DC: Heldref Publications.

Hess, F. M., & Petrilli, M. J. (2006). *No Child Left Behind Primer.* New York: Peter Lang.

Heubert, J. P., & Hauser, R. M. (1999). *High stakes: Testing for tracking, promotion and graduation.* Washington, DC: National Academy Press.

Heward, W. L. (2003). Ten Faulty Notions About Teaching and Learning that Hinder the Effectiveness of Special Education. *The Journal of Special Education, 36*(4), 186-205.

Holbrook, M. C., & Koenig, A. J. (2000). *Foundations of education, volume I: History and theory of teaching children and youths with visual impairments.* New York: American Foundation for the Blind.

Huebner, K. (2003). *The National Agenda for the Education of Children and Youths with Visual Impairments, Including Those with Multiple Disabilities-Goals*. Retrieved February 19, 2013, from http://www.tsbvi.edu/agenda/index.htm

Hunt, T. C., & Lasley, T. J. (2010). *Encyclopedia of educational reform and dissent.* Thousand Oaks, CA: Sage Publications.

Irwin, R. B. (1955). *As I Saw it.* New York: American Foundation for the Blind.

Jackson, C. L. (2001). *African American education: A reference handbook.* California: ABC-CLIO.

Jackson, R. M. (2010). *Curriculum Access for Students with Low-Incidence Disabilities: The Promise of UDL*. Wakefield, MA: National Center on Accessible Instructional Materials.

Jones, C. J. (2010). *Curriculum development for students with mild disabilities: Academic and social skills for RTI planning and inclusion IEPs.* Springfield, IL: Charles C Thomas Publisher.

Kesson, K. R., & Henderson, J. G. (2010). Reconceptualizing professional development for curriculum leadership: Inspired by John Dewey and informed by Alain Badiou. *Educational Philosophy & Theory*, *42*(2), 213-229.

Kinash, S. (2006). *Seeing beyond the blindness.* Hershey, PA: IAP.

Kirchner, G., & Fishburne, G. (1998). *Physical education for elementary school children.* Dubuque, IA: McGraw-Hill.

Kirk, S., Gallagher, J. J., Coleman, M. R., & Anastasiow, N. (2008). *Educating exceptional children.* Florence, KY: Cengage Learning.

Koestler, F. A. (2004). *The unseen minority: A social history of blindness in the United States.* New York: American Foundation for the Blind.

Landel, C., Mundry, S. E., & Keely, P. (2009). *A leader's guide to science curriculum topic study*. New York: Corwin Press.

Leko, M. M., & Brownell, M. T. (2009). Crafting quality professional development for special educators. *Teaching Exceptional Children, 42*(1), 64-70.

Leonard, R., D'Allura, T., & Simpson, F. (1997). Preparing Youths with Visual Impairments for Work: Evaluation of a Pilot Program. *Journal of Visual Impairment & Blindness,* 271-279.

Linn, R. L. (2000). Assessment and accountability. *Educational Researcher, 29*(2), 4-16.

Lohmeier, K. L. (2009). Aligning State Standards and the Expanded Core Curriculum: Balancing the Impact of the No Child Left Behind Act. *Journal of Visual Impairment & Blindness,* 44-47.

Lowenfeld, B. (1981). *Berthold Lowenfeld on Blindness and Blind People: Selected Papers.* New York: American Foundation for the Blind.

Lund, J., & Tannehill, D. (2009). *Standards-based physical education curriculum development.* Burlington, MA: Jones & Bartlett Learning.

Mann, C. (2006). *Educational Placement Options for Blind and Vissually Impaired Students: A Literature Review*. Olympia, WA: Washington State University.

Mansbridge, J. J., & Morris, A. D. (2001). *Oppositional Consciousness: The Subjective Roots of Social Protest.* Chicago, IL: University of Chicago Press.

Masoodi, J. J. (2004). *School Reform in Residential Schools for the Blind: A Historical Investigation.* Washington D.C: University of Washington.

McDonough, H., Sticken, H., & Hack, S. (2006). The Expanded Core Curriculum for Students who are Visually Impaired. *Journal of Visual Impairments & Blindness*, 596-598.

McInnes, J. M. (1999). *A Guide Planning and Support for Individuals who are Deaf/Blind.* Toronto, CA: University of Toronto Press.

McLaughlin, M. J. (2012). Access to the Common Core for All: Six Principles for Principals to Consider in Implementing CCSS for Students with Disabilities. *Principal*.

McLaughlin, M. J., & Thurlow, M. (2003). Educational Accountability and Students with Disability. *Journal of Educational Policy, 17*(4), 431-451.

McMahon, E. (1994). The Role of Residential Schools for the Blind in 1990. *Review*, 163-172.

Meyen, E. L., & Greer, D. L. (2009). The Role of Instructional Planning in Math Instruction for Students with Learning Disabilities. *Focus on Exceptional Children*.

Meyen, E. L., & Greer, D. L. (2009a). Special education teacher education: A perspective on content knwoledge. *Learning Disabilities Research & Practice, 24*(4), 196-203.

Mills, A. J., Durepos, G., & Weibe, E. (2010). *Encylopedia of case study research.* Thousand Oaks, CA: Sage Publications.

Moore, J. E., Graves, W. H., & Patterson, J. B. (1997). *Foundations of rehabilitation counseling with persons who are blind or visually impaired.* New York: American Foundation for the Blind.

Nagle, K. (2001). Transition to Employment and Community Life for Youths with Visual Impairments:Current Status and Future Directions. *Journal of Visual Impairments & Blindness*, 725-738.

National Governors Association Center for Best Practices. (2010). *Common Core State Standards Initiative: Preparing America's Students for College and Career.* Washington D.C: National Governors Association Center for Best Practices.

Nolet, V., & McLaughlin, M. J. (2000). *Accessing the general curriculum: Including students with disabilities in standards-based reform.* Thousand Oaks, CA: Corwin Press.

Nordstrom, B. H. (1986). *The history of education of the blind and deaf.* Washington, DC: ERIC Clearinghouse.

Normore, A. H. (2010). *Global perspectives on educational leadership reform: The development and preparation of leaders and learning and learners of leadership.* Oxford, UK:: Emerald Group Publishing.

Olson, J. F., Jones, I. A., & Bond, L. A. (2001). *State Student Assessment Programs: Annual Survey.* Washington, DC: Council of Chief State School Officers.

Osgood, R. L. (2008). *The history of special education: A struggle for equality in American public schools.* Westport, CT:: Greenwood Publishing Group.

Oyinlade, A. O., & Gellhaus, M. M. (2005). Perceptions of Effective Leadership in Schools for Students with Visual Impairments: A National Study. *Journal of Visual Impairment & Blindness, 99,* 261-276.

Partnership for Assessment of Readiness for College and Careers. (2010). *Principles Regarding the Common Core State Standards for Mathematics.* Washington, DC: PARCC.

Peterson, K. D. (1986). Principals' Work, socialization, and training: developing more effective leaders. *Theory into Practice, 25*(3), 151-155.

Peterson, K. D., & Keley, C. (2001). Transforming School Leadership. *Leadership, 30*(3), 8-11.

Peterson, K. D., & Solrud, C. (1996). Leadership in restricting schools: Six themes on the work lives of principals and teachers. *NASSP Bulletin, 80*(577), 105-111.

Pinar, W. (1995). *Understanding curriculum: An introduction to the study and contemporary curriculum discourses.* New York, NY: Peter Lang.

Ponchillia, P. E., & Ponchillia, S. V. (1996). *Foundations of rehabilitation teaching with persons who are blind or visually impaired.* New York: American Foundation for the Blind.

Popham, W. J. (2003). *Test better, teach better: The instructional role of assessment.* Alexandria, VA: ASCD.

Pugach, M. C. (2001). The stories we choose to tell: Fulfilling the promise of qualitative research for special education. *Exceptional Children, 67*(4), 439-453.

Pugach, M. C., & Warger, C. L. (1996). *Curriculum trends, special education, and reform: Refocusing the conversation.* New York: Teachers College Press.

Pugach, M. C., & Warger, C. L. (2001). Curriculum matters: Raising expectations for students with disabilities. *Remedial and Special Education, 22*(4), 194-198.

Ravitch, D. (1996). 50 states, 50 standards: The continuing need for national voluntary standards in education. *The Brookings Review, 14*, 1-9.

Reynolds, C. R., & Fletcher-Janzen, E. (2007). *Encyclopedia of special education: A-D.* Hoboken, NJ: John Wiley & Sons.

Rice, K. S. (2009). *Pied Piper Effect.* Bloomington, IN: AuthorHouse.

Rooks, D. L. (2009). *Science for all: Experiences and outcomes of students with visual impairment in a guided inquiry-based classroom.* Cambridge, UK: ProQuest.

Ross, E. W. (2006). *The social studies curriculum: Purposes problems, and possibilities.* New York: SUNY Press.

Russell, B., & Bone, A. G. (2003). *Man's peril.* New York: Routledge.

Russo, C. J., & Osborne, A. G. (2007). *Essential concepts & school-based cases in special education law.* New York: Corwin Press.

Safford, P. L., & Safford, E. J. (2006). *Children with disabilities in America: A historical handbook and guide.* Westport, CT: Greenwood Publishing Group.

Sears, J. L., & Moody, M. K. (2001). *Using government information sources.* Westport, CT: Greenwood Publishing Group.

Snow, C., Griffin, P., & Burns, M. S. (2007). *Knowledge to support the teaching of reading: Preparing teachers for a changing world.* Hoboken, NJ: John Wiley & Sons.

Squires, D. A. (2008). *Curriculum alignment: Research-based strategies for increasing student achievement.* New York: Corwin Press.

Toelle, N. M., & Blankenship, K. E. (2008). Program accountability for students who are visually impaired. *Journal of Visual Impairment & Blindness, 102*(2), 97-102.

Turnbull, H. R., & Turnbull, A. P. (1998). *Free appropriate public education for children with disabilities.* Denver: Love Publishing Co.

U.S. Department of Education. (2002). *A New Era: Revitalizing Special Education for Children and their Families.* Washington, DC: U.S. Department of Education.

US Department of Education. (2007). *29th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2007.* Washington, DC: US Department of Education.

Wallace, S. (2010). *State and local fiscal policy: Thinking outside the box.* Northampton, MA : Edward Elgar Publishing.

Wehmeyer, M. L. (2002). Promoting access to the general curriculum for students with mental retardation: A multi-level model. *Education and training in mental retardation and Developmental Disabilities, 37,* 223-234.

Welner, K. G., & Chi, W. C. (2008). *Current issues in education policy and the law.* Charlotte, NC: IAP.

Wiles, J. (2008). *Leading curriculum development.* New York: Corwin Press.

Winters, R. E. (1995). *National Standards in Education: How we should arrive at them, why we should arrive at them and why we have not arrived at them yet.* . Retrieved March 5, 2013, from The Claremont Graduate School: http://www.mcrel.org

Wolf, P. J., & Hassel, B. C. (2001). Effectiveness and Accountability (Part I): The Compliance Model. In F. E. C, R. J. A, & H. R. C, *Rethinking Special Education for a New Century* (pp. 53-75). Washington, DC: Thomas B. Fordham Foundation and Progressive Policy Institute.

Zebbehazy, K. T., & Whitten, E. (1998). Do residential schools and local education agencies collaborate to improve the transition of students with visual impairments? *Journal of Visual Impairment & Blindness, 92*(9), 647-655.

Zuckerman, D. (2004). *Blind Adults in America: Their Lives and Challenges.* Washington, DC: National Center for Policy Research for Women & Families.

Appendices

Appendix I: Interview Questions

Interview Questions for Principals

I would like to take this opportunity to thank you for taking time out of your schedule to talk to me about curriculum re-design in your school. The information gathered here will aide me in my research of understanding how curriculum was developed in your school after No Child Left Behind (NCLB). As well as understanding the leadership role you played in redeveloping curriculum. Several of the following questions solicit information about others who are involved with or have helped with the issues we are discussing; in order to protect their identity and confidentiality, please do not directly identify third party persons" (i.e. use principal rather than Joe Smith).

1. Tell be about your school and how long have you been in this school?
2. Tell me about the academic curriculum used in your school.
3. Within the field of blindness, there is much conversation around the Expanded Core Curriculum (ECC) and its importance, how is it connected to curriculum development and reform?
4. Tell me about your involvement in curriculum development and reform. Where there any challenges and how did those meetings go with staff?
5. Can you tell me how was the curriculum redesigned after the enactment of No Child Left Behind (NCLB) to meet federal mandate?
6. Will you tell me the chronology of events, meetings, or other actions from the beginning of the development of the new curriculum until its approval?

7. Can you tell me the approximate timeline and/or how meetings were established to develop the curriculum for your school?
8. Please describe who all was involved internally on the team or committee in developing curriculum and reform?
9. Describe the concrete steps and people you worked with to develop the curriculum in your school to satisfy NCLB requirements.
10. How were these individuals selected?
11. I would like to know if there were any external people involved in curriculum development. Tell me about the external individuals who provided guidance for developing curriculum for your school? What role or contributions did they make?
12. Was the state education agency (SEA) involved in planning or assisting with curriculum development? If so, can you describe specifically how their involvement provided insight on addressing the mandate of NCLB in developing the curriculum for your school?
13. In what ways and when was information communicated with staff or parents not working on curriculum development? What were their reactions?
14. What rubric or standard was applied to developing and reforming curriculum for your school?
15. Were other residential schools for the blind used as a model for what the curriculum should address?
16. What areas were challenging during the process of developing curriculum?
17. What was the design plan for curriculum development in your school? Was there a plan?
18. Tell me about the various approaches to the curriculum development and reform you used?

19. What organizational factors were associated with the development of standards based curriculum in residential schools for the blind?
20. What political factors were associated with the development of standards based curriculum in residential schools for the blind?
21. What leadership factors were associated with the development of standards based curriculum in residential schools for the blind?
22. What cultural factors were associated with the development of standards based curriculum in residential schools for the blind?
23. When the curriculum was fully developed, who gave the final approval and why?
24. What recommendations do you have for other residential schools for the blind that are developing curriculum to meet the mandates of NCLB?
25. Is there anything else that occurred during the curriculum redevelopment process that would help me understand what occurred during that process?

Appendix II: Interview Questions

Interview Questions for Other Teachers

I would like to take this opportunity to thank you for taking time out of your schedule to talk to me about curriculum re-design in your school. The information gathered here will aide me in my research of understanding how curriculum was developed in your school after No Child Left Behind (NCLB). As well as understanding the leadership role you played in redeveloping curriculum. Several of the following questions solicit information about others who are involved with or have helped with the issues we are discussing; in order to protect their identity and confidentiality, please do not directly identify third party persons" (i.e. use principal rather than Joe Smith).

1. Tell me a little about your role here and how long have you been a teacher in this school?
2. What was the academic curriculum like in your school prior to No Child Left Behind (NCLB) that you were expected to teach?
3. Within the field of blindness, there is the Expanded Core Curriculum (ECC) and its components, how is it connected to the academic curriculum development and reform in your school?
4. As a teacher of the blind and visually, tell me about your involvement or role in curriculum development and reform after the enactment of NCLB 2001?
5. Sometimes curriculum re-development can be challenging, what were the challenges and the successes in developing the curriculum? Can you tell me how was the curriculum was redesigned after the enactment of NCLB to meet federal mandate?
6. Where there particular areas that were more challenging during the process of developing curriculum from your perspective as a teacher?
7. How did you feel about the curriculum development process?
8. From a teacher perspective, can you tell me the approximate timeline and what process was established to develop the curriculum for your school?
9. Were you involved throughout the entire process? Can you tell me what your role was in the process?
10. Please describe who were involved internally on the team or committee in developing curriculum and reform?
11. I would like to know if there were any external people involved in curriculum development. If there were external help, tell me about who provided guidance for developing curriculum for your school? What role or contributions did they make?

12. In what ways and when was information communicated with staff or parents not working on curriculum development? What were their reactions? How did the school respond?
13. When teachers provided their thoughts or ideas as it relates to the development of curriculum was the information received? Why do you think that was the reaction?
14. Was a rubric or standard applied to developing and reforming curriculum for your school's curriculum? Which one? How was that chosen?
15. What organizational factors were associated with the development of standards based curriculum in residential schools for the blind?
16. What political factors were associated with the development of standards based curriculum in residential schools for the blind?
17. Did any conflicts or issues arise during the process? Why do you think those occurred?
18. What leadership factors were associated with the development of standards based curriculum in residential schools for the blind?
19. Sometimes leadership by administrators, teachers, or others is part of curriculum redevelopment. Who provided leadership in this process?
20. What cultural factors were associated with the development of standards based curriculum in residential schools for the blind?
21. How did the school's core values and beliefs about education for the blind help in redesigning the development of the curriculum?
22. When the curriculum was fully developed, who had the final approval? How was that approval process used?

23. What recommendations do you have for other teachers in residential schools for the blind who are serving on committees in developing curriculum to meet the mandates of NCLB?
24. Is there anything else that occurred during the curriculum redevelopment process that would help me understand what occurred during that process?